Scaling up Poverty Reduction Initiatives and Improving Local Governance through CBMS

Proceedings of the 2007 CBMS Network Meeting
June 11-16, 2007
Lima, Peru

The Community-Based Monitoring System (CBMS) Network is part of the Poverty and Economic Policy (PEP) Research Network which is funded by the Government of Canada through the International Development Research Centre (IDRC-Canada) and the Canadian International Development Agency (CIDA). It is comprised of researchers and analysts with specialization in poverty measurement, development and implementation of local monitoring systems, and policy-impact analysis. In general, the network aims to provide a reliable and credible information base for policymaking, program design and impact monitoring through the development and institutionalization of a community-based monitoring system.

The CBMS attempts to build and strengthen the capacity of planners and program implementers at the national and local levels for an improved and transparent system of resource allocation and governance. A major objective of CBMS is to aid poverty reduction, but other important associated benefits include capacity-building of local government units, increased gender equity and early warning signs of crisis.

Since the early 1990s, IDRC-Canada has supported the design and pilot-test of community-based monitoring and local development systems in selected countries in Asia and Africa through its Micro Impacts of Macroeconomic Adjustment Policies (MIMAP) Research Program. The CBMS Research work has long been established in the Philippines, Vietnam, Burkina Faso and Senegal, while related initiatives have also been done in Bangladesh, India and Sri Lanka. In particular, the aforementioned CBMS work and related initiatives were established through IDRC-supported national projects in these countries. As of date, the coordination of ongoing CBMS work in Bangladesh and Vietnam and the development of CBMS in Benin, Cambodia, China, Indonesia, Lao PDR, Pakistan Tanzania and Zambia are being implemented under a research grant from the PEP-CBMS Network.

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Scaling up Poverty Reduction Initiatives and Improving Local Governance through CBMS

Proceedings of the 2007 CBMS Network Conference
Scaling Up Poverty Reduction Initiatives and Improving Local Governance Through CBMS

Proceedings of the 2007 CBMS Network Meeting

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The 2007 CBMS Network Conference was organized by the PEP-CBMS Network Coordinating Team of the Angelo King Institute for Economic and Business Studies, De La Salle University-Manila with support from the International Development Research Centre (IDRC), Ottawa, Canada and the Canadian International Development Agency (CIDA).
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Proceedings of the 2007 CBMS Network Meeting
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Preface

The CBMS Network, through the PEP-CBMS Network Coordinating Team, organized the 6th PEP Network General Meeting on June 11-16, 2007 in Lima, Peru. It was co-organized by the Centre Interuniversitaire sur le Risque, les Politiques Économiques et l’Emploi (CIRPÉE, Université Laval) and the Grupo de Analisis para el Desarrollo (GRADE), the local counterpart in Peru. The Network Meeting was made possible with the support from the International Development Research Centre (IDRC), Ottawa, Canada and the Canadian International Development Agency (CIDA).

The conference acted as a venue for researchers and various stakeholders from Asia, Africa and Latin America to share recent development in methodologies on poverty analysis as well as to discuss new findings of various research initiatives of the three subnetworks of PEP namely, Modeling and Policy Impact Analysis (MPIA), Poverty Monitoring and Measurement Analysis (PMMA) and the Community-Based Monitoring System (CBMS).

For the CBMS sub-network, the meeting served as a way to further promote local monitoring systems such as the CBMS and to advocate its usefulness in scaling up poverty reduction and other development-related initiatives while improving governance in developing countries.

The 3-day program for the CBMS conference was divided into 4 sessions and adopted an interactive format enabling invited speakers, discussants, presenters and attendees to exchange ideas and build knowledge together as the conference progressed. The sessions were as follows:

Session 1: Scaling up Poverty Reduction Initiatives and Improving Local Governance through CBMS

Session 2: Applications of CBMS for Planning and Monitoring

Plenary: CBMS Repository, Launching of the AusAID-Funded Policy Impact Evaluation Research Initiative (PIERI), Launching of the PEP Training Schools, Overview of the PEP Phase III Proposal

Session 3: Completed Projects and New CBMS Initiatives
Session 4: New CBMS Proposals

Presenters and speakers included both researchers and policymakers from Bangladesh, Benin, Cambodia, Ghana, Indonesia, Kenya, Lao PDR, Peru, the Philippines, Senegal, Sri Lanka, Tanzania, and Vietnam. Presentations focused on the actual uses of the CBMS for national and local planning, program impact assessment, and poverty analysis on localizing recent development initiatives such as the Millennium Development Goals (MDGs).

At this point we would like to extend our deepest gratitude to the authors of the various papers presented herein and to everyone who made the publication of this volume possible.

PEP-CBMS Network Coordinating Team
### Program

**June 14, 2008**  
**CBMS-Parallel Session 1: Scaling Up Poverty Reduction Initiatives and Improving Local Governance Through CBMS**

**Morning Session**

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<td>Community-Based Monitoring System in the Philippines</td>
<td>Dr. Celia M. Reyes</td>
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<td><strong>Dr. Celia M. Reyes</strong></td>
<td>PEP Co-Director and CBMS Network</td>
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<tr>
<td>9:20-10:00 am</td>
<td>CBMS: A Gem in Development Planning and Monitoring in Palawan</td>
<td>Honorable Gov. Joel T. Reyes</td>
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<td><strong>Honorable Gov. Joel T. Reyes</strong></td>
<td>Provincial Governor of Palawan, Philippines</td>
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<tr>
<td>9:40-10:00 am</td>
<td>Institutionalizing CBMS in the Philippines</td>
<td>Director Erlinda Capones</td>
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<td><strong>Director Erlinda Capones</strong></td>
<td>Social Development Staff</td>
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<td>National Economic and Development Authority, Philippines</td>
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<td>10:00-10:35</td>
<td>Discussion/Open Forum</td>
<td>Discussants:  <strong>Dr. Vu Tuan Anh / H.E. Mr. Kham Phoeun</strong></td>
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<tr>
<td>10:35-10:55 am</td>
<td>Coffee Break</td>
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10:55-11:25 am  CBMS and the Time Allocation Survey
Methodology and Some Results
Mr. Momar Balle Sylla
Conseiller auprès du directeur
Direction de la Prévision et de la Statistique
Dakar, Senegal

11:25-11:55 am  Use of Data in Managing the Commune of Tivaouane
Mr. Diop El Hadji Malick
Maire de Tivaouane and Vice President,
Association des Maires du Sénégal

11:55-12:30 nn  Discussion/Open Forum
Discussants: Dr. Marie Odile Attanasso / Dr. Louis-Marie Asselin

12:30-2:00 pm  Lunch Break

Afternoon Session
Chair: Dr. Ponciano S. Intal, Jr.
Executive Director
Angelo King Institute for Economic and Business Studies

2:00-2:20 pm  Report on the Census of the Living Conditions of Households in the District of Cotonou
Dr. Marie Odile Attanasso
Professor, University of Abomey Calavi
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<td>Community Follow-Up System of Poverty (CFSP) in the 13th District</td>
<td>M. Nicephore Dieudonne Soglo (Presented by Dr. Marie Odile Attanasso) Maire, Cotonou and Président du comité de coordination du SSCP/Benin</td>
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<td>Discussants: Mr. Momar Balle Sylla / Mr. Diop El Hadji Malick</td>
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<td>Implementation of Community-Based Poverty Monitoring System in Tanzania</td>
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<td>Ms. Susan Eustace Bidya (Presented by Mr. Rangya Kyulu Muro) Municipal Director Dodoma Municipal Council</td>
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4:50-5:10 pm  MDG Analysis Using CBMS at the District Level: The Case of Dangme West Africa, Ghana  
Ms. Cynthia Tagoe  
University of Ghana

5:10-5:30 pm  Use of CBMS in Ghana  
Mr. Bruno Dery  
Deputy Director  
National Development Planning Commission  
Ghana

5:30-6:05 pm  Discussion/Open Forum  
Discussants: Mr. Ranjan Kumar Guha / Ms. Vu Thi Tan

June 15, 2008  
CBMS-Parallel Session 2: Application of CBMS for Planning and Monitoring

Morning Session  
Chair: Honorable Sec. Domingo Panganiban  
Secretary and Lead Convenor  
National Anti-Poverty Commission  
Philippines

9:00-9:30 am  Implementation of CBMS in Vietnam  
Dr. Vu Tuan Anh  
Vice Director  
Socioeconomic and Development Center  
Vietnam
9:30-10:00 am  Using CBMS for Monitoring Women’s Advancement  
_Ms. Vu Thi Tan_  
President  
Women’s Union of Ninh Binh Province  
Vietnam

10:00-10:35 am  Discussion/Open Forum  
Discussants: _Mr. Ranjan Kumar Guha / Gov. Joel Reyes_

10:35-10:55 am  Coffee Break

10:55-11:25 am  Development of CBMS in Cambodia  
_Mr. Try Sothearith_  
Department of Demographic, Statistics and Census Surveys, National Institute of Statistics, Cambodia

11:25-11:55 am  Need and Usage of Commune Data System in Kratie Province  
_H.E. Mr. Kham Phoeun_  
Provincial Governor in Kratie Province  
Cambodia

11:55-12:30 nn  Discussion/Open Forum  
Discussants: _Mr. Rangya Kyulu Muro / Ms. Sussy Nchogu_

12:30-2:00 pm  Lunch Break

Afternoon Session  
Chair:  
_Mr. Try Sothearith_  

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Department of Demographic, Statistics and Census Surveys, National Institute of Statistics, Cambodia

2:00-2:20 pm  Community-Based Monitoring System in Lao-PDR
_Mr. Sengmany Keolangsy_
Director of Social Division, National Statistical Center, Lao PDR

2:20-2:40 pm  CBMS in the Planning and Monitoring Process in Saravan, Lao PDR
_Mr. Phosy Keosiphandone_
Deputy Director General, Department of Planning and Investment Saravan, Lao PDR

2:40-3:15 pm  Discussion/Open Forum
Discussants: _Dr. Sudarno Sumarto_ / _Mr. Bruno Dery_

3:15-3:45 pm  Local Level Poverty Monitoring System: An Approach to Involve Local People in Poverty Monitoring
_Mr. Ranjan Kumar Guha_
Bangladesh Academy for Rural Development

3:45-4:15 pm  Discussion/Open Forum
Discussants: _Ms. Cynthia Tagoe_ / _Mr. Phosy Keosiphandone_

4:15-4:45 pm  Coffee Break

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Afternoon Session

Chair: Dr. Celia Reyes
PEP-Co Director and CBMS Network Leader

4:45-6:00 pm

CBMS Network Database
Mr. Kenneth Ilarde
Research Officer, CBMS Network
Coordinating Team

Launching of the AUSAID-Funded Policy Impact Evaluation Research Initiative
Ms. Habiba Djebbari
Professor, Department of Economics
Laval University

Launching of the PEP Training Schools
Mr. Ismael Fofana
Professionel, Dept. d’economique
Univeriste Laval

Overview of the PEP Phase III Proposal
Closing Remarks

June 16, 2008
Session 3: Completed Projects and New CBMS Initiatives

Morning Session

Chair: Dr. Vu Tuan Anh
Vice Director
Socioeconomic and Development Center
Vietnam
8:30-9:00 am  Indonesian Experiences with the CBMS and the Way Forward  
*Dr. Sudarno Sumarto*  
SMERU Research Institute

City of Pekalongan: Toward a More Participatory Planning Approach and Reliable Welfare Monitoring System  
*Dr. Basyir Ahmad*  
(Presented by Dr. Sudarno Sumarto)  
Head of Local Government of Pekalongan Indonesia

9:00-9:30 am  Discussion/Open Forum  
Discussants: *Mr. Nishara Fernando / Dir. Erlinda Capones*

9:30-10:00 am  A Local Poverty Monitoring System for Tana River District, Kenya  
*Ms. Sussy Nchogu*  
Africa Institute for Health and Development Kenya

10:00-11:00 am  Coffee Break

Session 4: New CBMS Proposals

Chair:  
*Dr. Sudarno Sumarto*  
SMERU Research Institute
11:00-11:30 am  Community-Based Poverty Monitoring in Sri Lanka

Mr. Nishara Fernando
Social Policy Analysis and Research Centre (SPARC), Faculty of the Arts, University of Colombo

11:30-12:00 nn  Discussion/Open Forum

Discussants: Dr. Evan Due / Mr. Ranjan Kumar Guha

12:00-12:30 nn  Development of a Community-Based Monitoring System in the Northern Region of Peru

Ms. Julia Maturana Coronel
Professor, Universidad Catolica Santo Toribio de Mogrovejo, Peru

12:30-1:00 pm  Discussion/Open Forum

Discussant: Mr. Eduardo Zegarra / Dr. Ponciano S. Intal, Jr.

1:00 pm  Lunch
This volume is a compilation of papers and presentations delivered on June 11-16, 2007 in Lima, Peru for the 2007 CBMS Network Meeting. The meeting brought together over 200 participants representing various stakeholders from different country partners involved in the implementation and scaling up of CBMS.

With the theme “Scaling up Poverty Reduction Initiatives and Improving Local Governance through CBMS”, the conference was attended by researchers and policymakers from Bangladesh, Benin, Cambodia, Ghana, Indonesia, Kenya, Lao PDR, Peru, the Philippines, Senegal, Sri Lanka, Tanzania, and Vietnam.

The conference did not just underscore the importance of CBMS for planning, designing and implementing programs that would address poverty issues, but also discussed the possibilities of institutionalizing CBMS in the involved countries. Awareness on CBMS’ use on gender responsiveness and welfare advancement was also promoted.

The CBMS conference was divided into four sessions, each dealing with different aspects of CBMS. The highlights of each session are discussed below.

I. Scaling Up Poverty Reduction Initiatives and Improving Local Governance through CBMS

The previous conference proceedings focused on the uses of CBMS, its evolving role amidst changing environments and its impact as an approach to poverty monitoring. This time however, the Network Meeting has taken things one notch higher. This volume’s focus is on the scaling up of CBMS and on the steps taken by partner countries to institutionalize the system in their countries.

The first session saw the presentations of different country findings as well as initiatives taken to institutionalize CBMS in different countries.

National Anti-Poverty Commission (NAPC) Lead Convenor Domingo Panganiban laid the context of how beneficial CBMS is
right now to the Philippines in his paper which he presented during the policy conference entitled Reaching the MDGs: An International Perspective - A Researcher-Stakeholder Forum held last June 12, 2007 in Lima, Peru. He argued that the need to expand progress at the local level has brought forth greater need for CBMS. He mentioned that the country is at a hopeful but critical juncture in its development process thus policymakers are tasked to refine targeting and tracking of the progress made in each region. In line with this, Dr. Celia Reyes, together with the CBMS Network Coordinating Team, discussed CBMS in the Philippine setting. She argued that local poverty monitoring system in general is an important component of the overall poverty reduction strategy because it facilitates the diagnosis of the extent of poverty, identification of the causes of poverty, formulation of appropriate interventions, targeting of eligible beneficiaries, and assessment of impact. What sets the CBMS apart from other poverty monitoring systems is its ability to provide household-based information.

In the Philippines, CBMS is now being used as part of the local development planning and monitoring process by a growing number of local government units. The CBMS Philippines Team is working toward the expansion of the coverage of CBMS implementation. According to Dr. Reyes, as of February 2007, the CBMS is being implemented in 28 provinces—16 of which are implementing it province-wide. This covers 348 municipalities and 24 cities covering 9,088 barangays.

Among those that implemented CBMS in the Philippines is the province of Palawan. Palawan Governor Joel T. Reyes highlighted how CBMS was able to help improve development planning and poverty monitoring by providing information that helped him formulate his vision and goals for the province. Particularly in his 2000 State of the Province Address (SOPA), he laid down a development agenda that aimed to reduce poverty incidence and challenged program managers and project directors to strive for a 10 percent decline in poverty incidence in the next three terms. The information culled from the CBMS was used in the preparation of their province’s Human Development Report (HDR).
Acknowledging the benefits from CBMS implementation, the Philippine Development Forum Working Group on MDGs and Social Progress envisions a 100 percent LGU coverage by 2010. Director Erlinda Capones of the National Economic and Development Authority (NEDA), traced the steps undertaken by the Philippine government in institutionalizing the CBMS in the country. Complementing the national policy/strategy were government efforts to institutionalize the CBMS. These included agency memorandum circulars, MDG localization efforts, advocacy to donors, and other initiatives that reinforced the need and urgency for a nationwide CBMS implementation.

In Senegal, Momar Balle Sylla introduced the time allocation survey as a component of the CBMS. The time allocation survey involves studying how the people use their time and how they allocate their time to different activities that they undertake. The survey provides a good understanding of the economic and social well-being of the various groups and provides information on the division of labor between men and women as well as on the allocation of time for work and leisure.

Diop El Hadji Malick, Mayor of Tivaouane, meanwhile, asserted that CBMS greatly complements the credo adopted by his office—that is “Do well what we need to do so that we would not need to do it again and we can use our time to do other things”. He argued that CBMS is a tool for objectively looking at a situation, pointing out which problems should be prioritized and giving gauges against which to evaluate programs and policies.

Agreeing with Mayor Diop, Dr. Marie Odile Attanasso claimed that the census of households in the 13th district of Cotonou, Benin made it possible to determine the individual and community difficulties in the district. The results galvanized the local authorities as well as NGOs and development associations to come to the aid of the population thus illustrating CBMS’ impact on local governance. With this, the mayor of the 13th district, Nicephore Dieudonne Soglo concluded that the Community Follow-Up System (CFSP) is an effective tool for development.

1 Paper presented by Dr. Marie Odile Attanasso, Professor, University of Abomey Calavi, Benin
Due to its various uses in local governance, many country partners aim at incrementally expanding the coverage of the CBMS process. For instance, Rangya Kyulo Muro, Municipal Town Planner of Dodoma Municipality, Tanzania aimed to replicate the process to other wards and villages and subsequently to the whole municipality of Dodoma. Susan Eustace Bidya\(^2\), Dodoma Municipal Director, believed that this piecemeal approach is more relevant because a reasonable time is required to mobilize resources and commitment of the local communities.

In the case of Ghana, meanwhile, Dr. Felix Asante and Cynthia Tagoe stated that the prospects of achieving the MDGs by 2015 seem bleak unless major changes occur. They argued that Ghana’s new policy orientations, particularly those in favor of poverty reduction and promotion of good governance, are important indicators of progress and can be better assessed with timely and reliable data, especially at the local level which the CBMS approach offers. Seeing this competitive advantage, Bruno Dery, Deputy Director of the National Development Planning Commission of Ghana, enumerated the potential uses of CBMS in their country as it can serve as a window of opportunity to build the capacity of the district planning coordinating units (DPCUs) to monitor and evaluate the district medium-term development plans.

II. Applications of CBMS for Planning and Monitoring

The second session on the other hand dealt with how CBMS has been used for planning and monitoring poverty. It also featured how CBMS was used for women’s advancement.

Dr. Vu Tuan Anh, Vice Director of Socioeconomic and Development Center (SEDEC) of Vietnam, illustrated how CBMS data were used to identify poor households, assess the poverty situation and implement the poverty reduction policies and measures at the national level. He stated that CBMS data have been used at different administrative levels. For instance, they were used in a poverty reduction project in 2001, 2002, and 2003 surveys. They were also

\(^2\) Paper presented by Rangya Kyulo Muro, Municipal Town Planner, Dodoma Municipal Council, Tanzania
used in a system of national and provincial poverty observatories to serve the data requirements of the National Programme for Hunger Eradication, Poverty Reduction and Job Creation.

Aside from those applications in Vietnam mentioned by Dr. Vu Tuan Anh, Vu Thi Tan, President of the Women’s Union of Ninh Binh Province in Vietnam, added that CBMS is also useful for monitoring women’s advancement. Through CBMS, information not just on livelihood and the community but also some aspects of gender equality, women’s well-being and advancement are gathered.

Try Sothearith from the National Institute of Statistics in Cambodia argued that there is an urgent need to understand poverty dynamics and that CBMS facilitates understanding of these dynamics. He illustrated how CBMS data promoted links between the communes, district, provincial and national level planning processes. According to Kham Phoeun, Provincial Governor of Kratie Province in Cambodia, the need to create a linkage among the different administrative levels was brought by the decentralization and deconcentration reform implemented in the country. CBMS data help in forming the links among these levels.

Meanwhile, in Lao-PDR, CBMS is considered as a tool to help the country reach its two major goals: reduce poverty by 15 percent by 2015 and overcome the status of a least developed country (LDC) by 2020. Sengmany Keolangsy, Director of Social Division, National Statistical Center, explains why in his paper. According to him, the CBMS project will provide technical assistance to the local authorities such as the provinces, districts and villages and help build up the database of socioeconomic information in their areas.

Phosy Keosiphandone, Deputy Director General of the Department of Planning and Investment in Saravan Province joins him in saying that CBMS will help in monitoring the poverty alleviation program in two pilot districts in Lao PDR.

Ranjan Kumar Guha, Deputy Director of the Bangladesh Academy for Rural Development (BARD), argued that the multidimensionality of poverty can be dealt with in part, if not entirely, by the CBMS. Called the Local Level Poverty Monitoring System, the CBMS in the country aims to find out the contextual
reason behind poverty to be able to formulate needs-based programs to solve it. He further argued that to assess the impact of projects and to keep track of the dynamics of poverty, monitoring is essential. At the local level, CBMS information is fed into the Ward Information Book (WIB) or the database used by the Union Parishad. The WIB is consulted to identify program beneficiaries.

### III. Plenary

For the plenary, Kenneth Ilarde of the CBMS Network Coordinating Team provided a listing of the CBMS projects in different country partners as well as an illustration of the CBMS Network data repository to encourage the researchers from other sub-networks to use and analyze CBMS datasets in their studies.

Also launched during the plenary session were the AusAID-funded Policy Impact Evaluation Research Initiative (PIERI) and the PEP Training Schools.

PIERI aims to offer an opportunity to teams of researchers to conduct policy impact evaluations. The PEP School, on the other hand, is a training program on techniques and tools for the analysis of poverty and economic policies. It has two training components:

1. Poverty measurement, monitoring, and analysis, and modeling macroeconomic policies and shocks impacts.

### IV. Completed Projects

The third session focused on completed projects and new CBMS initiatives. One completed project was that of Indonesia. One learning that Dr. Sudarno Sumarto of the SMERU Research Institute in Jakarta mentioned was that targeting and monitoring can be done using simple data collected by locals which are methodologically sound, locally specific and cost effective through CBMS. He further said that leakage and under-coverage can be minimized if combined with geographic targeting. To increase coverage, a proposal was prepared to implement CBMS in the City of Pekalongan.

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1. Taken from the presentation of Mr. Ismael Fofana, Professor, Department of Economics, Laval University
In this proposal, Dr. Basyir Ahmad affirmed the need for CBMS. To realize their city’s goals, they need accurate data to inform policy and program planning. CBMS is seen as a “new” method for collecting and analyzing socio-economic data.

Mary Amuyunzu-Nyamongo and Sussy Nchogu also presented a new CBMS initiative for Tana River District in Kenya. The Local Poverty Monitoring System (LPMS) fits directly into the government decentralization and constituency development policies. One of the components of this initiative is the construction of seasonal calendars. It allows the members of the community to critically look at their own communities. In doing so, the LPMS will enhance the capacity of the government and other organizations working in the district to address poverty issues in a comprehensive manner.

V. New Proposals

The CBMS awards research grants to institutions which want to develop the CBMS in their countries. Selected members of potential grantees are invited to present the proposal during the CBMS Network meetings. In this year’s Meeting, two proponents were invited to present their proposals. These were Nishara Fernando of the Social Policy Analysis and Research Centre (SPARC), Faculty of Arts, University of Colombo, Sri Lanka and Prof. Julia Maturana Coronel of the Universidad Catolica Santo Toribio de Mogrovejo in Peru.

Nishara Fernando sees CBMS as community-empowering since local folks can articulate their interests and needs in a more evidence-based manner. His proposal aims to identify most relevant factors of livelihood vulnerability as well as most vulnerable social groups (by referring to indicators developed during the previous CBMS exercises, with main emphasis on socio-economic security, food security and personal security) and other socio-economic vulnerabilities. It also aims to incorporate conflict-impact assessment approaches into the CBMS methodology, with a special focus on rehabilitation and development efforts. CBMS household questionnaires will be expanded to include a few questions to...
address persisting or emerging conflicts within communities and to identify suitable mechanisms to improve capacities of local institutions and communities through CBMS.

For Prof. Julia Coronel, however, the rationale behind wanting to implement CBMS is the lack of disaggregated socioeconomic data. She said that this makes it hard for local government units to target program beneficiaries. She argued that “implementing a CBMS in Peru may be a solution to the problems of lack of accurate, regular and quickly available data on poverty alleviation”.

Conclusion
It is worthy to note that one of the major reasons why country partners push for the implementation of CBMS is decentralization. With decentralization comes the need for disaggregated data at the local level that can support planning and budgeting processes. And, as proven by many country partners, CBMS can bridge those linkages and gaps between the national and the local levels by providing household-based information.

Decentralization is becoming a major trend. And with the Millennium Development Declaration signed by 191 countries in September 2000, there is a greater need to develop strategies to improve delivery of services, targeting of beneficiaries and monitoring and assessing impacts of programs. The need for household-based information increases together with the realization that national surveys are not enough to address this need. Considering all these, it becomes more probable that more and more countries would mull over implementing CBMS.

Institutionalizing the CBMS in these countries might be a daunting task indeed but the prospects appear to be bright. The Philippine case has already shown how CBMS data can be utilized and appreciated both at the local and national levels. While the contexts might be different from one country to the other, it nevertheless provides interesting insights that can guide researchers and policymakers in increasing CBMS uptake in their home countries.
Localizing the Millennium Development Goals at the Community Level Through the Community-Based Monitoring System

Domingo F. Panganiban

The Republic of the Philippines is at a hopeful but critical juncture in its development process. After many long years of political upheaval, economic downturn and high inflation, the national economy is once again strong and its attendant democracy, vigorous and stable.

Over the past seven years, the nation has successfully established a national development program that provides more opportunities and even greater freedom for the Filipino people.

This program, the Medium-Term Philippine Development Plan (MTPDP), has reduced poverty levels among its citizens to a fraction of their proportions twenty years ago. It has likewise improved social welfare services and allowed the country to make good progress in the attainment of its Millennium Development Goals (MDGs).

Expanding Progress at the Local Level

The Philippine government’s practical objective at this juncture is to put even more poor and unemployed Filipinos to work and to permit impoverished communities to participate in the nation’s bid to build a more competitive and equitable economy.

At the same time, President Gloria Macapagal Arroyo has called for more precise measures to ensure that poor Filipino communities receive proper basic services such as affordable food, housing, potable water, health care, education, and electric power.

* Secretary/Lead Convenor of the National Anti-Poverty Commission and UNESCAP Poverty Committee Chairman, 2006
The full and effective implementation of this national agenda on a local level, however, requires facts that both national and local governments do not yet possess in adequate measure.

While the Second Report on the MDGs issued by the National Economic and Development Authority (NEDA) in June 2005 indicated that the country has a high probability of achieving its commitments to the international pact on a national level, the same report describes significant disparities in the progress made across the country’s regions.

These regional inconsistencies vary not only in terms of geography but also in the extent of the progress made per region for each of the eight millennium objectives. Information gathered by the National Statistics Coordination Board (NSCB) from the range of sectors and communities within each region during the 2000-2003 timeframe revealed further inconsistencies in the progress among constituent parts of each regional economy (NSCB, 2000 & 2003).

The Task of Precise Targeting
For policy executives at the national level, tracking the progress made in each region and determining what national programs require further refinement for greater efficiency at the local level poses considerable logistical challenges.

For several decades now, varying estimates as to the extent of poverty in the Philippines have been made. Valuable as some of these estimates may be, they do not provide government with sufficient and up-to-date factual data on which to base accurate government interventions at the local level.

The Philippine government’s current poverty monitoring system relies largely on a few heavy surveys on household income, expenditure, and health. These are (a) too costly to be frequently undertaken; and (b) conducted at different time periods, making it impossible for planners to obtain a comprehensive profile of the poverty and health situation at specific localities in the country at specific points in time.

Faced by these challenges, and in the context of the country’s commitment to the MDGs, Philippine policymakers began to seek alternative methods of data collection.
What is CBMS?
The Community-Based Monitoring System (CBMS) was developed in the early 1990s under the Micro Impacts of Macroeconomic Adjustment Policies (MIMAP) Project – Philippines to provide policymakers with a reliable data gathering scheme for tracking the outcome of macroeconomic reforms.

It involves the design, testing, and implementation of a methodology for collecting, processing, and validating information necessary for the identification of the needs of local communities.

The Philippine government had noted the advantages of the CBMS method early on. At the very minimum, its 14 core indicators could simultaneously generate a wide range of information on such diverse local concerns as household income, health, child morbidity, women’s welfare, and education.

The system also has features that assure policymakers the faculty to monitor the progress of millennium development efforts at the local level and facilitate regular MDG reports.

By employing modern information technology, the CBMS establishes a user-friendly database system which can be used by the local planners and chief executives for local level planning and budgeting and program implementation. A national repository is being established at the National Anti-Poverty Commission (NAPC) to assist national government agencies in implementing national targeted programs such as the national health insurance programs for indigents and the conditional cash transfer for the poor.

This additional function provides executives at the local and national levels an instrument through which they can analyze conditions in a given community to determine: (a) which programs are working and why; (b) which programs require policy refinements; and (c) which need additional public expenditure.

In addition, the CBMS facilitates efficient resource allocation both at the local and national levels, enriches existing databases, and provides accurate information for emergency efforts such as the Philippine government’s hunger mitigation and housing programs.

Localizing the MDGs
The MDG localization effort of the Philippine Government aims to capacitate local government units (LGUs) to effectively and
efficiently implement MDG-responsive programs and projects toward reducing poverty in their localities. It has identified a set of desired outcomes for MDG-responsive local governments which are as follows:

- A local development plan incorporating the MDG targets and corresponding increase in budget allocation for MDG-responsive Program /Project/Activities (PPAs);
- Local policies that facilitate the achievement of the MDGs;
- A local monitoring system to benchmark LGU contribution in the attainment of MDG targets and to track accomplishments vis-à-vis targets;
- An improved delivery of basic services through replication of good practices; and
- The inclusion of accomplishment of MDG targets as one of the performance commitments of the LGUs.

The localization effort is borne out of the realization that while progress toward the MDGs is monitored and analyzed at the country or national level, clearly there must be a parallel effort to bring the MDGs into the mainstream of local development agenda.

The 14 core indicators contained in CBMS questionnaires are premised on basic needs. These needs pertain to health, nutrition, housing, water and sanitation, basic education, income, employment and the local peace and order situation.

The information collected is utilized in local development planning, and then fed to higher political levels for budget programs and other development efforts.

Because the CBMS permits local government planners a means to gather precise information on a wide variety of subjects, it can provide a strong basis for the formulation of truly effective millennium development programs at the local level.

The system’s inherently versatile format permits an array of practical uses. For instance, if the poor and unemployed wholeheartedly give the information sought in CBMS questionnaires:

(a) Local leaders can know the work qualifications of the affected households and get a clearer picture of conditions that prevail in each community.

(b) Local leaders can gain an idea as to what industries the unemployed are suited to function— and where hunger,
malnutrition, and disease are most rampant.

(c) Local leaders can determine which gender and age groups are most affected by poverty, unemployment, and disease; and

(d) Local leaders can be equipped to determine what future measures and social services are most likely to improve conditions in their depressed communities.

Once these are determined, precise, fact-based local action and planning can be carried out to address the specific needs of each community, or economic sector, within the village. (*City Government of Pasay, 2007*)

**Policy Support**

The Philippine government, having now confirmed and completed an initial evaluation of the CBMS, has decided that its advantages far outweigh the difficulties of expanded coverage.

In June 2003, policymakers at the Philippine NAPC issued NAPC en banc Resolution No. 7. Through this policy instrument, the agency directed local governments to employ the 14 core indicators of the CBMS as the minimum set of community-based information for measuring local poverty and household welfare.

Other policy measures were to follow, specifically:

- **DILG Memorandum Circular 2003-92 (issued in April 2003),** which sets policy guidelines for the adoption of the CBMS core local poverty indicators for planning;

- **DILG Memorandum Circular 2004-152 (issued in November 2004),** which encourages LGUs to intensify efforts toward the achievement of the MDGs through monitoring systems such as the CBMS to accurately diagnose the nature and extent of poverty;

- **NSCB Resolution No. 6, Series of 2005,** which promotes support to the CBMS as a tool to strengthen the statistical system at the local level and directs the NSCB Technical Staff to coordinate an advocacy program for the adoption of the system through its regional executive boards; and

- **Social Development Committee Resolution No. 3, Series of 2006,** which sets the CBMS as the prescribed monitoring tool for the generation of the core local poverty indicator database.
and directs local governments to coordinate with the CBMS Network Team to fast-track and fully implement the CBMS.

To date, however, the CBMS is used only in 21 percent of the country’s villages, 25 percent of its municipalities, 21 percent of its cities, and 35 percent of its provinces.

The Next Steps
The Philippine government is now negotiating arrangements to ensure full CBMS coverage in the island-region of Mindanao, in the Southern Philippines, where most of the country’s poorest local governments are situated (NSCB, 2003).

This year, the Arroyo administration – with generous assistance from the United Nations Development Programme (UNDP) and the Angelo King Institute for Economic and Business Studies — is advocating for the use of the CBMS in three of the Philippines’ 10 poorest provinces. The system is already in varying stages of development in the remaining seven.

The process is complex – involving field work, advocacy efforts, coordination, and intense training. The CBMS Network Coordinating Team provides free technical assistance to our local government units for training workshops, data collection, validation, and processing.

The Philippine government will need to invest around US$11.5 million for nationwide CBMS coverage.

This is a considerable cost for any small developing country but the Arroyo administration is determined to find sufficient funding for the endeavor because to the Filipino nation and government, the CBMS is a sensible first step toward the attainment of the MDGs.
Poverty reduction remains to be one of the biggest challenges faced by the Philippines. Not surprisingly, the country has adopted poverty reduction as the main goal of all its development efforts. However, to wage a successful fight against poverty, it is important to know the nature and extent of poverty as well as who the poor are, where they are, and why they are poor.

A. State of poverty monitoring in the Philippines

Data relating to the different dimensions of poverty are traditionally obtained from national censuses and surveys conducted by the National Statistics Office (NSO) as shown in Table 1. These surveys and censuses, however, are conducted infrequently and at irregular intervals. Moreover, they are conducted at different time periods making it impossible to have a comprehensive picture of the different dimensions of poverty at a particular point in time. Thus, we do not know if the ones who are poor based on income are also poor with regard to literacy, nutrition, and housing, among others.

Furthermore, data from these sources are very aggregated. The available national, regional and sometimes provincial data are not sufficient to meet the demands of local government units (LGUs), particularly cities/municipalities and barangays, which need disaggregated information for diagnosing poverty at the local level and identifying appropriate interventions.

More recently, there has been greater emphasis on targeted programs because of limited financial resources to implement poverty
Table 1. Available sources of data in the Philippines

<table>
<thead>
<tr>
<th>Available Sources of Data</th>
<th>Implementing Agency</th>
<th>Frequency of Collection</th>
<th>Data Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Income and Expenditures Survey (FIES)</td>
<td>National Statistics Office (NSO)</td>
<td>Every 3 years</td>
<td>Family income and living expenditures and related information affecting income and expenditure levels and patterns in the Philippines, including poverty incidence</td>
</tr>
<tr>
<td>Annual Poverty Indicator Survey (APIS)</td>
<td>NSO</td>
<td>Every year when the FIES is not conducted</td>
<td>Socioeconomic profiles of families and other information relating to their living conditions but not poverty incidence</td>
</tr>
<tr>
<td>National Nutritional Survey (NNS)</td>
<td>Food and Nutrition Research Institute (FNRI)</td>
<td>Every 5 years</td>
<td>Food situation and nutritional status of the population</td>
</tr>
<tr>
<td>Census of Population and Housing (CPH)</td>
<td>NSO</td>
<td>Every 10 years</td>
<td>Size, composition and distribution of population in the Philippines</td>
</tr>
<tr>
<td>Functional Literacy, Education and Mass Media Survey (FLEMMS)</td>
<td>NSO</td>
<td>Irregular</td>
<td>Number of functionally literate population and their socioeconomic characteristics</td>
</tr>
<tr>
<td>National Demographic and Health Survey (NDHS)</td>
<td>NSO</td>
<td>Every 5 years</td>
<td>Demographic, maternal and child health issues in the Philippines</td>
</tr>
<tr>
<td>Labor Force Survey (LFS)</td>
<td>NSO</td>
<td>Every quarter of the year</td>
<td>Levels and trends of employment, unemployment and underemployment</td>
</tr>
</tbody>
</table>

Several programs of national government agencies such as the Philhealth – a government subsidized health insurance program for the indigents – and of LGUs such as livelihood and scholarship programs are intended for the poor. Unfortunately, data are not available to support such targeting schemes. Consequently, there have been difficulties in identifying eligible beneficiaries. When disparities are large within municipalities/cities and barangays, pure geographic targeting is not enough. Geographic targeting can be used as the first step in prioritizing areas, but household/
individual level targeting is needed to be able to minimize leakages and reduce exclusions.

**B. Decentralization policy and local governance structure**

The passage of the Local Government Code (LGC) in 1991 represented a major step in decentralization in the Philippines. Before the LGC, the LGUs’ main functions were levying and collection of local taxes, regulation of business activities, and administration of garbage collection, public cemeteries, public markets and slaughterhouses. The LGC paved the way for increased local autonomy, expenditure responsibility and revenue authority. In particular, the principal responsibility for the delivery of basic social services and the operation of the facilities were devolved to LGUs. The devolved areas are: agricultural extension and research; social forestry; environmental management and pollution control; primary health and hospital care; social welfare services; repair and maintenance of infrastructure; water supply and communal irrigation; and land use planning. Consequently, personnel of National Government Agencies (NGAs) who were doing these tasks before the passage of the LGC were devolved to the LGUs.

In addition, the LGUs were given taxing authority to be able to generate resources to complement the Internal Revenue Allotment (IRA) that they get from the national government. A new scheme has been devised to determine the share of LGUs from the revenues collected by the national government and this is based primarily on population and land size.

Likewise, the Social Reform and Poverty Alleviation Act of 1997 gave the LGUs the frontline role in the fight against poverty. The law tasks the LGUs to be responsible in the formulation, implementation, monitoring and evaluation of the Anti-Poverty Reduction Agenda within their area of jurisdiction.

In the Philippines, there are 5 geopolitical levels. A region is a sub-national administrative unit comprising of several provinces having more or less homogenous characteristics such as ethnic origin of inhabitants, dialect spoken, and agricultural produce, among others.

The province is the largest unit in the political structure which is headed by an elected governor. It consists, in varying numbers, of municipalities and, in some cases, of component cities. Its functions
and duties in relation to its component cities and municipalities are
generally coordinative and supervisory.

The municipality/city is a political corporate body endowed
with the facilities of a municipal/city corporation and exercised by
and through the municipal/city government in conformity with law.
The municipality is headed by an elected mayor. It is a subsidiary of
the province which consists of a number of barangays within its
territorial boundaries, one of which is the seat of government found at
the town proper (poblacion). There are three classes of cities in the
Philippines: the highly urbanized, the independent component cities
which are independent of the province, and the component cities which
are part of the provinces where they are located and subject to their
administrative supervision.

The barangay is the smallest political unit into which cities
and municipalities are divided. It is the basic unit of the political system.
It consists of less than 1,000 inhabitants residing within the territorial
limit of a city or municipality and administered by a set of elective
officials headed by a barangay chairman (punong barangay).

As of December 2006, the Philippines have 17 regions, 81
provinces, 118 cities, 1,510 municipalities and 41,995 barangays or
villages.

Implementation of targeted programs has been a major
weakness of most LGUs in the country as they lack reliable/credible
baseline data, particularly poverty statistics. LGUs still rely on centrally
produced data like NSO/NSCB data for their planning. These data
however are not disaggregated at the municipal/city government and
barangay government levels – the lower level LGUs that are primarily
at the forefront of policy or program execution – thereby making it
difficult for proper targeting and programming.

The Community-Based Monitoring System (CBMS), as shown
in Figure 1, seeks to address the existing gaps in data at the local level
for diagnosing extent of poverty at the local level, determining the
causes of poverty, formulating appropriate policies and program,
identifying eligible beneficiaries and assessing impact of policies and
programs. There is also a need to support the decentralization process
by capacitating LGUs to collect, analyze and use data in local planning
and program implementation
C. Features of CBMS

CBMS is an organized way of collecting household level information at the local level. It is, however, more than just a data collection system. It seeks to integrate the use of data in local level planning and program implementation. It is also intended to promote evidence-based decisionmaking.

The CBMS is also a tool to support the decentralization process by providing the LGUs with a system to improve local governance. It builds the capacities of LGUs to develop policies and programs that meet the needs of the people.

The CBMS has several features: (1) it is LGU-based while promoting community participation; (2) it taps existing LGU personnel and community volunteers as monitors; (3) it has a core set of indicators; (4) it involves complete enumeration of all households in the LGU; and (5) it allows for the establishment of databanks at each geopolitical
level by submitting its collected data to the next higher geopolitical level. These key features enhance the capacity of local governments in detecting and reducing poverty.

i. **LGU-based while promoting community participation**

   The LGU takes the lead in the data collection and processing, serves as the repository of the database and uses the data in the formulation of the development and investment plans. Members of the community are likewise involved in the data collection and validation, processing, analysis and formulation of the plans.

   Moreover, the CBMS empowers the communities by ensuring their participation in diagnosing poverty and identifying appropriate interventions. It builds the capacity of local governments in using poverty statistics as inputs in the formulation of development plans and as basis in the formulation of poverty reduction programs and projects.

ii. **Taps existing LGU personnel and community volunteers as monitors**

   The CBMS taps local personnel to do the data collection, processing and analysis of the data. As shown in the CBMS flow of information (Figure 2), coordination among the different levels of government is very important.

iii. **Has a core set of indicators**

   There are 14 core indicators (Table 2) that are being measured to determine the welfare status of the population. These indicators capture the multidimensional aspects of poverty and have been confined to output and impact indicators. Since the CBMS is designed to be LGU-based, it is important that indicators are easy to collect and process. Information is collected through surveys of all households in the community. The local people themselves are data collectors and processors.

   The system is flexible and can accommodate community-specific indicators to reflect the other concerns of the community. For instance, indicators related to environmental concerns are included in the CBMS system in Palawan. On the other hand, Camarines Norte
has included indicators related to natural calamities in its indicator system.

**iv. Involves enumeration of all households**

The CBMS utilizes household surveys to collect information at the household and individual levels. It involves complete enumeration of all households to provide information on not just how poor the barangay or municipality/city is but more importantly, on who and where the poor are.

A census would provide the LGU with a comprehensive profile of households that would allow household and individual-level targeting.

**v. Establishes databanks at all geopolitical levels.**

Data are submitted to the next higher geopolitical level, allowing for the establishment of databanks at the barangay, municipal/city and provincial levels.
A national agency such as the National Anti-Poverty Commission (NAPC), the Department of Interior and Local Government (DILG) or the National Economic and Development Authority (NEDA), is envisioned to be the national repository of the data. Such national repository can be the source of data for identifying the eligible beneficiaries to targeted programs of the national government.

**Design of the System**

**Methodology**

Once a local government unit decides to adopt the CBMS, the following activities, as illustrated in Figure 3, need to be done:

*Advocacy/Organization*

Advocacy is vital in the CBMS implementation. The implementation starts with several consultative meetings and orientation with the LGU. This is a necessary step in order to convince and solicit support from the local chief executive (LCE) - the governors, mayors

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**Table 2. CBMS Core Indicators**

<table>
<thead>
<tr>
<th>BASIC NEEDS</th>
<th>CORE INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Health</td>
<td>1. Proportion of children’s deaths (0-5 years old)</td>
</tr>
<tr>
<td></td>
<td>2. Proportion of women deaths due to pregnancy-related causes</td>
</tr>
<tr>
<td>B. Nutrition</td>
<td>3. Proportion of children 0-5 years old who are malnourished</td>
</tr>
<tr>
<td>C. Housing</td>
<td>4. Proportion of households living in makeshift housing</td>
</tr>
<tr>
<td></td>
<td>5. Proportion of households who are squatters</td>
</tr>
<tr>
<td>D. Water and Sanitation</td>
<td>6. Proportion of households with no access to potable water supply</td>
</tr>
<tr>
<td></td>
<td>7. Proportion of households with no access to sanitary toilet facilities</td>
</tr>
<tr>
<td>E. Basic Education</td>
<td>8. Proportion of children aged 6-12 years old who are not in elementary school</td>
</tr>
<tr>
<td></td>
<td>9. Proportion of children aged 13-16 years old who are not in secondary school</td>
</tr>
<tr>
<td>F. Income</td>
<td>10. Proportion of households with income below the poverty threshold</td>
</tr>
<tr>
<td></td>
<td>11. Proportion of households with income below the food threshold</td>
</tr>
<tr>
<td></td>
<td>12. Proportion of households that experienced food shortage</td>
</tr>
<tr>
<td>G. Employment</td>
<td>13. Proportion of persons who are unemployed</td>
</tr>
<tr>
<td>H. Peace and Order</td>
<td>14. Proportion of persons who were victims of crime</td>
</tr>
</tbody>
</table>
and barangay captains, as well as councilors of the province and municipalities.

Once CBMS is approved for implementation, the governor or mayor issues an executive order to institutionalize the CBMS in the LGU and designate a CBMS Technical Working Group (TWG) to coordinate the project.

A memorandum of agreement (MOA) is deemed necessary to be prepared prior to the start of the CBMS implementation. Said agreement spells out the rationale for the adoption and implementation of the activity and sets the expected outputs of the activity and the extent of work to be done. Furthermore, said agreement specifies the timetable and resource requirements for the conduct of the activity and designates the key players and their corresponding responsibilities. More importantly, the MOA serves as a legal document that signifies the commitment of all concerned groups to carry out the activity.

The work plan is jointly drafted by the designated CBMS Technical Working Group Leader from the local government unit and

Figure 3. General Activities in CBMS
by a designated staff from the partner organization that will provide the technical assistance.

Likewise, the CBMS TWG conducts an evaluation of data requirements and existing monitoring systems and identifies data gaps. This entails a review of available sources of needed information in the locality vis-à-vis recent requirements for planning and monitoring. In particular, sources of information may be reviewed on the basis of frequency of data collection, level of disaggregation of data provided, and access to the said information. Common sources of information are administrative reports, socioeconomic profiles, national statistical yearbooks, on-line databases, and other reports on special surveys conducted by the national government as well as local and international non-government organizations.

Once the gaps between data requirements and available sources of information have been identified and assessed, the next step would be to assess how to incorporate these gaps to the core CBMS data collection and processing instruments.

Since the CBMS is LGU-based, the LGU needs to invest some resources in the implementation of the CBMS. The implementation of CBMS requires both human and financial resources.

- **Human resources**

  The design of the CBMS entails the participation of key government personnel at the provincial, city/municipal, and barangay levels to perform critical roles in the implementation of the CBMS. Depending on the level of capacities and institutional arrangements at each geopolitical level, key personnel may be designated as monitors, field supervisors, survey enumerators and data processors. In some cases, students, teachers, on-the-job trainees, religious group representatives, barangay officials and other community volunteers are tapped to take part in the implementation of the system. Detailed minimum qualifications of manpower required for data collection and processing are discussed further in the succeeding sections of this paper.

  The quantity of manpower needed for the implementation of the system varies, depending on the extent and coverage of the implementation of the system as well as on the desired pace of completion of work.
It is required, however, for the participants to attend all the CBMS trainings and activities, specifically in the survey, processing and report writing, in order for them to be literate. Officials from the village select the enumerators and other training participants in these activities with the minimum requirement that they have the basic literacy skills. Otherwise, it would be hard for them to participate and conduct or even complete the survey and other activities. If the enumerators and processors are not properly equipped or trained, the quality of the data would suffer, thus making it impossible to get an accurate picture of the welfare situation in the community.

**Financial and physical resources**

To implement the CBMS, the LGU needs to allot a budget that would at least cover the following expenses for the conduct of corresponding core CBMS activities:

a. **Training workshops**
   This would at least include payment for the meals of participants in the training workshop and reproduction of training materials. Other related cost items are pen and paper for trainees, and rental of equipment and training venue.

b. **Data collection**
   This would include fees for the reproduction of the household questionnaire (CBMS Form 1) and barangay profile questionnaire (CBMS Form 2) and their corresponding manuals (CBMS Manual 1-2 and 3, respectively).

   In some cases, LGUs provide for monetary incentives to the survey enumerators.

c. **Data processing/consolidation**
   This would include the cost for reproduction of tally sheets and manuals (if the LGU would adopt the manual data processing) and/or computer hardware for the encoding of data (if the LGU would adopt the computerized data processing).

   The computerized data processing software is provided for free by the CBMS Network Coordinating Team.

d. **Validation of data**
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This would include cost of printing of materials, i.e., digitized maps for presentation, transportation cost of monitors in participating in the validation workshops, and communication cost for coordinating the validation activity.
e. Database management
   This would include the cost for a computer hardware that would be used to store and update the CBMS Database.
f. Dissemination
   This would include costs relating to the publication of CBMS-related reports, construction of data boards, and organization of fora to present results and recommendations to stakeholders.

The cost of a CBMS implementation may be shared by the province, city/municipality, and the barangay. In some instances, other target users of data such as non-government organizations with existing projects in the locality may also be tapped to share in the cost of implementing a specific CBMS component, i.e., data processing.

LGUs have also employed some cost-saving measures. LGUs utilize existing equipments in their offices. They also tap the services of on-the-job trainees, practicum students, and volunteer workers as well as existing government personnel.

Pre-Implementation activities

i. Data collection
   The collection of data under the CBMS process is undertaken through a survey covering all households in all barangays across localities in a particular city, municipality (town) or a province. Trained enumerators from the barangay are tapped to administer the survey.

Survey instruments
   The survey or data collection is carried out using the household profile questionnaire (HPQ) or likewise referred to as CBMS Form 1. The questionnaire focuses on obtaining information on the CBMS core indicators from households. Demographic and other social characteristics can also be obtained from the questionnaire. To ensure comparability and consistency with the statistics produced
by national government agencies, the concepts and definitions of the indicators are similar to what these agencies have.

CBMS Form 1 has two accompanying manuals: an enumerator’s manual and a field editing manual. The former serves as a guide for the enumerators on how to conduct the survey. The latter, meanwhile, is a guide also for the enumerators on how to edit the accomplished household profile questionnaire.

Another questionnaire that needs to be accomplished is the barangay profile questionnaire (BPQ) or CBMS Form 2. It is a six-page questionnaire that gathers data on the physical and demographic characteristics and available basic services and service institutions in the barangay. The barangay chairman or secretary is the intended respondent for this questionnaire. This form also has a corresponding manual (manual on accomplishing BPQ) that, along with the manuals for the HPQ, is given during the CBMS training for enumerators as references.

Additional modules for the household and barangay profile questionnaires can be provided to get information on other indicators deemed relevant to the community. These indicators are identified by the community during the evaluation of their existing monitoring systems and information gaps.

**Enumerators**

The proposed enumerators for the survey are the barangay (village) health workers and nutrition scholars. Every village in the Philippines has these two officers. They perform a vital role in the care and monitoring of the nutritional welfare of children aged 0-5 years old. Other community volunteers can be tapped as enumerators depending on the need and size of the population of the community. The survey operation is under the supervision of the village head or barangay captain and other officers of the village.

A requirement for the choice of enumerators is that they should be able to write, read and do simple computations. Enumerators are tasked to completely interview all households in the assigned area or barangay.

The number of enumerators needed in a barangay can be determined by calculating the number of persons needed to finish the survey operation in one month (22-man-days) given
that an enumerator can accomplish 10 household questionnaires per day. This is the standard procedure. The computation, however, may vary depending on other factors: manpower and financial capacity of the LGU, the household population and land area that will be covered during the survey operation.

**CBMS Training Module I. Training for CBMS Data Collection**

Enumerators undergo a three-day CBMS orientation and training program for data collection. The training covers a general orientation on the background and rationale for CBMS; procedures and hands-on exercises on the CBMS data collection forms and the data collection field operations.

A training of trainors from the province and municipalities is conducted at the provincial level. The participants are technical staff from the provincial and municipal offices like the planning and development office (PPDO/MPDO), social welfare and development office (PSWDO/MSWDO) and local government office (LGO). Each LGU can send around 3-5 participants who will act as trainors in their respective localities. Box 1 enumerates the role of the CBMS Data Collection Trainors.

The “Training of CBMS enumerators at the barangay level”, is also a 3-day training program. It is conducted at the municipal level. The participants are enumerators from the barangays. Each training can accommodate about 60-80 participants. If there are more than the prescribed number of participants, the trainings can be done in several batches.

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**Box 1. Role of CBMS Data Collection Trainors**

- Conduct training of enumerators in their respective municipalities
- Make sure concepts and definitions are well understood by enumerators and supervisors
- Ready to train additional enumerators or replacement enumerators, if necessary

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The training is intensive and technical in nature and is conducted using PowerPoint presentations. A requirement for the choice of
enumerators is that they should be able to write, read and do simple computations. In this training, the participants are introduced to the concept of the CBMS. Their role as CBMS enumerators is emphasized and they are taught how to conduct an interview and how to systematically carry out the survey operation. The participants are asked to organize themselves and delegate team leaders. Purok and/or barangay team leaders act as coordinators of the survey operation at the purok/barangay level. Aside from conducting interviews, the purok and barangay team leaders act as supervisors as well. Box 2 details the contents discussed during the data collection module.

At the same time, there are also assigned field supervisors from the MPDO and/or PPDO. These officers from the municipality or province supervise and ensure that the enumerators are doing the data collection activity.

Participants are likewise introduced to the field enumeration forms (Barangay Profile Questionnaire-BPQ and Household Profile Questionnaire-HPQ) and a step-by-step procedure on how to accomplish these forms. Here, the participants are also introduced to concepts and definitions in order for them to understand and collect the needed information in the HPQ and BPQ.

Part of the BPQ is the barangay spot map. Here, the enumerators are taught how to construct barangay spot maps. The spot map would be very useful in locating and plotting households in the barangay, updating the barangays’ household population, and planning the survey operation.
In administering the HPQ, for instance, the participants are taught how to collect income from various sources such as salary and wages, entrepreneurial activities and other sources of income, and to compute for total income of the households from all identified income sources. During the training, participants are given the manuals for both HPQ and BPQ as references.

The trainings also engage participants in classroom exercises and field exercises to test and hone their skills in asking the questions in the questionnaire and tallying the respondent’s answers in the questionnaires. They are also trained to correct their own work by doing field editing procedures so that errors and non-responses can be minimized during enumeration. Box 3 provides the objectives and details done in each exercise.

**Box 3. Training Exercises**

**Objectives of the exercises**
- To help enumerators familiarize themselves with the Household Profile Questionnaire
- To equip enumerators on how to ask questions found in the questionnaire
- To practice conducting an interview
- To teach enumerators how to check accomplished questionnaires

**Exercise 1: Classroom Exercise**
Participants group themselves into two
Role-playing – Enumerator and Respondent
Evaluation of classroom exercise

**Exercise 2: Field Exercise**
Conduct actual field interview
Each participant interviews one household
Evaluation of field exercise

**Exercise 3: Field Editing Exercise**
Done during the lecture on field editing
Participants are asked to check accomplished questionnaires
from the classroom and field exercise
Survey proper

The survey operation usually starts not later than a week after the training has been conducted. The duration of survey operations depends on the number of households in the village as well as the area in which the enumerators have to cover for the survey operation. Usually, however, it takes one month, more or less, to finish the survey operation in one village given that an enumerator can accomplish ten questionnaires in one day.

From the pool of enumerators, a barangay team leader is assigned. As mentioned earlier, these team leaders act as coordinators of the survey operation at the purok/barangay level. Aside from conducting interviews, the barangay team leaders act as supervisors as well.

The barangay team leader is also responsible for the updating of the barangay spot maps. The barangay spot map and a masterlist of households are used as guide in locating households in the village.

There are assigned field supervisors from the municipal/city planning and development office (M/CPDO) and/or provincial planning and development office (PPDO). These officers supervise and ensure that the enumerators are doing the data collection activity. The duties and functions of the enumerators and field supervisors are explained in detail in the CBMS enumerator’s manual.

Data processing

One of the most critical steps in the CBMS implementation is data processing since results that will come out from this procedure will be the basis for planning and program implementation. LGUs have the option to manually process their data using tally sheets or use computerized data processing system. The approach to be adopted depends on the level and extent of capacity of the local government unit.

Manual processing

For villages or municipalities that do not have computer capabilities or need immediate results from the CBMS survey, data
processing is done manually with the use of processing and consolidation forms. It is likewise advantageous since it usually takes lesser time to finish than computerized processing. The processing can be done in one month. In addition, it does not require any equipment such as computers to process, which most of the barangays are lacking. There are two forms that will be used in manual processing: tally sheets and data boards. The former is used to record data for households meeting the given indicators while the latter is used to record the results of computations of CBMS core and other additional indicators. The forms are translated into the Tagalog dialect for easier understanding by the data processors. Formulas and definitions of the indicators are also included for easier reference.

In terms of personnel, it is important that manual data processors should come from the pool of CBMS enumerators. This is because they are more familiar with the concepts, definitions and the accomplished household profile questionnaires, thereby making the processing easier and more accurate. Explanations on the importance of the data that will be processed and discussions on the concepts and definitions of the indicators are some of the topics explained during the training. The participants are trained in processing the results from the survey questionnaire where, among others, they are taught how to compute proportions and rates of the CBMS core and other additional indicators. They are also trained to understand and interpret these indicators. Hands-on exercises using accomplished household profile questionnaires are also being done.

After the purok (sub-village) and barangay tally sheets have been accomplished and verified, barangay statistics can now be generated using the barangay data board. After verifying the accuracy of these statistics, they can now be submitted to barangay level officials who will utilize the information for planning and program interventions.

The results will also be submitted to the municipal/city levels for encoding. Municipal/city level aggregates are then submitted to the provincial level for consolidation.

b. Computerized processing

The CBMS computerized data processing system (CBMS-
CDPS) was developed to process household-level information gathered through the CBMS survey in order to send output indicators/statistics from the household level up to the highest geopolitical level. The computerized processing is done mostly at the municipal level mainly because most barangays neither have computers nor the capacity to do computerized processing. Computerized data processing involves data encoding, map digitizing, database consolidation and database building, and indicator/poverty mapping. Processing can be done in 3 months.

There are three softwares used in the CBMS computerized processing system, namely:

i. the CBMS computerized data encoding system (based on the Census and Survey Processing (CSPro) software), a software package for entering, editing, tabulating, and disseminating data from censuses and surveys;

ii. the CBMS Statistics Simulator (StatSim). An application needed to output the CBMS indicators and custom indicators from the encoded data; and

iii. the CBMS-Natural Resources Database Professional (NRDB Pro). The software used to generate or store all information (spatial and non-spatial data) gathered from the CBMS survey.

Data processors from local partners should at least be computer literate. He/She must have attended the training on data collection to better understand the processing system. He/She must also be a regular staff or under contract with the LGU for the duration of the CBMS implementation and have the capability to train the other members of the data processing team.

The technical staffs of the planning office are usually assigned as data processors. Other technical staff from other offices like the social welfare office, local government office and health office are also tapped as encoders and processors. The LGUs also utilize other volunteers such as practicum students under the employment program of the LGU.

For equipments, it is preferred that aside from available computers that will be used to encode household level data and digitize maps, a computer that will house solely all CBMS data is made available.
**CBMS Modules II and III. Computerized data processing**

For the computerized data processing, the training is divided into two parts. The first part is the Training on Encoding Accomplished Household Profile Questionnaires and Digitizing Maps (Module II). It is a 3-day training workshop composed of two parts: 1) encoding raw survey data, and 2) digitizing barangay spot maps.

The CBMS encoding system is used to encode the data from the questionnaire. The encoding system is based on the Census and Survey Processing software (CSPro). In digitizing spot maps, the Natural Resource Database Professional (NRDB Pro), a spatial database program, is used.

At the end of the training, the participants are expected to be competent in encoding household-level CBMS data and in digitizing barangay spot maps with infrastructure facilities, purok boundaries and household locations in the CBMS-NRDB.

The second part, training on Processing of Encoded CBMS Data and Building of the CBMS Database (CBMS Training Module III) can be conducted once the LGUs met the training requirements. Here, the participants are taught how to consolidate the encoded household data with the digitized maps using the CBMS Statistics Simulator (StatSim) to form the CBMS database for the barangay. In this stage, the CBMS core indicators are computed together with additional indicators that the LGUs deem necessary. They should also be able to create a data structure for a barangay-level and municipal level database. Lastly, they should be able to produce indicator maps for the CBMS core and other related indicators.

**CBMS-NRDB**

The conventional tools of presentation and dissemination of data have always been in the form of tables, charts and graphs. However, with the advent of the GIS (Geographic Information System) technology, data in maps have now become the popular medium for presentation.

Maps can be used to view the status of a community, e.g., municipality across villages changing their images according to severity of characteristics. Condition of a particular household vis-à-vis other households in the community can likewise be viewed. The location of these households can be displayed with different
colors according to their attributes. The use of maps in presenting welfare conditions of the community has greatly facilitated the understanding of the poverty situation by the local policymakers and the communities.

However, available commercial software programs for GIS are quite expensive and are not usually affordable to the local government units due to their limited financial resources.

Fortunately, in 1999, Mr. Richard Alexander\(^1\) developed the Natural Resource Database (NRDB), a freeware capable of storing spatial (lines and polygons) and non-spatial (texts and numbers) data. It can also generate maps, reports and graphs ideal for presentation and analysis of poverty attributes in the community.

NRDB was originally developed for the provincial government of Bohol in the Philippines to house data relating to coastal, forestry, mineral, solid waste management and pollution of the province. In 2000, it was adopted by the provincial government of Palawan, Philippines as part of their community-based monitoring system (CBMS). As such, the socioeconomic data gathered through CBMS were incorporated in the NRDB together with environment-related data.

Since 2000, the NRDB has become a critical component of the CBMS. The CBMS Team has used it for CBMS-based poverty mapping and for storing and displaying household- and individual-level information. CBMS-NRDB now refers to these particular uses of NRDB by the CBMS practitioners. The CBMS Network Team continues to work with Mr. Alexander to enhance the program and to make it more user-friendly.

The CBMS-NRDB is simple yet a very helpful software. The installer and main program uses a minimal 11MB memory and disk space executed in the Windows platform. However, the size of the database file increases as the data inputs increase. This freeware is readily downloadable from the net (http://www.nrdb.co.uk).

Aside from Windows Operating System, CBMS-NRDB basically needs Microsoft Office, particularly MS Excel and MS Access,\(^1\)

\(^1\)A British volunteer who spent three years working for the Bohol Environment Management Office through the assistance of the Voluntary Service Overseas (vso.org.uk). The project was supported by the British Embassy and the European Union.
principally for data management. Excel and Access play a vital role in the organization of the database.

Aside from basic data such as numbers and text, the CBMS-NRDB is able to hold spatial data to form maps. These data can be acquired by manually digitizing spot maps prepared by the enumerators. Other important spatial data such as location of wells, elementary and secondary schools, health centers, halls, road networks, rivers, and other structures vital for planning can also be added.

CBMS-NRDB enables users to create themes in the maps. These themes adopt a color scheme creating a more meaningful set of data analysis. For example, green and red colors could be assigned to households to indicate access and no access to safe water supply, respectively, in the barangay. Meanwhile, the condition of the puroks (sub-villages) can be colored in different shades of blue – the darker the shade, the better is the performance of the sub-village for a specific indicator. At an instant, it enables the viewer to see the location of depressed households or puroks in terms of the specified indicator. Map 1 is a sample thematic map.

Aside from maps, the CBMS-NRDB can yield reports and graphs. Basic time-series tables can also be generated. Figures such as histograms, time-series graphs and pie charts can likewise be constructed to make analysis of trends.

Software limitations
The CBMS-NRDB is not a full GIS software. It is a database software with mapping tools. In view of this, analyses are limited to thematic mapping and visual analysis.

Defining the structure is a crucial step in the creation of the database. This needs to be done only once but it is very important to get the structure right to avoid redoing the whole database. To prevent redoing things, the user could configure ahead before actual construction of the database.

Although the CBMS-NRDB is able to produce maps, charts and reports, the manipulation of the features of these tools is limited.

Common problems encountered
The current program designed for the CBMS-NRDB training is part of the intensive three-day training on computerized processing
and CBMS-NRDB. However, the two-day training proved to be insufficient for the actual preparation of the CBMS-NRDB files. Thus, the program was re-designed into a four-day training workshop in order to devote more time to hands-on exercises on digitizing maps and importing and managing data in the database.

Meanwhile, while it is suggested to local CBMS partners to send trainees who are computer-literate and involved in the CBMS implementation, some LGUs find it difficult to send qualified participants because they lack the staff who suit the requirements. Due to the fast turn-over of JO (Job-Order) employees, LGUs prefer sending regular employees. However, these employees cannot commit to devote their full attention to actual processing and preparation of the CBMS-NRDB because they are loaded with a lot of other work in the office. Experiences of the CBMS partners also confirm that this endeavor needs full-time attention of the person(s) preparing the database. Thus, it is suggested that LGUs should evaluate their capacities and estimate
the number of man-hours and computer units needed to ensure completion of the database.

*Computerized versus manual processing: An evaluation*

Computerized operations really present a more attractive set of processing solutions through comprehensive, replicable, efficient, and controllable flow of steps and outputs given a well-tested computer-based system accompanied by a competent operator. Thus, these characteristics more or less make the CBMS Computerized Data Processing System more attractive and preferable than Manual Data Processing. However, the computerized system may not be a viable option for some LGUs due to human and hardware resource constraints.

In the computerized processing, all the entries in the household profile questionnaires are encoded. This implies that most of the information could be processed, tabulated and analyzed down to the household levels. Furthermore, as a cycle, the information could be reprocessed, retabulated and re-analyzed whenever updates or revisions in some external information attributed to the information in the questionnaire such as poverty thresholds, definitions, among others, are called for. Computerized processing implies a more efficient and controllable flow of steps. Once the questionnaires are completely and validly encoded, the processing can be done much faster.

These features indicate the weak point of the manual mode. Only the core indicators and some comprehensive and supplementary indicators can be drawn from the manual processing. Household indicators are not included in the output. In addition, once the indicators in the manual processing are submitted, they cannot be revised unless the questionnaires are to be encoded again.

Nonetheless, despite its attractive features, computerized processing may not be feasible for some LGUs since it will require hardware and competent personnel to do the task. Only few municipalities have automated their databases. Moreover, computerized processing poses another constraint: time. More time is needed in computerized processing. Thus, manual processing in general can generate results at a faster rate than computerized processing.

Local officials usually face dilemmas and compromise between the two modes given their available resources and preferences.
One dilemma is when they conduct manual processing and realize that they need other analyses in relation to their findings. Manual processing gives them limited options and encoding the household profile questionnaires is not feasible. On the other hand, choosing a computerized processing will entail more resources and time allotment on their part.

**Validation of survey results**

This activity entails field and desk validation of survey results. Field validation involves the presentation of the processed data from the survey to the community in organized fora to elicit reaction on the data accuracy and to gather feedback on the possible explanations for specific outcomes of the survey.

The validation of survey results is a vital component in the implementation of a CBMS. For one, it is an important mechanism to ensure that the local leaders and the rest of the community are informed of the results of the survey. Furthermore, it provides an avenue for verifying the accuracy of the findings of the survey by facilitating discussion on the possible reasons for the said findings. In a field validation exercise, the survey results in table and map forms are presented to and validated by the community through a one-day meeting.

The validation exercise likewise serves as venue in identifying the major problem areas of the community and identifying the possible interventions needed to resolve these problems. This then facilitates the integration of CBMS results in the preparation of the community’s annual development plan and in the drafting of a socioeconomic profile.

The validation activity is intended to be undertaken at all geopolitical levels to be participated in by the CBMS focal persons at each level as well as community/sectoral leaders and volunteers.

Barangay Assembly: The key participants for this activity at the barangay level are the barangay (village) captain and development council members, barangay health workers and nutrition scholars, the enumerators themselves, other officers in the barangay such as teachers, sector representatives, indigenous leaders, and people from the community.
Municipal level: The key participants are members of the municipal/city development council, the league of barangay captains, sectoral leaders/department heads, concerned non-governmental organizations and the CBMS technical working group members.

Provincial level: Key players in the validation exercise are the provincial development council members, the league of mayors, sectoral leaders/department heads, the CBMS technical working group members, and NGOs and private organizations.

A standard validation guideline is given to the LGU on how to conduct the activity. The standard program includes an overview of the objectives of the activity, presentation of CBMS survey results, discussion on the results of the survey, identification of major problems and prioritization, recommendation from development council members and identification of next steps and timeline of activities.

Expected outputs of the validation are: (a) documentation of the proceedings, including the discussions and comments of the community on the data presented, (b) explanations/reasons for the findings, (c) information/data that need to be corrected, (d) priority needs identified and possible interventions, and next steps/timeline.

**Database management**

Database management refers to the storage, modification, and extraction of information from a database to produce the desired outputs such as reports, maps and proportions. The CBMS Database System has been developed consisting of several modules on data encoding, processing, digitizing and mapping. The system uses all freewares such as CSPRO, NRDB and the CBMS Statistics Simulator (StatSim) developed by the CBMS Team.

Data collected from the CBMS surveys are encoded and stored into the database system, which will be used to generate processed data in the form of proportions, maps and reports. These results are used during the validation exercises to ensure accuracy of the data. If there are corrections in the data as a result of the validation exercise, the revised data are then incorporated in the database.

Database management is done by the CBMS monitors at the provincial and city/municipal levels. In most cases, the database is maintained by the staff of the local planning and development offices.
Uses and Applications of CBMS Data

CBMS has a number of potential concrete uses particularly in the areas of local governance and poverty monitoring. Specifically, data gathered from CBMS are proven useful in the following ways:

**CBMS builds the capacities of LGUs and communities**

CBMS can be used to further nourish, if not build, the capacities of local government units as well as members of communities in addressing the needs of their respective localities by maximizing the use of their existing resources.

The system provides an organized process that can be used to empower communities for a more evidence-based and participatory approach to development planning and welfare monitoring. Through the implementation of a CBMS, capacities of LGUs and communities are enhanced through trainings on data collection, processing and validation as well as on analyzing and using the set of information that they have on hand. The administration of the process develops capacities of local and community leaders for mobilizing human and financial resources. CBMS also stirs up the spirit of volunteerism among local communities and paves the way for a greater sense of accountability among them in diagnosing, addressing and monitoring their respective community’s development concerns.

**CBMS creates databases at the local level**

One of the features of the CBMS is that databanks are established at each geopolitical level. CBMS can help enrich these databanks by providing a complete set of household, barangay, municipal/city and provincial level information.

With the CBMS processing system lodged at the municipal level, the municipalities are able to create their own CBMS databases. The CBMS databases are usually established at the municipal planning and development office (MPDO). Establishing a local database enables them to share and disseminate CBMS results to other offices, non-government organizations and other interest groups.

The CBMS database is also shared with the barangays. Since most barangays do not have computers to enable them to establish their
own CBMS database, the MPDO likewise serves as a CBMS resource center for barangays. For those barangays with computers, the MPDO assists the barangay in establishing their barangay CBMS database and provides training to barangay staff on how to use the database.

Once the municipal database is established, the database is submitted to the province. The provincial planning and development office is tasked to collect all municipal databases at their level. These municipal databases are then consolidated to come up with the provincial CBMS database.

The CBMS can likewise complement existing databases. Since it provides a regular source of information on socioeconomic attributes of communities, LGUs can use the CBMS information to further enrich the contents and usefulness of existing local databases.

A number of LGUs were able to get funding support from international organizations in the past for setting up databanks containing information on children, environment and the like. CBMS can help enrich these databases by providing a complete set of household, barangay, municipal/city and provincial level information.

**National Repository of CBMS Data**

At the national level, activities are ongoing regarding the establishment of a CBMS National Repository. The CBMS Team started the repository with the CBMS databases collected from partner LGUs. The national repository of CBMS data is a database containing individual and household level information generated from the CBMS surveys of various LGUs. The database is intended to be used by national government agencies, private sector, donor agencies and other relevant stakeholders.

Specifically, the national repository would:

- facilitate the access and use of the integrated CBMS database by national entities in their advocacy work with key decisionmakers; and
- support government and non-government funding sources in strengthening evidence-based planning and monitoring as well as in aligning their interventions to national priorities and facilitating the implementation of targeted programs.
Most importantly, the repository would facilitate evidence-based targeting of eligible beneficiary households or individuals of certain programs of national government agencies, thereby helping to achieve the government’s objective to have a faster and sustained reduction in poverty.

The CBMS Team is working closely with the NAPC in establishing the repository at their agency. NAPC has accepted the role as the repository of the CBMS in order to promote the use of the CBMS information in targeting national poverty reduction programs.

**CBMS serves as inputs in poverty mapping**

One of the outputs of the CBMS database is poverty maps. Through the CBMS-NRDB platform, LGUs are able to produce poverty maps to present and report CBMS results in a spatial representation. With poverty maps, policymakers, planners and other stakeholders can easily understand and analyze situations and problems in communities within their jurisdiction. Poverty maps are useful in identifying spatial patterns and can provide insights on the reasons affecting specific aspects of poverty. They can also be used in visualizing the location of the poor and in describing their conditions. CBMS, through poverty mapping, aids in identifying the location of municipalities, cities, barangays and even households which are in dire need of basic services. Poverty maps can help local planners in identifying priority areas and target beneficiaries of anti-poverty programs.

**CBMS serves as inputs for the preparation of development profiles**

CBMS data also provide vital baseline information for the preparation of barangay, municipal/city, and provincial socioeconomic profiles, annual investment plans, land use plans, infrastructure project proposals, and other related development reports. Most of the LGU partners have used their CBMS results to enrich their existing profiles, reports and plans. In Camarines Norte, for instance, the CBMS data have been used as benchmark information for the preparation of Barangay Socioeconomic Profiles (SEP) and project proposals for development projects.

In Palawan, CBMS data have been used as basis for the preparation of the province’s first Human Development Report.
for the year 2000. Likewise, NGOs like the Conservation International, European Union through the Palawan Tropical Forest Protection Program and Southern Palawan Planning Council in Palawan have used CBMS data for resource profiling of environment project sites in the Province. Palawan’s Provincial Office of the Philippine National Red Cross has used CBMS data in facilitating the preparation of a Disaster Management Preparedness Plan for selected barangays in the Province. CBMS data have also been used for the preparation of the Comprehensive Land Use Plan of Palawan.

Since CBMS data provide baseline information at the local level, a writeshop on the Preparation of Socioeconomic Profile and Barangay Development Plan using CBMS Data (CBMS Training Module IV) was conceptualized to promote the use of CBMS information for the preparation of reports, plans, proposal and other related documents for LGUs. The writeshop has become a regular training program given by the CBMS team to all LGU partners.

Participants of the writeshop include the Barangay Captain, Barangay Secretary, Barangay Treasurer, members of the Sangguniang Pangbarangay, the lead enumerator or team leader, and other barangay officials.
The objective is to develop the materials, revise and put them into final form as quickly as possible. At the end of the module, the participants should be able to: 1) discuss the basic features of local development planning, 2) identify the major actors in the activities of planning and their responsibilities, 3) explain and interpret the data gathered from CBMS, and 4) prepare a draft Barangay Development Plan (BDP) based on CBMS survey results. Box 4 outlines the data sources for the preparation of the SEP and BDP.

The module is a three-day training program. There are 6 mini-writeshop sessions. A workbook is used to guide participants through the writing process. A BDP Template is also available which will serve as a style-guide in encoding the writeshop outputs. General guidelines and tips for writing the SEP are discussed first before every writing session. There is sharing of learning experiences after every writing session. At the end of the sessions, a draft each of the SEP & BDP is produced.

CBMS facilitates resource allocation

One the most common dilemmas among local chief executives is how to efficiently and effectively use and manage the meager financial resources of the local government unit given the many competing projects and programs that need to be delivered in their localities. CBMS tries to address this issue by providing the necessary information that would reveal to decisionmakers an up-to-date development situation of communities in terms of core areas of welfare.

A case in point is that of the Provincial Government of Palawan. CBMS data have been used as a basis for providing a general report to provincial planners as well as to different sectoral leaders on the status of human development in the entire province.

In other CBMS sites, local chief executives are likewise faced with simultaneous requests for funding for development projects like water project, construction of health centers, road construction, among others, from the different barangay/community leaders. In this case, the barangay/household level information that CBMS provides can help decisionmakers assess and decide on which areas should be prioritized such as the information presented in Map 2.
and how they helped the local chief executive in making the necessary prioritization.

**Map 2. Proportion of Households with Access to Safe Water in Two Barangays in Labo Camarines Norte, 2003**

CBMS information aids the design, targeting and impact monitoring of social services and development programs

CBMS provides disaggregated information that reveals the community’s needs based on the CBMS household survey and corresponding explanations for such deficiencies as gathered during the validation forum and supplemented by information gathered from the barangay profile questionnaire. In this light, CBMS can serve as a useful tool for the design of appropriate interventions to address particular development needs as shown in Map 3.

CBMS can also facilitate targeting by providing information on who are the eligible beneficiaries for specific programs. Sector-specific indicators can be used to identify who should receive the interventions.

For instance, households with malnourished children should be the beneficiaries of supplemental feeding programs. Furthermore, composite indicators (combining the different indicators using statistical techniques) can be used to rank the poorest households in the barangay or municipality. Several methods were already explored and being tested to integrate the CBMS core indicators to identify the poor. This will be particularly useful in identifying eligible beneficiaries for programs such as the Philhealth program for the indigents and the scholarship program for the poorest families.

Finally, CBMS can serve as a supplemental tool or even a main source for vital information for monitoring the impacts of development programs that have been implemented in the communities by various organizations.

CBMS can be used as a tool in localizing the MDGs

CBMS can be used as a tool in monitoring the Millennium Development Goals (MDGs) at the local level. With the Philippines’ commitment to meet the MDGs, it becomes imperative to monitor the
performance of the country vis-à-vis the targets. Initial monitoring indicates that spatial disparities are large, necessitating concerted action in areas where performance is very low. Through CBMS, indicators of the MDGs can be generated providing LGUs with critical information needed in the attainment of the MDGs.

CBMS indicators were also harmonized with the MDGs. Through a memorandum circular, the DILG was able to harmonize the CBMS indicators with the MDGs which LGUs may use to assess their situation and gather baseline information to institute measures to help meet the country’s MDGs by 2015. A minimum set of 13 Local Poverty Indicators was introduced in 2003 and in 2004, one more indicator was added on maternal mortality rate. Today, these are known as the 14 Core Local Poverty Indicators. They are matched with the MDGs in order to allow the monitoring of each goal and target set in the MDGs as shown in Table 3. The monitoring of achievement may be done not only at the municipal level but also at the barangay level.

**Modes of dissemination**
Advocacy is a critical component of the CBMS. Through advocacy, findings from the CBMS surveys are disseminated to policymakers and program implementers with the aim of generating corresponding actions for possible interventions. The target audiences are the community leaders/officials, city/municipal development council, potential donors for prospective projects, and other interest groups. They are responsible for translating the results and findings generated by the CBMS data into more appropriate policies/measures and programs.

Dissemination of CBMS findings are done through publications, poverty maps, computerized database and meetings and fora.

Aside from the extent of poverty in the communities, which are determined based on the results of the CBMS survey, information that are also disseminated are the possible reasons and interventions generated through the community validation activities.
Table 3. CBMS Indicators in correspondence with the MDGs

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<th>MDG</th>
<th>CBMS Core Indicators</th>
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<td><strong>Goal 1: Eradicate Extreme Poverty</strong></td>
<td>Proportion of households with income less than the poverty threshold</td>
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<td>Proportion of households with income below the food threshold</td>
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<td></td>
<td>Proportion of 0-5 year old children who are moderately and severely underweight</td>
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<tr>
<td></td>
<td>Proportion of households who eat less than 3 full meals a day</td>
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<tr>
<td><strong>Goal 2: Achieve Universal primary Education</strong></td>
<td>Proportion of 6-12 year old children who are not in elementary school</td>
</tr>
<tr>
<td></td>
<td>Proportion of 13-16 year old children who are not in secondary school</td>
</tr>
<tr>
<td><strong>Goal 3: Promote Gender Equality</strong></td>
<td>(Data can be generated from indicators of Goal 2 since they can be disaggregated by gender)</td>
</tr>
<tr>
<td><strong>Goal 4: Reduce Child mortality</strong></td>
<td>Proportion of children under 5 years old who died</td>
</tr>
<tr>
<td><strong>Goal 5: Improve Maternal Health</strong></td>
<td>Proportion of women who died due to pregnancy-related causes</td>
</tr>
<tr>
<td><strong>Goal 7: Ensure environmental sustainability</strong></td>
<td>Proportion of households without access to safe water</td>
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<td>Proportion of households without access to sanitary toilet facilities</td>
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<td></td>
<td>Proportion of households who are squatters</td>
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<td>Proportion of households with makeshift housing</td>
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<tr>
<td><strong>Goal 8: Develop a Global Partnership for Development</strong></td>
<td>Proportion of population who are 15 years old and above and are not working but are actively seeking work</td>
</tr>
</tbody>
</table>

**CBMS Development Grant Program**

To further disseminate and promote the use of the CBMS, the CBMS Team, in partnership with the UNDP and Peace and Equity Foundation (PEF), launched the CBMS Development Grant Program in September 2005. The program aims to support evidence-based policy on social programs and to help reduce poverty and development disparities across barangays and municipalities by financing poverty reduction programs identified from the data gathered through the CBMS.

The Peace and Equity Foundation (PEF) is a non-stock, non-profit organization that manages and preserves the value of the PEACE Bonds endowment fund to promote opportunities for the poor to liberate themselves from poverty.
As of December 2006, the program has awarded 22 grants to partner LGUs and people’s organizations to support social and developmental projects designed to address community needs identified through the CBMS.

The CBMS team has also published the conference proceedings as part of disseminating the research papers presented in the conference.

Status of Implementation and Next Steps

A. Local

CBMS is now being adopted and used as part of the local development planning and monitoring process by a growing number of local government units in the country. Many LGUs all over the country have already formed partnership with the CBMS Philippine Team, apportioning resources from their own development funds for the implementation and utilization of the CBMS in their respective localities.

The CBMS Philippines Team is working toward the expansion of the coverage of the CBMS implementation in the country. Since 1999, the Team has provided free technical assistance to LGUs that are willing to implement the CBMS.

As of February 2007, the CBMS is being implemented in 28 provinces – 16 of which are implementing it province-wide. This covers 348 municipalities and 24 cities covering 9,088 barangays.

LGU-initiated CBMS

The team provided technical assistance to the province of Palawan in 1999 and has continued its collaboration with the province in subsequent CBMS implementation in 2002 and 2005.

The costs of implementation have been borne largely by the local government units, indicating that they see the usefulness of the system. This bodes well for the sustainability of the system.

The provincial government of Palawan has shared its experiences in the conduct of the CBMS in several conferences and workshops which led to a wider advocacy and promotion of the system for local planning and development. Following Palawan’s example,
Reyes, Mandap, Ilarde, Garnace, Asirot and Bancolita

the provinces of Camarines Norte (2003, 2005), Bulacan, (2005) Agusan del Norte and Bataan (2006) have also implemented CBMS with the assistance of the CBMS team. The team has also rendered assistance to several cities and municipalities.

In 2005, Mandaue City in the province of Cebu implemented the CBMS in its 27 barangays. The city government of Pasay followed suit with its own CBMS implementation covering 201 barangays. Map 4 shows the extent of coverage of the CBMS in the Philippines as of February 2007.

**Regional partnerships**

*Region VIII - Eastern Visayas*

In Eastern Visayas, an NGO active in the region spearheaded the implementation of the CBMS. In 2005, 16 pilot municipalities from four provinces in Eastern Visayas implemented CBMS in partnership with the Institute for Democratic Participation in Governance (IDPG) and the regional planning body of Eastern Visayas. The participating LGUs committed PhP1.2 million while the IDPG committed PhP 5 million for the project. An estimated 850 enumerators have been mobilized to gather household-level information from an estimated 80,431 households in the 486 barangays in these municipalities.

In February 2006, the Regional Development Council (RDC) of Region VIII issued Resolution No. 8A “endorsing the conduct of poverty mapping in all barangays of the region using the CBMS as a tool”. Now, the coverage has expanded to all 6 provinces in the region covering 101 municipalities and 2 cities or 2,999 barangays. With the successful campaign and expansion of the CBMS in the 6 provinces in Eastern Visayas, the RDC has issued a resolution endorsing the conduct of poverty mapping in all barangays of the region using the CBMS.

*Region IV-B – MIMAROPA*

With the implementation of the CBMS in 2 provinces, namely, Palawan and Marinduque, in the MIMAROPA region, the Regional Development Council issued RDC Resolution No 12-074-2005 adopting the CBMS as a tool in developing its regional and economic database. Romblon has started its CBMS implementation this year. Full regional coverage is expected in 2008 with the CBMS
implementation in the provinces of Oriental Mindoro and Occidental Mindoro in 2008.

*Region V – Bicol Region*

With the successful implementation of CBMS in the 7 municipalities of Camarines Norte in 2003, the Regional Statistical Coordination Committee (RSCC) has passed a resolution in 2005 recommending the adoption of the CBMS by LGUs in Region V. Upon passing the resolution, a MOA was signed between the CBMS Team and Regional Offices of DILG, NEDA and NSCB to implement CBMS in the LGUs in Region V. An inter-agency monitoring task force was formed to advocate the adoption of the CBMS as a tool in benchmarks that could be used as basis in formulating local plans and policies as well as a tool in monitoring and evaluating the results of planned local interventions in the five provinces and seven cities of the region.

With the collaboration of the CBMS task force in Region V, the CBMS is now being implemented in several cities and municipalities, namely, Iriga City, Lupi and Minalabac in the province of Camarines Sur, Ligao City and Libon town in Albay province, and Sorsogon City in the province of Sorsogon.

*B. National*

The adoption of CBMS is in line with various national and local government efforts relating to poverty monitoring and improved local governance which lead to several issuances and circulars from these agencies pledging support in the implementation and use of CBMS. Through resolutions and policy issuances, CBMS is being advocated and implemented for capacity building of local government units on poverty diagnosis and planning, and adopted as a tool for localizing the MDGS and for generating local poverty statistics.

Among the memorandum policy issuances of concerned national government agencies relating to this are as follows:

- **DILG Memorandum Circular 2001-105**
  Issued in August 2001, the circular enjoins all local chief executives to undertake local programs on poverty reduction and economic transformation and emphasized the need to
designate Local Poverty Reduction Action Officers (LPRAOs) and to formulate a Local Poverty Reduction Action Plan (LPRAP).

- **NAPC En Banc Resolution No. 7**
  Issued in March 2003, the resolution directs LGUs to adopt the 13 core local poverty indicators as the minimum set of community-based information for poverty diagnosis and planning at the local levels and to integrate such information in their local poverty monitoring system and local level action plans and program.

- **DILG Memorandum Circular 2003-92**
  Issued in April 2003, it provides policy guidelines for the adoption of the 13 core local poverty indicators for planning. The guidelines shall aid the LGUs in assessing and understanding poverty and its dimensions at the barangays, municipalities, cities and provinces, with the end view of formulating an LPRAP and implementing the plans and programs to reduce poverty.

- **DILG Memorandum Circular 2004-152**
  Issued in November 2004, the circular encourages LGUs to intensify efforts in implementing programs, projects and activities toward the achievement of the MDGs.
  LGUs are further encouraged to conduct a monitoring system such as the MBN-CBIS, CBMS, IRAP, among others, to monitor and diagnose the nature and extent of poverty using the 13+1 core indicators in order to determine appropriate interventions and focus targeting.

- **NSCB Resolution No. 6, Series of 2005**
  In 2005, the Executive Board of the National Statistical Coordination Board (NSCB) issued a resolution recognizing the CBMS as a tool for strengthening the statistical system at the local level that will generate statistics for monitoring and evaluation of local development plans, including the progress of the local governments in attaining the MDGs.
  The NSCB Technical Staff has initiated an advocacy program for the adoption of the CBMS by the LGUs through the RSCCs, the technical arm of the Board in the regions.
The Sponsored (Indigent) Program aims to provide Medicare privileges to the marginalized sector of Filipino society. Target members of the Program are those belonging to the lowest 25 percent of the population. The Program is implemented in partnership with the local government units (LGUs) and PhilHealth. The LGU and the National Government through PhilHealth share the annual premium payment of P1,200 per indigent household to get enrolled.

- **SDC Resolution No. 3, Series of 2006**
  In July 2006, the Social Development Committee (SDC), which advises the President and the NEDA Board on matters concerning social development, including education, manpower, health and nutrition, population and family planning, housing, human settlements, and the delivery of other social services, issued Resolution No. 3, Series of 2006 adopting the CBMS as the prescribed monitoring tool for the generation of the Core Local Poverty Indicator Database. The committee noted that the “CBMS is a very viable and cost-effective system that can be used in generating the 13+1 core local poverty indicators and ensure uniformity and standardization of CLPI databases by all LGUs.”

- **PhilHealth Board Resolution No. 982, S.2007**
  In March 2007, the Philippine Health Insurance Corporation (PhilHealth) adopted the CBMS as the principal source of data in identifying indigent families to be enrolled under the sponsorship program³ of the National Health Insurance Program (NHIP).

Likewise, the Philippines Development Forum Working Group on MDGs and Social Progress envision a 100 percent LGU coverage of the CBMS by 2010. The PDF Working Group on MDGs, co-chaired by the Department of Social Welfare and Development (DSWD) as lead convenor and the United Nations as co-lead convenor, serves as a forum for government and development partners to engage in dialogue and agree on common issues for collaboration in basic education, health and social sectors under the umbrella of the MDGs. The working group has recognized the importance of the CBMS as a critical tool for planning, budgeting and evaluation and for tracking the MDGs at the community level. They have recommended that the pace of

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³ The Sponsored (Indigent) Program aims to provide Medicare privileges to the marginalized sector of Filipino society. Target members of the Program are those belonging to the lowest 25 percent of the population. The Program is implemented in partnership with the local government units (LGUs) and PhilHealth. The LGU and the National Government through PhilHealth share the annual premium payment of P1,200 per indigent household to get enrolled.
institutionalizing the CBMS methodology needs to be accelerated to reach the Philippine target of 100 percent coverage by 2010. There is still a long way to go to reach this goal but with the support coming from the NAPC and DILG and increasing interest from LGUs, the scaling up of the CBMS to reach more LGUs in the coming years may hopefully be fast tracked.

National partners

DILG

The DILG, with its oversight role over the local governments, has been tasked as the lead agency for the localization of the MDGs in the Philippines. Seeing the potential of the CBMS as a poverty monitoring tool at the local level, the Department has sought the assistance of the CBMS team to implement the CBMS in several pilot LGUs.

In 2005, through a memorandum of agreement between the CBMS Team and the DILG through its Bureau of Local Government Development (BLGD), the CBMS data collection and processing instruments for training modules in localizing the millennium development goals, poverty diagnosis and planning were adopted. The CBMS team has trained a pool of trainors from the BLGD of the DILG as well as trainors from the regional offices of the Department. In addition, the instruments on CBMS data collection, data encoding, processing and mapping software developed by the Team were provided to the BLGD at no cost.

CBMS has been incorporated in the various projects of the DILG particularly on poverty diagnosis and benchmarking local MDGs indicators. Under the project “Strengthening Local Government Capacity for Poverty Assessment, Plan Formulation and Monitoring” of the World Bank-ASEM Technical for Poverty Monitoring and Analysis, the DILG-BLGD provided technical assistance to 3 provinces, namely: Marinduque, Camiguin and Masbate in institutionalizing the CBMS in their respective provinces.

CBMS is also being advocated to be used by cities for localizing the MDGs. Under this program, 2 cities namely, the Science City of Munoz and Tanauan City, have implemented the CBMS with support from the UNDP.
The DILG also conducted advocacy and mobilization activities at the national and regional levels in order to scale up the establishment of the CBMS as the instrument to generate core local poverty indicators for poverty diagnosing, planning and monitoring local progress on the MDGs. Through these efforts, the Department has established regional trainers and MDG focal persons within their regional offices. This has resulted in the expansion of the CBMS to LGUs in Regions I, V, VI, VII, IX and X.

**NAPC**

The NAPC has forged a partnership with the CBMS Team in implementing the CBMS in two provinces in 2005. With support from the UNDP, the project aims to provide the NAPC with the necessary information and skills to further localize the CBMS. Through the project, the CBMS Team was able to train at most 6 technical staff from NAPC on the CBMS implementation, processing and training modules.

Identified pilot areas in Mindanao are the provinces of Zamboanga del Sur and Agusan del Norte. NAPC is also planning to expand its CBMS coverage to include 10 poor provinces in Mindanao.

**Lessons Learned**

Below are some of the lessons gained from the various experiences in implementing the CBMS:

1. Local poverty monitoring system is an important component of the overall poverty reduction strategy. It facilitates the diagnosis of extent of poverty, the identification of the causes of poverty, the formulation of appropriate interventions, the targeting of eligible beneficiaries, and the assessment of impact.

2. The chances for nationwide institutionalization are better if CBMS data are useful at both the national and local levels.

3. Previous targeting schemes of national government agencies suffered from the lack of information to identify eligible beneficiaries. The need for household-based information by the national government agencies creates the demand for CBMS data at the national level.
4. Decentralized system of governance creates local demand for CBMS data.
5. It is important to work with local governments at the outset since they will ultimately bear the costs and benefits of the CBMS. Local governments are willing and able to implement local monitoring systems.
6. It is important to include only a core set of indicators to make the system viable. Whenever relevant, a few community-specific indicators may be added to the core set of indicators.
7. It is important to adapt the CBMS system to realities/capacities in the country. Thus, indicators, data collection methodology, data processing, and other aspects of the CBMS may be customized.
8. Capacity-building of local government personnel on diagnosing poverty at the local level using CBMS data is critical. Introducing a new system requires capacity-building over a period of years.
9. It is useful to incorporate new technology in the processing, analysis and dissemination of data.
10. Computerized processing facilitates analysis and retrieval of data.
11. The use of the GIS in presenting the data is very effective. With GIS maps, spatial disparities are readily highlighted, households with unmet needs are easily located, and projects to address unmet needs are correctly positioned.
12. Data on household income are difficult to collect in the CBMS partly because of the irregularity and multiplicity of sources. However, income is a very useful indicator since it is very sensitive to economic changes and shocks. One way to address this problem is to provide adequate training to enumerators to be able to collect good and reliable estimates of household income through CBMS. Other indicators can be used in combination with income to validate income-based poverty status.
13. It takes a long time for a monitoring system that involves many stakeholders to be institutionalized. Continuing advocacy efforts are thus needed to convince national and local policymakers and program implementors to adopt a system. It
is critical that a resource center for CBMS that can provide technical assistance to local government units intending to adopt the system is present. Even for LGUs that have been doing it, capacity-building programs to switch to new CBMS technologies and do further analysis of the data are still needed. The first version of the CBMS utilized manual processing at the barangay level and computerized processing at the municipal and provincial levels while the current version promotes the use of computerized processing at all levels.

14. Incentives should be developed to encourage other LGUs to adopt the system. For example, the use of CBMS data by national government agencies to identify beneficiaries of national programs will encourage LGUs to adopt the system.
The regular assessment of the real welfare conditions of my constituents is one of the major tasks of my administration. This, I think, is the very basic input any local leader should be provided with in order to determine appropriate interventions for target beneficiaries. In Palawan, we have relied on the Community-Based Monitoring System (CBMS) for basic information on welfare conditions of our people as basis for planning and program impact assessment.

The Provincial Government of Palawan (PGP), through the Provincial Planning and Development Office (PPDO) and the CBMS Network Coordinating Team, has been undertaking the CBMS since 1999. The collaboration between the PPDO and the CBMS Network Coordinating Team is borne out of the desire to expand the awareness of the Provincial Government of Palawan on the use of the CBMS as a tool for planning, program/projects formulation and impact monitoring of government interventions. The system helps in the formulation of recommendations in determining priority intervention areas, in order to effectively set into motion the development framework of the Province.

The implementation of the system was initiated in March 1999 through a memorandum of agreement signed by then Governor Salvador P. Socrates with the Micro Impacts of Macroeconomic Adjustment Policies (MIMAP) project. After conducting a series of orientation and training workshops, the actual Province-wide survey operation started in March 2000. An outcome of the initial salvo of the CBMS was the publication of the Human Development Report of the

*Governor, Province of Palawan
Province of Palawan. The report features, among others, a realistic scenario of the Province using the CBMS core indicators. It contains a presentation of the survey results at the provincial and municipal levels, their recommendations for strategic interventions to address certain problems. For this year, we are proud to mention that we are preparing the second edition of the Human Development Report for Palawan which includes an analysis of data for the years 2000, 2002 and 2005.

The CBMS is a system of gathering, collecting and processing or collating information not only as a tool designed for social monitoring but also as a barometer for gauging the effectiveness of programs and projects. For this purpose, a set of seventeen development indicators or variables from all major development sectors have been carefully selected to provide baseline information on the current living conditions of the families in the Province. The development sectors of the CBMS include, among others, population and household characteristics, health and nutrition, water and sanitation, security and shelter, education, employment and livelihood, participation and community development, peace an order, infrastructure and utilities.

We rely on the CBMS to provide planners with reliable data on the performance of key indicators on human development, thus facilitating effective utilization and allocation of the resources of the local government unit (LGU). In line with this concern, I also issued Executive Order No.3 in 2004 enjoining all municipalities to allocate 20 percent of their local development funds for the implementation of projects which address the priority needs of the communities as identified through the CBMS.

The CBMS has been useful in our local planning exercises not only at the provincial level but also in all municipalities of the Province. For this to be enforced, I incorporated provisions in said Executive Order for the synchronization of local planning exercises in the Province. I also made sure that barangay and municipal chief executives are utilizing data culled through the CBMS as basis in the preparation of barangay and municipal development plans. This would thus affect sound and objective decisionmaking. For this purpose, the PPDO has been assisting all municipalities in the conduct of the barangay and municipal planning exercises since 2001. During the local planning conferences, the PPDO facilitated the identification of their priority needs and programs which are based on CBMS results.
CBMS has always been part of my annual State-of-the-Province Address (SOPA). Data and information presented in my SOPA have always been culled from the CBMS. These information have directed my vision and goals for specific development sectors. For instance, in my 2000 SOPA, I laid down a development agenda that aims to reduce poverty incidence and challenged program managers and project directors to strive for a 10 percent decline in poverty incidence in the next three terms.

I immediately addressed problems on poverty the following year (2001), by instituting income-generating programs. In coordination with the concerned agencies, we deployed a total of 11,252 persons for employment locally. Because agriculture is the backbone of Palawan’s economy, we instituted innovations to help our farmers increase production and productivity. In this regard, we implemented agricultural programs which benefited a total of 12,735 farmers. Various interventions were also pushed for income security such as farm inputs like fertilizers, rice and vegetable seeds and the extension of the needed technical assistance to farmers and fishermen. These efforts, along with other livelihood assistance programs such as the Unlad Palawan project where we provided rolling stores to street vendors from different municipalities, including the city of Puerto Prinsesa, and capital assistance and interest-free loan grants to cooperatives, led to the decline of poverty incidence to 61.11 percent in 2005. This was from a level of 76.29 percent poverty incidence recorded in 2002. This year, we are still pursuing various social welfare programs such as micro financing activities to provide livelihood opportunities and further increase the purchasing power of our fellow Palaweños.

Last year, we were requested by the National Economic and Development Authority (NEDA) based in Palawan to make an assessment of the trends and status of the Millennium Development Goals (MDGs) in Palawan. The MDGs comprise targets on poverty eradication, malnutrition prevalence, primary education, child mortality, maternal health, gender equity and women empowerment, and eradication of HIV/AIDS, malaria and other diseases. These goals are regularly monitored by the United Nations. With the CBMS data, we were able to readily prepare the assessment of the MDG except for the eradication of HIV/AIDS.
At this point, allow me to thank the CBMS and the United Nations Development Programme (UNDP) for making several LGUs in Palawan recipients of their Joint Development Grant Program in 2005 and 2006. In 2005, the CBMS-UNDP approved an aggregate project cost of P750,000.00 which were distributed to the following projects: Seaweeds Livelihood Program in Dumaran, Goat-raising Livelihood Program in Magsaysay, and Construction of Level I Water System Project in Cuyo and Masaysay. In 2006, a total of P1,000,000.00 was granted to Palawan by the CBMS-UNDP to fund the following projects: the Construction of Level I Water System in Agutaya, Cuyo, Dumaran and Magsaysay, and Insumix/Nutri-Pack Production for San Vicente. In the preparation of project proposals for these projects, we have carefully noted the location of beneficiaries with low access to safe water in the case of Level I Water System project. For this, the CBMS provided us the input for project beneficiary identification and impact assessment.

For instance, in barangay Canipo in Magsaysay, the number of households with access to safe water was recorded at 0 percent in 2005. After the implementation of the Water System Project in July 2006 under the CBMS-UNDP Grant Program, we have noted a 51.5 percent access of households to safe water in the area. The constructed well is functional, serving 103 out of 200 households. We all know that project assessment is very crucial for project implementers. Of course, we need to ensure that funds spent for projects would yield positive results for beneficiaries. And again, for this, we are fortunate to have the CBMS as our instrument for project identification and impact assessment.

My present administration considers the CBMS a real gem in development planning and monitoring. We aim for its continuous implementation in Palawan. We also exert efforts to further improve and make it better for we firmly believe that this simple data collection scheme would help us achieve our desired goal of effective local governance.

On this note, I wish you all a pleasant day and thank you!
Institutionalizing the Community-Based Monitoring System (CBMS) in the Philippines

Erlinda M. Capones*  

Poverty has been a perennial problem in the Philippines. About four million families or 24 million people were considered poor in 2003. This represents about 24.4 percent of families and a slight improvement from the poverty incidence of 27.5 percent of families in 2000. However, wide disparities still exist among the regions: from the lowest poverty incidence in the National Capital Region at 4.5 percent to the highest incidence at 47.1 percent in the CARAGA Region in Southern Philippines. Income inequality, as measured by the Gini coefficient, has nonetheless slightly improved from 0.4822 in 2000 to 0.4678 in 2003. Regions IX, XII and X, all in Mindanao, showed the highest income inequality.

In order to significantly reduce the magnitude of poverty in the country, an honest-to-goodness national effort that combats the root causes of poverty should be sustained. In September 2000, the Millennium Declaration which affirmed the Millennium Development Goals (MDGs), was adopted by 147 United Nations member countries including the Philippines. Target 1 under Goal 1 of the 8 MDGs refers directly to the reduction of poverty as it targets to halve the proportion of people living in extreme poverty between 1990 and 2015. While the Philippines will most likely attain this target (baseline figure for subsistence incidence for Target 1 is 24.3% (1991) and the latest figure in 2003 is at 13.5%), it should be noted that even if it is attained by 2015, there will still be millions of people who will remain extremely poor. It is therefore necessary to continue implementing programs and projects that will reduce poverty and enhancing the poverty monitoring system to track progress.

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At present, the Philippines has focused its pro-poor interventions on reducing hunger through an accelerated hunger mitigation program as well as on continuing programs for low-cost medicines, subsidized rice, scholarships for poor but deserving students and health insurance for indigent families, among others. In the face of scarce resources, however, the need for focused targeting of these pro-poor programs and interventions becomes very necessary. Government has to have an informed means of answering the questions: Who are the poor? Where are they located? and What are their urgent needs?

These perennial questions can only be answered through a systematic poverty monitoring and diagnostic process and tool. The Community-Based Monitoring System (CBMS) is one such tool. This paper discusses how the CBMS is being institutionalized as the foremost local poverty monitoring tool in tracking the Philippines’ achievement of the Millennium Development Goals (MDGs).

**Evolution of the CBMS in the Philippines**

The Community-Based Monitoring System (CBMS) is a monitoring tool developed in the early 1990s under the Micro Impacts of Macroeconomic Adjustment Policies (MIMAP) Project in the Philippines. It was developed with the goal of providing policymakers and program implementers with a good information base for tracking the impacts of macroeconomic reforms and various policy shocks.

The CBMS work in the Philippines has thereafter evolved when it was observed that there were no disaggregated data for planning, program formulation, policy impact and poverty monitoring at the local level. There was also a need for support mechanisms for the implementation of the decentralization policy pursuant to the Local Government Code (LGC) of 1991. The CBMS was thus envisioned to serve as a tool for local governance and to complement the national poverty monitoring system. It was also envisioned to have the CBMS facilitate the implementation of targeted poverty reduction programs with its household and individual level data as well as the monitoring and evaluation of these poverty reduction programs.

Today, the CBMS has been adopted by national government agencies (NGAs) in the Philippines, particularly the National Anti-Poverty Commission (NAPC) and the Department of the Interior and Local Government (DILG), as the local poverty monitoring system and tool for
localizing the MDGs. Efforts are underway, with the help of NGAs, local government units (LGUs), non-government organizations (NGOs) and donor agencies, to scale up its implementation.

**The CBMS and the MDGs**

To be able to attain the goals and targets incorporated in the MDGs faster, the United Nations and the global community realized that it would be better if national plans are linked with local plans and objectives. As such, the advocacy and implementation of the MDGs need to be localized. However, the MDGs, with their corresponding targets, have accelerated the demand for data and have thereupon highlighted data limitations at the local levels. This is where the CBMS comes in as the most systematic, practical, and cost-effective solution to the data unavailability at these levels.

Through a continuous series of consultation workshops and advocacy efforts between national agencies and local governments, fourteen (14) core indicators were established and finalized for national and local monitoring purposes. Then, with the inclusion of the indicator on maternal deaths, the CBMS core indicators were subsequently adopted as the set of core indicators for the MDG localization in the Philippines.

The core indicators as listed in Table 1 are categorized under the eight (8) major dimensions of poverty namely: 1) health; 2) nutrition; 3) shelter; 4) water and sanitation; 5) basic education; 6) income; 7) employment; and 8) peace and order. This set of poverty measurements comprises the survival, security and enabling needs of our people. LGUs, however, may add other indicators or use proxy indicators to monitor area-specific concerns as they see fit.

**Status of CBMS implementation**

As of May 31, 2007, CBMS is being implemented in 29 provinces (15 of which are province-wide), 347 municipalities and 24 cities covering 9,116 barangays. The CBMS Network as well as the Working Group on MDGs and Social Progress of the Philippine Development Forum envision that the entire Philippines will be covered by the CBMS by 2010. Given this ambitious target, an intensified advocacy campaign combined with affirmative actions are in order at the national and local levels if the CBMS is to be successfully institutionalized in all the 84 provinces, 117 cities, 1,500 municipalities and 41,975 barangays of the Philippines.
Continuous training in CBMS will be handled by the NAPC and the DILG. Moreover, the CBMS Development Program, in collaboration with the United Nations Development Programme (UNDP) and the Peace and Equity Foundation (PEF), among others, is expected to continue the replication of CBMS in other LGUs.

To help facilitate data sharing across national government agencies (NGAs), local government units, the private sector, donor agencies and other stakeholders, a national repository for CBMS data will be pursued.

Policy Environment and Framework for CBMS Adoption and Advocacy
The present policy environment and framework remain supportive of the CBMS promotion, adoption and advocacy at the highest level. The national development agenda has identified poverty monitoring and the core local poverty indicators monitoring system as vital to addressing the needs of the poor and vulnerable. Likewise, various policy issuances have been

Table 1. List of Core Indicators

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<thead>
<tr>
<th>BASIC NEEDS</th>
<th>CORE INDICATORS</th>
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<tbody>
<tr>
<td>A. Health</td>
<td>1. Proportion of children’s deaths (0-5 years old)</td>
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<tr>
<td></td>
<td>2. Proportion of women deaths due to pregnancy-related causes</td>
</tr>
<tr>
<td>B. Nutrition</td>
<td>3. Proportion of children 0-5 years old who are malnourished</td>
</tr>
<tr>
<td>C. Housing</td>
<td>4. Proportion of households living in makeshift housing</td>
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<tr>
<td></td>
<td>5. Proportion of households who are squatters</td>
</tr>
<tr>
<td>D. Water and Sanitation</td>
<td>6. Proportion of households with no access to potable water supply</td>
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<td>E. Basic Education</td>
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<tr>
<td></td>
<td>11. Proportion of households with income below the food threshold</td>
</tr>
<tr>
<td></td>
<td>12. Proportion of households that experienced food shortage</td>
</tr>
<tr>
<td>G. Employment</td>
<td>13. Proportion of persons who are unemployed</td>
</tr>
<tr>
<td>H. Peace and Order</td>
<td>14. Proportion of persons who were victims of crime</td>
</tr>
</tbody>
</table>
released and disseminated by concerned national government agencies to move the CBMS agenda forward. The major policies and strategies in the national development plan as noted below highlight the recognition given by the national policy leadership on the importance of a nationwide monitoring system.

**MTPDP/Strategy Planning Matrix**

The Medium-Term Philippine Development Plan (MTPDP), 2004-2010, the country’s socioeconomic development blueprint for the medium-term, has spelled out a strategy under the Chapter on Responding to the Basic Needs of the Poor as:

“promoting the nationwide adoption and implementation of the enhanced Core Local Poverty Indicators Monitoring System (CLPIMS) and consequently the Local Poverty Reduction Action Planning process by LGUs (from the barangay to the provincial level) to enable them to implement, monitor and evaluate programs, diagnose and monitor poverty, craft appropriate interventions for their constituents, and encourage community members to actively participate in the planning process.”

The Strategy Planning Matrix (SPM) – the companion document of the MTPDP that fleshes out the priority activities, and targets the responsible agencies—has identified the following activity to be coordinated by Department of Social Welfare and Development (DSWD), NAPC, DILG and LGUs:

“Promote the nationwide adoption and implementation of the enhanced CLPIMS and consequently the Local Poverty Reduction Action Planning Process by LGUs.”

Moreover, the MTPDP-SPM has spelled out the measurable output/target of the “nationwide implementation of the CLPIMS by 2010” in its provisions.

**Government Efforts to Institutionalize the CBMS**

Complementing the national policy/strategy are government efforts to institutionalize the CBMS. These include agency memorandum circulars, MDG localization efforts, advocacy to donors, and other initiatives that reinforce the need and urgency for a nationwide CBMS implementation.
Memorandum Circulars and Policy Issuances

1. National Anti-Poverty Commission (NAPC) En Banc Resolution No. 7
The NAPC, as the highest policymaking and coordinating body on poverty reduction chaired by the President of the Republic of the Philippines, passed En Banc Resolution No. 7 in March 2003. NAPC En Banc Resolution No. 7 directs local government units (LGUs) to adopt the then 13 core local poverty indicators or CLPIs, which later became 14 indicators with the addition of Maternal Mortality Ratio as the minimum set of community-based information for poverty diagnosis and planning at the local levels.

The 14 CLPIs became the first module of indicators under the CBMS. The CBMS serves as the data gathering and data processing tool and system with a computer software to generate the 14 CLPIs.

2. DILG Memorandum Circular 2003-92
Consistent with its relentless efforts to promote the establishment of core local poverty indicators databases, the DILG issued in April 2003 DILG Memorandum Circular 2003-92 which sets policy guidelines for the adoption of the 13 core local poverty indicators for planning.

In support of this initiative, and with UNDP funding assistance through the Strengthening Institutional Mechanisms for the Convergence of Poverty Alleviation Efforts (SIMCPAE) Project Phase 2, the NEDA, NAPC, and DILG jointly published and disseminated a five-volume Guidebook on Local Poverty Diagnosis and Monitoring. The Guidebook continues to serve as a useful resource material and manual for national and local policy makers and program implementers in operationalizing the CLPIs toward the formulation of local poverty diagnostics and situationers and eventually the Local Poverty Reduction Action Plan (LPRAP).

3. DILG Memorandum Circular 2004-152
In November 2004, the DILG issued Memo Circular 2004-152 which encourages LGUs to intensify efforts in implementing programs, projects and activities toward the achievement of the MDGs. Moreover, the same issuance further encourages LGUs to conduct monitoring systems such as the Minimum Basic Needs-Community-Based Information System (MBN-CBIS), CBMS and the Integrated Rural Accessibility Program (IRAP), among others, to monitor and diagnose the nature and extent of poverty.
4. National Statistical Coordination Board (NSCB) Resolution No. 6
Issued on January 24, 2006, NSCB Resolution No. 6 recognizes and enjoins support to the CBMS as a tool to strengthen the statistical system at the local level. Likewise, the issuance further resolved that the NSCB Technical Staff should initiate and coordinate an advocacy program for the adoption of the CBMS by the LGUs through the Regional Statistical Coordination Councils (RSCCs). The RSCCs serve as the technical arm for the NSCB Executive Board in the regions.

NSCB Resolution No. 6 also attested to the statistical and technical soundness of the CBMS as a local poverty monitoring tool.

5. NEDA Board-Social Development Committee Resolution No. 3, Series of 2006
The inter-agency Social Development Committee (SDC) of the NEDA Board, the country’s highest policy coordination body on social development concerns, passed Resolution No. 3 on July 19, 2006 adopting the CBMS as the prescribed monitoring tool for the generation of the core local poverty indicator database. Through the same resolution, the SDC recommended the adoption and use of the CBMS as the principal monitoring tool and system for the CLPI and enjoined the NAPC, DILG, other government agencies and LGUs to coordinate with the CBMS Network Team toward the fast-tracking and full implementation of the CBMS.

The SDC Resolution reaffirmed the potential of the CBMS as a systematic and cost-effective tool to be applied in the gathering, processing and reporting of the local poverty indicators nationwide. The SDC also confirmed the usefulness of the CBMS as the objective basis for the programming and targeting of government interventions in poverty reduction, health, education, nutrition, social welfare and housing, among others.

**Millennium Development Goals (MDGs) Localization**

The localization of the MDGs has also paved the way for the institutionalization of the CBMS. Anchored on the framework for the localization of the MDGs which includes a local MDG monitoring system, the CBMS has emerged as the foremost choice for adoption to serve as the local MDG monitoring system. At the national level, the MDG localization framework (Figure 1) calls for and includes four major interventions namely:
1. development of advocacy plans and programs;
2. formulation of enabling policies;
3. development of tools and instruments for LGUs; and
4. documentation of best practices.

The formulation of enabling policies would involve the collaboration of the NEDA, DILG, NAPC, Department of Budget and Management (DBM), and Congress. At the LGU level, meanwhile, the interventions take the form of:

1. advocacy;
2. orientation and advocacy campaigns;
3. capacity development and trainings; and
4. technical assistance for replication of best practices.

The framework seeks to attain the following desired outcomes at the LGU level:

1. local plans and budgets incorporating clear MDG-related
targets whose programs, activities and projects have corresponding budget allocation;
2. local policies toward MDG achievement;
3. local MDG monitoring system; and
4. improved delivery of services through replication of good practices.

Based on the framework, CBMS may be the local MDG monitoring system. DILG Memorandum Circular 2004-152 issued to all its Regional Directors to adopt the CBMS as the local MDG monitoring and benchmarking tool.

The outstanding challenge, however, is convincing the local chief executives on the efficacy of the CBMS so that the LGUs will invest resources and effort toward institutionalizing the CBMS in their locality. At present, about PhP30.00 per household is needed or about PhP1 million per province to install the CBMS. These costs include the whole range of training, data collection, data processing and report preparation.

Advocacy to Donors
1. KALAHI-CIDSS Project
The KALAHI-CIDSS or the Kapit-Bisig Laban sa Kahirapan (Linking Arms Against Poverty Program)- Comprehensive and Integrated Delivery of Social Services Project is a $100 million World Bank-financed project targeted for the 42 poorest provinces or 183 poorest municipalities in the country. The project supports the implementation of basic community infrastructure projects at the barangay (village) level using a community-driven development approach.

It has been observed, however, that the KALAHI-CIDSS did not use the CBMS in the past as basis for local poverty situational analysis, sub-project prioritization and selection primarily due to the lack of CBMS data at the beneficiary LGUs. As a result of the government’s advocacy efforts, it was decided during the 2006 Project Supervision Mission that KALAHI-CIDSS, beginning 2007, will use CBMS data, whenever available for sub-project identification and prioritization, and selection process. In this way, barangay sub-project proponents will be enjoined to use CBMS data for an indicator-based sub-project selection process in lieu of the poll survey method among barangay officials in the choice of sub-projects for funding.
This development serves to encourage other LGUs interested in participating in the KALAHI-CIDSS Project to invest in the CBMS and to use the same in their project development and project selection processes.

2. Philippine Development Forum (PDF)
The Philippine Development Forum (PDF), the annual consultation forum between the Government of the Philippines (GOP) and the donor community, affirmed the CBMS as the much-needed poverty monitoring tool to fast-track the MDGs and social development initiatives. As presented by DSWD Secretary Esperanza Cabral to the PDF Working Group on the MDGs and Social Progress, one of the identified key issues and directions for 2007 is that:

“The Philippines needs a common, accurate, comprehensive and consolidated system to target the poor. The following are considered:

- CBMS;
- Local Government Performance Management System (LGPMS); and
- A system that provides disaggregated demographic data (e.g., gender) and MDGs to assist national and local governments in the implementation of programs to achieve the MDGs.”

During the plenary presentation of the Working Group on the MDGs and Social Progress, the following were the proposed key actions over the short-to-medium term:

- Improving targeting and reducing leakages in poverty programs;
- Developing a common harmonized targeting, monitoring and evaluation tool for basic education, health, and social protection; and
- Improving data collection and data management at the local levels.

The above recommendations of the PDF-WG point to the CBMS as the recommended poverty monitoring and targeting tool and system that should be pursued and sustained by the country.

3. World Bank Development Policy Lending (DPL) Program
Under the Government of the Philippines (GOP)-World Bank Development Lending Program (DPL) agreed upon this year, the CBMS has taken centerstage in the thematic thrust on social inclusion: building
a well-managed public sector that delivers quality services efficiently, effectively and equitably to intended beneficiaries. More specifically, under the strategy on poverty targeting of social programs and expenditures, the Development Agenda for 2007 includes the “continued advocacy of the CBMS at the local level, including adoption and use of CBMS in 15 provinces (in 2007).” The Expected Result is the “increased coverage and use of the CBMS by 50% of the LGUs from 4,000 barangays in 2006”.

4. GTZ – Philippine Health Insurance Corporation
The Philippine Health Insurance Corporation (PHIC) or Philhealth, through a board resolution, has recently approved the use of the CBMS and other LGU-based poverty monitoring tools and system as the source of data in identifying the poor. With GTZ-assistance, a validation tool is being developed and is expected to be implemented in 2008 after pilot testing in some provinces. The initiative is aimed at improving the targeting of the Philhealth Sponsored Program for indigent beneficiaries.

Donor Assistance to CBMS Institutionalization
*World Bank-Asia-Europe Meeting (ASEM)*
With the forging of partnership with the CBMS Network Coordinating Team, the DILG has adopted the CBMS as the data collection and processing tool for the CLPIMs. CBMS as a tool for generating the Core Local Poverty Indicators (CLPIs) at the local level would complement the national poverty monitoring systems. CBMS would fill in the void of information at the local level and would supply disaggregated information to be able to diagnose poverty and identify appropriate interventions to targeted beneficiaries at the local level.

Related to this, the CBMS has been incorporated in the various projects of the DILG, particularly on poverty diagnosis and benchmarking of local MDG indicators. Under the project “Strengthening Local Government Capacity for Poverty Assessment, Plan Formulation and Monitoring” of the World Bank-ASEM Technical Assistance for Poverty Monitoring and Analysis for example, (3) pilot provinces have been covered, namely:

- Masbate in Luzon
- Marinduque in the Visayas; and
Camiguin in Mindanao.

These provinces are in various stages of institutionalizing the CBMS. A total of PhP3.74 million has been released by the World Bank for the three above-mentioned provinces.

*United Nations-Habitat (UN Habitat)*

CBMS is also being advocated for use by 12 pilot cities for localizing the MDGs under the initiative being supported by the United Nations-Habitat (UN Habitat). The pilot cities are the following:

- Marikina, Muntinlupa, and Pasay in the National Capital Region (NCR)
- Antipolo, Tagaytay, San Jose Del Monte, Science City of Munoz, and Sorsogon in Luzon
- Calbayog and Mandaue in the Visayas; and
- Iligan and Samal in Mindanao.

These areas have been chosen because of their potential for success as well as their capacity to influence and trigger multiplier effects in surrounding municipalities. The total funding assistance amount to US$162,000.

The DILG is now in the process of scaling up the establishment of the CBMS as the instrument to generate the CLPIs for poverty diagnosis and planning and monitoring local progress on MDGs. With the conclusion of the Development Workshop on Monitoring and Evaluation System to track LGU responsiveness on MDGs last March 2006, the regional offices are now in full blast advocating the establishment of the CBMS at the local levels.

*UNDP Program on Achieving the MDGs and Reducing Human Poverty*

With funding support from the Strengthening Institutional Mechanisms for the Convergence of Poverty Alleviation Efforts, Phase III (SIMCPAE-3) Project of the UNDP, the NAPC, as the government’s oversight agency on anti-poverty programs and projects, has collaborated with the CBMS Network Coordinating Team for the integration of the CBMS instruments in the former’s training modules on poverty diagnosis and planning.

As part of this agreement, the NAPC will convene technical staffs from its office and other partner government agencies to constitute the
CBMS-NAPC Technical Working Group (TWG). The members of the TWG will act as lead trainers and monitors in the conduct of CBMS training workshops in pilot areas and in other LGUs that may adopt the CBMS. A series of capacity-building activities will be conducted by the CBMS Team for the members of the CBMS-NAPC TWG to equip them with the necessary information and skills to further localize the CBMS and to provide LGUs with the necessary tools that would facilitate a more evidence-based needs identification, program design and impact monitoring.

For the last semester of 2007, the NAPC, with funding support from the UNDP, will install the CBMS in the following provinces: a) Zamboanga del Norte; b) Zamboanga Sibugay; and c) Sarangani, with a total indicative funding of PhP4.11 million.

CBMS Development Grant Program
The CBMS Network Coordinating Team, in collaboration with the PEF and UNDP-Philippines, has awarded a total of PhP4.0 million, to date, to finance poverty reduction programs that were identified using data gathered through the CBMS. The latest beneficiaries received their grant funds during the awarding ceremonies held on 20 February 2006 at the Angelo King International Center. The 10 winning grant applications were chosen from nearly 60 proposals submitted by a wide variety of public and private organizations, including LGUs, people’s organizations, non-government organizations, cooperatives, and faith-based organizations.

International Development Research Centre (IDRC)-Canada
Since 1996, the IDRC/Micro Impacts of Macroeconomic Adjustment Policies (MIMAP) program has supported the design and piloting of community-based monitoring and local development systems in seven Asian countries, including the Philippines, and two in West Africa. In the Philippines, the IDRC supports the CBMS Network in its whole range of activities on CBMS orientation, training, data collection and processing with the LGUs as partners. The CBMS Network, through the Angelo King Institute, has received a total funding of US$846,577 as the lead research institute for the “Development of a Community-Based Monitoring System (CBMS) Network in Asia and Africa.”

Proposed ADB-assisted Project on Poverty Mapping of Mindanao Using CBMS
The DILG recently submitted a project proposal for possible Asian Development Bank (ADB) funding titled “Poverty Mapping of Mindanao Using the CBMS.” The project aims to formulate poverty maps for all of the Mindanao provinces and to capacitate LGUs on poverty assessment, monitoring and plan formulation for the attainment of the objectives and targets of the MDGs through the adoption of the CBMS. Total project cost is PhP90.6 million, of which PhP49.6 million is being requested from the ADB.

The use of the CBMS institutionalizes the CLPIs adopted by virtue of NAPC En Banc Resolution No.7 and DILG Memorandum Circular 92 dated April 2003 which provided for the local adoption and use of the CLPIs as the minimum set of community-based indicators for poverty assessment and monitoring. The use of the CBMS will also help in the preparation of local level poverty reduction action plans and agenda.

Since the national and sub-national agencies have already laid down the enabling policy for the MDG localization, this proposed project is expected to improve the concerned LGUs’ capacities to respond to MDG localization requirements, particularly in diagnosis and planning.

Conclusion and Recommendations
In conclusion, this paper affirms that CBMS institutionalization in the Philippines is currently taking place and has the support from both the national policy level, local government, community and donor organizations. This support can be gleaned from the various issuances and initiatives that have taken place in recent years. One, the national policy framework on the localization of the MDGs and poverty monitoring is very supportive of the CBMS expansion. Two, there has been notable donor assistance for CBMS roll-out. Various donors have supported the implementation of programs and projects aimed at institutionalizing CBMS. Three, the CBMS system has been developed and field-tested in 29 provinces with remarkable results. The CBMS methodology has been proven and certified to be statistically sound, cost-effective, valid and reliable given the intended purpose of locally diagnosing and monitoring poverty.

On the other hand, the CBMS institutionalization is also beset by a few issues that have to be addressed, namely: resource; institutional; attitudinal or behavioral.
There seems to be inadequate resources to implement a massive and rapid CBMS institutionalization program. With a resource requirement of PhP 1 million per province for its implementation, neither the national government nor the provincial government is capable of financing the effort. Institutionally, there remains the issue as to which agency will eventually host or coordinate the establishment of the national repository for the CBMS database. And finally, in terms of the attitudinal issue, the preparedness or political will on the part of the majority of LGUs to institutionalize the CBMS is still at a nascent stage.

Against this backdrop, the paper advances the following recommendations to address the abovementioned issues:

**Resource Mobilization**
- Prioritize the institutionalization of the CBMS in investment programming;
- Encourage donors to require the use of the CBMS as an LGU eligibility criterion to access grant and loan-assisted ODA programs; and
- Tap local businessmen and the private sector to help support the implementation and sustainability of the CBMS in their respective areas.

**Partnerships**
- Establish more partnerships through inter-agency efforts and multi-sectoral collaboration for the expansion of the CBMS;
- Approach the CBMS institutionalization through an inter-agency effort but coordinated by an institution with a proven track record for national statistical/data management and technical expertise; and
- Designate the National Statistics Office (NSO) as the CBMS repository at the national level in coordination with the NAPC and DILG.

**Advocacy on the Usefulness of CBMS**
- Intensify advocacy efforts for the CBMS at all levels focusing on the following: a) usefulness of CBMS; b) advantages of investing in CBMS; and c) uses of CBMS-generated data for better informed planning, resource allocation, and tracking of the MDGs; and
- Ensure the widest dissemination of international best practices of countries and LGUs with CBMS success stories.
References

NEDA. Medium-Term Philippine Development Plan, 2004-2010.
DILG Website for the MDG Localization, Knowledge Management Center. Bureau of Local Government Development (BLGD).
World Bank. Development Policy Lending II.
CBMS and the Time Allocation Survey Methodology and Some Results

Momar Balle Sylla

Introduction

The socio-economic survey carried out in the Rural Community of Nettéboulou (CRN)\(^1\) falls within the framework of a monitoring mechanism of the living conditions of households on a local community scale.

The mechanism is a tool of collection and analysis of information useful in monitoring living conditions and poverty. It thus helps local authorities and all actors of community development in the production and synthesis of information needed for local planning.

The conduct of this survey was made possible with the financial support of the “Poverty-Energy” Regional Program. This program is financed by the United Nations Development Program (UNDP) whose activities include the installation of multi-purpose platforms\(^2\) that would enable rural populations to have access to effective, reliable and durable energy services. Said services are managed by women who will have the opportunity to increase their incomes and their consumption. They give access to drinking water, improvement of the well-being of the populations, and increased school attendance, particularly among the girls.

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* Advisor of the Director of the National Agency of Statistics and Demography, Senegal

1 The Rural community of Nettéboulou can be found in the region of Tambacounda situated in the eastern part of Senegal.

2 A platform is composed of a motor diesel that can make different tools such as a millet mill, a peeler and a battery charger, and can also generate electricity needed for lighting, refrigeration and pumping of water. It is also used for the creation of energy enterprises that generate income for women.
Survey Methodology
The survey consists of a community section that relates to all the villages of the local community and a section on households that relates to a probability sample of 264 households. Data gathering took place in the CRN, a primarily rural community. Data gathering lasted for approximately a month (July-August 2005) and took place during the rainy season (wintering).

A team of pollsters took charge of the data collection within the community. This team consists of two controllers and six pollsters, a total of 8 people. Each controller monitors 3 pollsters. The 6 pollsters are in charge of the household survey while the 2 controllers administer the community questionnaire to the village leaders. They undertake this activity at the same time as the monitoring work of the pollsters. In each sample village, a constant number of 12 households is selected. These households are divided into six groups of 2. Each group corresponds to one working day for a pollster which makes one working day per village. The sample counts 22 villages. Consequently, the survey will last 22 days to which 3 days shall be added in order to complete the information on certain questionnaires.

The questionnaire is composed of 17 sections grouped into two parts: the community questionnaire and the household questionnaire. The first page of these two questionnaires is reserved for the identification of the household for the household questionnaire, and of the village for the community questionnaire. This first page also allows for the recording of field operations and processing.

The community questionnaire collects detailed information on the villages of the local community. The principal respondent is the village leader. Information relates to the following sectors: demography; economy and infrastructures; education and elimination of illiteracy; health and community organizations.

The household questionnaire, meanwhile, collects detailed information on the members of the household, the housing and children aged 3 to 59 months. Information relates to the following fields: composition of the household; education; health; employment; international migration; characteristics of the dwelling, comfort of the household and inheritance; and anthropometric measurements of the children.
A “Time Use” section is added in the initial “household” questionnaire for the needs of the Regional Program. It is administered to one out of every two households and concerns only 6 members of the household. If the household has 6 members or less, all members aged 7 years old and above are surveyed. The household head and one of his spouses (if there is more than one) already form part of the 6 people to be surveyed. The choice of the spouse to be surveyed is done by random selection. The four other people consist of two adults (one man and one woman aged 15 years and above) and two young people (one boy and one girl) who are less than 15 years old. The workload being two households per day, section J is administered to only one of the two. It is necessary to identify the activities undertaken by the four household members that include the household head and one of his spouses. These activities are classified according to the time periods during which they take place. Said activities can be carried out simultaneously or one after the other.

There is also the question of knowing the people or the organizations (employer, household, community, among others) for and with whom the activity/activities is/are undertaken. Activities that are carried out simultaneously with those classified as principal activities are specified as secondary. The activities are recorded in half-hour time ranges over a period of 24 hours. The reference day is the day that proceeds the day of the interview.

The survey method adopted is the recall interview in which the person surveyed recalls his/her activities over the last 24 hours preceding the survey by subdividing it into half-hour time frames.

At the end of the interview, a day in the life of the interviewed person broken down into half-hour sections may be retraced. This diary should be considered as the end product of the interview.

During the interview, efforts must be exerted by the interviewer for the person being interviewed to remember what he/she did in each time section and record what he/she says (example: to look for wood: travel time to the site, the gathering, return, and others).

For example, if the person speaks about undertaking pastoral work right after breakfast, it is advisable to consider the time used in moving.

The activities could eventually be related to the specific context - for example the environment of the stockbreeder and the harvest
period - and the categories of people according to gender, age, school
and professional stature among others.

The survey produces statistical data on all the activities which
the population undertake in one day. The survey used the nomenclature
ICATUS (International Classification of Activities for Time Use
Statistics) which makes it possible to distinguish the activities defined
as being in the productive field or the nonproductive field. The
productive field is divided into two groups known as economic and
non-economic (unpaid services for the benefit of the person’s own
household, other households or the community as a whole).

The classification of the statistics and indicators of time use is
made according to the 1993 Social National Accounts (SNA) which
distinguishes activities as productive or non-productive, productive
activities being divided into productive gross domestic product (GDP)
activities and non-productive GDP activities (or wide GDP).

The sectors are thus divided into three groups; GDP, non-GDP,
and non-productive activities. The nomenclature of activities used consists
of 44 groups, 100 sub-groups and 237 elementary activities.

Some Results
The study of how the people use their time allows for an analysis of
the amount of time that they allocate among the different activities
that they undertake. It provides a good understanding of the economic
and social well-being of the various groups and provides information
on the division of labor (remunerated or not) between men and women
as well as on the allocation of time for work and leisure.

The time use surveys were developed mainly to determine
differences, even disparities, in the use of time of individuals according
to gender and age. It is a question of workload differentiated by gender,
age, locality and the availability of the economic and social
infrastructures.

The statistics can be used to build indicators of poverty, cohesion
or social exclusion and well-being. They must be reliable and strong.
They are relevant as regards the specific measures to be taken on the
level of reduction of poverty and inequalities.

It is important to identify the disparities in terms of time use
according to the groups of people on the level of the major industry
sectors (non-remunerated agriculture, industry, domestic activities).
The sample of the time allocation section relates to a total population of 15,134 with 49 percent male and 51 percent female. The age structure as shown in Table 1 has 20 percent belonging to the population of less than 15 years old. The population aged 15-49 years old account for 65 percent and those aged 50 years and above make up approximately 14 percent.

**Table 1. Sample of the time allocation survey according to gender and age**

<table>
<thead>
<tr>
<th>Age Bracket</th>
<th>Gender</th>
<th>Total</th>
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<tr>
<td></td>
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</tr>
<tr>
<td>Less than 15 years old</td>
<td>19.8</td>
<td>20.3</td>
</tr>
<tr>
<td>15-49 years old</td>
<td>6.3</td>
<td>64.9</td>
</tr>
<tr>
<td>50 years old and above</td>
<td>17.1</td>
<td>14.1</td>
</tr>
<tr>
<td>No Data</td>
<td>0</td>
<td>0.8</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*The structure of the total population by age and gender*

The population of the rural community of Nettéboulou (CRN) is estimated at 15,134 inhabitants as of August 2005. At 7,582 people, the women outnumber the men. The male ratio (number of men for every 100 women) is 99.6 percent. This birth report remains favorable to the boys with 103 boys for every 100 girls. The population, like that of the entire Senegal, shows the characteristics of a very young population. In fact, the average age is 19.6 years old (19.7 years old for men and 19.6 years old for women). More than 3/5 of the population (61.3 % compared to 55.6 % in Senegal) are less than 20 years old and nearly 4.0 percent are 60 years old and above as seen in Table 2.

*The economic activity of the members of the household*

The working age population, those who are 10 years old and above, is estimated at 9,463 people, of whom 94.6 percent are active while 4.2 percent are inactive. The working population include the employed people (those who have a job) and the unemployed (looking for a job and are available to work). The inactive group is
Table 2. Distribution of the total population by age and gender

<table>
<thead>
<tr>
<th>Age bracket</th>
<th>Gender</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>0-4 years old</td>
<td>1441</td>
<td>19.1</td>
<td>1396</td>
<td>18.4</td>
<td>2837</td>
<td>18.7</td>
<td></td>
</tr>
<tr>
<td>5-9 years old</td>
<td>1232</td>
<td>16.3</td>
<td>1450</td>
<td>19.1</td>
<td>2682</td>
<td>17.7</td>
<td></td>
</tr>
<tr>
<td>10-14 years old</td>
<td>1139</td>
<td>15.1</td>
<td>829</td>
<td>10.9</td>
<td>1968</td>
<td>13.0</td>
<td></td>
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<tr>
<td>15-19 years old</td>
<td>840</td>
<td>11.1</td>
<td>965</td>
<td>12.7</td>
<td>1805</td>
<td>11.9</td>
<td></td>
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<tr>
<td>20-24 years old</td>
<td>630</td>
<td>8.3</td>
<td>581</td>
<td>7.7</td>
<td>1211</td>
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<tr>
<td>25-29 years old</td>
<td>460</td>
<td>6.1</td>
<td>507</td>
<td>6.7</td>
<td>967</td>
<td>6.4</td>
<td></td>
</tr>
<tr>
<td>30-34 years old</td>
<td>337</td>
<td>4.5</td>
<td>393</td>
<td>5.2</td>
<td>730</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>35-39 years old</td>
<td>316</td>
<td>4.2</td>
<td>346</td>
<td>4.6</td>
<td>662</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>40-44 years old</td>
<td>250</td>
<td>3.3</td>
<td>216</td>
<td>2.9</td>
<td>466</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>45-49 years old</td>
<td>248</td>
<td>3.3</td>
<td>221</td>
<td>2.9</td>
<td>469</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>50-54 years old</td>
<td>170</td>
<td>2.2</td>
<td>184</td>
<td>2.4</td>
<td>354</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>55-59 years old</td>
<td>128</td>
<td>1.7</td>
<td>70</td>
<td>0.9</td>
<td>198</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>60-64 years old</td>
<td>99</td>
<td>1.3</td>
<td>99</td>
<td>1.3</td>
<td>199</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>65-69 years old</td>
<td>73</td>
<td>1.0</td>
<td>79</td>
<td>1.1</td>
<td>152</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>70-74 years old</td>
<td>92</td>
<td>1.2</td>
<td>90</td>
<td>1.2</td>
<td>182</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>75 years old et+</td>
<td>72</td>
<td>0.9</td>
<td>75</td>
<td>1.1</td>
<td>147</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>ND</td>
<td>26</td>
<td>0.3</td>
<td>81</td>
<td>1.1</td>
<td>106</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7552</td>
<td>100</td>
<td>7582</td>
<td>100</td>
<td>15134</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Distribution of the active population according to the current activity

<table>
<thead>
<tr>
<th>Current Activity</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied</td>
<td>8729</td>
<td>92.2</td>
</tr>
<tr>
<td>Jobless</td>
<td>225</td>
<td>2.4</td>
</tr>
<tr>
<td>Study/Training</td>
<td>14</td>
<td>0.1</td>
</tr>
<tr>
<td>Family obligations of the household</td>
<td>23</td>
<td>0.2</td>
</tr>
<tr>
<td>Too young/Elderly</td>
<td>202</td>
<td>2.1</td>
</tr>
<tr>
<td>Impaired</td>
<td>19</td>
<td>0.2</td>
</tr>
<tr>
<td>Others</td>
<td>140</td>
<td>1.5</td>
</tr>
<tr>
<td>ND</td>
<td>111</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>9463</td>
<td>100.0</td>
</tr>
</tbody>
</table>
composed of pensioners, students, the disabled, among others (Table 3.).

The unemployment rate in the CRN is 2.5 percent during this period of the year (July-August 2005) which corresponds to the rainy season, a period during which the rural environment is occupied by pastoral work. This relatively low level of unemployment affects the people in the above 55 year old age bracket the most (0.8%) and remains lowest for the 36 to 55 year old age bracket.

As regards the employed population, it is composed of self-employed people (23.1%) who are accompanied for the most part by family help or apprentices (67.8%). These two categories make up 97.5 percent of the employed population. Wage-earners and the piece workers are rather rare in the area, with a presence level of only 0.1 percent and 0.2 percent, respectively.

Among the working people, 86.3 percent have only one job. Those with two or more jobs account for approximately 5 percent. The present stage of wintering requires a more frequent presence in the fields and is therefore not conducive for multi-activity as shown in Table 4.

Majority of the workers (97.2%) undertake activities in the Agriculture/Breeding/Fishery/Forestry sector. The other sectors of activity do not account for more than 0.5 percent of the total (Table 5).

**Daily activities**

The questions examined in this part offer a glimpse of the results which the time allocation survey offers in the adopted approach. The analysis which follows is thus a summary given the available

<table>
<thead>
<tr>
<th>Number of held jobs /current activity</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>8163</td>
<td>86.3</td>
</tr>
<tr>
<td>Two</td>
<td>381</td>
<td>4</td>
</tr>
<tr>
<td>More than two</td>
<td>81</td>
<td>0.9</td>
</tr>
<tr>
<td>ND</td>
<td>104</td>
<td>1.1</td>
</tr>
<tr>
<td>Not applicable</td>
<td>734</td>
<td>7.8</td>
</tr>
<tr>
<td>Total</td>
<td>9463</td>
<td>100</td>
</tr>
</tbody>
</table>
wealth of information. Among others, activities (principal and secondary), hourly volume for each one, distribution by sector, sub-sector, group and sub-group, the product destination of the activity, the person with whom the activity is done, manpower, events, are available.

According to the major sectors, the distribution of the daily total time the individuals allot for productive activities is 33.4 percent and 66.6 percent for non-productive activities (Table 6). This structure is similar among men (33.4%) and women (33.4%). GDP activities account for 25.5 percent while non-GDP activities 7.9 percent. At this level, the gender difference is very significant. The contribution of men in GDP activities is 62 percent against the women’s 38 percent. Conversely the women dominate in non-GDP activities (93% against 8%) which refer to domestic activities that are entirely attributed to them. This reflects the traditional structure of the distribution of time within the household where the man works while the woman takes care of the household.

GDP activities are almost entirely undertaken for production in the primary sector (agriculture and breeding), thereby reflecting the rural character of the community. There is practically no work in the formal sector (Table 7).

The daily cadence of activities is materialized by their distribution among the time sections (Table 8). The structure which emerged reflects the organization of the society. The bulk of

<table>
<thead>
<tr>
<th>Sector of activity/current activity</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture/Animal husbandry/Fishery/Forestry</td>
<td>8465</td>
<td>89.5</td>
</tr>
<tr>
<td>Mining/Quarrying</td>
<td>16</td>
<td>0.2</td>
</tr>
<tr>
<td>Construction</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>Transportation/Communication</td>
<td>5</td>
<td>0.0</td>
</tr>
<tr>
<td>Commerce</td>
<td>20</td>
<td>0.2</td>
</tr>
<tr>
<td>Domestic services</td>
<td>45</td>
<td>0.5</td>
</tr>
<tr>
<td>Public administration</td>
<td>4</td>
<td>0.0</td>
</tr>
<tr>
<td>Others</td>
<td>18</td>
<td>0.2</td>
</tr>
<tr>
<td>ND</td>
<td>146</td>
<td>1.5</td>
</tr>
<tr>
<td>Not applicable</td>
<td>734</td>
<td>7.8</td>
</tr>
<tr>
<td>Total</td>
<td>9463</td>
<td>100.0</td>
</tr>
</tbody>
</table>
production activities takes place between 9h-12h and 15h-18h for men (79%) and for the women (78%). It is the same for the non-GDP activities which are done mostly between 9h-12h and 12h-15h by the men (59%) and by the women (65%). The non-productive activities prevail in the extreme sections at 0h-5h and 21h-24h which are periods of rest and sleep (49%).

On the whole, as seen in Table 9, activities are carried out by household members either alone (47%) or in the company of at least another person (41%). The other member can be the spouse, the co-wife, the child, among others. The support of relatives or friends account for around 11 percent.

The time allocated for activities whose product interests only the person doing it averaged to 78 percent (80% for the men and 77% for the women) as seen in Table 10. It is a known fact that there are activities that can only be carried out by the person doing...
Table 8. Daily cadence of the time of the activities (%), by sector of the principal activities, by time interval according to gender

<table>
<thead>
<tr>
<th>Hourly brackets</th>
<th>PIB</th>
<th>PIB</th>
<th>V NON PROD.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>0h-5h</td>
<td>0.2</td>
<td>0</td>
<td>0</td>
<td>1.3</td>
</tr>
<tr>
<td>5h-9h</td>
<td>0.3</td>
<td>0.7</td>
<td>1.9</td>
<td>0.6</td>
</tr>
<tr>
<td>9h-12h</td>
<td>52</td>
<td>48.9</td>
<td>39.7</td>
<td>51.8</td>
</tr>
<tr>
<td>12h-15h</td>
<td>13.8</td>
<td>15.9</td>
<td>19.2</td>
<td>13.8</td>
</tr>
<tr>
<td>15h-18h</td>
<td>27.3</td>
<td>29</td>
<td>9</td>
<td>19.7</td>
</tr>
<tr>
<td>18h-21h</td>
<td>5.9</td>
<td>4.9</td>
<td>15.2</td>
<td>11.1</td>
</tr>
<tr>
<td>21h-24h</td>
<td>0.5</td>
<td>0.7</td>
<td>15</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 9. Distribution of time (%) of the activities according to the person with whom the activity is undertaken and the gender

<table>
<thead>
<tr>
<th>Accompanying person</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>40.3</td>
<td>52.5</td>
<td>47.3</td>
</tr>
<tr>
<td>Spouse</td>
<td>7.7</td>
<td>5.7</td>
<td>6.5</td>
</tr>
<tr>
<td>Co-wife</td>
<td>0</td>
<td>0.8</td>
<td>0.5</td>
</tr>
<tr>
<td>Children</td>
<td>1.7</td>
<td>2.4</td>
<td>2.1</td>
</tr>
<tr>
<td>Other member</td>
<td>36.9</td>
<td>27.6</td>
<td>31.6</td>
</tr>
<tr>
<td>Household help</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Relative/friend</td>
<td>11.4</td>
<td>10.1</td>
<td>10.7</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>0.9</td>
<td>1.4</td>
</tr>
<tr>
<td>ND</td>
<td>0.1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

There is also the time devoted to creating products for household consumption and sale (20%).

If the average time of the activities is considered, the structure confirms the preceding results. Indeed, the men spend 8 hours on GDP activities and devote less than one hour to non-GDP activities. The 8-hour working day is divided by the women between GDP activities (5 hours) and non-GDP activities (3 hours) as may be gleaned from Table 11.
Table 10. Distribution of the time (%) of the activities according to the destination of the product and the gender

<table>
<thead>
<tr>
<th>Product Destination</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myself</td>
<td>79.6</td>
<td>77.2</td>
<td>78.4</td>
</tr>
<tr>
<td>Formal Employer</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Informal Employer</td>
<td>0.8</td>
<td>0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Household-Home consumption</td>
<td>13</td>
<td>18.2</td>
<td>15.7</td>
</tr>
<tr>
<td>Household - sale</td>
<td>0.4</td>
<td>0.9</td>
<td>0.6</td>
</tr>
<tr>
<td>Household - Home consumption and sale</td>
<td>5.5</td>
<td>3.1</td>
<td>4.3</td>
</tr>
<tr>
<td>Other household</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Common area/ village</td>
<td>0.4</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>ND</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Among children aged 7 to 14 years old, the allocation of the 24 hours is similar to that of the total population’s. The boys have the same structure as the entire male population while the girls spend 4 hours in economic production and 3 working hours in domestic work (more or less an hour compared to the female population). The time devoted to studies is almost negligible due to the fact that the survey period coincided with the school holidays (Table 12).

Table 11. Distribution of the average time (hours) of the activities according to gender

<table>
<thead>
<tr>
<th>Sector</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>8</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Non GDP</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Non Productive Activities</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>

Table 12. Distribution of the average time (hours) of the activities of children (7-14 years old) according to gender

<table>
<thead>
<tr>
<th>Sector</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>8</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Non GDP</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Non Productive Activities</td>
<td>16</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Including Education and Learning</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>
Use of Data in Managing the Commune of Tivaouane

Diop El Hadji Malick*

One month after assuming office, the new Mayor, El Hadji Malick DIOP, an engineer statistician by education, organized a seminar for the entire municipal council of Tivaouane in Senegal. One of the major outputs of the 3-day seminar was the structuring of the municipal council into 9 Commissions instead of the traditional 16 Commissions. Before designating the Council members to any of the 9 Commissions, each one of them was first given an engagement letter, validated by the municipal council as a whole, informing him/her of the new structure and seeking his/her choice of the Commission to be assigned to.

This desire to always be informed first before acting was the credo of the Mayor during his entire mandate as indicated herein “Do well what we need to do so that we would not need to do it again and we can use our time to do other things.”

In terms of the application of this credo in the decisionmaking process of the new Tivaouane Municipal Council Team, how has it fared? What results/outcomes came out by following it?

It is obvious that the sources of information in trying to answer these questions are diverse and varied. Making consistent all the data coming from the different sources proved to be a delicate task because of the conceptual and methodological differences of each system of investigation called on to make a contribution.

And while oral response should not be neglected because this is the channel most commonly used by the people, written sources are favored because they provide information that can be handed down to

* Mayor of Tivaouane and Vice President, Association of Mayors of Senegal
future generations without the risk of alteration. Although it is true that said information often needs to be updated and authenticated in order to be reliable and reusable, the latter still seem to be more advantageous.

Before considering the answers to the questions, however, it will be useful to first list the documents that were available at the time the new municipal council team assumed office.

- List of the municipal officials and their characteristics;
- List of the eleven official area leaders;
- The 1993 urbanization master plan;
- A questionnaire that will address certain areas of the commune;
- A questionnaire that has not yet been generalized;
- The register of the deliberations of the municipal council where all the PVs of the deliberations from 1999, 2000, 2001 are missing;
- The 2002 budget (of which six months have already been executed);
- A survey on the satisfaction of the citizens; and
- A financial, organizational and urban audit financed by the Agency of Municipal

The scenario then in 2002 showed the high average age, the plethora and lack of qualifications of the personnel, the bad maintenance of the civil registers, the absence of an organizational chart and division of duties among the municipal services, and the weakness of the financial resources in a Commune.

Looking at the list of documents available and the gaps spelled out, one notes the many important questions that have been left unanswered for a long time like the following:

1. How many inhabitants have been in the Commune since 1988?
2. What are the demographic and socioeconomic characteristics of the population at the household and individual levels? Relatedly, what are the unemployment rate and dependency rate?
3. What are the physical boundaries of the Commune? Where does each one of the eleven districts start and end?
4. How many spontaneous areas “quartiers spontanés” are there? How many households have urban conveniences such as water? electricity? telephone? furnishings?

5. What is the length of the interior roadway system? What is its condition?

In addition, one also notes the need to have information on the following as a result of the management process from the central government to local communities in 1996:

1. decentralized cooperation: number of partners, conventions, protocols;
2. establishment and number of schools, medical facilities;
3. the management of commercial, sporting and cultural infrastructures;
4. the unemployment rate among the young people; the ICS/Commune relations;
5. communal inheritance, municipal debts and engagements for a better application of the principle of continuity in administration; and
6. environment concerns, the improvement of communal space, basic community organizations that serve as actors of local development.

For the local population to be empowered with the responsibility of making decisions or taking part in decision making as the basic principle of decentralization, the first step or requirement is to have reliable, up-to-date and authentic information.

CBMS for local development

It is against this background that the adoption and implementation of the community –based monitoring system in the Commune of Tivaouane has proven to be useful in assessing the value of the credo adopted by the new municipal team of Tivaouane under the leadership of its mayor when it took its office on June 01, 2002.

The objective of the CBMS, as spelled out below, supports the tasks and mandate of the municipal council team:

- to give support to the managers of Tivaouane in terms of providing decisionmaking tools and assisting in the
development, setting-up and evaluation of urban policies; and
to encourage a more active interaction among various actors in development through multi-actor meetings, exchanges of views and reflections for participatory planning (local agenda 21).

Certain characteristics of the CBMS also make it an effective continuing tool for local development, to wit:

- Priority on information needs relating to the urban development of Tivaouane
- Effective capacity of information production (to give priority to socioeconomic indicators whose production can be immediately assured)
- Strengthening of the institutional capacity of Tivaouane
- Strengthening of the negotiation capacity of the plenipotentiaries of Tivaouane
- Strengthening of the leadership of the community
- Supply of an adequate representation of the state on the local economy that can be easily understood by the majority of the citizens

**CBMS contributions to the municipal management from June 2002 to March 2007**

The succeeding presentation of the various tasks completed from 2002 to 2007, with the use of the CBMS, shows how progress can be achieved and measured in terms of managing the affairs of an urban community like Tivaouane.

*In 2002*

After the three-day seminar on the reorganization of the municipal council, a local team was tasked to develop a communal investment plan under the supervision of the Regional Development Agency.

This task of information collection, technical and social validation, and participative approach lasted for more than two months. In December 2002, the first communal investment plan of the Commune of Tivaouane was adopted.

The draft of the 2003 budget was also voted in December and was accompanied by a letter to the Counsellors where seven
priority taxes for the Team’s 5-year mandate were adopted by the municipal council.

*In 2003*

The questionnaire on addressing and panelling financed by the French Cooperation (the PADDEL) was corrected and enriched, with questions on education, health, real estate as well as town council/citizen relations (garbage collection) introduced. The administration of the questionnaire - processing and analysis of the results - were also done by the analysis team.

Municipal services were reorganized under an organizational chart. A personnel department was also created. At the same time, a set of local by-laws divided the duties among the different assistants and the Cabinet of the Mayor.

The communal financial statement was drawn up: concessionary company debts, debts to the private sector, support funds given to Papasti, and ADM debts were computed and documented as well as the recovery rate of the receipts.

*In 2004*

The election Tivaouane as an Observatory for the living conditions of households within the framework of the measurement of the impact of macroeconomic policies on the households was made in this year.

The development and administration of the questionnaires (with the CBMS), as validated by the Research Center in Applied Economics of the SHEIK Anta DIOP University were completed.

The results include data on the households, areas, children in school, children who do not know how to read, distance from medical infrastructures, and on who pays for the medicines, water, electricity, etc.

Said results were stored with the use of a software provided by the CREA.

Conference were held with the technical departments like the IDEN, the CDEPS, the Department of Stockbreeding, the Department of Water and Forestry, the Sénélec, the SDE and the Sonatel, for sharing and interactions.

A special plan (matrix of priority actions) was developed following a request from the President of the Republic.

A convention that binds the Commune, the UNDP, ONU - Habitat, the IAGU and the MUAT was formulated and forged.
A local unit, Agenda 21, was put in place. A departmental service known as Town Planning and Improvement of the Territory was opened upon the request of the Mayor for a more transparent management of the land in order to guarantee the security of occupation, land access and support the access to basic services.

In 2005
- an urban profile of the Commune was developed by the Al 21 unit in collaboration with the services of the AL 21 scientific committee.
- an action plan on the financing of Enda Ecopop was developed with all the local actors and the Al 21 Committee
- a master plan for cleansing was developed with the Department of Environment.
- a convention was signed with WATER_AID within the framework of Iromdel to facilitate the access of the populations to drinking water and to cleansing.
- the development of a commune map was made, the extension of hydraulic and electric networks was facilitated as well as that of the interior roadway system especially for the evacuation of the devotees and vehicles after each Maouloud.

In 2006
- Convention with the City Rights Foundation for the program of urban reorganization and land regularization was held.
- action plans of demonstrative projects were developed by the local working groups and the Al 21 Unit.
- convention draft of the twinning of Tivaouane with Fes was presented.

All these surveys and documents led to the making of relevant decisions that have been adapted because of precise documentation.

The number of inhabitants is better known (it doubled in less than 20 years); the number of the young people, the women, the recognized and a bit urbanized areas, the spontaneous areas, the distances and the quality of service of health and school infrastructures were better controlled. Development actions were better distributed and are accepted by the beneficiary populations who in turn have become actors throughout the implementation.
Difficulties in implementation
It is obvious from the above that the provision of reliable data is essential in the management of a local community. But oftentimes though, certain constraints will render the information difficult to access.

Constraints of human and material means:
The equipment of the local communities in the field of data processing is out-of-date and almost non-existent. The material available is almost always second hand in nature.

The various departments work in isolation. There is no network that will make it possible to have reliable information. For instance, it is obvious that the number of areas influences the number of inhabitants and that the number of school-aged children is an essential criterion for the construction of schools. However, there is no linkage among departments that would allow the sharing and exchange of such information.

The lack of general training of the personnel, the obsoleteness of the material or the glaring lack of computer equipment make the process of de-compartmentalization almost impossible to implement.

Financial and logistical constraints:
The putting in use and maintenance of documents listing information, say, the settlement of bills or furnishing of rooms requires mechanisms that are difficult to mobilize. Hence, all these tasks become a priority.

The re-actualization of the data is a condition for validation that is often difficult to satisfy. The update of the data puts the personnel and the departments into action, whose services should be coordinated. The most famous example is between 2002 (30 areas) and 2007 (38 areas) when eight new areas were recognized and the population was estimated to be at fifty five thousand inhabitants.

Conclusion
It never comes to the mind of any actor in local development to minimize the importance of correct information in decision making.

Therefore, it is important to affirm this once again today and instill in the mindset of any actor or decisionmaker the value of having correct information before making decisions.
This change of behavior will have to be facilitated by an environment of information, adequate equipment, tested validated tools, training in data processing, a multisectoral team that will look into all aspects of the data, a functional office for the proper maintenance of the material, logistical and human means for the update and validation of the data and, finally, the networking of a database accessible to all the actors in local development.

In this way, the utility of the CBMS will be more appreciated as a way of:

- giving objective analysis of a situation (access to water, electricity, quality of teaching, etc.);
- prioritizing on a hierarchical basis the problems to be solved;
- laying down the objectives (planning);
- evaluating actions or policies;
- reorienting actions or policies;
- contributing to a better view of the city; and
- providing the tools necessary for a better presentation of the projects.
Introduction
One of the major objectives of the economic policy of Benin is the reduction of poverty in the short term and its eradication in the long term. The battle against poverty has paved the way for the setting up of socio-economic programs geared toward helping low-income groups and the most underprivileged groups.

The development of the Strategy Document on Poverty Reduction (SDPR) is proof of the importance that Beninese authorities have placed on the fight against poverty. The SDPR identifies the type of growth strategies that should be adopted for the reduction of poverty. To accompany this policy of combating poverty, it is also important to monitor the evolution of the poverty profile of the country to determine if the development programs do improve the conditions of the poor. For this, it is not only necessary to have tools for the collection and analysis of data to find out the standard of living and the tendencies and characteristics of people in situations of poverty but also to have local communities involved in every stage of monitoring/evaluating the SDPR in order to ensure the proper implementation of the program and the optimization of the results.

In this regard, the CFSP Benin (Community Follow-up System of Poverty) proposes to observe the living conditions of households in relatively limited areas such as communes and/or municipalities in the country.
This methodology falls within the framework of the SDPR in the context of decentralization.

Established in Benin in 2005, the SSCP conducted its monitoring pilot test in the 13th district of Cotonou, collecting data on socio-demographic characteristics of households such as age, level of education and matrimonial status, among others; dwelling characteristics like construction materials; and conditions of existence such as mode of lighting, water supply, and others.

The results of the pilot census will be used to establish both master development plans and projects of general interest such as the construction of schools and cultural and sporting facilities, among others.

At the same time, the results can help private individuals and companies in their planning and development of projects related to potential markets, manpower and feasibility prospects.

This report presents the results of the pilot census that would provide a better understanding and appreciation of the characteristics and living conditions of the poor households in the 13th district of Cotonou. It also hopes to identify better strategies in combating poverty.

**Strategic Recommendations**

The census on the living conditions of Cotonou’s 13th district was able to identify the disparities in the living conditions per area thereby allowing local authorities to come up with better focused strategies for poverty reduction and to define the means to facilitate:

- access to social housing considering the number of households living in properties without a title: Ahogbohoue and Houenoussou;
- access to electricity for the population who still use the hurricane lamp: Agla, Ahogbohoue and Houenoussou;
- access to running water for the population who use water from protected or unprotected wells, taking into account the distance from the water table and the hygienic conditions of the city of Cotonou: Missite and Aibatin;
- access to domestic gas or an improved hearth: for all the households of the 13th district who mostly use charcoal or firewood;
the installation of public or private garbage collection services: for all the households in the 13th district; in particular in Gbedegbe and Ahogbohoue;

· the installation of public latrines to reduce defecation in the natural surroundings: Ahogbohoue, Houenoussou and Agla;

· the construction of school infrastructures of primary education level: Agla, taking into consideration the time needed to reach a primary school;

· the construction of first cycle colleges and high schools: Gbedegbe, considering the length of time needed in order to reach socio-community facilities;

· the installation of a public transport system to serve the 13th district in order to reduce air pollution induced by motor bike taxis or the zemidjan; and

· the construction of a public health center: Agla, considering the size of its population and the distance to be traversed by the inhabitants in order to reach a public health facility.

Awareness operations also need to be made in certain areas to improve life longevity and reduce the occurrence of diseases. The program relates to awareness on:

· management of household waste: the entire district is affected but particular attention must be given to Gbedegbe and Ahogbohoue;

· management of waste water: also to be focused in the areas of Gbedegbe, Missite and Agla;

· non-use of the lampion in the households: Gbedegbe, Houenoussou and Ahogbohoue; and

· stoppage of use of water from rivers, lakes or ponds as a source of water supply: Agla, Missite and Aibatin.

Conclusion
The census on the conditions of households in the 13th district made it possible to determine the individual and community difficulties in the district. On the whole, majority of the heads of households lack financial resources to provide for the needs of their family. Problems of sanitation, insalubrity and health are also pervasive in the district.
The results urge the local authorities as well as NGOs and development associations to come to the aid of the population in order to improve the latter’s standard of living and basic living conditions. The calculated indicators constitute a reference index in defining local development strategies for the local authorities, NGOs and development associations. These indicators must be monitored regularly through periodic censuses. This monitoring will make it possible for local authorities to be better informed on the level, tendencies, characteristics of people in situations of poverty and people’s vulnerability to poverty. Moreover, it will enable the authorities to better direct and target the actions that they must carry out in their localities. In the same way, they will be able to easily note the improvements in the living conditions of the households and the effects, positive and/or negative, of the programs and projects that they have developed for the poor.

Finally, it is important not only for local authorities to adopt a system of community monitoring of poverty but also to have the population fully involved in the process.
Report on the Census of the Living Conditions of Households in the District of Adogbe, Cotonou

Marie Odile Attanasso*

Introduction
The international community, in general, and Benin, in particular, agreed, through the Millennium Development Goals (MDGs), to reduce by half the general incidence of absolute poverty between now and 2015. For the Beninese authorities, the ultimate objective that they aim through the SCRP (2007-2009) is the lasting and effective improvement in the living conditions of the country’s population by tackling the principal causes of poverty. For this purpose, the government intends to put in place a policy of strong economic growth and reduction of poverty compatible with the OMD to which it adheres. This decision requires considerable improvement of the rural environment because according to the preliminary and partial results of the Integrated Modular Survey on the Living Conditions of the Households (EMICOV), the phenomenon of poverty still remains as a problem most felt in the rural environment, with income poverty going up from 31.6 percent in 2002 to 40.6 percent in 2006. This upward trend of income poverty is also true for the urban environment and the entire country (28.5% in 2002 against 36.8% in 2006).

The major challenge which confronts African countries today, including Benin, is the fight against poverty, more particularly, the improvement in the living conditions of the poor in rural environments. To define development strategies intended to reduce rural misery, it is necessary to first find out the scope, nature and causes of rural poverty. This could however be done only with the presence of precise and reliable statistical data.

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As such, the Community Follow-Up System of Poverty/Benin proposes to observe the living conditions of the population in relatively limited areas such as communes and/or municipalities. This methodology of monitoring the living conditions of households at the local level allows for better monitoring of the impact of the various strategies of the fight against poverty used at the local and national levels.

Established in Benin in 2005, the SSCP carried out its pilot phase in the 13th district of Cotonou. After the completion of the phase, the system extended to a rural district.

In Cotonou, this took place in the district of Cove and the district of Adogbe. As in the urban environment, the data collected in this district relate to the socio-demographic characteristics of households (age, level of education, matrimonial statue, etc.), dwelling characteristics (construction materials, etc.) and conditions of basic needs for existence (mode of lighting, water supply, etc.).

The principal objective of the census is to provide local authorities with information on all the households of the locality in order to monitor their living conditions, define better local strategies of combating poverty and make judicious choices between the establishment of projects of general interest such as construction of schools, cultural and sporting facilities or the establishment of projects of companies (description of manpower available in place) or businesses and services (potential market offered by the inhabitants, etc.). This census could also be used in the development of master development plans for the territory.

This report presents the results of the census carried out in Adogbe on the living conditions of the population, their conditions of existence and their perception of poverty with the aim of providing local authorities with reliable indicators. Knowledge of these indicators will facilitate a better definition of the strategies of combating poverty at the local level.

**Strategic recommendations**

1. The local authorities must define the strategies for:
   - Facilitating access to electricity among populations of Adogbe’s 3 areas: less than a third of the population of the district of Adogbe use electricity
· The construction of a stand-pipe fountain for households that use water from unprotected wells (24.4% for the entire district): the 3 areas in particular are Voli (39.6%) and those that use water from the river: Azehounholi (17.1%);
· The installation of garbage dumps for recycling household waste at the level of the district: 82.6% of households still dispose of their wastes in nature without the possibility of recycling;
· The access to an improved health for all the households of the Adogbe district where the majority use firewood (71.3%) in order to reduce consumption and slow down desertification;
· The installation of public latrines to reduce defecation in nature: the districts in particular are Azehounholi (44.3%) and Voli (40.4%);
· The construction of the school infrastructures of primary and secondary education level: Azehounholi;
· The putting in place of a public transport system to serve the district of Adogbe, and
· The construction of a public health center in Azehounholi where the population must travel 60 minutes to reach a health center.

2. There must also be awareness operations for:
· the management of household waste: the entire district is concerned but very particular attention must be made in Azehounholi and Voli;
· the stopping of the use of the lampion in households: the areas in particular are Voli and Azehounholi considering the fire hazards and inhalation of fumes; and
· the stopping of the use of water from rivers, lakes or ponds as a source of water supply: Azehounholi.

Conclusion
The census on the living conditions of the households made it possible to determine the individual and community difficulties in which the households of the district of Adogbe live. All in all, the majority of the heads of households lack financial resources to provide for the needs
of their family; the population are confronted with problems of sanitation, insalubrity, and health, among others; and the children at high risk of malnutrition and consequently of anemia.

Pro-poor strategies can easily be defined based on the collected data because they provide real indicators of the living conditions of the households in the district as well as their perception of poverty. Poverty being multidimensional, the collected data show that the people are aware of poverty’s several facets. To define strategies that directly affect them is commendable. The SSCP process involves the population in data gathering as a means of becoming conscious about poverty as well as the district’s level of poverty.

The indicators calculated in this manner constitute a base reference for the definition of local development strategies for local authorities, NGOs and development associations. These indicators must be monitored through periodic censuses so that it will be possible for local authorities i.) to be better informed on the evolution of the level, tendencies and characteristics of people in situations of poverty and vulnerability; and ii.) to better orient and target the actions which they must carry out in their localities. They will thus be able to easily note the improvements of the living conditions of the households and the effects, positive as well as negative, of the actions that they would undertake for the poor.

Finally, it is essential for local authorities to adopt this system of community monitoring of poverty for all the districts because it is a powerful tool of advocacy and mobilization of funds at a national as well as international levels.
Community Follow-UP System of Poverty (CFSP) in the 13th District*

Nicephore Dieudonne Soglo**

Cotonou, the economic capital of Benin, and the concentration point of the country’s activities is prey to several evils, in particular to insalubrities, floods and pollution, among others.

In the face of these various problems which confront the population, the Mayor, from the start of his assumption of responsibilities, has set the following as his administration’s main objectives: the improvement of the living conditions of the population of Cotonou through measures to address the problems of insalubrity, flood prevention and pollution control as well as strengthening of the economy to create sustainable employment.

The objective of the MIMAP-CBMS project is to install on an experimental basis in the 13th district a mechanism of Community Follow-Up System of Poverty (CFSP) that fits perfectly with the Mayor’s objectives.

It is from this perspective that the collection of information relating to the living conditions of the households was organized in the six areas of the 13th district. From these data, the town council of Cotonou defines the following priorities and the subsequent actions. These are:

1. The evacuation of rainwater and waste water: This poses the problem of sewage in the 13th district. Toward this end, the construction of basin XX in Agla and basin (AA) in Yèmicodji was considered, the costs of which amount to 28 billion and 52 billion XOF (Communaute Financiere Africaine Franc), respectively.

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* Presented by Dr. Marie Odile Atanasso
** Mayor, Cotonou and President of the Committee of Coordination of SSCP/Benin
a. Total cost of the infrastructures: 80 billion XOF  
b. Amount already mobilized: 12 billion for basin XX  
c. Remainder to be mobilized: 68 billion XOF

2. The construction of public toilets: The town council proposes to build public toilets in the areas of Agla, Aïbatin, Houénéoussou and Ahogbohouè. Toward this end, the following actions are considered:
   a. determine the construction sites of the toilets in collaboration with the district head, the area heads and the district development committees;
   b. develop an estimate of the various constructions;
   c. define the population’s contribution to the construction of the aforementioned toilets;
   d. seek complementary financing from development partners; and
   e. define the means of managing the aforementioned infrastructures after their construction.

3. The construction of public health centers for the 13th district: The only public health center (that of Houénéoussou) is unable to serve the entire population due to the distance which separates it from the other areas of the district. With this intention, it is advisable to build a public health center in Agla. Toward this end, the following actions are considered:
   a. determine the construction site of the health center (Department of National Affairs, the district head, the area heads and the district development committees will be involved);
   b. develop the estimate (Department of Technical Services);
   c. define the population’s contribution to the realization of the infrastructure;
   d. seek complementary financing from development partners;
   e. request the contribution of the State of Benin in equipping the center with working tools and personnel after its construction; and
   f. define the means of managing the aforementioned infrastructures after its construction.
4. The densification of the electricity and water supply network in order to give the population of the 13th district access to water and electricity. To do this, the following actions are planned:
   a. finish the housing schemes in progress in the district (Town Council);
   b. request densification from the qualified services (CDQ);

5. Re-launch anti-mosquito operations during the rainy season in order to protect the population against malaria which is a very widespread disease. This can be achieved through cooperation between the town council and the Ministry of Health;

6. Build water kiosks for the people who cannot afford to subscribe to the National Water Company of Benin (SONEB). Toward this end, the following actions are considered:
   a. determine the construction sites of the water kiosks in collaboration with the district head, the area heads and the district development committees;
   b. develop the estimate of various constructions and water subscription;
   c. define the population’s contribution to the realization of the infrastructures;
   d. seek complementary financing from development partners; and
   e. define the means of managing the aforementioned infrastructures after its construction.

7. Build a technical community college in Gbèdegbé. This stems from the fact that there are only two community colleges of general education in the 13th district and they are very far from the area of Gbèdegbé which is in need of either a community college for general education or a technical community college. Toward this end, the following actions are considered:
   a. determine the construction site in collaboration with the district head, the area heads and the district development committees;
   b. develop the estimate;
   c. define the population’s contribution to the realization of the infrastructures;
d. seek complementary financing from development partners; and

e. request the contribution of the State of Benin in equipping the center with working tools and personnel after its construction.

The survey of the living conditions of the households of the 13th district of Cotonou made it possible to have micro indicators on the households. It has the advantage of being more precise and more concrete than the surveys at the national level; thus facilitating the definition of better strategies for the fight against poverty. This survey made it possible for the Town Council to give this district a real face. This beneficial initiative should be generalized to better define the development strategies which are directly beneficial to the households at the local level.

To conclude, the Community Follow-up System of Poverty is an effective tool for development.
Implementation of Community-Based Poverty Monitoring System in Tanzania

Rangya Kyulo Muro

The Municipal Council of Dodoma has adopted and implemented the Community-Based Monitoring System (CBMS) in two pilot areas, namely, Nala village and K/Ndege ward under the auspices of the PEP Network. The project started in May 2006 and is expected to be completed this year 2007. As of this writing, the preliminary results have already been processed, albeit there being some areas that are still being reviewed in order to finetune the report.

Rationale for CBMS Work

CBMS development objectives

The general objectives of the CBMS in Tanzania are:
· To develop a comprehensive municipal information system that captures municipal, ward and village level data, and produces reports and analyses that facilitate good planning and decisionmaking for poverty alleviation; and
· To promote participatory planning and budgeting through the use of the CBMS.

The specific objectives, meanwhile, are:
· To improve the capacity of data managers at the municipal, ward and village units for better data collection, processing and analysis;
· To offer grassroot level communities with simple and easy tools to collect data on poverty indicators for their use in determining the impact of poverty reduction strategies;

*Municipal Town Planner, Dodoma Municipality, Tanzania*
To provide policymakers with data to be used for prioritization of projects, effective planning and monitoring of developmental programs in various communities;

To facilitate the preparation of community, ward and district poverty profiles and development plans;

To strengthen the flow of information and dissemination of poverty data and information among the stakeholders at all levels; and

To test a locally feasible data capturing, processing and dissemination system, without necessarily relying on central government sources.

Importance of local monitoring system – CBMS in Tanzania

Local monitoring system provides the grassroot level communities with simple and easy tools to collect data on poverty indicators, to determine the impact of strategies and to identify the trend of poverty by themselves.

The CBMS is basically a monitoring tool for local communities. Accordingly, its application/implementation will contribute to the Poverty Monitoring System (PMS) in Tanzania that was established in 2001 to track changes in Poverty Reduction Strategy (PRS) priority sectors and impact on income and non-income poverty as described in the Poverty Reduction Strategy Paper (PRSP). The system has been crucial in generating data and information to Government and other actors for planning, monitoring, and policy making. The information have been used to facilitate policy dialogue, as evidenced in policy reviews at the macro, sectoral and Local Government Authority (LGA) levels. The information have further been utilized and disseminated through various policy forums, in particular, the Poverty Policy Week (PPW) which has been an annual event since 2002. This forum continues to be a key event for policy discussions and information-sharing of the PMS.

The original PMS has been revised through a thorough consultative process to provide a national integrated approach to monitoring and evaluation, utilizing the MKUKUTA as the guiding medium-term framework. This includes comprehensive outcome-focused monitoring which builds on lessons from the original PMS. It also includes the consolidation and aggregation of outputs from
ministries, departments and agencies, and local government authorities (LGAs) based on their strategic plans, annual performance reports and medium-term expenditure frameworks. The system is designed to monitor and assess changes during the implementation period of the MKUKUTA (2005-2010). It seeks to reveal the reasons for successes and failures in order to make corrective action and improvements.

**Expected Results/Fulfillments of CBMS**

CBMS is expected to bring in place various results at the local and national levels. At the local level, the system can facilitate the production of poverty profiles and maps, preparation of development plans, and enhancement of local capacity building. Simple tools and core indicators which are locally well perceived for poverty monitoring are also developed. Articulating from the national perspective, the Community-Based Poverty Monitoring System (CBMS) stands to fulfill the following:

- Contribute in fulfilling the role of LGAs in generating data to feed into the National PMS. There are three Technical Working Groups (TWG) under the MKUKUTA framework that are all contributing toward the achievement of the goals of the PMS. These are: Research and Analysis TWG; Survey and Routine Data TWG; and Communications TWG. Thus, the current work will build the capacity of local government actors to know the type of data needed to feed into the PMS and how these data could be collected.

- Facilitate the availability of timely routine data to feed into the MKUKUTA PMS. This will address one of the weaknesses in the Poverty Reduction Strategy monitoring system was the lack of timely routine data.

- Help in providing disaggregated data below the district level to the Tanzania Social Economic Database (TSED). The TSED has been established to serve as a depository for poverty-related data/indicators. These data are organized by sector. As much as it is the wish of the TSED team to disaggregate data to the lowest possible level, this has not been possible below district level because data are not available. Thus, there is a niche in this pilot work in building capacity on data collection.
at the Ward level and even Village level. These data could be deposited in the TSED by region and lowest administrative units and could be used for comparative purposes, thus leading to more informed targeting of development projects.

- Contribute in reducing the cost of conducting large surveys. Capacity building for data collection and for monitoring poverty at the local level is imperative given the fact that it will reduce the need for conducting costly national surveys such as Household Budget Surveys (HBS) and Integrated Labor Force Surveys, among others.

**Design of the System**

**Institutional Arrangements**

The system requires human resources such as local leaders and volunteers at the mtaa, kitongoji, and ward levels in order to accomplish a continuous collection and interpretation of poverty data that can be used to develop and update the CBMS database. This forms a basis for the preparation of development plans. Other involved parties include non-government organizations, CBO’s, and Savings and Credit Cooperative Societies which can play the roles of information disseminators and data sharers. The local community also participates in developing the basic poverty indicators and tools.

To be able to have all the required actors in the system perform their roles well, capacity building was conducted on the approach, data collection and analysis aspects. The involved participants were Village Executive Officers, Ward Executive Officers, extension workers and residents (retirees, and local influential people).

**Indicators**

The indicators used were generated through consultations with other development actors, the Millennium Development Goals, the National Strategy of Growth and Poverty Reduction (NSGPR) and the National Poverty Monitoring System. The factors considered were the CBMS standard characteristics and the local environment of application which focus on the outstanding problems and available resources. The indicators developed and their related sectors are summarized below:
The indicators from Fomu ya Takwimu (FT), the NSGPR and MDGs were added to the list of the indicators that was originally developed by the project (Table 1).

**Table 1. Indicators**

<table>
<thead>
<tr>
<th>Component</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demography</td>
<td>Age groups population, Existing households, Household size, Marital status (FT)</td>
</tr>
<tr>
<td>Education</td>
<td>Primary school enrolment, Completion of at least standard seven (FT), Literacy rate by gender (NSGPR), Skilled folk</td>
</tr>
<tr>
<td>Health and nutrition</td>
<td>Infant mortality rate, Morbidity cases, Health Services (skilled and local) (FT), Prevalence of underweight, Availability of malaria prevention facilities (MDG), Prevalence of micro-nutrition deficiencies</td>
</tr>
<tr>
<td>Water and sanitation</td>
<td>Access to safe water, Access to latrine, 30 minutes go-collect-return water source (NSGPR), Availability of solid waste disposal facility</td>
</tr>
<tr>
<td>Agriculture and livestock</td>
<td>Major food and cash crops, Average yield per hectare (bags), Availability of farming/livestock implements, Availability of backyard gardens, Crop storage facilities, Number and type of livestock, Livestock and crop diseases</td>
</tr>
<tr>
<td>Roads</td>
<td>Passable road to services, 2km Distance to passable road (NSGPR), Means of transport</td>
</tr>
<tr>
<td>Shelter</td>
<td>Housing type, Housing ownership, Land tenure, Status (slum or planned area) (MDG)</td>
</tr>
<tr>
<td>Income and expenditure</td>
<td>Asset ownership (as proxy for income poverty), Proportion of working age population, Expenditure for food and clothing, Membership in Savings and credit co-operative societies (FT)</td>
</tr>
<tr>
<td>Participation</td>
<td>Membership in community-based organizations, Registration in formal elections, Attendance in meetings, Leadership in the community groups</td>
</tr>
<tr>
<td>Peace and order</td>
<td>Crime incidences, Violence rate around the neighborhood, Women emancipation, Cases of beating of wives/husbands, children, Child labor (NSGPR)</td>
</tr>
</tbody>
</table>
The compatibility of the indicators with other national statistics is reflected in the PMS and the TSED which are linked through the NSGPR (Mkukuta).

**Instruments and Training Modules**

*Designing data processing tools:*

Data processing tools have been developed for both manual and computerized processing. Manual processing was divided into three parts:

i. filling up of spreadsheet frames by the enumerators,

ii. tabulation of data to produce a pilot area statistics base, and

iii. aggregation of all the survey area data which were finally analyzed.

In addition, a data entry frame in Ms Excel was developed for computerized processing by the consultant in collaboration with the identified six processors. This was also used to verify the accuracy of manual processing.

A GPS (Geographic Positioning System) gadget was obtained as a gift from the City of St. Albert, Canada (a partner city of the Municipality of Dodoma). The gadget was used to locate and plot the houses (main) and some infrastructures on the maps which were later processed into a GIS environment.

**Data Collection**

The Census approach was employed for data collection which used household questionnaires, official questionnaires and maps. The survey covered Nala village with 2,478 households and K/Ndege Ward with 2,423 households (100% of the households). The enumerators were selected from ward/village workers, retirees and local leaders using the following criteria: (a) they reside in the pilot area; (b) they are literate; and (c) they can perform some basic calculations. These enumerators were trained by using the modules adopted from the CBMS process document and interpreted in the Kiswahili language.
Consolidation and Processing of Data
After the survey, all of the 4,901 completed questionnaires were checked and verified by the enumerators and 20 leaders from each study area. The leaders were there to clarify the answers to reduce the burden of going back to the field. About one percent of the questionnaires were found to contain some errors which required the responsible enumerators to re-interview the households. Errors were mostly related to the household income and expenditure as well as ownership of assets.

Training of Data Processors
The training of data processors by two consultants was conducted via two approaches, namely:

(i) Manual data processing that involved 2 teachers, 2 volunteers (retired officers) and 2 municipal workers (based in the study areas) who worked closely with the CBMS team for 2 days.
(ii) Computerized data processing at the municipal level that involved six processors, including 2 statisticians and 4 others identified from among those trained for 3 days; 2 from the CBMS team; 2 from the study areas; and 2 from the Council.

Data Processing
The identified processors used the developed tools to analyze the collected data with respect to the list of CBMS indicators such that the magnitude of prevalence of each was interpreted to give the findings. Using a sketch map, an exercise of preparing a spot map was done by the enumerators for one Kitongoji. Later on, this exercise would cover the whole village in order to locate every household. A GPS-supported exercise was also done for certain parts of Nala and K/Ndege to locate some households and services. Since this exercise appeared to be time-consuming, it had to be conducted in a slow pace. The output will be integrated eventually in the digital maps in GIS using MapInfo software (but more preferably the Natural Resource Data Base (NRDB)), as the capacity grows.

Two important exercises are currently in progress: generation of poverty maps using MapInfo + GPS software, and installation of databases at each geopolitical level. The database will be maintained
by the municipal workers who will be appointed as overseers in every geopolitical unit.

**Data Validation**

Having obtained the findings concerning each indicator, it was important to make them public so as to pursue a community based validation. Thereupon, a workshop of 30 participants, including one processor, 24 enumerators, 2 local leaders and 3 council representatives from each study area, was held with the Ward Development Committee to validate the findings of the processed data. In K/Ndege Ward, the results were validated on 2 October 2006 while in Nala Village, it was done on 5 October 2006 through two local workshops. One local leader from each of 4 villages, neighboring Nala and 5 wards, neighboring K/Ndege were also invited in order to raise their awareness on the CBMS and its findings. Most of them expressed the interest to adopt the CBMS in their respective areas. The module for the workshops was adopted from the CBMS documents and was prepared in CD-ROM format but was interpreted in Kiswahili for convenient understanding.

The presentation aimed at getting the reaction on data accuracy, gathering of possible explanations of the results and identifying the specific problems and relevant interventions that would lead to the formulation of development plans.

The results of the Opportunities and Obstacles to Development (O&OD) approach were also used to get information on the general views of the villagers that could complement the household data. This was done during a council meeting by voting and ranking based also on the findings of another team of a different project (Community Development Programme) done by a local NGO regarding some identified needs in Nala village during the survey period. Such identified needs were used as inputs to the problems identified in the validation workshop.

Among the identified problems were:

*In Nala village:*

Lack of safe and accessible water sources, lack of clinic, lack of one school, low school enrolment, school dropouts, child labor, prevalence of malaria, trachoma and HIV/AIDS, poor
agricultural practices, low household income, poor housing type, poor sanitation, poor transport, poor land use management, infant mortality, and cattle diseases.

In K/Ndege ward:
Poor waste management, prevalence of malaria and HIV/AIDS, low household income, inactive entrepreneurship, crime and insecurity, beggars, corruption, road accidents, proliferation of squatter housing in open spaces and farming in hazardous areas.

Status of Implementation
The implementation of the CBMS will become operational when the first release of the database is completed so that the preparation of plans and profiles can have a reliable basis. Other wards and villages have shown an interest in implementing the system but this remains as a potential for future replication.

Other potential uses of the CBMS in Tanzania include: (a) monitoring of land use changes especially in the planned urban areas and (b) monitoring of spontaneous unplanned settlements which are encroaching in most of the open spaces and marginal areas.

Next Steps
As stated earlier, the analysis done so far is at a preliminary level as there are more attributes to be explored to capture the implications of the investigated indicators. The following are the upcoming activities.

1. finalization of the analysis and finetuning of the results,
2. production of poverty maps and study area profiles,
3. preparation of development plans of the pilot areas,
4. dissemination of the project results to the stakeholders at local, council/regional and national levels, and
5. finalization of the Technical Report as per the required format.

The dissemination process is still forthcoming and will consist of the following:

- Organization of workshops at the ward, council and national levels,
- Distribution of copies of the final report to various institutions,
• Production of data summaries (CBMS database) at the various geopolitical levels.

The data will be used for the preparation of development plans, poverty profiles, resources targeting and project impact monitoring. Implementation of these activities will involve the Ward/Village development committees in collaboration with the municipal council.

After the implementation of the CBMS process in the pilot areas, it will be replicated incrementally in other wards and villages and subsequently in the whole municipality of Dodoma. This piecemeal approach is believed to be more relevant because a reasonable time is required to mobilize resources and commitment of people concerned in the local communities. It is expected that through the existing role of the Association of Local Authorities of Tanzania (ALAT), the CBMS process will be promoted at the national level.
Replication of CBMS in Dodoma Municipality Towards Scaling Up and Institutionalization of the System in Tanzania*

Susan Eustace Bidya**

Introduction
Dodoma Municipality in Tanzania covers an area of 2,669 square kilometers (sq. km), 625 of which are urbanized. The 2002 National Population and Housing Census listed the population of Dodoma at 324,347, of whom 157,469 (or 48.5 percent) are male and 166,878 (or 51.5 percent) are female. The estimated total number of households is 74,914, with an average household size of 4.3 people.

The municipality of Dodoma is subdivided into 4 Divisions which in turn are divided into 30 wards and 42 villages as shown in the table below.

Table 1. Divisions in the Municipality of Dodoma

<table>
<thead>
<tr>
<th>Division</th>
<th>No. of wards</th>
<th>No. of villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban (Mjini) Division</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Hombolo Division</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Kikombo Division</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Zuzu Division</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>

The 17 wards of the Urban Division with a total area of 426 sq. km., have a total population of 183,650 inhabitants.

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* Paper presented by Rangya Kyulu Muro, Municipal Town Planner, Dodoma Municipal Council, Tanzania
** Municipal Director, Dodoma Municipal Council
Dodoma Municipality is situated in an economically depressed area. Although it has rich agricultural land, it is affected by harsh semi-arid climatic conditions. Traditional agricultural methods also predominate in the municipality.

In the urban areas, the main activities of the residents are commerce, urban farming and civil service employment while in the rural areas, crop farming and livestock keeping are the primary means of existence.

In May 2006, the Municipal Council of Dodoma adopted the Community-Based Monitoring System (CBMS), currently being executed in two pilot areas, namely, Nala village and K/Ndege ward, under the auspices of the PEP Network. The project is expected to be completed this year, 2007.

Because there has not been enough capacity, however, in terms of human resources and appropriate tools for implementing the system, the completion of the project may be delayed. Nevertheless, the stages that have been pursued so far have registered a promising future as the involved communities are giving a commendable cooperation and the council has made reliable commitments in adopting the system.

In view of this, this paper presents the need of replicating the CBMS in other areas in the municipality. It proposes a piecemeal approach wherein a number of villages and wards will be incorporated in the process incrementally.

Overview of the CBMS in Dodoma Municipality
The Municipal Council of Dodoma appreciates the implementation of the CBMS under the auspices of the PEP Network. Apparently, as the application of the system continues in the pilot areas, it has been clear to the Council and other development actors that good planning and decisionmaking requires a comprehensive municipal information system which captures pertinent data and produces useful reports. This can also be seen in the Council’s 2003-2007 Strategic Plan whereby the development of an “evident statistical database” for planning and monitoring purposes was identified as a priority item. In this light, the CBMS becomes a useful tool for all wards in Dodoma Municipality, in particular, and for Tanzania in general.
The proposed CBMS has captured poverty-related data at the village, ward and municipal levels. The system has been pilot tested in one urban ward, K/Ndege, which has approximately 2,400 households, and in one village (rural setting), Nala, which has approximately 2,500 households. It is worth noting that the villages and wards have autonomy in terms of planning and implementation, which implies that the CBMS can fairly be adopted in their specific administration units.

The selection of pilot areas is based on the fact that Dodoma Municipality has both urban and rural settings (30 wards and 42 villages, respectively) of which the latter is rapidly urbanizing. The results of the CBMS project will therefore serve to show the scenario of both urban and rural areas.

**Achievements**

*Village Data Book*

One of the immediate accomplishments of the CBMS implementation in Dodoma is the updated village data book. The household listing exercise was found useful in the verification of the number of households in the village in accordance with the definition adopted for the CBMS system. Based on this exercise, an actual counting of the entire households in the study village and ward was made in order to obtain an exact figure. An up-to-date list of households for each geopolitical level was obtained, complete with the household ID number given to the village office, ward office and the council for various development monitoring purposes.

*Vulnerable Areas*

The system has clearly identified the most pressing problems in the study areas, showing the magnitude of vulnerability such that it is now easier and logical to target the resources with respect to the needs. For instance, while trachoma is problematic in Nala village, malaria appears to be the most prevalent disease in the urban area. The same case applies to the existing disparities in terms of distribution of public services, in particular, to the way women and children are affected by development policies.
Integrated Database

The system is also putting together data and information of various sectors. This will lead to better sharing and more transparent linkages among sectors. For instance, health and education data can be evaluated in such a way that the impacts of the related interventions are fairly predicted. This can be gleaned from the inferences of births and deaths in the determination of schools development.

Expected Benefits

The CBMS has led to a number of benefits that include the following:

- Production of poverty maps will lead to better targeting of the available scarce resources, more effective development plans and more participatory budgeting. In general, a computerized package of the system will allow for the provision of high-level summary analysis in the preparation of poverty profiles and development plans during the replication of the system. It will significantly simplify the storage and retrieval of the data, and improve the accuracy and integrity of the information by reducing the potential for clerical errors that currently exist at each level of aggregation.

- Compatibility of CBMS and O&OD implies an improvement of the current system of data capturing and use because:
  - it has a positive outlook on the community where the community is encouraged to identify available resources to overcome obstacles, thereby fostering self-reliance.
  - it uses participatory tools which assist in the bottom-up planning process, e.g., village registers, files, a village map, transect walk, historical time lines, seasonal calendar, institutional analysis, daily activities calendar by gender, household wealth, focus groups and identification of sources of income and expenditure.
  - it enables the community to identify in logical framework specific objectives, opportunities, obstacles and steps for implementation, among others.

- Linking of the system to the national socioeconomic database (TSED) will serve as a repository of the National Strategy for Growth and Poverty Reduction (NSGPR) information for all
local government authorities under the Reform Program. Over time, policymakers will be able to monitor the impacts of programs and determine whether conditions are improving, getting worse or remaining the same. It can therefore be replicated in other councils.

- Improved cost-effectiveness as evidenced by successes in other countries. Since it involves the participation of the communities in data collection and their primary use, CBMS will be a low-cost and easy-to-sustain system. In most cases, the system will use volunteers for monitoring and enumerators from the community so as to get the required information without the influence of experts or technicians from higher levels. This system has been quite successful in such countries as the Philippines, Vietnam, Bangladesh and Sri Lanka in Asia and Ghana, Benin and Burkina Faso in Africa.

Ways and Means for Scaling up CBMS

After the establishment of the CBMS process in the pilot areas, it will be replicated incrementally in other wards and villages and subsequently in the whole municipality of Dodoma. This piecemeal approach is believed to be more relevant because a reasonable time is required to mobilize resources and commitment of the local communities. It is expected that through the existing role of the Association of Local Authorities of Tanzania (ALAT), the CBMS process will be promoted at the national level. Substantial capacity will be built for the community leaders regarding the importance of the CBMS process and the roles of the residents. This will be done through a number of seminars, production and distribution of flyers and basic training sessions on planning tools and procedures. In so doing, the gained capacity will facilitate the scaling up of the system to include other wards and villages in Dodoma and henceforth other councils in Tanzania.

Institutionalization of the System

Local Level

Every sector will be responsible for disseminating its own data within the sector. Dissemination will include the posting of the information publicly on billboards and notice-boards and the
distribution to concerned groups and organizations of the information in the traditional print format. Frequent sharing of the data will assist in ensuring that the information are continually updated and accurate. Ward and Village Development Committees will be responsible for disseminating the data to the wards and villages.

**National level**
The planned regional and district workshops are the key platforms in the national and local government tiers wherein the links of the system between these two tiers can be articulated. This stage will be attained in the upcoming activities.

**Problems Encountered**
Notwithstanding the accomplishments and benefits of the CBMS, there were also certain problems encountered. To wit:

- Lack of computers has made data compilation and analysis proceed very slowly although the Council has trained a few statistics technicians. The Council intends to buy more computers and assign specific staff members in CBMS activities.
- Low capacity in applying useful systems like the NRDB, GIS and SPSS has made the Council depend on hired consultants. To address this problem, the staff members in the Municipality will be supported to pursue some tailor-made courses on these programs.
- Low response of volunteers to be engaged in the CBMS activities. It is expected that as the system grows, more people at the local level will catch up with their roles especially when the present pilot areas yield the envisaged outputs. The resolutions that will be drafted and issued by the Council as the system becomes institutionalized will give more impetus in the promotion of local level cooperation.

**Conclusion**
In conclusion, a thorough implementation and subsequent completion of the CBMS in Tanzania will address the following issues:
Contribute in fulfilling the role of Local Government Authorities (LGAs) in generating data to feed into the National Poverty Monitoring System (PMS). The current work will build the capacity of local government actors to collect the type of data needed to feed into the PMS.

One of the weaknesses in the Poverty Reduction Strategy Monitoring System was lack of timely routinary data. The CBMS, if also implemented in other parts of the country, will facilitate the availability of timely routinary data to feed into the National Strategy for Growth and Poverty Reduction (MKUKUTA).

The Tanzania Social Economic Database (TSED) has been established as a depository for poverty related data/indicators. These data are organized by sector. As much as it is the wish of the TSED team to disaggregate data to the lowest possible level, this has not been possible below the district level. This is because data were not available. Thus, the aim of the CBMS pilot work in Dodoma is to contribute to capacity building on data collection at the Ward level and even Village level. These data could be deposited in the TSED by region and the lowest administrative units as these data could be used for comparative purposes. This will thereby lead to informed targeting of development projects.

Finally, capacity building for data collection and analysis for monitoring poverty at the local level is imperative given the fact that it will reduce the need of conducting costly national surveys such as Household Budget Surveys (HBS) and Integrated Labor Force Surveys, among others. All in all, the use of volunteers at the local level is among the important characteristics that make the CBMS score high acceptability.
MDG Analysis Using CBMS at the District Level: The Case of Dangme West Africa in Ghana

Felix A. Asante and Cynthia Addoquaye Tagoe

Introduction
Ghana is one of the 191 countries that signed the Millennium Development Declaration in September 2000. As such, the country adopted the Millennium Development Goals (MDGs) which basically aim at accelerating economic growth and overall development of both men and women, with emphasis on poverty reduction, education, good health and environmental sustainability. These MDGs—eight in all—specifically aim at eradicating poverty and hunger, achieving universal education, ensuring gender equality and empowerment for women, reducing child mortality and improving maternal mortality. The rest are aimed at combating HIV/AIDS, malaria and other diseases, ensuring environmental sustainability and promoting global partnership for development.

To achieve these goals within the specified time frame of 2015, the 8 MDGs are structured around 18 targets which are measurable by 48 indicators. In her bid to achieve these goals, Ghana has, through the Ghana Poverty Reduction Strategy I (GPRS) (2002-2005) and Growth and Poverty Reduction Strategy II (2006-2009), also adapted these goals to her own circumstances. Key to the achievement of the MDGs and targets of the GPRS is the availability of appropriate and timely data from the local to the national levels to help monitor progress toward these goals.

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** Researcher, University of Ghana, Ghana
Data available to help monitor progress toward the MDGs and the GPRS targets come from different sources and in various forms. Prominent among these are the Ghana Living Standard Survey (GLSS) and the Core Welfare Indicator Questionnaire (CWIQ) produced by the Ghana Statistical Service. Other sources include the Ghana Demographic and Health Survey (GDHS), annual reports and sector reviews of Ministries, Departments and Agencies (MDAs) as well as Metropolitan, Municipal and District Assemblies (MMDAs). The GLSS and CWIQ surveys provide poverty indicators at the household level and help policymakers assess the poverty situation and trends in the country over a period of time. The GLSS, however, misses out on some important poverty indicators such as voice, exclusion and malnutrition. Because of its global nature and scope, it limits the individual and community from identifying with the results and is very expensive to design and implement on a regular basis, therefore making it irregular in terms of the timing of its implementation. The CWIQ, meanwhile, which attempts to remedy some of the inadequacies of the GLSS, helps to fill in the gaps as far as some social indicators of poverty are concerned. It provides policymakers with a set of simple indicators for monitoring poverty and its impact on living standards in the country. This, however, again fails to provide an opportunity for the individual and community to identify with the poverty situation at their levels. Though nationwide, the GDHS, as the name also indicates, is health biased and therefore does not provide other socioeconomic indicators. The closest one gets are data from the various MDAs at the district level for their central offices and not for the district planning offices. There are also other participatory surveys by civil society organizations in various sectors of the economy but these are localized to small areas and do not allow for comparison. Thus, in effect, there is paucity of data to monitor poverty at the community level and also to allow for comparison. This is a major constraint in the development process and renders the putting in place of appropriate interventions to alleviate poverty at the community level a very difficult task. Policymakers therefore have to use a ‘top-down approach’ which often involves very little analysis of the priorities and perceptions of the people in the communities. It is in the light of this that the governance system in Ghana has been decentralized to the local level since 1988,
consequently making the district assembly responsible for the development of its communities and people.

The main essence of the decentralized system is to involve the local people directly in the decisionmaking process and make them responsible for their own development. Hence, through the District Assembly, they identify their own problems and developmental issues in their communities and develop mechanisms for solving them. Additionally, they need to know the impact of policies implemented in the district on the people. In this way, they will be able to put in place appropriate interventions that will best address the needs of the people. This can be effectively done with relevant, reliable and consistent data at the district level which are notably lacking.

It is against this background that the Community-Based Monitoring System (CBMS) was introduced in Ghana on a pilot basis in 2004 in the Dangme West District of the Greater Accra Region. The objectives are:

· to generate simple and easy-to-collect poverty indicators at the community level to inform policymakers, on a timely basis, of the effects of policies on the standard of living of people at the community level;
· to provide policymakers with data to be used in the prioritization of projects, effective planning and monitoring of developmental programs in the various communities;
· to improve capacity at the district and unit committee levels in the collection, processing and analysis of data at the local levels;
· to strengthen the flow of information and dissemination of poverty data from the national to the committee level;
· to test a locally feasible data processing system, without necessarily relying on central government resources; and
· to achieve the main goal of local governance which is to involve the local people directly in decisions regarding policies that best address their needs.

The CBMS provides a very important tool for the collection and analysis of data to inform progress toward achieving the stated goals within the mutually agreed time frame for implementation.
Objectives of the Paper
The paper seeks to use the CBMS approach in data collection in analysing the MDGs at the district level. Specifically, the paper seeks:

- to discuss the processes involved in the CBMS approach in Ghana,
- to give an insight into Ghana’s progress toward the MDGs,
- to compare the national MDGs with the CBMS indicators for Dangme West District, and
- to discuss the challenges and prospects for attaining the MDGs in Ghana.

In all instances, the national situation will be discussed with respect to the MDGs, with reference to indicators in the CBMS data collected in the Dangme West District.

The CBMS Approach in Ghana
Profile and selection of pilot communities
The CBMS in Ghana started with the recognition of a lack of information on poverty at the community level and the need for such to have effective planning and efficient resource allocation for the development of the community. After discussions with the district officials, the Dangme West District of the Greater Accra Region was selected to be considered on a pilot basis.

The choice of the Dangme West District was made on the basis of its being one of the 6 districts within the Greater Accra Region and the largest in the region in terms of land area. The district has a total land area of about 1,442 square kilometers accounting for about 42 percent of the region’s land area. It is located in the southeastern part of Ghana (Figure 1) and shares boundaries with Yilo and Many Krobo districts in the northwest, Akwapim North district in the west, Tema Municipality in the southwest and Dangme East district in the east. The Volta River and the Atlantic Ocean wash the northeastern and southern portions of the district, respectively. The district capital, Dodowa, is about 25 kilometers from Accra, the capital of Ghana (see Figure 2 for a map of Dangme West District). Despite its location in the region that had the lowest headcount poverty index in 1998/99, some of the poverty indicators in the district (e.g., access to safe sanitation, among others) are not significantly different from indicators in poorer regions and districts.
Dangme West district is one of the hottest and driest parts of the country, with high temperatures for most parts of the year (40°C) and mean annual rainfall of between 762.5 mm and 1,220 mm. The predominant vegetation type found in the district is the sub-Sahelian type with short grass savannah interspersed with shrubs and short trees. The soils are highly elastic when wet but become hard and compact when dry and then crack vertically from the surface, making the soil unsuitable for hand cultivation. Despite this prevailing condition in the district, agriculture is the mainstay of the economically active population there. Their dependence on rainwater, however, makes farming a vulnerable occupation. Added to this are the periodic main crop failures that are common even in the better-watered northern parts of the district.

The total population of Dangme West district is 98,809 as of the 2000 Population and Housing Census. Generally, the district has a
lower population density than the average for the country at 55.3 persons per square kilometer against the national average of 63 persons per kilometer. Of the total population in 2000, 48.2 percent are males and 51.8 percent, females. The dependency ratio (proportion of the population aged 0-14 and 65+ years old to the economically active population, aged 15-64 years old) is 0.79. The Dangme West district is more rural than urban. According to the 2000 population census, 76 percent of the population live in rural areas while 23.6 percent live in the urban areas.

**Stakeholder workshop and design of survey instrument**
The next stage in the CBMS approach in Ghana was the holding of a stakeholders meeting at the district level to discuss the poverty situation in the district with participants helping to refine a draft questionnaire by the CBMS-Ghana Team, which contain relevant indicators. In this workshop, participants included representatives from all the electoral areas in the Dangme West District, local government officials, district level planning officials, opinion leaders in the communities and other members of the communities who commented on the questionnaire and helped refine it for the main survey.
With the recognition that poverty in Ghana is multi-dimensional and characterized by low income, malnutrition, ill health, illiteracy, insecurity and isolation, the following were identified as areas of concern: health, water and sanitation, income and livelihood, basic education and literacy, shelter, peace and order, and political participation. Most of these variables tie in with the Minimum Basic Needs (MBN) Approach identified in the literature as capturing the multi-dimensional characteristics of poverty.

Data collection in pilot communities
Three communities in the Dangme West district, namely: Dodowa, Prampram and Ningo, served as pilot study areas. The District Assembly was instrumental in the selection of enumerators since the CBMS team had no knowledge of what local capacity prevailed. The initial selection, however, yielded representatives of the electoral areas who had low educational levels and were inexperienced. In view of this, teachers within the electoral areas were tapped to administer the questionnaire. The choice of the teachers over the representatives was based on the literacy of the teachers in both English and the local languages and the respect accorded them in the communities. Hence, their selection would ensure the quality of data collected. This, however, had its challenges – the main one was the juggling teachers had to make between their responsibilities when schools were in session and their serving as enumerators.

After the selection, highly intensive and interactive training sessions were conducted in each of the three selected communities by the CBMS resource team using the refined draft questionnaire. During the training, the 10-page questionnaire which seeks to gather information on a number of indicators necessary to determine prevailing poverty levels and improve the quality of life of individuals within the communities was thoroughly discussed. It was then used to collect data from a census of all households in the 3 selected communities in the Dangme West district totaling 6730. The basic sampling unit for the pilot test was the household.
To create a sense of ownership and ensure the final takeover of the system by local authorities, enumerators used for the data collection were selected from the electoral areas within the communities. The District Planning Officer and the Deputy District Coordinating Director supervised the collection of data at the local level and the CBMS-Ghana Team provided training and overall supervision. The questionnaire covered the following:

- Household characteristics - provide information on the basic demographic characteristics of the members of a household, including age, gender and marital status.
- Education – includes information on levels of education and whether or not members of households are in school.
- Political participation - determines the levels of household participation and voice in the country’s political processes which encompass both national and district level elections.
- Employment – includes the types of jobs available within the communities and levels of unemployment.
- Health - captures the availability and accessibility of health facilities as well as common ailments prevalent in the community.
- Child mortality - explores accessibility of mothers to postnatal and antenatal care and its effect on child mortality.
- Housing and shelter – describes the types of dwelling for households.
- Lighting, water and sanitation – refers to access to water and sanitary facilities which may influence the health status of households within a district.
- Income and livelihood - explores the main sources of income for households and their expenditure patterns.
- Peace and order - seeks to identify main sources of conflict within the community that may impact negatively on development.
- Access to social and community services and programs - captures access to community services such as banks, telephones or post offices and programs such as the Poverty Alleviation Fund initiated by the government to provide financial resources for small-scale entrepreneurs within the districts.
Data processing
There was no local capacity for data entry in all the traditional areas where the surveys were conducted. This placed enormous pressure on the team and required trainers at the end of the field work to go through the filled questionnaires with each enumerator to ensure that the questionnaires were filled correctly. Due to the unavailability of local capacity to analyze the data collected from the field, all questionnaires were moved to Accra where they were checked again, coded, entered into the computer and analyzed with the SPSS version 11.

Validation workshops
The validation process involved two steps. First, the data collectors from Dodowa were taught how to extract key poverty indicators simply by tallying the results. Second, the results from the pilot study were presented in a workshop where all the opinion leaders and district assembly officials from the selected communities of the pilot study were invited to give their comments and also help explain some of the findings.

Dissemination and data use
The findings of the CBMS approach in data collection in Ghana have not been fully disseminated. However, the data are available to the Dangme West District Assembly for planning purposes. Plans are underway toward using the findings for digitizing the pilot area map. Findings have also been presented for discussions and for advocacy for the institutionalization of the CBMS approach in the local governance system in Ghana.

Progress Toward the MDGs in Ghana
Poverty is pervasive and a rural phenomenon in Ghana. It is reflected in low incomes, poor health, hunger and malnutrition, among others. Insufficient progress has been made toward attaining the MDGs. Although there are encouraging prospects for some indicators, there are also great disparities within the country (Table 1). Socio-economic indicators show that Ghana is likely to meet the goal of halving the number of people living on less than $1 a day (PPP) by 2015 and halving over the same period the proportion of people who suffer
### Table 1. Ghana’s Progress Towards the MDGs

<table>
<thead>
<tr>
<th>Goal</th>
<th>Target</th>
<th>Indicator</th>
<th>On Track?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Eradicate extreme poverty and hunger</td>
<td>Halve extreme poverty by 2015</td>
<td>Proportion below national poverty line</td>
<td>Yes</td>
</tr>
<tr>
<td>2. Achieve universal primary education</td>
<td>Achieve universal access to primary education by 2015</td>
<td>Gross Primary Enrolment ratio, Net Primary Enrolment ratio</td>
<td>Yes, Yes</td>
</tr>
<tr>
<td>3. Promote gender equality and empowerment</td>
<td>Eliminate gender disparity in primary and secondary education by 2005</td>
<td>Ratio of females to males in primary schools and junior secondary school</td>
<td>No, Yes</td>
</tr>
<tr>
<td></td>
<td>Achieve equal access for boys and girls to senior secondary education by 2015</td>
<td>Ratio of females to males in senior secondary school</td>
<td>NRD</td>
</tr>
<tr>
<td>4. Reduce child mortality</td>
<td>Reduce under-five mortality by two-thirds by 2015</td>
<td>Under five mortality per 1000</td>
<td>No</td>
</tr>
<tr>
<td>5. Improve maternal health</td>
<td>Reduce maternal mortality ratio by three quarters by 2015</td>
<td>Maternal mortality per 100,000</td>
<td>No</td>
</tr>
<tr>
<td>6. Combat HIV/AIDS, malaria and other diseases</td>
<td>Halt and reverse the spread of HIV/AIDS by 2015</td>
<td>National HIV prevalence rate, Reported cases of malaria</td>
<td>Yes, No</td>
</tr>
<tr>
<td></td>
<td>Halt and reverse the spread of malaria by 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Ensure environmental sustainability</td>
<td>Halve by 2015 the proportion of people without access to safe drinking water</td>
<td>Proportion of overall population with sustainable access to an improved water source</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mass with sustainable access to an improved water source</td>
<td>Large rural-urban disparities, Guinea Worm infestation on the rise despite increased access</td>
</tr>
<tr>
<td>8. Develop a global partnership for development</td>
<td>In cooperation with the private sector, make available the benefits of new technologies, especially for information and communication</td>
<td>Telephone lines and cellular subscribers per 100 population and Internet users per 100 population. Personal computers in use per 100 population.</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: Annual Progress Report 2006
from hunger. The broad situation is characterised by great inequalities among social groups, gender bias and unequal levels of development. Ghana has made good progress in reducing overall poverty, recording a decline from 51.7 percent in 1992 to 39.6 percent in 1999 and quite recently to 28.5 percent in 2007. Extreme poverty also fell from 36.5 percent to 26.8 percent and 18.2 percent over the same period, respectively. Spatial, gender and occupational disparities in the distribution of income, however, remain prevalent. Poverty is concentrated in the Northern, Upper West, Upper East and Central regions of the country and among food-crop farmers. The latest report however indicated that poverty has increased in the Greater Accra Region even as a general decline nationwide has been noted.

**Goal 1: Eradicate extreme poverty**

Target 1: The proportion of population living on less than $1(PPP) a day in 1990 is to be halved by 2015.

*Indicator 1: Proportion of population living below $1 (PPP) per day*

In Ghana, the proportion of the population defined as poor (using the poverty line of ¢3,708,900) fell from 51.7 percent in 1991/92 to 39.5 percent in 1998/99 and further to 28.5 percent in 2005/2006. This is complemented by a reduction in the incidence of extreme poverty and the proportion of the population living on less than $1 per day. Figure 3 shows the proportion of the population living below $1 per day. In 1990, about 18 percent of the population were living below the $1 per day and this rose to almost 30 percent in 1995 but it is expected to decline to about 9 percent by 2015. Using the extreme poverty line of ¢2,884,700.00, this proportion has declined from 36.5 percent in 1991/92 to 26.8 percent in 1998/9 and further to 18.2 percent in 2005/06. It is envisioned that with this progress, Ghana should achieve this goal if the economic growth remains as high as it is now.

**Goal 2: Achieve universal primary education**

Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

*Indicator 6: Net enrolment ratio in primary education*

The net enrolment ratio in primary school was low for Ghana in 1990 but by 2001, there has been some improvement which, if
Figure 3. Proportion of population below $1 per day

Source: World Development Indicators database, April 2004

Figure 4. Net enrolment ratio in primary education in Ghana

Source: World Development Indicators database, April 2004
sustained at the current level, would see Ghana achieving the 2015 target (Figure 4).

**Goal 3: Promote gender equality and empower women**

In the specific area of the promotion of gender equality, significant progress has been made in education and literacy. However, inequalities and discrimination still persist, particularly in the access to economic opportunities, employment and leadership positions in public life.

Target 4: Eliminate gender disparity in primary and secondary education, preferably by 2005, and at all levels of education no later than 2015

*Indicator 9: Ratios of girls to boys in primary, secondary and tertiary education*

At the beginning of the 1990s, Ghana had girl-to-boy enrolment ratios in primary school of 0.83. Between 1990 and 2000, the gap between girls’ and boys’ enrolment in primary schools narrowed, reaching a ratio of 0.91 and 0.95 in 2005 (Figure 5). However, this was not enough to achieve the 1:1 target set for primary level by 2005. This target could be achieved by 2015, though, if current trends continue. For the senior secondary (SS) level, there are no reliable data to assess the progress toward the achievement of the target.

**Goal 4: Reduce child mortality**

Significant progress has also been made in health and access to safe drinking water. If present trends continue, Ghana is likely to reach the goals set in these areas.

Target 5: Reduce by two-thirds, between 1990 and 2015, the under-5 mortality rate

*Indicator 13: Under-5 mortality rate*

A lot of progress has been made to achieve this target but the rates are still high. This increased from 108 per 1000 in 1998 to 111 per 1000 in 2003. Achieving this target is not on course.

**Goal 5: Improve maternal health**

Target 6: Reduce maternal mortality ratio by three-quarters by 2015

*Indicator 16: Maternal mortality per 100,000*

Ghana had a high Maternal Mortality Ratio (MMR) of 740 deaths per 100,000 live births in 1990. This went down to 540 deaths in 2000. Despite this decline, though, there is the likelihood
Figure 5. Ratio of girls to boys in primary education

Source: World Development Indicators database, April 2004

Figure 6. Prevalence and death rates associated with malaria in 2000

Source: World Development Indicators database, April 2004
of not achieving the target of 246 deaths per 100,000 live births by 2015.

**Indicator 17: Proportion of births attended by skilled health personnel**

Increasing the proportion of births attended by skilled health personnel is one factor in reducing high maternal mortality. Ghana had 43.8 percent of births attended by skilled health personnel in 1995; this increased marginally to 44 percent in 2002 and 47.1 in 2003. At this rate, the achievement of the 2015 target will be quite difficult.

### Goal 6: Combat HIV/AIDS, malaria and other diseases

**Target 7:** Have halted by 2015 and begun to reverse the spread of HIV/AIDS

**Indicator 18: Prevalence of HIV/AIDS among females aged 15-24 years old**

The HIV sentinel survey in 2003 in Ghana reported an estimate of 3.6 percent prevalence of HIV/AIDS among adult population aged 15 – 49 years old with a significant number of AIDS orphans (about 200,000).

**Target 8:** Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

**Indicator 21: Prevalence and death rates associated with malaria**

Malaria continues to exact a heavy toll on West African countries. In 2000, the prevalence rate was 448 and the death rate was 70 per 100,000 population (all ages) in Ghana (Figure 6).

### Goal 7: Ensure environmental sustainability

**Target 9:** Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources

**Indicator 23: Proportion of land area covered by forest**

The 2005 figure saw a 24.2 percent improvement with an annual rate of deforestation of -1.7 percent over the 2000 figure of -2.0 percent.

**Target 10:** Halve, by 2015, the proportion of people without sustainable access to safe drinking water

**Indicator 30: Proportion of population with sustainable access to an improved water source**
The proportion of the rural population with access to improved water sources increased from 40 percent in 2000 to 46.4 percent in 2003 and 52.0 percent in 2005. Despite these improvements, guinea worm infestation is still on the rise.

*Indicator 31: Proportion of population with access to improved sanitation*

The proportion of the population with access to improved sanitation in Ghana is generally low, especially in rural areas (Figure 7). In 1990, 37 percent in Ghana had access to improved sanitation. By 2002, this had improved to over 40 percent of the rural population. Among the urban population, about 50 percent had access to improved sanitation by 1990. This has tremendously improved in the succeeding decade as 74 percent of the urban population in Ghana had access to improved sanitation facilities by 2002. The big challenge for the country is to exceed the 90 percent coverage by 2015.

**Goal 8: Develop a global partnership for development**

Target 18: In cooperation with the private sector, make available the benefits of new technologies, especially for information and communication

*Indicator 47: Telephone lines and cellular subscribers per 100 population and Internet users per 100 population*

This goal appears rather distant in the sub-region. Ghana had 0.29 telephone lines and cellular subscribers per 100 population in 1990 which increased to 3.34 in 2002 (Figure 8).

**The CBMS and MDGs in Dangme West District**

Table 2 shows the MDGs, targets, indicators and corresponding CBMS indicators for the Dangme West district. These indicators can help assess progress in the MDGs at the local level provided they are done on a regular basis to afford the opportunity for comparison over time and in space.

**Challenges**

The attainment of the targets set in the MDGs in Ghana is subject to a number of challenges, including the following:
Figure 7. Proportion of rural population with access to improved sanitation

![Graph showing the proportion of rural population with access to improved sanitation over time.](image)

Source: World Development Indicators database, April 2004

Figure 8. Telephone lines and cellular subscribers per 100 population

![Graph showing the number of telephone lines and cellular subscribers per 100 population over time.](image)

Source: World Development Indicators database, April 2004
Table 2. The CBMS and MDGs in Dangme West District

<table>
<thead>
<tr>
<th>Goal</th>
<th>Target</th>
<th>Indicator</th>
<th>Corresponding CBMS Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Eradicate extreme poverty and hunger</td>
<td>Halve extreme poverty by 2015</td>
<td>Proportion below national poverty line</td>
<td>Average household income Income and economic activities of household members; Number of household members with a job/business</td>
</tr>
<tr>
<td>2. Achieve universal primary education</td>
<td>Achieve universal access to primary education by 2015</td>
<td>Gross Primary Enrolment ratio Net Primary Enrolment ratio</td>
<td>Existence of schools/distance Educational materials, teachers Elementary enrolment (6-12yrs); Secondary enrolment (13-16yrs); Educational level of household head Household literacy (ability to read and write) Elementary enrolment (6-12yrs); Secondary enrolment (13-16yrs); Disaggregated along gender lines</td>
</tr>
<tr>
<td>3. Promote gender equality and empowerment</td>
<td>Eliminate gender disparity in primary and secondary education by 2005 Achieve equal access for boys and girls to S5 education by 2015</td>
<td>Ratio of females to males in primary schools and JSS Ratio of females to males in SSS</td>
<td></td>
</tr>
<tr>
<td>4. Reduce child mortality</td>
<td>Reduce under-five mortality by two-thirds by 2015</td>
<td>Under five mortality per 1000</td>
<td>Common diseases within community Child and maternal mortality Presence of health workers, hospitals, health posts etc. Distance to such facilities</td>
</tr>
<tr>
<td>5. Improve maternal health</td>
<td>Reduce maternal mortality ratio by three quarters by 2015</td>
<td>Maternal mortality per 100,000</td>
<td></td>
</tr>
<tr>
<td>6. Combat HIV/AIDS, malaria and other diseases</td>
<td>Halve and reverse the spread of HIV/AIDS by 2015 Halve and reverse the spread of malaria by 2015</td>
<td>National HIV prevalence rate Reported cases of malaria</td>
<td></td>
</tr>
<tr>
<td>7. Ensure environmental sustainability</td>
<td>Halve by 2015 the proportion of people without access to safe drinking water</td>
<td>Proportion of overall population with sustainable access to an improved water source Proportion of rural population with sustainable access to an improved water source</td>
<td>Households with sanitary toilet facilities Households with access to safe water</td>
</tr>
<tr>
<td>8. Develop a global partnership for development</td>
<td>In cooperation with the private sector, make available the benefits of new technologies, especially for information and communication</td>
<td>Telephone lines and cellular subscribers per 100 population and Internet users per 100 population</td>
<td>Availability of electricity; Telephone,</td>
</tr>
</tbody>
</table>
Rapid population growth exerting pressure on existing resources.

Slow rates of economic growth and low levels of per capita income resulting in an increase in the absolute number of people living in poverty and the attendant problems of increasing ill health (e.g., the rising incidence of HIV/AIDS, malaria, TB) and malnutrition.

Inadequate volume of reliable and timely data for planning and monitoring of progress, with the resulting difficulty in recording and comparing trends over periods.

Weak institutional structures and inefficient coordination; in some cases, a multiplicity of institutions with overlapping roles and responsibilities.

Prospects

Goal 1: Eradication of extreme poverty
Positive steps toward poverty reduction include the creation of a Ministry for Private Sector Development to provide institutional support to the private sector; increased support for agro-processing and small-and medium-scale exporters through the launching of the President’s Special Initiative in cassava (to boost starch production for export) and textiles (to take advantage of the temporary opening provided by the African Growth and Opportunity Act to increase apparel exports to the US market).

Goal 2: Achieve universal primary education
To improve the delivery of basic education services, the Ghana government has reviewed its free, compulsory universal basic education (FCUBE) program. In October 2004, the government published a White Paper on Education Reform which announced the introduction of a new, universal and continuous basic education program from ages 4 to 15 years old, and thereafter a four-year Senior High School to replace the current three-year Junior Secondary School and three-year Senior Secondary School structure. This reform will create a universal and compulsory basic education system from ages 4 to 15 years old comprising of:

- two years of kindergarten;
Goal 3: Promote gender equality and empower women
A Girls’ Education Unit was established in 1997 in the education ministry to give special emphasis to girls’ education. This was to promote equal access to educational opportunities and improve the status of women and girls. Other measures to move toward gender parity in enrolment include the appointment of a Minister specifically responsible for girl child education. The establishment of the Ministry of Women and Children’s Affairs and a cabinet position for the Minister are efforts made in achieving this goal.

Goal 4: Reduce child mortality
The Ghana Poverty Reduction Strategy (GPRS) gives priority to the health sector and emphasizes primary health care delivery. Thus, expenditures on health as a percentage of total discretionary outlays are expected to increase. In addition, a proportion of the savings from the Highly Indebted Poor Countries Initiative (HIPC) is devoted to social services.

To improve health service delivery to communities, a Community-based Health Planning and Services (CHPS) Strategy has been formulated in order to expand access to health services in local communities, develop sustainable volunteerism and community health action programs, empower women and vulnerable groups and improve interaction between health providers, households and the community. A National Health Insurance Scheme (NHIS) is being implemented to help make affordable the cost of health care.

Goal 5: Improve maternal health
Under the government’s Medium-Term Health Strategy (MTHS), common financing and management arrangements have been set up in the framework of the Sector-Wide Approach (SWAp) through which donors contribute to a common basket to support an annual program of work. Consistent with the goals of the GPRS, the MTHS, 2002-2006 has a theme, “Bridging the Inequality Gap” that focuses on reducing inequalities in access to health services.

Currently, the government is implementing an exemption policy that covers four antenatal visits and delivery. The GPRS provides a
framework for improving the exemption policy to cover obstetric emergencies and life-threatening, pregnancy-related conditions and for reducing mortality due to childhood diseases in the Central, Upper East, Upper West and Northern regions where poverty levels are the highest in the country.

**Goal 6: Combat HIV/AIDS, malaria and other diseases**

The Ghana AIDS Commission coordinates and supports the preparation of plans for 14 sectors, including strong media involvement in and support for awareness creation on HIV/AIDS and the demonstration of Ghana government’s and development partners’ goodwill to make resources available for the fight against HIV/AIDS.

The Roll Back Malaria campaign includes sustained promotion of the use of insecticide-treated nets as a preventive measure. This campaign is being extended to all districts in Ghana.

**Goal 7: Ensure environmental sustainability**

The government’s strategy to address the challenges of natural resource management is largely embodied in the National Environmental Action Plan (1990-2000), the Forestry and Wildlife Policy, the Forestry Development Master Plan (1996-2000), the National Land Policy, the Science and Technology Policy (2000), and the Action Plan for Science and Technology Management.

Effective management of urban water is being addressed through a range of interventions, with private sector participation in the operation and maintenance of water delivery due to be finalized soon. Safe water in rural areas receives priority attention in the GPRS. To accelerate the eradication of guinea worm, expanded provision of safe water in endemic areas is to be fully subsidized.

**Goal 8: Develop a global partnership for development**

The principal policies and programs are within the integrative frameworks of ECOWAS, along with other multilateral and bilateral agreements (such as the ACP-EU accords) and various programs with the Bretton Woods institutions and the European Union, among others.

**Conclusions and Recommendations**

Trends in some of the indicators (e.g., under-5 mortality rates, maternal mortality ratios, the prevalence of HIV/AIDS and malaria) show weak
prospects of achieving the MDGs by 2015 in Ghana unless major changes take place now. Significant progress has been made in the sectors of education, health and access to drinking water. If the present trends continue, Ghana could reach the set goals in these areas. However, without significant commitment by the government and effective mobilization of all stakeholders, it will be difficult to achieve these goals. In the specific area of the promotion of women’s participation, significant progress has been noted in education and literacy. However, inequalities and discrimination still persist, in particular in terms of access to economic opportunities, employment and leadership positions in public life.

Ghana’s new policy orientations, particularly those in favor of poverty reduction and promotion of good governance, are important indicators of progress and can better be assessed with timely and reliable data, especially at the local level which the CBMS approach offers.

Urgent steps that need to be taken in order to have such set of data at the local level include:

- stronger commitment from government to ensure the availability of timely and reliable data to help monitor the progress toward the MDGs at the local level;
- strengthening of local government institutions to ensure efficiency in resource management; and
- building of the capacity of local communities to ensure their involvement in the decisionmaking process. By so doing, they will also be equipped to demand accountability from local government units, especially for the efficient use of limited local public resources.
Somehow, it is good to be the last presenter because I am very new to the Community-Based Monitoring System (CBMS) process and it therefore allowed me time to listen first to all the many stories about and features of the CBMS. After hearing and looking at all the data about the CBMS and the success stories in the Philippines and other countries, I was therefore prompted to change my topic from “Uses of CBMS” to “Potential for Scaling Up CBMS”.

Basically, I will discuss the following in my presentation: (1) need for a CBMS in Ghana, (2) institutional framework for CBMS, and (3) uses and competitive advantages of the CBMS methodology.

The first question is: Is there a need for a CBMS in Ghana?

The challenge in terms of data availability at the local level is the same in Ghana as in many other developing countries. First of all, we have had a lot of centralization of data collection. We also have infrequent and irregular national survey. Disaggregation of data today in Ghana is down to the regional level only. We have just finished a national survey but we were informed that data disaggregation at the district level is not possible. There is also a problem of poor dissemination of national data wherein the release and publication take so long. Hence, the situation on data gaps is similar to that in other countries and this makes for a good rationale for the CBMS implementation in the country.

Second question is: What is the institutional framework that the CBMS can build on in Ghana?

* Based on the transcript of presentation of Mr. Bruno Dery, Deputy Director, National Development Planning Commission, Ghana
For one, we have a decentralization policy in Ghana which is much talked about. Two, central planning is still present. Even though the CBMS is supposed to be a bottom-up approach, I think we still have to convince central agencies that they can also benefit from CBMS and the data that can be generated by the system. The National Development Planning Commission (NDPC) – a central agency with a constitutional and legal mandate for development policy, planning, monitoring and evaluation – has, for instance, been trying several data collection methodologies. Looking at the CBMS, this can thus be a very useful tool for us to use, including in collaboration with our districts because even if we do not collect data, we are expected to produce national plans with inputs from data from all the districts. Three is the strong institutional collaboration as we saw in the case of the Philippines. Central level institutions should at least know about the CBMS methodology and should promote it. The NDPC works very well with the Ghana Statistical Service, the Ministry of Local Government, the Ministry of Finance, and the various Civil Society Organization (CSOs). These organizations as well as other development partners should recognize and understand what the CBMS is all about and promote its institutionalization at the local level. Four, there is a national monitoring and evaluation (M&E) system and it is important that the CBMS is linked to this. And five, there is also a national database system. The NDPC, in collaboration with the Ghana Statistical Service, established the Ghana Information Database System two years ago. We are trying to get the database down to the district. Hence, if we upscale the CBMS, we could directly treat the data we collect into this database. This is important since the CBMS can provide detailed data that can guide development planning.

And finally, what are the potential uses and competitive advantages of the CBMS?

The following are the potential uses of CBMS data in Ghana:

- A window of opportunity to build the capacity of the district planning coordinating units (DPCUs) to monitor and evaluate the district medium-term development plans.
- Source of data for updating existing poverty maps (in all districts).
- Tool for effective programming and targeting of scarce district resources to communities, households and individuals.
Basis in the preparation of district plans and annual progress reports.

Meanwhile, the following are the competitive advantages of the CBMS:

- Its participatory nature.
- Its being a source of poverty data (particularly income data).
- Its being a good tool for MDG monitoring.
- Its being an effective tool for learning and partnership building at all levels.
Implementation of CBMS in Vietnam

Vu Tuan Anh

Rationale for CBMS work
In the last decade, Vietnam has made impressive progress in reducing poverty. The poverty rate dropped from 58.1 percent in 1993 to 37.4 percent in 1998, 28.9 percent in 2002, and 24.1 percent in 2004. The number of the poor has decreased from 40.4 million persons in 1993 to 19.7 million persons in 2004. Despite this achievement however, poverty reduction is still a prioritized national task. Vietnam’s Millennium Development Goals (MDGs) consist of the targets to reduce in the period from 2001 to 2010 by 50 percent the proportion of people living below the poverty line and by 75 percent the number of people living under the food poverty line. Currently, there are national programs related to poverty reduction, among which the newly promulgated National Target Program of Poverty Reduction in 2006-2010 and the Program for Socio-Economic Development in Ethnic Minority and Mountainous Regions in 2006-2010 are the key focus.

Targeting the poor and evaluating the progress of poverty reduction programs require reliable information on poverty situation. This requires the definition of poor status and the delivery of support to poor individuals, households, and communities.

Vietnam has a four-tier administrative system: one central government and three local government tiers. These three local tiers are the provinces (64 provinces / big cities), districts (602 districts and towns), and rural communes and urban wards (10,510). Communes and urban wards have one or two sub-tiers of settlements: hamlet or

* Vice Director, Socioeconomic and Development Center, Vietnam
village in rural areas, and the cluster in urban areas, both of which are not administrative units (e.g., have no public administration apparatus). At the national level, the household living standard survey (HLSS) has been conducted periodically every two years to supply socio-economic information on households, including poverty situation. It supplies comprehensive data for analysis of people’s living standards. However, due to its limited survey sample, results of the HLSS do not directly serve the work at the local, especially grassroots, levels.

To guide the Ministry of Labor, Invalids and Social Affairs, which is in charge of coordinating and monitoring poverty reduction activities, the local governments have been conducting annually the community-based identification of poor households in order to know the addresses of the poor, to allocate the support for the poor and to assess the implementation of poverty reduction policies. The identification of poor households still does not have adequate quality for poverty analysis and development planning since the major indicator for identification of the poor households is solely per capita income. Thus, a poverty monitoring system with more diversified indicators is currently being prepared by the National Target Program for Poverty Reduction and the Program for Socio-Economic Development in Ethnic Minority and Mountainous Regions.

It is to be noted that several development and poverty reduction programs and projects have also been developing and using their own monitoring systems with various indicator sets and data collection methods.

Despite these efforts in establishing and implementing poverty monitoring systems, though, local officers and communities lack the needed information on socio-economic situation in general and poverty status of the population in particular. There are statistical sections at the provincial and district levels which collect information on indicators of national statistic system. Many indicators reflect socio-economic situation of provinces and districts, but they are still not detailed enough and not widely disseminated to the lower levels of administration and communities.

At the grassroots levels (commune, village, hamlet), the socio-economic figures are not kept systematically and reported periodically. The statistics staff in communes are not professional and do not have enough technical skills. Therefore, when data for policy planning or policy impact evaluation are needed, the officers of administrations or
leaders of social organizations have to collect information themselves and keep them in their own diary or private files. Most administrative authorities and social organization officers at the commune level are voted by term election. This therefore means a constant change of personnel, which partly explains why the basic data on local development cannot be collected regularly and kept systematically.

Since 1997, in the framework of the IDRC-sponsored MIMAP Network, the research project on “Poverty Monitoring in Rural Areas of Vietnam” has started to study data availability, needs of local communities on socio-economic data, and capability of communities in data production and use. The pilot implementation of the community-based approach in the community and household survey in some communes showed that the collection of basic information about socio-economic situations, in general, and the poverty scenario, in particular, is very helpful to the work of local officers and non-governmental organizations. Data are systematized at the village and commune levels and can be used immediately by local people in long-term development planning and poverty monitoring strategies. Moreover, the local people, including firstly the staff of local administration and social organizations, are capable to conduct and organize survey if there is an “appropriate technology” of survey implemented. Several options of such survey “appropriate technology” have been developed and tested during the period of 1997-1999. Two types of survey, namely census and sampled survey, were conducted (sampled survey was conducted in 1997-1998 in 3 provinces with 1000 households, census was conducted in 1999 in 4 provinces with more than 10,000 households). Different groups of indicators were tested through implementation of different types of questionnaires. Data were processed by both manual and computerized ways.

Since the year 2000, the CBMS methodology has been used in some scopes for poverty research, management and evaluation of poverty reduction projects at the central level by the Managing Office of the National Program of Poverty Reduction, at the provincial and district level in 5 provinces, and at the project level by the Poverty Reduction Project in two districts in Thanh Hoa province. Poverty is a multi-dimensional phenomenon. It is not only based on household income or expenditure. Therefore, in our experimental CBMS program, poverty is comprehensively reflected in a set of monitoring
indicators that include both value indicators (income, expenditure) and the basic household needs (e.g., food intake, clothing, accommodation, transportation, access to other basic social services). There are three main sets of indicators: (a) the community situation, (b) household living standards, and (c) implementation of poverty reduction policies and measures. The community indicators reflect the situation of development of the community as a whole such as availability of commune infrastructure (schools, roads, electricity, healthcare facilities, etc.). The household indicators have been selected based on livelihood approach: availability of five major types of capital (natural (land), human (labor, qualification), physical (production machinery, housing), financial (income) and social capital (relations with community)). The third group of indicators reflects progress of implementation of poverty reduction policies and measures (provision of health services, child education, credit for the poor). Depending on the purpose of the survey, the structure of indicators set and concrete indicators can be modified. For example, last year, in order to cope with the demand of local partners on the evaluation and assessment of women’s well-being, a set of related questions and indicators has been added to the CBMS tools in Ninh Binh province. It includes indicators of education, employment, participation of women in social activities, power division and family violence. In order to reflect the MDGs, the indicator set also currently includes some indicators such as child mortality, mothers’ health, number of suffered cases of HIV/AIDS and some other diseases.

The core set of indicators used in the last survey in 5 provinces includes the following:

- Number of households and persons
- Age, sex, ethnicity, education, occupation of individuals
- Types and volume of land owned by households
- Number of machines used in production
- Number of animals
- Number of durable consumption goods
- Types of dwelling
- Access to electricity
- Access to safe water
- Availability of sanitary toilet, wash room
- Some diseases (malaria, HIV/AIDS, etc.), mother and child health (mortality, malnutrition).
· Access to health services
· Income sources and volume
· Household’s assessment on poverty reasons
· Access of the poor to some major poverty reduction policies
  (prioritised credit, health assurance, support for housing improvement).

*Instruments of data collection*: Questionnaires are used as the major tool for data collection. There are two types of questionnaires: the household questionnaire and the commune questionnaire.

An example of a simple version of household questionnaire and the indicator set used for poverty analysis are shown in Appendix 1 and 2.

**Data collection methodology**

*Reference period and frequency of data collection*: In the piloted communes, the CBMS is conducted annually in order to supply information on annual changes of poverty and living conditions of population. The repeated surveys are conducted around the same time of the year and with the same samples (communes and households).

*Unit of observation*: The commune and household are the two units of data collection.

*Sampling scheme*: Sample surveys cannot identify the addresses of the poor. To help localities identify poor households and poverty monitoring, the CBMS has two stages for implementing two types of survey:

* In the first year, a census is to be conducted with the aim of presenting a broad socio-economic picture of the community and identify the poor. The poor households are specified by the communities through the results of the survey and participatory assessment of the living standards. Beside the poverty lines (national and local), the communities also use other criteria of basic needs and household property in identifying poor households. A list of the poor households will be reported to the higher administrative levels. Households given a “poor” status will receive support from the government’s poverty reduction and community assistance
In the next years, sample surveys will be conducted to monitor the annual changes. The list of poor households will be scanned and readjusted. Surveyed households will be randomly chosen. Fundamentally, these samples remain comparatively unchanged during the survey rounds to catch all chronological changes in poverty within households. However, the household list sees changes annually to be able to catch up with population changes such as immigration or emigration.

Enumerators: In Vietnam, some local authorities have been trained and assigned regularly to conduct national and provincial socio-economic surveys such as population census, rural and agricultural census, survey for poverty identification, etc. The provincial authorities like Department of Labor, Invalids and Social Affairs, Department of Statistics, Department of Agriculture and Rural Development used to be in charge of the organization of such surveys, including training and supervision of data collection. A number of local staff have basic knowledge and skills in survey taking. It is a favorable condition for CBMS implementation.

Surveyors used to be selected from district authorities, commune administration, hamlet/village heads, social organizations and local intelligence (teachers, medical doctors and retired government officers). The local partner organization, which is the implementing CBMS agency, appoints surveyors. Research teams work with provincial/district administrative offices:

- To explain purposes, methodology and contents of the CBMS.
- To select communes and then discuss with local authorities how to choose hamlets and households (in sampled survey).
- To design and readjust survey tools.
- To supervise data collection.
- To check filled out questionnaires at localities, to code and to ensure the quantity and quality of the collected data.
- To process data and do analysis.

Data processing
There are two stages of data processing.

First, localities process the collected data manually and get
information on simple indicators such as income and poverty rate, percentage of households getting support from poverty alleviation programs and policies, etc. Such information is used instantly for serving the local development planning and poverty reduction program.

A deeper data processing and analysis is further conducted by the “external people” (national, provincial officers and researchers) to get data on more complicated indicators. The collected data are entered in the computer and processed using the Excel software, a popular and easy-to-use program, especially for people in rural areas. The staff of provincial authorities are capable to encode data. A sheet which contains calculation formulas for major indicators has been designed and installed at the provincial level.

Despite the availability of computers in the provincial and district authorities, capacity of data processing of the local staff is still limited. Until now, therefore, the main work of data processing is conducted by the research team.

In this context, poverty mapping is not included as a component of the CBMS in Vietnam for the following reasons:
- As mentioned, the capability in data processing of the local staff is still limited. Mapping techniques require an accurate training, but it is impossible in the framework of our research project.
- Poverty mapping requires additional work during the data collection and encoding process. The use of mapping results also requires some expensive equipment (laptop and LCD-projectors for presentation). It might make CBMS more complicated and costly, and it might not be an “appropriate technology” in the context of most of Vietnam’s rural areas.

Data validation and dissemination

Data validation: The processed data of the survey have been presented to experts of related provincial and district authorities to get comments. Local participants discuss the survey results, accuracy of the data collection and processing, problems of socio-economic development and further steps of implementation of poverty reduction programs. Provincial and district experts inform the commune representatives (leaders of administration, NGOs) of the survey results through meetings.

Dissemination methods: A summary of survey results on major indicators is made available to grassroots users in the form of hard
copies. An electronic version of collected and processed data is supplied to users at the national and provincial levels where computers and qualified staff are available.

Use of CBMS data

The CBMS results can be used for identification of the poor households, assessment of the poverty situation and implementation of poverty reduction policies and measures at the national level and in poverty reduction programs and projects.

Users of the data are local administrations (province, district and commune), local NGOs, social organizations and local people.

In Ha Tay, Yen Bai and Quang Ngai provinces, CBMS is being used by the Section of Social Protection belonging to the Department of Labor, Invalids, and Social Affairs, a main executive agency for poverty reduction and social welfare in the province.

In Lam Dong, the professors and students of the Faculty for Social Work and Community Development, Da Lat University have been cooperating with local government units to conduct the survey. The survey result is used for the formulation of a socio-economic database and served for policymaking, planning and management of the local governmental agencies. CBMS implementation is also a good opportunity for professors and students to integrate education with research, and to apply knowledge into reality of poverty reduction and community development.

In Ninh Binh province, the Women’s Union is an executive agency for CBMS implementation. This is a non-governmental organization - one of a nationwide network in all provinces in Vietnam, attracting and mobilizing the women into social, economical, political and cultural activities in order to improve their living and to increase their role and position in the society. The Women Union of Ninh Binh province uses data for assessing the well-being of households, especially of women, and for monitoring activities of women’s movement in the localities.

Results of the CBMS have also been used at different administrative levels:

(i) Using CBMS in a poverty reduction project

In 2001-2003, the CBMS methodology was used for a baseline survey (in
Implementation of CBMS in Vietnam

Vu Tuan Anh

2001) and repeated monitoring surveys (in 2002 and 2003) in the Poverty Reduction Project in two mountainous districts of Thanh Hoa Province. In cooperation with CECI – the implementing agency of Canada – and the district administration, CBMS was implemented in 34 communes (including 30 communes in the project areas and 4 communes outside the project areas). The survey sample was more than 1000 households. A baseline report and annual monitoring results were supplied to the project management unit and district administration. They were tools for poverty monitoring and evaluation of project activity impacts [Socio-Economic Development Centre, 2001].

(ii) Using CBMS in the system of national poverty observatories
In 2002-2004, the CBMS methodology was implemented in a system of poverty observatories so as to serve the data requirements of the National Programme for Hunger Eradication, Poverty Reduction, and Job Creation. Poverty monitoring surveys are to be conducted every year-end for three succeeding years (2002-2004).

In 2002, a system of poverty observatories has been set up in 12 provinces and cities. There are 20 communes, where 17 are rural communes and three are urban wards. There are more than 4,000 households and 20,000 individuals in the sample, of which 78.5 percent is of the Kinh ethnic (majority ethnic) group and 21.5 percent belong to the minority ethnic group.

Results of annual surveys were supplied to the Managing Office of the National Programme for Hunger Eradication, Poverty Reduction, and Job Creation [Vu Tuan Anh and Vu Van Toan, 2003].

Analysis of some aspects of poverty and calculation of a composite poverty indicator were based on this CBMS database [Louis-Marie Asselin and Vu Tuan Anh, 2004, Vu Tuan Anh, 2005].

(iii) Using CBMS in provincial system of poverty observatories
In 2004-2005, the Departments of Labor, Invalids and Social Affairs of two provinces – Ha Tay and Yen Bai – have cooperated with the MIMAP research team to implement the CBMS in provincial poverty observatory systems.

In Ha Tay – a province located in the Red River Delta – 30 communes in all 13 districts are considered as provincial poverty
observatories. Two rounds of sample survey, which covers 3,700 households and 16,000 persons, have been conducted. Results have been used by local partners for analysis of the poverty rate and different dimensions of poverty with aims to evaluate poverty reduction measures and readjust poverty reduction policies.

In Yen Bai – a northern mountainous province – 10 communes in all eight districts were selected as provincial poverty observatories. Two censuses were conducted on 9,000 households consisting of 40,000 persons. The data collection was completed in June 2004 and May 2005.

(iv) Using CBMS at district level
In 2006-2007, CBMS is being implemented at the district level. In Yen Bai province, the town named Nghia Lo has been selected for setting up a database using CBMS methodology. This town consists of 4 urban wards and 3 rural communes.

In Ninh Binh – a province located in the Red River Delta and in southeast of Hanoi – the district Nho Quan with 13 of the total 26 communes will use the CBMS to create a baseline of socio-economic database.

In Quang Ngai – a province in the Central Coastal Region – 5 communes in the district Nghia Hanh agreed to implement the CBMS.

Similarly, in Lam Dong – a province in the southern Central Highland where most of the population are of ethnic minorities – the district Lac Duong with 7 communes is being surveyed by CBMS.

Lessons learned
The CBMS research and piloting in Vietnam has shown that CBMS should include the following basic principles:

a) Local ownership of CBMS.

b) It is the local people who conduct the surveys themselves in their capacity as surveyors. The “external people” (government officers, researchers) are only responsible for guiding and supervising local residents.

c) The set of indicators reflects multi-dimensional poverty and should meet the immediate demands of local people on community and household data and information.
d) Qualitative and quantitative methods are used in tandem in data collection. To be more specific, the structured interview using a questionnaire ought to be supplemented by group discussions and interviews of key informants in communities.

e) In order to transfer methods, tools and survey results to local residents and authorities, the design of survey tools should follow these principles:

· The questionnaires, software and output indicators have to be simple and easy for local people to understand and use.
· The design of survey tools has to take into account the knowledge levels of the local people as well as the availability of data processing equipment and software in the localities. This is its big difference with the national surveys: At the national surveys, surveyors and data processing staff are skilled experts and well equipped to handle modern technology. They also have enough time for deep analysis of collected data.

f) To institutionalize the CBMS, there ought to be a closer partnership between researchers and governmental authorities (who are in charge of poverty reduction), and non-governmental organizations in the local areas.
Using CBMS for Monitoring Women’s Advancement

Vu Thi Tan

Women’s advancement and role of Vietnam Women’s Union
Vietnam has continuously been making efforts to promote gender equality, improve women’s well-being and strengthen their political and social activeness. Vietnam has successfully implemented the National Action Plan of Women’s Advancement. Among the 12 localized Millennium Development Goals (MDGs) of Vietnam, some clearly reflect tasks of women’s advancement. In particular, Goal 3, “Ensure gender equality and women empowerment”, consists of the following targets:

- Increase the number of women in elective bodies at all levels;
- Increase the participation of women in agencies and sectors at all levels in the next 10 years; and
- Reduce the vulnerability of women to domestic violence.

Various policies and measures have been implemented by the Government, non-governmental organisations and all society to achieve these goals.

Vietnam Women’s Union (VWU) is a unique organization of women at all strata throughout the country. VWU is mandated to strive for the equality and advancement of all women, protect and promote legitimate rights and interests of women. Founded in 1930, VWU has experienced and made important contributions to national liberalization and construction. At present, the VWU has a membership of nearly 11 million belonging to 10,331 local women’s unions in communes...
and towns throughout the country. The organizational system of VWU is divided into 4 levels, namely (i) Central level, (ii) Provincial level (64 units), (iii) District level (601 units), and (iv) Commune level (10,331 units).

Entering the new millennium, the Ninth National Congress of the Vietnamese Women’s Union has mapped out in February 2002 the 6 key action programs of VWU for the 2002-2007 period, among are:

i. Educating moral values and raising the level of capacity and qualifications for women;
ii. Supporting women’s economic development;
iii. Building plentiful, equal, progressive and happy families; and
iv. Formulating and overseeing the execution of gender equality related laws and policies.

VWU currently organises nation-wide movements of “mutual assistance among women in household economic development” and “promoting women to study actively, to work creatively and to nurture happy families”.

Profile of Women’s Union of Ninh Binh Province
Ninh Binh province is located in the Red River Delta in the northern part of Vietnam. The province has an area of 1400 square kilometers. Despite its location in a delta area, 22 percent of the province is mountainous, half of which is covered by forest. The province also has 15 km of sea coast.

The province consists of 6 districts and 2 towns. There are 147 rural communes and urban wards. The population of the province is almost 1 million people, 2 percent of whom are ethnic minority groups.

The major economic activities of the rural population are rice cultivation, animal livestock and handicrafts. Major industry is production of cement and construction materials. The province has advantages for the development of tourism due to the presence of some nationally well-known natural and historical sites.

The province is still poor in economic terms. In 2005, agriculture, forestry and fisheries contributed 30.9 percent of gross domestic product (GDP), while industry and construction contributed 35.7 percent and services, 33.4 percent. The GDP per
capita in 2005 was approximately USD 330, counting only 57 percent of the national average. More than 20 percent of the population is poor. Poverty reduction is therefore one prioritised goal of the province.

The Women’s Union of Ninh Binh Province (WUNB) has more than 2000 local units in all 147 communes, all governmental authorities and almost all enterprises in the province. The WUNB members participate actively in all political, social, economic and cultural development programs in the province. Currently, the WUNB focuses its activities on 4 major areas:
1. Enhancing capacity, improving knowledge and nurturing human dignity of all women.
2. Supporting women in poverty reduction, income generation and development of household economy.
3. Supporting women in nurturing happy families.
4. Strengthening role of WU in policymaking process and protecting women’s rights.

WUNB organizes women’s movements and conducts various types of measures and activities to fulfill the following tasks:
- Organizing propaganda campaigns, educational clubs, lectures, seminars and study tours for women with aims to improve knowledge on justice issues, gender equality, history of women’s movement, etc..
- Building capacity of trainers and social workers for women’s movement.
- Promoting technical transfer and production extension to women; organizing vocational training courses for young women; and supporting job creation for women. Annually, the WUNB organizes vocational training courses for 10,000 women in the province.
- Establishing and managing a system of women’s savings–credit groups. Within a year, about 10,000 women access to loans from microcredit program managed by the Women Union.
- Promoting initiatives of women-led businesses and sharing management experience among women.
- Supporting poor women and women-led households in poverty reduction.
• Educating women on family planning, child and mother health care, child education, protection against AIDS/HIV, domestic violence, prostitution, drugs, etc.
• Promoting women’s participation in political, social and cultural activities.
• Actively participating in policymaking and monitoring process at all levels, especially in women and child related issues.
• Cooperating with local government units and other non-government organizations to protect and promote rights of women and children.

Using CBMS for monitoring women’s advancement

The WUNB uses statistical data and information on socio-economic development in its works. However, there are still not enough data which present the life of communities, households and people, especially data on gender equality and women’s life. The WUNB also needs data for monitoring the implementation of its action plan.

In 2007, WUNB began to pilot the CBMS in the province. The following are the features of CBMS:

• **Type and scope of survey**: Census is implemented. CBMS is implemented firstly in Nho Quan district - a mountainous and the poorest district of the province. The district has 26 communes, 35100 households and 144 thousand people. In this year, half of the number of communes are selected for a census survey. There are totally 16 thousand households in these 13 communes.

• **Indicators**: The indicator set consists of two parts. The first part of the indicator set includes indicators of household situation, which is the same core indicator set of CBMS used in other provinces in Vietnam. This core set of indicators includes the following:
  - Number of households and persons
  - Age, sex, ethnicity, education, occupation of individuals
  - Types and volume of land owned by households
  - Number of machines used in production
  - Number of animals
  - Number of durable consumption goods
Map 1. Location of Ninh Binh Province

- Types of dwelling
- Access to electricity
- Access to safe water
- Availability of sanitary toilet, wash room
- Fuel used for cooking
- Income sources and volume
- Poverty status and household’s assessment on poverty reasons.
- Some diseases (malaria, HIV/AIDS, etc.), mother and child health (mortality, malnutrition), which reflect some key targets of MDGs on health.
- Access to health services
Access of the poor to some major poverty reduction policies (prioritized credit, health assurance, support for housing improvement).

The second part includes indicators of women’s situation and real works of the WUNB. All adult (over 15 years old) female members of households are interviewed on the following:
- Education and vocational qualification level of women.
- Employment and income of women.
- Participation of women in social activities.
- Cultural activities and belief of women.
- Family relations (role of male and female in family planning and decision, domestic violence).

Data collection:
- Tools: Two questionnaires are used for household survey and commune data collection. The household questionnaire has 6 pages as seen in Appendix 1.
- Surveyors and supervisors: WUNB has local units at district, commune and hamlet levels. Leaders and key activists of these local units are involved in the survey. They have basic knowledge on interviews and are experienced in working with people and groups. Leaders of the Commune Women Union are in charge of survey in their communes. Members of the Executive Committee of the Commune Women Union and heads of Hamlet Women Groups are enumerators.

Before and during the survey, leaders of the Women Union presented the purposes of the CBMS and discussed with leaders of local government at provincial, district and commune levels the contents of the survey. The leaders of local government units have been supporting the WUNB in the conduct of the survey. Many officers of the commune and hamlet administration participated in the survey as enumerators.

WUNB officers of the provincial office are survey trainers and supervisors. They have experiences in doing surveys, since they participated in various national and local surveys. Because of the simplicity of the CBMS questionnaire, the training takes a relatively short time (half day).

Data collection is conducted in two months.

Data processing: Data are encoded and processed by officers of the provincial WUNB, using Excel software. The CBMS team provided consultancy and assistance in data processing.

Data validation: Results of the survey are to be printed and supplied to commune leaders, members of the Executive Committee of the Women’s Union at the commune. Validation meetings are to be organised, in which the representative of the district, and commune and hamlet leaders of the government units and Women Union will discuss about development issues of localities and measures of poverty reduction and supporting women.
(f) **Use of survey results**: As of this date, collected data are being still encoded. However, results of data processing of some communes are already available. It shows that CBMS could give useful information on well-being of population in general and women in particular. The information can be used in designing an action plan for community development, women advancement and poverty reduction. In communes where CBMS has been completed, local government leaders and NGOs highly appreciate the results of CBMS.

**Gender equality and women’s advancement through CBMS survey**
Through CBMS, information on some aspects of gender equality, women’s well-being and advancement are made besides other information on household livelihood and community. In this section, some results relating to women life and advancement, gender issues, gathered from three selected communes from among the 13 surveyed wil be presented.

The three selected communes have some different characteristics:
- Cuc Phuong commune is located in a mountainous area. It has a large area covered by forest. The well-known national preserved forest zone, which has an abundant biodiversity, is located here. Most (87.6%) of the population come from the Muong ethnic group. Viet ethnic group (majority) accounts only 12.4 percent of the population.
- Yen Quang is a neighbouring commune to Cuc Phuong. It has a hilly landscape. The Muong ethnic group accounts for 60 percent of the population.
- Son Lai is a typical commune of the plain area. All population are Viet ethnic groups and rice cultivation is the main economic activity.

**Demographic features:**
Table 1 shows that the proportion of women and men in the three communes is similar: women 51-52 percent and men 48-49 percent.

In terms of age structure(Table 2), the proportion of male population at the 0-14 age level is larger than that of female. However, female population has a longer life than male; thus, the proportion of those aged 65 years old and over is larger than that of male. The proportion of people in labor age (15-64) is from 67.5 percent to 71.6 percent in three selected
Difference between male and female numbers is not big in the two mountainous communes but slightly clear in Son Lai, the commune in the plain area.

Disparity in education level reflects gender inequality. Because of this, the “gender goal” of MDGs requires the elimination of inequality in education. In the survey, data of the education level of all over –5 year olds has been collected. It shows gender disparity and provides baseline data for monitoring MDGs implementation.

Almost all of population are literate. Very little number of old people and mental disabled people are illiterate. Despite very small value, the illiterate percentage among women is higher than that of men (Table 3).

In all three selected communes, proportions of women who have both lower and upper secondary education are lower than that of men.

The education level of Viet ethnic groups is higher than that of the Muong ethnic group. This is expressed by comparison of proportions of people having upper secondary education (Table 4).

Table 1. Population of three selected communes

<table>
<thead>
<tr>
<th></th>
<th>Cuc Phuong</th>
<th>Yen Quang</th>
<th>Son Lai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of households</td>
<td>hhs</td>
<td>603</td>
<td>1439</td>
</tr>
<tr>
<td>Population</td>
<td>persons</td>
<td>2636</td>
<td>5836</td>
</tr>
<tr>
<td>Male</td>
<td>%</td>
<td>49</td>
<td>48.1</td>
</tr>
<tr>
<td>Female</td>
<td>%</td>
<td>51</td>
<td>51.9</td>
</tr>
<tr>
<td>Ethnicity structure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viet (majority)</td>
<td>%</td>
<td>12.4</td>
<td>40.8</td>
</tr>
<tr>
<td>Muong (minority)</td>
<td>%</td>
<td>87.6</td>
<td>59.2</td>
</tr>
</tbody>
</table>

Table 2. Age structure of population (%)

<table>
<thead>
<tr>
<th></th>
<th>Phuong C.</th>
<th>Son Lai C</th>
<th>Quang C.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>0–14</td>
<td>23.4</td>
<td>23.8</td>
<td>22.9</td>
</tr>
<tr>
<td>15–64</td>
<td>71.6</td>
<td>72.1</td>
<td>71.1</td>
</tr>
<tr>
<td>Over 64</td>
<td>5</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>
Table 3. Education structure of population (%)

<table>
<thead>
<tr>
<th></th>
<th>Phuong C.</th>
<th></th>
<th></th>
<th>Quang C.</th>
<th></th>
<th></th>
<th>Quang C.</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Illiterate</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.5</td>
<td>0.5</td>
<td>2.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Primary</td>
<td>8.5</td>
<td>5.3</td>
<td>11.6</td>
<td>1.2</td>
<td>10.1</td>
<td>13.5</td>
<td>17.1</td>
<td>13.8</td>
<td>20.3</td>
</tr>
<tr>
<td>Lower secondary</td>
<td>41</td>
<td>39.1</td>
<td>42.8</td>
<td>62.2</td>
<td>61.4</td>
<td>62.9</td>
<td>62.9</td>
<td>66.3</td>
<td>59.7</td>
</tr>
<tr>
<td>Upper secondary</td>
<td>50.6</td>
<td>55.6</td>
<td>45.7</td>
<td>23.3</td>
<td>27.2</td>
<td>19.9</td>
<td>20</td>
<td>19.9</td>
<td>20</td>
</tr>
<tr>
<td>Higher education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.7</td>
<td>1.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Illiterate</td>
<td>0.1</td>
<td>0</td>
<td>0.2</td>
<td>1.3</td>
<td>0.8</td>
<td>1.7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Primary</td>
<td>27.2</td>
<td>22.9</td>
<td>31.3</td>
<td>15.7</td>
<td>12.7</td>
<td>18.7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lower secondary</td>
<td>54.4</td>
<td>55.7</td>
<td>53.1</td>
<td>60.8</td>
<td>62.1</td>
<td>59.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Upper secondary</td>
<td>18.3</td>
<td>21.4</td>
<td>15.5</td>
<td>2.2</td>
<td>24.3</td>
<td>19.8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Higher education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.2</td>
<td>0.3</td>
<td>0.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note:  
Primary education = from grade 1 to grade 5  
Lower secondary = from grade 6 to grade 9  
Upper secondary = from grade 10 to grade 12.
Table 4. Educational structure by ethnicity and sex

<table>
<thead>
<tr>
<th>Viet Ethnic Group</th>
<th>Phuong C.</th>
<th>Yen Quang C.</th>
<th>Quang C.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Illiterate</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Primary</td>
<td>8.5</td>
<td>5.3</td>
<td>11.6</td>
</tr>
<tr>
<td>Lower secondary</td>
<td>41</td>
<td>39.1</td>
<td>42.8</td>
</tr>
<tr>
<td>Upper secondary</td>
<td>50.6</td>
<td>55.6</td>
<td>45.7</td>
</tr>
<tr>
<td>Higher education</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Muong Ethnic Group</th>
<th>Phuong C.</th>
<th>Yen Quang C.</th>
<th>Quang C.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Illiterate</td>
<td>0.1</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>Primary</td>
<td>27.2</td>
<td>22.9</td>
<td>31.3</td>
</tr>
<tr>
<td>Lower secondary</td>
<td>54.4</td>
<td>55.7</td>
<td>53.1</td>
</tr>
<tr>
<td>Upper secondary</td>
<td>18.3</td>
<td>21.4</td>
<td>15.5</td>
</tr>
<tr>
<td>Higher education</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Women in both ethnic groups have lower educational levels than men. The percentage of women who have primary and lower secondary education is larger than that of men while the percentage of women who have upper secondary education is lower than that of men.

Employment of women and household income:
In general, the sectoral labor division between men and women in rural communities is still not significantly diversified among communes (Table 5).

Approximately 50-60 percent of the population work in agriculture, forestry and fisheries. There are minor differences between males and females working in this sector. In Cuc Phuong commune, the proportion of women is more than that of men; both proportions are the same in Yen Quang commune while proportion of men is more than that of women in Son Lai commune.

The non-farming sectors like trade, services, industry, handicrafts, construction, and transport involve very few people, only 3.0 percent in Cuc Phuong commune, 2.2 percent in Yen Quang commune and 0.3 percent in Son Lai commune. More men work in this sector than women.

In public services, more men work in the government administration but more women work as teachers and, health nurses. Therefore, the gender structure of public servants in communes is diversified, depending on the context of communes.

Besides a main occupation, many people also have additional jobs to generate more income. Some farmers do small trading, some others do handicrafts or work as casually hired workers. Since the income from agricultural jobs is low, income from additional jobs is more than the income from main jobs in many cases. Among female laborers, 6.2 percent in Cuc Phuong commune, 20.0 percent in Yen Quang commune and 16.2 percent in Son Lai commune responded that they have second jobs.

In rural areas, one can not calculate individual income because each household is a production- and income-generating unit. All members of the household contribute their labor, cash income and other sources in household’s common business. In the survey,
Table 5. Occupation (% population)

<table>
<thead>
<tr>
<th></th>
<th>Phuong C.</th>
<th>Yen Quang C.</th>
<th>Quang C.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Male Female</td>
<td>Total Male Female</td>
<td>Total Male Female</td>
</tr>
<tr>
<td>Farming, forestry, fishery</td>
<td>51.8 50.5 53</td>
<td>58.9 58.9 58.9</td>
<td>59.2 60.9 57.7</td>
</tr>
<tr>
<td>Trading, services</td>
<td>0.9 0.3 1.4</td>
<td>1.4 1.5 1.4</td>
<td>0.1 0 0.1</td>
</tr>
<tr>
<td>Industry, construct, transport</td>
<td>2.1 2.9 1.3</td>
<td>0.8 1.3 0.4</td>
<td>0.3 0.3 0.3</td>
</tr>
<tr>
<td>Public servants</td>
<td>2.5 2.4 2.6</td>
<td>0.4 0.5 0.3</td>
<td>1.2 1.2 1.7</td>
</tr>
<tr>
<td>Students</td>
<td>25.6 26.4 24.9</td>
<td>16.6 18.4 14.9</td>
<td>22.5 22.5 22.5</td>
</tr>
<tr>
<td>Retired</td>
<td>6.6 5.1 8.1</td>
<td>11.1 8.8 13.4</td>
<td>8.3 8.3 9.8</td>
</tr>
<tr>
<td>Children (&lt;16) not going to school</td>
<td>9.4 10.8 8.1</td>
<td>9.8 9.9 9.7</td>
<td>8.1 8.1 7.9</td>
</tr>
<tr>
<td>Disabled</td>
<td>0.3 0.5 0</td>
<td>0.2 0.3 0</td>
<td>0.2 0.2 0.1</td>
</tr>
<tr>
<td>Others</td>
<td>0.8 1 0.7</td>
<td>0.8 0.5 1.2</td>
<td>0.1 0.1 0.1</td>
</tr>
</tbody>
</table>
household income, its structure and per capita income were used as the indicators for measuring household’s living standard and poverty.

The collected data show that income of households is still low (Table 6). On average, a household in Cuc Phuong commune has only 20.5 million Vietnam Dong (equivalent to 1270 USD per year), a household in Yen Quang commune has 7.8 mill VND (485 USD) and a household in Son Lai commune has 10.0 mill. VND (620 USD). Monthly per capita income in Yen Quang commune is below the national poverty line (200 thousands VND) while the indicator of the Son Lai commune is just a little higher than the poverty line and that of Cuc Phuong commune is double that of the poverty line.

The structure of income sources shows the real situation of household economy and potentials of development. For example, incomes from forestry in two mountainous communes – Cuc Phuong and Yen Quang – are very little, while the forest coverage is high in those communes. The non-farming activities in all three surveyed communes are almost not developed. These require more intensive measures for promoting development of non-agricultural jobs.

Among the poor households identified by communities in Cuc Phuong commune, 19.1 percent are woman-headed households, and 95.2 percent are households of Muong ethnic group. In Yen Quang commune, 37.1 percent of poor households are woman-headed, 67.7 percent are households of Muong ethnic group. Finally, in Son Lai commune, 36.6 percent of poor households are woman-headed.

**Participation of women in social activities:**

Participation of women in social organisations is a measurement of their activeness in social life and is a tool for monitoring advancement of women.

In the survey, we collect data on membership of adult women (15 years old and over) in all political and social organisations which operate in communities. There are such organisations like the Vietnam Communist Party, the Youth Union, the Women Union, the Farmers’ Union, the Red Cross Association, etc.

The data show that comparing communes in the mountainous area, with communes in plain areas, more women participate in social organisations. In particular, the Women Union involves a larger percentage of women as members. This indicator of Son Lai
commune is doubly as large as that of the two remaining communes (Table 7).

There are no significant differences in activeness of participation of women in activities of the Women Union. About 60-70 percent responded that they regularly participate in the meetings, training courses, clubs, agricultural extension, microcredit groups which are organised by the Women Union. Seventeen to twenty percent do not participate and the rest participate but only sometimes. The Women Union will study more deeply how to attract more women to activities of the women movement (Table 8).

**Cultural activities and belief of women:**

Women’s knowledge improvement is reflected through information on their cultural activities like watching television, listening to radio, and reading books and newspapers. The survey shows that currently, television is the main tool of knowledge transfer in rural areas. However, there is a significant percentage of women who have limited access to this tool (sometimes or never

---

**Table 6. Household income**

<table>
<thead>
<tr>
<th></th>
<th>Cuoc Phuong C.</th>
<th>Yen Quang C.</th>
<th>Son Lal C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household’s income in a year (mill. VND)</td>
<td>20.5</td>
<td>7.8</td>
<td>10</td>
</tr>
<tr>
<td>Per capita income in a month (thousand VND)</td>
<td>407.6</td>
<td>159.3</td>
<td>237.6</td>
</tr>
<tr>
<td><strong>Structure of household income (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultivation</td>
<td>43.9</td>
<td>36.1</td>
<td>34.9</td>
</tr>
<tr>
<td>Livestock</td>
<td>19.9</td>
<td>14.7</td>
<td>17.2</td>
</tr>
<tr>
<td>Forestry</td>
<td>0.2</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Fishery</td>
<td>0.6</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Trading</td>
<td>3.7</td>
<td>1.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Handicraft, construction, transport, other non-farming activities</td>
<td>1</td>
<td>2.5</td>
<td>3.1</td>
</tr>
<tr>
<td>Salary from stable employment</td>
<td>14.3</td>
<td>8.4</td>
<td>7.6</td>
</tr>
<tr>
<td>Salary from casual hired works</td>
<td>6.3</td>
<td>18.8</td>
<td>16.8</td>
</tr>
<tr>
<td>Pension, allowance</td>
<td>8</td>
<td>14</td>
<td>12.9</td>
</tr>
<tr>
<td>Remittance from relatives</td>
<td>1.1</td>
<td>0.8</td>
<td>1.3</td>
</tr>
<tr>
<td>Other incomes</td>
<td>0.9</td>
<td>2.3</td>
<td>0.5</td>
</tr>
</tbody>
</table>
watched television). In the two mountainous communes, it is more than 60 percent and in the plain commune, it is almost 30 percent.

Access to books, journals and newspapers is very limited. Sixty-five to seventy percent (65-70%) of women do not have the opportunity to read publications although they are all literate. Women who read daily used to work in government administration or were teachers, health service staff and had other intellectual works as shown in Table 9.

In order to understand more the intellectual aspect of women, we collect information on their belief in religions and visiting religious facilities (church, pagoda, etc.) to attend religious rites as gleaned in Table 10.

**Family relations:**
Gender equality is to be improved first and foremost within households. The relations between family members (role of male and female members in family decisions, labor division, domestic violence) are included in the survey.

Relating to power distribution in the family, 4 issues were asked:

a. Implementation of family planning;
b. Decision on family’s important affairs;
c. Managing of household’s daily expenditure;
d. Decision on education and employment orientation of children.

<table>
<thead>
<tr>
<th>Table 7: Participation of women in social organisations (% over-15 women)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total memberships / Total number of women</td>
</tr>
<tr>
<td>Vietnam Communist Party</td>
</tr>
<tr>
<td>Youth Union</td>
</tr>
<tr>
<td>Women Union</td>
</tr>
<tr>
<td>Other organisations</td>
</tr>
<tr>
<td>Leaders of hamlet</td>
</tr>
<tr>
<td>Officers of commune administration and council</td>
</tr>
</tbody>
</table>
The results of the survey show similarity and difference in the role of husband and wife in the family’s affairs among communities as noted in Table 11.

Domestic violence is also one of the key issues in which the Women Union pays attention to. Through the CBMS, some information

### Table 8. Activeness of participation in activities of the Women Union (% of responses of women)

<table>
<thead>
<tr>
<th></th>
<th>Cuc Phuong C.</th>
<th>Yen Quang C.</th>
<th>Son Lai C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regularly</td>
<td>62</td>
<td>70.6</td>
<td>62.6</td>
</tr>
<tr>
<td>Sometimes</td>
<td>16.9</td>
<td>12.1</td>
<td>18.8</td>
</tr>
<tr>
<td>Not participate</td>
<td>21.1</td>
<td>17.4</td>
<td>18.6</td>
</tr>
</tbody>
</table>

### Table 9. Cultural activities of women (% of adult women)

<table>
<thead>
<tr>
<th></th>
<th>Cuc Phuong C.</th>
<th>Yen Quang C.</th>
<th>Son Lai C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watching television:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>57.8</td>
<td>57.5</td>
<td>71.4</td>
</tr>
<tr>
<td>Sometimes</td>
<td>40.3</td>
<td>36.9</td>
<td>24.0</td>
</tr>
<tr>
<td>Never</td>
<td>1.9</td>
<td>5.6</td>
<td>4.7</td>
</tr>
<tr>
<td>Listening to radio:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>22.8</td>
<td>13.5</td>
<td>17.0</td>
</tr>
<tr>
<td>Sometimes</td>
<td>59.9</td>
<td>58.5</td>
<td>30.1</td>
</tr>
<tr>
<td>Never</td>
<td>17.3</td>
<td>28.1</td>
<td>52.9</td>
</tr>
<tr>
<td>Reading books and newspapers:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>11.7</td>
<td>3.2</td>
<td>6.8</td>
</tr>
<tr>
<td>Sometimes</td>
<td>24.0</td>
<td>27.1</td>
<td>26.9</td>
</tr>
<tr>
<td>Never</td>
<td>64.3</td>
<td>69.7</td>
<td>66.2</td>
</tr>
</tbody>
</table>

### Table 10. Religious activities of women (% of adult women)

<table>
<thead>
<tr>
<th></th>
<th>Cuc Phuong C.</th>
<th>Yen Quang C.</th>
<th>Son Lai C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considering herself as:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>0.2</td>
<td>0.1</td>
<td>21.0</td>
</tr>
<tr>
<td>Buddhist</td>
<td>1.4</td>
<td>0.8</td>
<td>19.2</td>
</tr>
<tr>
<td>Belief in other religions</td>
<td>33.6</td>
<td>2.5</td>
<td>10.3</td>
</tr>
<tr>
<td>Non-religious</td>
<td>64.8</td>
<td>96.6</td>
<td>49.5</td>
</tr>
<tr>
<td>Attending religious rites:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regularly</td>
<td>5.0</td>
<td>0.6</td>
<td>13.0</td>
</tr>
<tr>
<td>Sometimes</td>
<td>8.5</td>
<td>9.6</td>
<td>28.2</td>
</tr>
<tr>
<td>Never</td>
<td>86.5</td>
<td>89.7</td>
<td>60.7</td>
</tr>
</tbody>
</table>

The results of the survey show similarity and difference in the role of husband and wife in the family’s affairs among communities as noted in Table 11.

Domestic violence is also one of the key issues in which the Women Union pays attention to. Through the CBMS, some information
on domestic dispute and violence have been collected, summarized and reported. This helped the leadership of the Women Union at the commune, district and provincial levels to monitor the situation and prepare action plans.

Concluding remarks
CBMS is an appropriate method for collecting information of human well-being, including women advancement. Using CBMS, non-governmental organisations can generate the necessary data for their social works. With CBMS’ simplicity of data collection, involvement of local human resources and multidimensional measurement of development, it becomes a useful tool for monitoring poverty reduction, human development and women advancement.

In the coming years, the WUNB will expand the scope of CBMS implementation and use. The CBMS results serve to promote women advancement, poverty reduction and socio-economic development in the Ninh Binh province.

Table 11. Gender equality in family (% of responses)

<table>
<thead>
<tr>
<th></th>
<th>Cuc Phuong C.</th>
<th>Yen Quang C.</th>
<th>Son Lai C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who implement family planning measures:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Husband</td>
<td>1.9</td>
<td>7.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Wife</td>
<td>88.3</td>
<td>70.7</td>
<td>44.6</td>
</tr>
<tr>
<td>Both</td>
<td>9.7</td>
<td>22.0</td>
<td>54.5</td>
</tr>
<tr>
<td>Who takes decision on family’s important affairs?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Husband</td>
<td>57.6</td>
<td>61.7</td>
<td>18.4</td>
</tr>
<tr>
<td>Wife</td>
<td>9.1</td>
<td>11.4</td>
<td>9.6</td>
</tr>
<tr>
<td>Both</td>
<td>33.3</td>
<td>26.9</td>
<td>72.0</td>
</tr>
<tr>
<td>Who takes decision on family’s daily expenditures?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Husband</td>
<td>3.6</td>
<td>4.1</td>
<td>2.7</td>
</tr>
<tr>
<td>Wife</td>
<td>81.2</td>
<td>72.5</td>
<td>80.0</td>
</tr>
<tr>
<td>Both</td>
<td>15.2</td>
<td>23.6</td>
<td>17.3</td>
</tr>
<tr>
<td>Who takes decision on education orientation of children?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Husband</td>
<td>8.3</td>
<td>27.9</td>
<td>1.8</td>
</tr>
<tr>
<td>Wife</td>
<td>8.3</td>
<td>11.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Both</td>
<td>83.3</td>
<td>60.6</td>
<td>88.7</td>
</tr>
</tbody>
</table>
Working Toward a Nationwide Commune-Based Monitoring System for Cambodia

Try Sothearith*

The Community-Based Poverty Monitoring System (CBMS) was successfully pilot tested in Cambodia in 2003-2005 by the Cambodia Development Resource Institute (CDRI) in close collaboration with the National Institute of Statistics (NIS) and the Seila programme. It provided valuable results which satisfactorily describe the different facets of poverty in 6 communes of two different provinces. The pilot project has successfully promoted links between the communes and the provincial and national level planning processes through the use of CBMS data. The project has developed the capacity of local authorities to implement the CBMS in their localities. To meet the long-term objective of creating a sustainable system to locally monitor poverty reduction over time, the project has placed emphasis on institution and capacity building at the local level and leadership by the NIS under the Ministry of Planning (MOP).

There is an urgent need to understand poverty dynamics. Thirty-five percent of the population is estimated to live under the poverty line, being about half a dollar a day per capita. NIS, a knowledge-based institution in Cambodia, takes a lead in establishing a nationwide CBMS with active cooperation with government and non-government agencies.

To meet the long-term objective of creating a sustainable system to locally monitor poverty reduction over time, the project will place emphasis on institution and capacity building at the local level.

* Department of Demographic, Statistics and Census Surveys, National Institute of Statistics, Cambodia
Knowledgeable villagers in the Village Development Committee (VDC) will be recruited and trained to undertake the household surveys and process data manually under the management of the commune councils and under technical supervision of the Project Supervisory Team led by the NIS. It is envisaged that Cambodia will gradually employ the CBMS to the maximum extent possible way. A successful pilot CBMS is the more persuasive way of ‘selling’ the system to the Government and other donor agencies that support decentralization in Cambodia.

The CBMS provided a basis for the MOP to draw on experience in combination with the qualitative method of identification of poor households by other NGOs in order to establish a national system of identifying poor households. The MOP has established a “Working Group on Poor Household Identification” (WGPHI) of which the CDRI and the NIS are members. The working group has been studying a set of indicators that best predict the poverty status of the households with the objective to establish a simple, statistically sound tool that can be implemented to identify poor households nationwide to serve the targeted purpose. It is envisaged that the CBMS will further contribute to this process. After the proposed second phase, the two processes could be merged. Currently, the working group is still in the process of finding a set of proxy indicators. There is a possibility that the CBMS can test the draft instrument adopted by the WGPHI.

Cambodia is committed to undergo a long process of decentralization. As part of this, a local election was conducted in February 2002 and lately in April 2007 to elect “commune councils” charged with local development planning and implementation. The importance of local governance is well recognized by all of Cambodia’s stakeholders and many are working to contribute to enhance the success of this reform process. NIS, as the only institution approved by law to create statistical activities up to the commune level, has been tasked to help in a new research program on developing statistics for local development planning, a five-year commitment strongly supported by the Cambodian Government and major donors.

A CBMS will nicely complement such decentralization efforts in a concrete way and contribute to the successful functioning of the new decentralized state apparatus. As mentioned above, Cambodia lacks a community-based monitoring system, although there is a
Working Toward a Commune-Based Monitoring System

Try Sothearith

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commune database collected through administrative reports under the Seila/PLG Programme initiative. Naturally, commune councils need adequate information generated in a systematic and reliable way in order to effectively conduct their needs assessments, planning, monitoring and evaluation of development projects. The best way to achieve this is to establish a system and have it operated in a consistent manner by the commune councils, with technical support from the Provincial Statistics Office and other agencies. Clearly, when local capacity is built to take over the CBMS, it will be more cost effective than sending enumerators from the capital city as in the past national and community-based surveys. Engaging local involvement and responsibility in the survey will contribute to local ownership and ensure local use of data. Currently, the national surveys generate data only for analysis at the national level and provide no database for the local authorities. In fact, a large part of communes are statistically left out in the national sample surveys.

Objective
The general objective is to build up a census commune database methodology for poverty monitoring and development planning at the commune level and to strengthen the local capacity of the province, the district staff and especially the commune councilors in survey methods and data processing, analysis and use.

Relevant information regarding the individual and the household, especially on demography, education, occupation, disability, health, housing characteristics, water and sanitation, power, expenditure, disaster, property, violence and death are provided:

· To give detailed information for the commune-based poverty monitoring and analysis.
· To give practical, scientifically generated data to commune councils for their effective planning, monitoring and evaluation of development projects.
· To produce Commune Poverty Monitoring Reports based on the CBMS results.
· To build capacity of the selected commune councils in survey methods and data processing, analysis and use.
· To promote the link between commune and provincial/national level planning processes in utilizing CBMS data.
· To cement the link between PMATU and NIS and commune councils and to prepare for an eventual nationwide CBMS.
· To promote a firm process of decentralization which the Government and donors have placed high commitment on.

The Design
This is the commune census wherein all households in each village have been selected for the interview.

Selection of Sites
A total of 22,298 households in three districts of three provinces have been selected for the CBMS sites. The sites under Phase I (six communes) were also selected for this Phase II. Three communes (Prek Norint, Samrong Khnong, and Prek Luong) were chosen from Ek Phnom district of Battambang province; three communes (Snuol, Khsem, and Sre Char) were in Snuol district of Kratie province. Six communes (Kampong Chen Cheung, Msar Krong, Trea, Rung Reoung, Banteary Stung, and Preah Damrey) were selected from Stung district in Kampong Thom province. Details of the sites are found in Table 1.

### Table 1. The detailed information on the selected sites

<table>
<thead>
<tr>
<th>Selected Site (Communes)</th>
<th>No of Villages</th>
<th>No of HHs</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Battambang</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samrong Knong</td>
<td>5</td>
<td>2,089</td>
</tr>
<tr>
<td>Prek Norin</td>
<td>10</td>
<td>2,501</td>
</tr>
<tr>
<td>Prek Long</td>
<td>7</td>
<td>1,759</td>
</tr>
<tr>
<td>B. Kampong Thom</td>
<td>66</td>
<td>9,405</td>
</tr>
<tr>
<td>Tria</td>
<td>16</td>
<td>2,223</td>
</tr>
<tr>
<td>Maskrang</td>
<td>11</td>
<td>1,857</td>
</tr>
<tr>
<td>Kampongchen Cheung</td>
<td>6</td>
<td>1,349</td>
</tr>
<tr>
<td>Rongroeurng</td>
<td>9</td>
<td>966</td>
</tr>
<tr>
<td>Banteaystung</td>
<td>15</td>
<td>1,943</td>
</tr>
<tr>
<td>Preahdamrey</td>
<td>9</td>
<td>1,067</td>
</tr>
<tr>
<td>C. Kratie</td>
<td>21</td>
<td>6,544</td>
</tr>
<tr>
<td>Snuol</td>
<td>7</td>
<td>2,783</td>
</tr>
<tr>
<td>Sre Char</td>
<td>6</td>
<td>2,338</td>
</tr>
<tr>
<td>Khsem</td>
<td>8</td>
<td>1,423</td>
</tr>
<tr>
<td>TOTAL (A+B+C)</td>
<td>109</td>
<td>22,298</td>
</tr>
</tbody>
</table>

Banteary Stung, and Preah Damrey) were selected from Stung district in Kampong Thom province. Details of the sites are found in Table 1.
Instruments Design

The questionnaire(s) were developed and revised on the basis of the last pilot CBMS. As recommended during the CBMS meeting, individual information are to be used in this phase. Items such as marital status, age, sex, literacy level, education, access to school, access to health care, reasons for dropout from school of children, occupation, child labor, the question on disabilities and fertility and death were added to the questionnaire. To update the instruments, consultations were made with the advisory team. Pre-testing was also used to revise the questionnaire. Finally, four instruments were adopted to be used in CBMS for data collection covering the indicators collected from the household, the village up to the commune level.

Form A: Household Listing Form will be used to record preliminary information of each household and at the same time to have a mapping of each household in the village. This tool will be used in conducting household interview(s) (see the report and attached Form A).

Form B: Household Questionnaire is the tool used to collect data from the household. This questionnaire when summarized will contain the most important data needed for CBMS report.

Form C: Village questionnaire, CBMS Village Questionnaire, is used to collect information at the village level. The indicators covered are on health services, agricultural land and chemical fertilizer utilities, village infrastructure and social disorder and domestic violence.

Form D: Commune Questionnaire which consists of indicators on school information, health services, agricultural land and rice yield, infrastructure and external assistance at the local level.

Other Forms: Controlling forms for supervisors and enumerators, Report of Supervision, Age Conversion Sticker Label are also used. Posted Stickers to identify building and household will also be used in this phase.

The household questionnaire is used to list members in the household. Basic information on the characteristics of each person include sex, age, relationship to the head of the household, education
and disabilities, etc. The topics of the household questionnaire include
(from form C):
- Demography
- Education
- Occupation
- Disabilities
- Health
- Fertility information
- Housing condition
- Energy (source of light, fuel, etc)
- Source of drinking water and sanitation
- Household expenditures
- Household Income
- About crises or household disadvantages
- Household property
- Feeding animal
- Agricultural land
- Violence, and Security and Order
- Mortality

**Concept and Definitions**
The survey adopted international standard definitions and concepts as recommended by the United Nations for international comparability. However, some concepts were modified to serve the needs and to suit the conditions of the country.

Only selected definitions and concepts are presented in this report. Reference can be made to the SESC Enumerator’s Manual for a more detailed explanation of terms that have been used in the survey. There were no national classification schemes on industry, occupation or expenditure based on standard international classifications. Abridged national classification schemes on industry, occupation and expenditure were prepared for the survey. They are available at NIS.

**Housing Unit**
A housing unit is structurally separated and an independent place of abode. It may have been constructed, built, converted or arranged for human habitation such as commercial, industrial and agricultural buildings or natural and man-made shelters such as caves, boats,
abandoned trucks, culverts and similar structures which are used as living quarters.

Household
A household is a social unit consisting of either:
   a) One person who makes provision for his or her own food or other essentials for living without combining with any other person; or
   b) A group of persons living together who make common provision for food or other essentials for living. The persons in a group may pool their incomes and have a common budget to a greater or lesser extent. They may be related or unrelated or a combination of both.

Head of Household
The head of household is the adult member of the household who is accepted and recognized by the other household members as head.

Literacy
Literacy is the ability to read and write a simple message. A person is considered literate if he or she can both read and write a simple message in any language or dialect. A person capable of reading only his own name or numbers or can read but not write and vice versa, is not considered literate.

Occupation
Occupation refers to the type of work, trade or profession performed by the individual during the reference period. If the person is not at work but with a job, occupation refers to the kind of work that the person will be doing when he reports for work.

First occupation
If a person has more than one occupation, the one in which the person spends most of his working time is considered as the principal occupation. If the person is engaged in only one occupation, then that will be his/her principal occupation.

Secondary occupation
Secondary Occupation is any kind of work or job that a person does for pay, profit or family gain in addition to the first occupation.

Household Expenditure
Household expenditure refers to the expenses or disbursements made by the household purely for personal consumption. It excludes expenses in relation to farm or business operations, investment ventures, purchase of real property and other disbursements for business operations, investment ventures, purchase of real property and other disbursements that do not involve personal consumption. Household expenditure consists of the following:

a) Value of food consumed and value of goods/services and services paid for, whether in cash or in credit during the reference period;

b) Value of goods and services received as gifts;

c) Value consumed from the output of agricultural and non-agricultural activities of the household;

d) Imputed value of owned/rent-free house;

e) Imputed value of goods/services received as fringe benefits from the employer of part of the salaries and wages of employed household members during the reference period which were also consumed during the reference period.

Household Income
Household income includes the following:

a) Income from work such as salaries and wages;

b) Income from other sources such as net receipts in the operation of non-agricultural or agricultural activities;

c) Imputed rental value of money/rent-free house and lot;

d) Value of goods received as gifts.

CBMS Commune Census Organization
The survey/census organizational structure is shown in the following diagram. The NIS Director General functioned as the one responsible for the control and supervision of NIS Staff and the staff from the Provincial Planning and Statistics Services who functioned as supervisors. A senior Statistician functioned as the Project Director while the Statistical Assistants comprised the NIS-CBMS Office project staff. They were responsible for conducting survey design, systems
and programming for data processing, technical supervisor during all phases of survey/census operation, conducting training of field staff and preparing of final reports.

The work of field enumerators were supervised by field supervisors, one field supervisor in each province, one field supervisor in each district and three supervisors in each commune supervising the work of their respective assigned areas. These people edited the completed questionnaires.

The middle level staffs of NIS and Provincial Planning and Statistics Services were engaged as supervisors. The success of the fieldwork depended so much on the recruitment, training and deployment of the provincial and local staff. The engagement of the provincial and local staff for field work supervision and enumeration made it possible to enjoin the active cooperation of commune and village workers for the survey/census.

Field Operation
Pre-testing
As what has been done during the pilot project, pre-testing of the system instruments was adopted. The trainees spent one day for pre-testing. Each enumerator was requested to interview at least two households, one small and one large, to experience different sizes of households. The pre-testing is aimed to get feedback from the enumerators and possibly rectify any unclear questions or omit questions that are not applicable. During the pre-testing, supervisors and supervisory members visited and observed every enumerator while interviewing the household.

The CBMS phase II questionnaire was revised using the 2004 piloted CBMS questionnaire as the basis and through comments and suggestions from the continuous discussions with relevant partners. The revised 2006 CBMS questionnaire contains some individual information which were not done in the year 2004 such as kinds of disabilities, reason for drop out from school of children, etc. (see Form B Household Questionnaires).

After each session of data collection training, a pre-testing training was conducted to test the trainees on the following capabilities: 1) absorptiveness, 2) strength capacity of field supervisors, 3) ability to encode for enumerators, and 4) accuracy
in checking for local supervisors. After each pre-testing session, feedbacks were discussed, adjustments and recommendations were made.

On the average, it will take 40 minutes to complete the whole questionnaire. This is also dependent on the size of the household. If it was big and there were plenty of activities being done, it would take almost one hour or more. One problem that was resolved with regards to the absence of the head of the household during the interview was that any household member aged above 18 years can represent the head of the household.

Some indicators and sub-indicators were amended after the pre-testing such as educational background on the reason why they dropped out from school by adding more codes like “stopped by parents”, a case found at the pre-interview when we ask the reason why the children stopped studying. Amending was also done with reason of disability by adding a code on domestic violence cases having disability. Moreover, the questions asked were simplified to ease the understanding of ordinary people. All abovementioned issues were raised and collected and put into discussion at the end of the afternoon session.

The pre-testing of the questionnaire was to the advantage of the actual census. The questionnaire became error-free and more accurate. The enumerators and supervisors became well versed in interviewing, encoding and checking for errors. Problems and constraints encountered during the pre-testing were easily solved since it was discussed while the advisory team was present.

Recruitment of Enumerators
Basically, the initial idea of employing school teachers as enumerators in this phase has proved appropriate. Usually, school teachers were employed to conduct the population census and general election administration in Cambodia. Since the CBMS survey would take around one month of full time work, the timing to hire school teachers is good for this CBMS survey since it coincides with the school year break.

Members of the Village Development Committee, who have become part of the voluntary Commune Planning and Budgeting Committee, have been recruited jointly by the commune councils and the Supervisory Team. They were later trained to become enumerators.
Those with a good command of quantitative skills will also be trained to be data processor(s). Former enumerators of the pilot CBMS were given priority to join the phase II project because of their experience and already earned skills.

The village chief was not considered for any substantial role in the survey because he has a lot to offer and could play a helpful role without acting as interviewer/enumerator. As in the pilot phase, the village chiefs assisted the enumerators with geographical guidance, mapping and arrangement of appointments with the households. The commune councilors act as supervisors, field editors and do manual data processing and analysis.

Training of Field Workers
A training on data collection was conducted for a total of 307 trainees, including village chiefs and commune councilor(s). The training lasted for three (3) days and one extra day for pretesting. It was found that school teachers and former enumerators of the pilot CBMS absorbed instructions more quickly compared to the non-teachers.

In the Stung district, which is composed of 13 communes, the training was done effectively by having three communes in each session for easy group handling, instead of training the huge group all at one time. A session consisted of 75 participants on the average. As of the present, 173 participants from six communes (which were divided into two groups) were already trained in Kampong Thom. The rest of the communes will have their training this coming November. Since each batch was composed of at least 75 participants, the speakers had to use the microphone so they could be heard. Training was conducted at the classrooms of primary or secondary schools in the area.

During the third day of the training, the participants were requested to interview each other using the household questionnaire. The respondent acted as a head of household and was made to answer all the questions as read by the interviewer and then they changed their roles such that the interviewers became respondents. The exercises using the questionnaires were collected and corrected by the lecturers (supervisory members). Feedbacks were collected after each exercise and were discussed during the lecture time. These exercises were done in all of the training sessions for data collection. Participants were
provided the floor to raise ideas and comments. Past experiences especially those found in the 2004 pilot project were also discussed.

Fieldwork launch and supervision

Household listing

Field work was launched immediately after the field enumerators’ training. The local enumerators, in cooperation with the village chiefs and the commune councilors, started to do mapping before household listing. The village chief drew his own village’s draft map assisted by the enumerator. The village chief also assisted the enumerators by giving geographical guidance and making household interview appointments.

The enumerator(s), with the draft map as their guide, listed the identified households and posted stickers on the strategic places outside of the house where it is safe and easy to see.

The village chief and the enumerators were to discuss among themselves which was their starting point and which direction they will take until they reach the last household. The households list and the identification of the household were drawn on the map.

The household listing exercise is to provide the ordinal number of households from one side of the village to another. A form for household listing was provided to the enumerators. The household listing form provides building/house number, household number, name of household head, address, number of male and female and total of usual members, and occupation of household head. The ordinal number of household is the serial number of questionnaire for the household. It is used as an ID number of the household.

The household listing exercise served the purpose of verifying as well as updating the number of households in the village(s), based on the definition adopted for the CBMS system. Also in this exercise, the exact number of households is counted. Stickers written with province code, district code, commune code, village code, building/house number and household number are posted on the door or in a safe place that can easily be seen. The enumerator should use and write down the serial number of the household from the posted sticker in the household questionnaire before interviewing. Or the enumerators can copy the household ID number that needs to be written on the questionnaire from the household listing. The village chief and the commune councils can also use the household list for other purposes.
For the task of household listing alone, depending on the size of the village, the interviews took 2 to 4 days per village. The enumerators worked reasonably well under close supervision of a commune council member, district and provincial partners, who reported directly to the supervisory team.

**Household interviewing**

Interviewing starts after household listing and mapping is completed. Depending on the size of the village, all interviews took about one month for each village. It takes one or one and a half hours on the average to complete a questionnaire. The enumerators work under close control and supervision of the commune council members, provincial and district partners who must report every day to the supervisory team. The enumerators were required to wear ID cards while in the village.

The interview is postponed in case the head of the household or any eligible member is not present. Appointments were arranged with the households whose members worked far from the village. In case of reachable distances, enumerators made interviews at the business or workplace or farm places. For households whose members worked outside the village area or in the countryside where they could not be reached for appointments or are not available during the time of data collection, they were identified as locked-door households.

**Field supervision**

The provincial and district partners as well as the village chiefs and commune councilors took part in supervising the enumerators. A commune council member reviewed papers of two or three villages, depending on the size of villages in a commune. If a commune consists of more than nine villages, a commune member takes four to five villages under his/her supervision. It was observed that communes that consist of more than ten villages have a small size of households. If questions or issues encountered could not be solved in the field, enumerators could ask either the commune councilors who acted as supervisors, the district or provincial partners or go directly to the supervisory team members.

Supervisory team members visited and supervised at least two times per province. Spot checking was done to clear whether the
information collected by enumerators were properly asked or coded. Supervisory members checked all enumerators and randomly picked up the filled up questionnaires to rectify mistakes and make correction(s). The corrected questionnaires serve as a sample so that the interviewers will avoid repeating the same errors. During the fieldwork, the supervisory members were very attentive in checking possible errors of all enumerators, ensuring that these errors are avoided in the future and to avoid the piling of mistakes. The manner of supervision is very important in this survey methodology to ensure the quality of the data.

Consolidation and processing of data
The processing of survey results is designed in two stages:
- First stage: Manual editing, computer processing and analyzing of the results
  - Village: manual checking and editing
  - Commune: manual editing and coding
  - District: supervised manual editing and checking and verifying
  - Province: Data entry, computer cleaning, analysis of data and preparation of preliminary report (village and commune) from the analysis using identified computer software
  - National Level (NIS): Preparing the full report for the commune and the district
- Second Stage: after results have been compiled in Stage I, the questionnaires were sent back to the commune for manual processing and analysis-making for their needs. In this stage, the training for manual processing will be conducted for selected enumerators, the village leaders and the commune councilors. They are the key persons in the commune, thus, they have to be involved in the project. The tools for manual processing will be prepared for use to process data in the village and commune. After data cleaning, the manual data entry and tallying will be performed by selected enumerators for each village. In some communes, where the enumerators do not have good numeric skills, the commune council members assume the responsibility to process the data. It is the commune
council members’ responsibility to have the project checked and to validate the data processing activities.

- Village Level: former enumerators and leaders were involved in activities like processing and analyzing simple outputs needed and prepared reports for village.
- Commune Level: commune councilors (members of the team) were involved in the manual processing, analysis and preparation of the report for the commune. During the reporting time, the commune councils will also be responsible for the processing, aggregation and production of tabulations for the commune level.

Activities in first stage

A. Development of data processing tools
As mentioned earlier, a participatory approach was used to develop data collection and processing tools to meet the objectives of the project. The questionnaire was developed, pre-tested and revised, always with the close coordination and collaboration of the commune councilors. The main final 6-page household questionnaire is presented as Form B.

B. Manual editing of data
After the enumerators have completed all questionnaires from a village, these were checked, verified and the answers were coded by the trained commune council members. These commune council members are supervised by the district and provincial CBMS team members and after manual coding is accomplished, the questionnaires are then submitted to the provincial leader for machine processing.

Manual checking begins from the time the completed questionnaires were received from the field. Manual editing tools have been developed. Manual editing is divided into three parts: (i) the enumerators check all questions and answers for every interview questionnaire in their village, (ii) data were checked by the commune councilors (supervisor during data collection) in their commune by using the instruction manual for editing data, and (iii) although the field supervisors had checked the questionnaires, preliminary checking was carried out at the districts by the district and the provincial CBMS team member before the questionnaires were accepted.
Manual editing and coding at the commune level were conducted by 3 manual editors and supervisors in each commune who were trained by the project staff. A detailed instruction manual for manual editing and coding was prepared for the guidance of the editors. Incomplete and doubtful questionnaires were returned to the field enumerators and supervisors who arranged revisits to the households. All completed and checked questionnaires are sent to the provincial planning and statistics department for machine processing (data entry, analysis and results). The instruction manual for manual editing and coding is in the Khmer language. All the data and results will be sent to the CBMS network after having been translated into English.

C. Computer processing
After manual data cleaning, data entry is done at the provincial level by CBMS team members of the province and the provincial planning and statistics staff. Data entry will take more than one month to be completed. Because of the lack of PCs, the services of only a few staff in the planning office can be tapped in order to enter data. Before entering data, the CBMS team members at the province and the provincial planning and statistics staff will have to undergo training of the SPSS software program which includes data entry, data cleaning and analysis. The CBMS supervisory team members from the central office supervised the data entry and data cleaning. Less than two percent of the questionnaires had errors. In cases where there are errors, the concerned enumerator was requested to re-interview the said household. Errors were mostly related to household income, expenditure and assets.

The CBMS team developed tools for data entry. SPSS and Excel spreadsheets that were used for computerised processing were developed by the provincial planning statistics officer. SPSS and Excel were used in the preparation of data entry software and SPSS also used for cleaning the data to verify the accuracy of the manual processing and data analysis of the results for the commune and district levels. The data files created through this system are in SPSS format and the variables in each data file can be identified using the data dictionary that is based on SPSS.

The input documents were derived from the CBMS questionnaires and the data entry system was designed to input data of each type of questionnaire separately. The household questionnaire (Form B) was created separately in three parts (i) individual data file called individual file (File A), (ii) fertility data file called fertility data file (File B), and
(iii) household data file (File C). The listing Form (Form A) and the household questionnaire (Form B) were used to create separate files for each village.

Data entry for computer processing was only done at the provincial level. This cannot be done at the district level due to the lack of manpower, computer facilities and electricity. With the limited number of computers and staff at the provincial level and with the large number of respondents, it was decided to send some of the questionnaires coming from Kampong Thom province to the NIS for data entry.

**Personnel involved**

For the data entry of the census results, in Battambang province, a total of 8 staff were involved, wherein 4 came from the planning and statistics department and the other 4 came from SEILA (LGU). In Kampong Thom province, since there was a lack of available human resource, only 4 staff in the planning and statistics department were involved and 5 others came from the NIS and the Ministry of Planning (MOP). For the data entry done in two places in Kampong Thom and in NIS, a total of 9 staff were involved. And in the Kratie province, a total of 8 staff members were involved, 6 from the planning and statistics department and 2 from SEILA (LGU).

**Number of computers used**

The computer used in data entry for CBMS is the computer set in the Planning and Statistics Department. In each province, some of the computers are of very low capacity and can only use Excel for data entry. In Battambang province, only 1 computer can be fully utilized for data entry and 5 computers under the SEILA program but they can only be used if they are available or free from SEILA regular work. Kampong Thom province has only 2 computers used for data entry, one belonging to a UNICEF project and another to the Statistics office in the province but they can only use Excel for data entry. In Kratie province, there are 5 computers used for data entry, of which 2 are under the statistics office and 3 under the SEILA program.

D. Training of data processors

Training of data processors was conducted in two parts: manual editing training at the commune level, and the computerized data processing
at the provincial level. At the commune level, all enumerators and supervisors have been trained in manual editing. Simple data editing instruction manual tools were developed. In each commune, the training course has been conducted in two parts, the first one to give an overall understanding of data processing, and the second part to follow up the implementation and resolve problems as they occurred. It was a valuable method that after explaining and showing examples of data processing, all participants participated and did practice exercises, in the data processing and after the exercises they raised questions / inquiries / difficulties. It should be noted that data processors with high school education did better than others.

At the provincial level, 10 statistics officials at the provincial planning and statistics office were selected and trained to perform computerized data entry. An application frame in SPSS and Excel spreadsheet was developed and installed for them. It was useful to have involved the statistics officials in this job. Some of them already had experience in data entry. However, there were not enough computers with the capacity to install the SPSS program and thus, Excel had to be used instead.

**Final Report**

Analysis and validation of the survey results

The most challenging effort here was to determine the poverty line for each commune and the proportion of poor households in the village and commune. This was done on the basis of consumption expenditure per capita, in line with the adopted national definition. However, based on the CBMS pilot results from the first phase in 2004, the poverty line of 1,500 riels was adapted for the commune poverty. The main reason for the adjustment of poverty line appeared to be the inflation that has occurred since 2004 till 2006. Based on the above result and after consultations with the enumerators and the commune councils, this poverty line was raised to 1,900 Riels (US$0.46) per day per person in line with the national poverty line. The main argument here is that the intent of the CBMS exercise is not only to estimate poverty at one point in time but also to measure poverty over time. Thus, as long as the poverty line is fixed and adjusted by inflation, it can serve the purpose of measuring change in the number of households living below the poverty line.
Development of Poverty Monitoring Indicators
A set of core indicators for the project is outlined with regards demography, occupation, education, housing, land, water, health, disability, household expenditure, income, assets, livestock, and domestic violence. It is drawn from consultations with partners and the study of their working documents. A number of variables may duplicate those already contained in the Seila Programme’s Village Data Book, which must be filled out by the village chief. Since the CBMS employed a census approach, and given the critical importance of these variables, they will remain in the core set in this census. Comparison and verification against each set of data can be made between the two approaches for quality improvement. From this core set of indicators, a household questionnaire has been designed as shown in the Appendix. The number and complexity of the questions were severely constrained by the fact that data were to be processed manually and that local enumerator’s capacities and experiences were limited.

The Report
The survey report will be produced at four levels:
- Commune level: The report of CBMS for each selected commune and the results down to the village level
- District level: The report of CBMS for each selected district and the results down to the district and commune level
- Provincial level: The report of CBMS for each selected province and the results down to the district and commune level
- National level: For complete survey report of all provinces

The following are the contents of the report results:

I. Household and Population Characteristics (village and commune level)
   1. Number of population by gender
   2. Number of population by status: single, married widowed, divorced
   3. Number of population by age group
   4. Sex ratio
   5. Relationship to head of household
   6. Dependency ratio
7. Marital status by gender
8. Nationality by gender

II. Education (village and commune)
1. Literacy level
2. Literacy by gender
3. Literacy by age group
4. Literacy by sex of household head
5. Educational level by gender
6. Educational level by age group
7. Educational level by sex of household head
8. Age at first attending school by gender
9. Grade level by single age by gender (currently studying)
10. Average schooling by age group and gender
11. Access to school (distance from house to school) by gender
12. Access to school (distance from house to school) by educational level
13. Drop out ratio by gender
14. Drop out ratio by sex of household head
15. Drop out ratio by gender and household head occupation
16. Reason of dropout by gender
17. Reason of dropout by sex of household head
18. Reason of dropout by head of household occupation

III. Occupation and Employment (village and commune)
1. Occupation by gender (primary and secondary occupation)
2. Occupation by age group (primary and secondary occupation)
3. Occupation by gender and by sex of head of household (primary and secondary occupation)
4. Child labor by gender
5. Child labor by age
6. Child labor by gender and by sex of head of household
7. Child labor by gender (currently schooling)
8. Child labor by gender (out school)

IV. Disability (village and commune)
1. Type of disability by gender
2. Type of disability by age group
3. Reason of disability by gender
4. Reason of disability by age group
V. Access to health care (village and commune)
1. Place sought for health care by gender
2. Place sought for health care by gender and by sex of head of household
3. Place sought for health care by age group
4. Distance to health care

VI. Fertility and Mortality (village and commune)
1. Child ever born (CEB-Total)
2. Child alive on the date interviewed
3. CEB for the last 12 months
4. Mortality rate (Total)
5. Child mortality rate (under 1 year)
6. Child mortality rate (0 to 5 years)
7. Mortality rate (aged more than 5 years)

VII. Housing (village and commune)
1. House ownership
2. House ownership by sex of head of household
3. Average of house size
4. Average of area of homestead land
5. Type of wall
6. Type of roof
7. Type of floor

VIII. Sources of power supply (village and commune)
1. Type of sources of lighting
2. Type of main fuel used for cooking

IX. Source of clean water and sanitation
1. Sources of water use in wet season
2. Sources of water use in dry season
3. Type of toilet use
4. Type of drinking water
5. Sleep in mosquito net

X. Income and Expenditures (by major Items)

XI. Crises or Household disadvantages
1. Household with crises or disadvantages
2. Average of cost for seriously ill
3. Average of cost loss in disaster
4. Average of cost loss of crops destroyed by pets
5. Average of cost loss of pets that died
6. Average of cost loss by robbery

XII. Household Assets (village and commune)
Among the items of information gathered from the commune census are household facilities and amenities such as ownership of transport and communication equipment such as cars, motorcycles, bicycles, computer, and telephone, and household appliances such as radio, television set and stereo.

Livestock and poultry (Household village and commune)
1. Cows
2. Buffalos
3. Pig
4. Chickens
5. Duck
6. Goats
7. Sheep
8. Crocodiles
9. Other

XIII. Agriculture land by household (Household village and commune)
1. Rainy-season land
2. Dry-season land
3. Perennial crops land
4. Season crops land
5. Other agriculture land
6. Total agricultural land
7. Two season-rice land

XIV. Violence, security and order (within last 12 months) (Household village and commune)
1. Domestic violence
2. Domestic violence by sex of head of household
3. Sexual abuse
4. Crime killed
5. Violence by other person
6. Robbery
7. Seeking for help if problem occurred by gender

XV. Poverty profiles
1. Poverty indicators
2. List of poor households
3. Poverty maps

Disseminations of results
The CBMS results were disseminated at the local and national levels as follows:

National Level: The CBMS results will be disseminated to all partners of the project and to all relevant government and non-government institutions through a national workshop. Efforts will be made to “market” the project to prospective donor agencies and to the government so that they will continue to expand the CBMS. Ideally, the joint Government-donor PLG Program will take ownership of the CBMS and incorporate it into their nationwide program.

Both government and non-government agencies will be invited to use the CBMS data for a diagnostic study of the poverty situation in the selected communes. The information can also be useful in the designing of policy interventions and the targeting of the vulnerable groups, including the poorest of the poor in the communes.

Local Level: While the ownership of the survey by the commune councils is an expected outcome of the project, the CBMS results will be disseminated beyond the selected communes. It is expected that the provincial authorities will further disseminate the pilot CBMS experience to other communes for consideration and potential adoption, through their regular meetings.

The outcomes from the CBMS will provide the basis for the production of a “commune poverty monitoring report”, which will be the main tool for the commune council members to better monitor and evaluate the impacts of development policies and programs undertaken in their communities, and to make informed decisions about the allocation of resources. A combination of community poverty monitoring reports will provide information for the national poverty monitoring system.

The flow of information on data results is presented in Figure 2.

Results of CBMS for Prek Loung Commune, Ed Phnom District, Battambang Province

Household and Population Characteristics
A household is a social unit consisting of either (a) one person who
makes provision for his or her own food or other essentials for living without combining with any other person or (b) a group of persons living together who make common provision for food or other essentials for living. The persons in a group may pool their incomes and have a common budget to a greater or lesser extent. They may be related or unrelated or a combination of both.

A household consists of a household head and its household members. The head of the household is the adult member of the household who is accepted and recognized by the other household members as head. A person is counted as a household member if he/she lives in the house or has been absent for less than 12 months.

The data in the following tables provide specific information on total number of households, the total population per commune with the breakdown into percentage in male, female and various age groups as well as the average household size and the percentage of women headed households.

Number of households and population
Table 2 shows the percentage distribution of the population by gender for each village. Except in one village(Bakroteh), the females outnumbered the males. The predominance of the females over males
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is most pronounced in Bak Amreak where there are about 85 males for every 100 females. But in Bakroteh, there are about 101 males for every 100 females. The commune’s overall sex ratio is having 94 males for every 100 females.

Number of household and household size
In all of the villages, the average household size is 5 persons per household with the biggest household size being in Doun En and the smallest in Bak Amreak as gleaned in Table 3.

Dependency Ratio
The dependency ratio is often used to measure the proportion of children (age 0-14 years old) and old people (aged 65 and over) compared to the total working age population. It is, therefore, a summary indicator of the burden falling on the working age population.

The commune has an average dependency ratio of 62.5 percent, with Rohal Suong having the lowest ratio while Bakroteh having the highest ratio (Table 4).
Marital status
As shown in Table 5, about 51.19 percent of the total population of the commune is married and the rest of the population either never married, widow, widower, divorced, separated or lived together without marriage. The village of Bakroteh has the highest percentage of married members while the village of Prek Luong has the lowest. The village of Doun En has the highest percentage of married females while Prek Luong has the lowest. On the other hand, both the villages of Bak Amreak and Bakroteh have the highest percentage of married males while Prek Luong have the lowest.

Relationship to head of household
About 80 percent of the total members of a household are dependents. Although there are more females in all of the villages, a larger percentage of the male population are household heads (Table 6).

Nationality
In all of the villages, more than 99 percent of the population are Khmer; only 0.2 percent of the total population of all the provinces combined are Cham (Table 7).

Household headed by gender
In this commune, about 77 percent of the household heads are male while only about 22 percent are female. Although the female household heads represent only 22 percent of the total household heads, this indicates that there are also households in the rural areas that are headed by females. In the village of Bakroteh, the percentage having a male

Table 4. Dependency ratio by Village

<table>
<thead>
<tr>
<th>Village</th>
<th>Number of HHs</th>
<th>Dependency Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>361</td>
<td>60.7</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>278</td>
<td>62.3</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>258</td>
<td>60.6</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>261</td>
<td>56.2</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>242</td>
<td>64</td>
</tr>
<tr>
<td>Doun En</td>
<td>161</td>
<td>64.9</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>189</td>
<td>74.1</td>
</tr>
<tr>
<td>Total</td>
<td>1750</td>
<td>62.5</td>
</tr>
</tbody>
</table>
Table 5. Marital status by village

<table>
<thead>
<tr>
<th>Marital status (Number)</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sdei Kream</th>
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household head is the highest which is 84.1 percent although we can find the most number of male household heads in the Prek Luong province. This may be because there are more households in Prek Luong compared to the other villages (Table 8).

Table 6. Percentage of Population with Relationship to Head of Household and by Village

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<th>Rohal Suong</th>
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Education

Literacy is the ability to read and write a simple message. A person is considered literate if he or she can both read and write a simple message in any language or dialect. A person capable of reading only his own name or numbers or can read but not write and vice versa, is not considered literate.

In this survey, education as a poverty monitoring indicator, was assessed through a few factors which can reveal its effectiveness and efficacy. Through education data, the survey tries to capture the level of enrolment, illiteracy and high school graduation in villages, to evaluate the impact of educational infrastructures in these localities, to

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</tr>
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<td>0.2</td>
<td>0</td>
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</tr>
<tr>
<td>Female</td>
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<td>100</td>
<td>100</td>
<td>100</td>
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<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Khmer</td>
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<td>99.9</td>
<td>99.8</td>
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<td>99.5</td>
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</tr>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vietnamese</td>
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</tr>
<tr>
<td>Khmer</td>
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<td>99.9</td>
<td>99.7</td>
<td>99.2</td>
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<tr>
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<td>0.1</td>
<td>0.2</td>
<td>0</td>
<td>0.1</td>
<td>0.3</td>
<td>0.7</td>
<td>0.2</td>
</tr>
<tr>
<td>Chinese</td>
<td>0</td>
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<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
<td>0</td>
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</tr>
</tbody>
</table>

Table 7. Population by Nationality

Table 8. Household heads by gender

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th></th>
<th>Female</th>
<th></th>
<th>Both Sexes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>%</td>
<td></td>
<td>Number</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prek Luong</td>
<td>267</td>
<td>74</td>
<td>94</td>
<td>26</td>
<td>361</td>
<td>100</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>217</td>
<td>78.1</td>
<td>61</td>
<td>21.9</td>
<td>278</td>
<td>100</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>206</td>
<td>79.8</td>
<td>52</td>
<td>20.2</td>
<td>258</td>
<td>100</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>201</td>
<td>77</td>
<td>60</td>
<td>23</td>
<td>261</td>
<td>100</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>183</td>
<td>75.6</td>
<td>59</td>
<td>24.4</td>
<td>242</td>
<td>100</td>
</tr>
<tr>
<td>Doun En</td>
<td>130</td>
<td>80.7</td>
<td>31</td>
<td>19.3</td>
<td>161</td>
<td>100</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>159</td>
<td>84.1</td>
<td>30</td>
<td>15.9</td>
<td>189</td>
<td>100</td>
</tr>
<tr>
<td>Commune</td>
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<td>77.9</td>
<td>387</td>
<td>22.1</td>
<td>1750</td>
<td>100</td>
</tr>
</tbody>
</table>
verify the principle that education plays a predominant role in the economic development of a country. The idea is that if the percentage of educated people is high enough in a given locality, then the human resources can acquire more qualifications and the population as a whole would be more open to a better use of appropriate technologies. If the level of education is very low, it is very difficult for the local people to understand and use complex technologies.

Adult Literacy Rate
Adult literacy rate is defined as the percentage of persons 15 years old and over who can read and write a simple message in any language. Literacy rate in this commune is about 81.5 percent. In all the villages, literacy rate was higher among males than females (Table 9).

Literacy of Household head
As seen in Table 10, 79 percent of the commune’s household heads are literate while 21 percent are illiterate (male and female combined). But generally, there are more literate male household heads (86%) compared to the female household heads (14%). Thus, one can also conclude that there are more illiterate female household heads (44.6%) than male household heads (13.9%).

Table 9. Adult Literacy by Gender and Village

<table>
<thead>
<tr>
<th>Village</th>
<th>Male</th>
<th>Female</th>
<th>Both Sexes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Literate</td>
<td>Illiterate</td>
<td>Literate</td>
</tr>
<tr>
<td>Prek Luong</td>
<td>500</td>
<td>88.2</td>
<td>11.8</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>403</td>
<td>92.9</td>
<td>7.1</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>382</td>
<td>88.4</td>
<td>11.6</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>361</td>
<td>87.6</td>
<td>12.2</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>291</td>
<td>89.3</td>
<td>10.7</td>
</tr>
<tr>
<td>Doun En</td>
<td>268</td>
<td>93.1</td>
<td>6.9</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>224</td>
<td>80.9</td>
<td>19.1</td>
</tr>
<tr>
<td>Commune</td>
<td>2429</td>
<td>88.8</td>
<td>11.2</td>
</tr>
</tbody>
</table>

Educational Level
Table 11 below shows that at present, most the household members of the commune who are presently studying are still in Grades 2 to 7.
Although the difference numerically is not too large, the table also shows that there are more male students than the female students.

Number of Dropout Students
Percentage-wise, there are more male household members of the commune who drop out of school than the female household members. Most of the drop outs are from Grades 4 to 9 in both sexes (Table 12).

Dropout rate by age and village
It is evident in Table 13 that the dropout rate starts increasing as the students reach age 13 until they reach age 24. The highest drop out rate for the whole commune is at age 21, with a rate of 12.6 percent. Also at age 21, the rate is highest in the villages of Prek Luong (14.6%) and Rohal Suong (20.8%).

Reason for Dropout
The two main reasons why students aged 6-24 years old drop out of school are: (1) to help the family earn more income (41.1%), and (2) to help in the work in the house (27%). These two reasons are the same for both the male and the female students of the whole commune.
### Table 11. Educational Level of the Population by Sex

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% Male</th>
<th>% Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>29</td>
<td>20</td>
<td>49</td>
<td>0.9</td>
<td>0.6</td>
<td>0.7</td>
</tr>
<tr>
<td>Grade 1</td>
<td>254</td>
<td>265</td>
<td>519</td>
<td>7.5</td>
<td>8.1</td>
<td>7.8</td>
</tr>
<tr>
<td>Grade 2</td>
<td>311</td>
<td>355</td>
<td>666</td>
<td>9.2</td>
<td>10.8</td>
<td>10</td>
</tr>
<tr>
<td>Grade 3</td>
<td>471</td>
<td>529</td>
<td>1000</td>
<td>13.9</td>
<td>16.1</td>
<td>15</td>
</tr>
<tr>
<td>Grade 4</td>
<td>450</td>
<td>474</td>
<td>924</td>
<td>13.3</td>
<td>14.4</td>
<td>13.8</td>
</tr>
<tr>
<td>Grade 5</td>
<td>417</td>
<td>391</td>
<td>808</td>
<td>12.3</td>
<td>11.9</td>
<td>12.1</td>
</tr>
<tr>
<td>Grade 6</td>
<td>335</td>
<td>323</td>
<td>658</td>
<td>9.9</td>
<td>9.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Grade 7</td>
<td>303</td>
<td>301</td>
<td>604</td>
<td>8.9</td>
<td>8.2</td>
<td>8.9</td>
</tr>
<tr>
<td>Grade 8</td>
<td>243</td>
<td>214</td>
<td>457</td>
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<td>6.8</td>
</tr>
<tr>
<td>Grade 9</td>
<td>208</td>
<td>177</td>
<td>385</td>
<td>6.1</td>
<td>5.4</td>
<td>5.8</td>
</tr>
<tr>
<td>Grade 10</td>
<td>90</td>
<td>61</td>
<td>151</td>
<td>2.7</td>
<td>1.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Grade 11</td>
<td>529</td>
<td>128</td>
<td>658</td>
<td>9.9</td>
<td>9.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Grade 12</td>
<td>47</td>
<td>35</td>
<td>82</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>High school certificate</td>
<td>208</td>
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<td>339</td>
<td>5.4</td>
<td>3.8</td>
<td>4.7</td>
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<tr>
<td>Associate degree (Technical/Vocational secondary school)</td>
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<td>25</td>
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<td>0.2</td>
<td>0.4</td>
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<tr>
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<td>8</td>
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<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Other</td>
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<td>51</td>
<td>122</td>
<td>2.1</td>
<td>1.6</td>
<td>1.8</td>
</tr>
</tbody>
</table>

| Commune                           | 3396 | 3288   | 6684  | 100    | 100      | 100   |

### Table 12. Currently Studying and Not Studying and Drop out from school by Educational attainment and Sex

<table>
<thead>
<tr>
<th>Male</th>
<th>Currently studying</th>
<th>Not currently studying</th>
<th>Total</th>
<th>% Schooling</th>
<th>% Drop out from school</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
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<td>25</td>
<td>54</td>
<td>0.5</td>
<td>0.3</td>
<td>0.8</td>
</tr>
<tr>
<td>Grade 1</td>
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<td>220</td>
<td>474</td>
<td>9.7</td>
<td>5.5</td>
<td>7.6</td>
</tr>
<tr>
<td>Grade 2</td>
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<td>294</td>
<td>605</td>
<td>10.2</td>
<td>6.4</td>
<td>8.6</td>
</tr>
<tr>
<td>Grade 3</td>
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<td>897</td>
<td>17.7</td>
<td>10.0</td>
<td>16.7</td>
</tr>
<tr>
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<td>855</td>
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<td>11.0</td>
<td>17.6</td>
</tr>
<tr>
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<td>362</td>
<td>779</td>
<td>15.9</td>
<td>12.1</td>
<td>15.8</td>
</tr>
<tr>
<td>Grade 6</td>
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<td>300</td>
<td>635</td>
<td>10.5</td>
<td>9.3</td>
<td>9.9</td>
</tr>
<tr>
<td>Grade 7</td>
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<td>296</td>
<td>599</td>
<td>11.1</td>
<td>10.2</td>
<td>10.9</td>
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<tr>
<td>Grade 8</td>
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<td>6.5</td>
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<td>177</td>
<td>385</td>
<td>3.8</td>
<td>5.2</td>
<td>5.2</td>
</tr>
<tr>
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<td>61</td>
<td>151</td>
<td>1.7</td>
<td>1.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Grade 11</td>
<td>529</td>
<td>128</td>
<td>658</td>
<td>9.9</td>
<td>9.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Grade 12</td>
<td>47</td>
<td>35</td>
<td>82</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>High school certificate</td>
<td>208</td>
<td>31</td>
<td>339</td>
<td>5.4</td>
<td>3.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Associate degree (Technical/Vocational secondary school)</td>
<td>20</td>
<td>5</td>
<td>25</td>
<td>0.6</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Bachelor or higher level (College/University)</td>
<td>5</td>
<td>3</td>
<td>8</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Other</td>
<td>71</td>
<td>51</td>
<td>122</td>
<td>2.1</td>
<td>1.6</td>
<td>1.8</td>
</tr>
</tbody>
</table>

| Commune | 3396   | 3288   | 6684  | 100    | 100    | 100   |
Table 12. (Continuation)

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Currently studying</td>
<td>Not currently studying</td>
</tr>
<tr>
<td>Bachelor or higher level (College/University)</td>
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</tr>
<tr>
<td>Other</td>
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<td>49</td>
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<tr>
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<td>883</td>
</tr>
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</tr>
<tr>
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<td>17</td>
</tr>
<tr>
<td>Grade 2</td>
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<td>Grade 4</td>
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<td>Grade 6</td>
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<td>8</td>
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<td>Grade 12</td>
<td>27</td>
<td>15</td>
</tr>
<tr>
<td>High school certificate</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Associate degree (Technical/Vocational secondary school)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Bachelor or higher level</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>College/University)</td>
<td>13</td>
<td>31</td>
</tr>
<tr>
<td><strong>Both sexes</strong></td>
<td>42</td>
<td>7</td>
</tr>
<tr>
<td>Kindergarten</td>
<td>344</td>
<td>38</td>
</tr>
<tr>
<td>Grade 1</td>
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<tr>
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<td>Grade 11</td>
<td>58</td>
<td>46</td>
</tr>
<tr>
<td>High school certificate</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Associate degree (Technical/Vocational secondary school)</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Bachelor or higher level (College/University)</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>26</td>
<td>80</td>
</tr>
</tbody>
</table>
The third highest reason for dropping out (8.7%) is that the person himself/herself does not want to study as seen in Table 14.

Distances to School
As Table 15 indicates, most of the students or 79.9 percent of the total students in the said commune live approximately 0 – 2 kilometers away from their respective schools, 14.1 percent are 3-5 kilometers away and rest of the students or 6 percent are 6 or more kilometers away from their schools.

**Occupation and Employment**
Occupation refers to the type of work, trade or profession performed by an individual during a reference period. If the person is not at work but with a job, occupation refers to the kind of work that the person will be doing when he reports for work. If a person has more than one occupation, the one in which the person spends most
of his working time is considered as the principal occupation, then that will be his/her principal occupation. Secondary occupation is any kind of work or job that a person does for pay, profit or family gain in addition to the principal occupation.

Table 14. Percentage of Reasons for Dropping out of School Students Aged 6-24 Years, by Sex and Village

<table>
<thead>
<tr>
<th>Reason</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sel Kraom</th>
<th>Rohal Suong</th>
<th>Bak Amreak</th>
<th>Doun En</th>
<th>Bakroteh</th>
<th>Total</th>
</tr>
</thead>
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<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
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</tr>
<tr>
<td>Do not want to study</td>
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<td>6.9</td>
<td>15.8</td>
<td>16.3</td>
<td>6.4</td>
<td>6.7</td>
<td>13.5</td>
<td>10.7</td>
</tr>
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<td>19.6</td>
<td>6.7</td>
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<td>1</td>
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<td>7.5</td>
</tr>
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<td>0.8</td>
<td>2.3</td>
<td>3.7</td>
<td>0</td>
<td>18.3</td>
<td></td>
</tr>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.8</td>
<td>0.5</td>
</tr>
<tr>
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<td>0</td>
<td>16.3</td>
<td>22.9</td>
<td>0</td>
<td>0</td>
<td>5.5</td>
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<td>57.8</td>
<td>42.5</td>
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<td>26.9</td>
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<td>42.4</td>
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<td>25.8</td>
<td>18.6</td>
<td>40.4</td>
<td>60.6</td>
<td>1.8</td>
<td>23.1</td>
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<td>6.1</td>
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<td>6.4</td>
<td>17.6</td>
<td>53.3</td>
<td>39.7</td>
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<td>0.9</td>
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<td>1.1</td>
<td>0.9</td>
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<td>100</td>
<td>100</td>
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</tr>
<tr>
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<td>11.9</td>
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<td>6.7</td>
<td>13.7</td>
<td>8.7</td>
</tr>
<tr>
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<td>5.7</td>
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<td>5</td>
<td>2.1</td>
<td>3.6</td>
<td>6.9</td>
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<tr>
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<td>0.5</td>
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<td>1.5</td>
<td>14.7</td>
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<tr>
<td>No teacher / No facilities</td>
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<td>School fee to expensive</td>
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<td>0.5</td>
<td>19.8</td>
<td>25.7</td>
<td>0</td>
<td>1.5</td>
<td>7.2</td>
</tr>
<tr>
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<td>58.8</td>
<td>39.4</td>
<td>31.3</td>
<td>7.8</td>
<td>22.6</td>
<td>52.8</td>
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<td>43.6</td>
<td>63.6</td>
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<td>0.5</td>
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<td>0</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Stopped by parents</td>
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<td>2.1</td>
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<td>3.7</td>
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<td>0.9</td>
<td>1.5</td>
<td>0.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Too young</td>
<td>0</td>
<td>0</td>
<td>2.6</td>
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<td>6.4</td>
<td>0.5</td>
<td>5.1</td>
<td>2.1</td>
</tr>
</tbody>
</table>
First Occupation
In all of the villages, the two most popular occupations engaged in is either being a farmer or a student (for both male and female). Farming is the most popular occupation for both sexes. Aside from being a farmer, another occupation that is popular to both sexes is being a worker and having a business of their own. Fishing is not very popular simply because this commune has no or has very minimal fishing grounds.

First Occupation by Head of Household
Even among the household heads (for both male and female), the most popular occupation first engaged in is either being a farmer or a student (Table 16).

Child Occupation age 5-17 years old by village
In all of the villages, about 70 percent of the members of the household who are aged 5 to 17 years old, (for both male and female) are students although one can also find that a small percentage of them are already working either in the farms or are working in their own houses. More than 11 percent (11.7%) of both sexes are either too young to go to school or too young to work either in the farms or at their own house.

Health

Table 15. Distance from House to School Attending by Village

<table>
<thead>
<tr>
<th>Distance Km</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sel Kraom</th>
<th>Rohal Suong</th>
<th>Bak Amreak</th>
<th>Doun En</th>
<th>Bakroteh</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>Number</td>
<td>439 380 285 207 223</td>
<td>118 110 1782</td>
<td>27 15 54 70 10</td>
<td>64 72 312</td>
<td>4 3 0 2 39</td>
<td>21 6 75</td>
<td>6 0 1 0 0</td>
<td>13 3 23</td>
</tr>
<tr>
<td>Total</td>
<td>483 402 348 284 274</td>
<td>217 198 2205</td>
<td>90.9 94.5 81.9 72.9 81.4</td>
<td>54.4 55.6 79.9</td>
<td>5.6 3.7 15.5 24.6</td>
<td>3.6 29.5 36.4</td>
<td>0.8 0.7 0.7 14.2</td>
<td>9.7 3 3.4</td>
</tr>
<tr>
<td>Percent</td>
<td>79.9 72.9 81.4 72.9</td>
<td>81.4 54.4 55.6</td>
<td>90.9 94.5 81.9 72.9</td>
<td>81.4 54.4 55.6</td>
<td>15.5 24.6</td>
<td>3.6 29.5</td>
<td>36.4</td>
<td>0.8 0.7 0.7 14.2</td>
</tr>
</tbody>
</table>
### Table 16. Occupation by Gender of household Head and Village

<table>
<thead>
<tr>
<th>Sex</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sdei Kream</th>
<th>Rohal Sroar</th>
<th>Bak Ameerak</th>
<th>Doun En</th>
<th>Bak Rotah Measnuon</th>
</tr>
</thead>
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<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Farmer</td>
<td>35.8</td>
<td>29.3</td>
<td>31.4</td>
<td>56.3</td>
<td>47.3</td>
<td>29.8</td>
<td>67.2</td>
</tr>
<tr>
<td>Fishing</td>
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<td>1.7</td>
<td>3.2</td>
<td>4.8</td>
<td>0.4</td>
<td>4.2</td>
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</tr>
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<td>14.9</td>
<td>6.3</td>
<td>6.3</td>
<td>6.3</td>
<td>6.3</td>
</tr>
<tr>
<td>Own business</td>
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<td>4.4</td>
<td>8.5</td>
<td>1.3</td>
<td>3.8</td>
<td>3.8</td>
<td>4.2</td>
</tr>
<tr>
<td>Worker at farm field</td>
<td>1.2</td>
<td>0.6</td>
<td>2.5</td>
<td>1.7</td>
<td>2.5</td>
<td>3.3</td>
<td>1.4</td>
</tr>
<tr>
<td>Civil Servant</td>
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<td>4.7</td>
<td>1.1</td>
<td>1.3</td>
<td></td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Work in private sector</td>
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<td>0.5</td>
<td></td>
<td>0.2</td>
<td></td>
<td>0.2</td>
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<tr>
<td>Moto taxi Driver</td>
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<td>0.5</td>
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<td>0.4</td>
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<td>0.2</td>
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<td>Helping work in house</td>
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<td>3.8</td>
<td>3.8</td>
<td>9.7</td>
<td>3.3</td>
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<td>27.7</td>
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<td>27</td>
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</tr>
<tr>
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<td>1.7</td>
<td>2.4</td>
<td>15.5</td>
<td>8.2</td>
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<td>3.8</td>
<td>1.6</td>
<td>0.9</td>
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<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
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<td>29.5</td>
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</tr>
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<td>10.9</td>
<td>7</td>
<td>6.8</td>
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<td>Own business</td>
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<td>3.5</td>
<td>7.8</td>
<td>6.4</td>
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<td>1.1</td>
<td>4.2</td>
</tr>
<tr>
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<td>3</td>
<td>1.6</td>
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</tr>
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<td>Work in private sector</td>
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<td>0.1</td>
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<td>0.3</td>
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<td>0.2</td>
</tr>
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<td>Helping work in house</td>
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<td>1.1</td>
<td>0.9</td>
<td>1.8</td>
<td>2.7</td>
<td>13.7</td>
<td>7.8</td>
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<tr>
<td>Student/pupil</td>
<td>29</td>
<td>32.1</td>
<td>28.5</td>
<td>24.7</td>
<td>25.9</td>
<td>26.1</td>
<td>22.8</td>
</tr>
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<td>4.3</td>
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<td>2.5</td>
<td>15.6</td>
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<td>Too young</td>
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<td>3.1</td>
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<td>0.2</td>
<td>1.7</td>
<td>0.3</td>
<td>0.7</td>
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<td>Suong</td>
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<td>221</td>
<td>1/21/2009, 1:58 PM</td>
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</table>

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Try Sothearith.pmd 221 1/21/2009, 1:58 PM
Health is the most important factor that contributes to individual and social well being. The survey data are also used to evaluate the household sanitation, disease and access to health services. Disease and access to health service are very important poverty indicators because they can give an idea about the active workforce, the money and time spent on the disease and the use of health services.
Table 18. Percentage of Major Sickness of during the Last 12 Months by Village

<table>
<thead>
<tr>
<th>Sickness</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sei Kraom</th>
<th>Rohal Suong</th>
<th>Bak Amreak</th>
<th>Don En</th>
<th>Bak rotech</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fever/monal cough</td>
<td>29.4</td>
<td>39.4</td>
<td>27.6</td>
<td>38.6</td>
<td>27.5</td>
<td>30.1</td>
<td>35</td>
<td>32.5</td>
</tr>
<tr>
<td>Dengue fever</td>
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<td>1.6</td>
<td>0.2</td>
<td>0.2</td>
<td>0.4</td>
<td>0.2</td>
<td>0.9</td>
<td>0.5</td>
</tr>
<tr>
<td>Typhoid</td>
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<td>2.8</td>
<td>0.6</td>
<td>3.1</td>
<td>2.2</td>
<td>0.6</td>
<td>3.1</td>
<td>2</td>
</tr>
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<td>0.1</td>
<td>0</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Feminine disease</td>
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<td>0</td>
<td>0.5</td>
<td>0</td>
<td>5.5</td>
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<td>0</td>
<td>0.3</td>
<td>0.4</td>
</tr>
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<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0</td>
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</tr>
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<td>0</td>
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<td>0.1</td>
<td>0.1</td>
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<tr>
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<td>9.8</td>
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<tr>
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<td></td>
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<td></td>
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<td>Fever/monal cough</td>
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<td>51.7</td>
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<td>49.8</td>
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<td>0.1</td>
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</tr>
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<td>TB</td>
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<td>0.4</td>
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<td>0</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>HIV/AIDS</td>
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<td>0.1</td>
<td>0.3</td>
<td>0.2</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
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<td>0.2</td>
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<td>0.2</td>
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<td>0.1</td>
<td>0.2</td>
<td>0.3</td>
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</tr>
<tr>
<td>Never Sick</td>
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<td>17.2</td>
<td>1.4</td>
<td>10.2</td>
<td>8.9</td>
<td>2.8</td>
<td>6.6</td>
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<td>7.6</td>
<td>2.8</td>
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<td>100</td>
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<td>82.7</td>
<td>56</td>
<td>77.1</td>
<td>57.2</td>
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<td>69.5</td>
<td>66</td>
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<td>0.3</td>
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<td>1.6</td>
<td>7.4</td>
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<td>0.4</td>
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<td>0.2</td>
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<td>1.2</td>
<td>0.2</td>
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<td>18.4</td>
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<td>3.6</td>
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<td>0.5</td>
<td>0.9</td>
<td>0.8</td>
<td>0</td>
<td>0.6</td>
<td>0.7</td>
</tr>
<tr>
<td>HIV/AIDS</td>
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<td>0.5</td>
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<td>0.2</td>
<td>0</td>
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<td>0.1</td>
<td>0.2</td>
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<td>0.2</td>
<td>0.2</td>
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<td>0.7</td>
<td>0.9</td>
<td>1.2</td>
<td>0.6</td>
<td>1.3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Never Sick</td>
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<td>1.9</td>
<td>35.5</td>
<td>2.7</td>
<td>20.6</td>
<td>18.8</td>
<td>6</td>
<td>13.6</td>
</tr>
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<td>5.7</td>
<td>11.4</td>
<td>6.2</td>
<td>11.3</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Major Sickness during last 12 months

Table 18 below shows common sicknesses that the commune household members get affected with. Most popular is getting affected by fever and monal cough. It can be noted that 18.3 percent of the male and 17.2 % of the female (or a total of 35.5% of their household members) of the Sei Kraom village have never been sick.
## Table 19. Percentage distribution of seeking for health facilities by sex and village

<table>
<thead>
<tr>
<th>Health Facilities</th>
<th>Prek Lung</th>
<th>Sdei Leu</th>
<th>Slae Klaom</th>
<th>Rohal Sruong</th>
<th>Doun En</th>
<th>Bak Rotah</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong>Male</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Never seeking health care/stay at home</td>
<td>11.9</td>
<td>2.6</td>
<td>1.4</td>
<td>0.5</td>
<td>49.4</td>
<td>17.1</td>
<td>12.1</td>
</tr>
<tr>
<td>Traditional healer</td>
<td>0.3</td>
<td>0.3</td>
<td>0.9</td>
<td>0.8</td>
<td>0.6</td>
<td>1.1</td>
<td>0.8</td>
</tr>
<tr>
<td>House of doctor/nurses medical professional</td>
<td>47.3</td>
<td>15.1</td>
<td>56.6</td>
<td>47.1</td>
<td>32.8</td>
<td>28.4</td>
<td>49.3</td>
</tr>
<tr>
<td>Non skilled medical professional</td>
<td>0</td>
<td>0.2</td>
<td>1.9</td>
<td>0</td>
<td>0.2</td>
<td>0</td>
<td>0.3</td>
</tr>
<tr>
<td>Dedicated Drug store</td>
<td>16.7</td>
<td>77.1</td>
<td>1</td>
<td>35.5</td>
<td>12</td>
<td>39.4</td>
<td>32.8</td>
</tr>
<tr>
<td>Post health care</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0.2</td>
<td>0.1</td>
</tr>
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<td>28.4</td>
<td>14.5</td>
<td>2.5</td>
<td>6.5</td>
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<tr>
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<td>0.2</td>
<td>0.3</td>
<td>0.8</td>
<td>4.7</td>
<td>1.1</td>
</tr>
<tr>
<td>Provincial referral hospital</td>
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<td>0.6</td>
<td>1</td>
<td>1</td>
<td>2.5</td>
<td>3.4</td>
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<tr>
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<td>0</td>
<td>0.8</td>
<td>0.4</td>
<td>0.1</td>
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<td>0</td>
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<td>0</td>
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<td>0</td>
</tr>
<tr>
<td><strong>Female</strong></td>
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<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Never seeking health care/stay at home</td>
<td>9.3</td>
<td>2.7</td>
<td>0.8</td>
<td>0.7</td>
<td>45.4</td>
<td>16.8</td>
<td>10.9</td>
</tr>
<tr>
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<td>0.8</td>
<td>1</td>
<td>2.3</td>
<td>0.9</td>
<td>1.1</td>
</tr>
<tr>
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<td>11.1</td>
<td>54.9</td>
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<td>31.3</td>
<td>24.3</td>
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</tr>
<tr>
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<td>2.1</td>
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<td>14.1</td>
<td>43.6</td>
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<td>0</td>
<td>0.2</td>
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<td>0.1</td>
</tr>
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<td>30.7</td>
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<td>4.3</td>
<td>9.3</td>
<td>0.4</td>
</tr>
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<td>0.2</td>
<td>0.3</td>
<td>1</td>
<td>3.4</td>
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<td>Provincial referral hospital</td>
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<td>0.7</td>
<td>1.3</td>
<td>1.4</td>
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<td>100</td>
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<tr>
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<td>0.6</td>
<td>47.2</td>
<td>17</td>
<td>11.5</td>
</tr>
<tr>
<td>Traditional healer</td>
<td>0.7</td>
<td>0.4</td>
<td>0.8</td>
<td>0.9</td>
<td>1.5</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>House of doctor/nurses medical professional</td>
<td>47.1</td>
<td>13.1</td>
<td>55.7</td>
<td>46</td>
<td>32</td>
<td>26.4</td>
<td>49.4</td>
</tr>
<tr>
<td>Non skilled medical professional</td>
<td>0</td>
<td>0.3</td>
<td>2</td>
<td>0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.4</td>
</tr>
<tr>
<td>Dedicated Drug store</td>
<td>18.7</td>
<td>79.4</td>
<td>10.2</td>
<td>35</td>
<td>13.1</td>
<td>41.5</td>
<td>33.5</td>
</tr>
<tr>
<td>Post health care</td>
<td>0</td>
<td>0.2</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Health care Center</td>
<td>22.9</td>
<td>2.3</td>
<td>29.6</td>
<td>16.1</td>
<td>3.5</td>
<td>7.9</td>
<td>0.3</td>
</tr>
<tr>
<td>District referral hospital</td>
<td>0.2</td>
<td>0</td>
<td>0.2</td>
<td>0.3</td>
<td>0.9</td>
<td>4.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Provincial referral hospital</td>
<td>0.1</td>
<td>1.6</td>
<td>0.5</td>
<td>0.9</td>
<td>1.2</td>
<td>1.9</td>
<td>3.1</td>
</tr>
<tr>
<td>National hospital Phnom Penh</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.4</td>
<td>0.3</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Other</td>
<td>0.1</td>
<td>0</td>
<td>0</td>
<td>0.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Seeking for Health
Enumerated in Table 19 are the possible places a sick household member could seek medical assistance from. The percentages below show that in the villages of Prek Luong, Sei Kraom, Rohal Suong and Bak Roteh, most household members go to the houses of doctors, nurses or other medical professionals to seek medical assistance. In the village of Bak Amreak, 47.2 percent of the total households never seek medical help; they just stay home when they get sick. In the villages of Sdei Leu and Doun En, 79.4 percent and 41.5 percent respectively go to their dedicated drug store to seek medical help. But as a whole, 39.1 percent of both male and female household members of the commune go to the houses of doctors, nurses or other medical professionals to seek medical help.

Distance from House to Health Care Center
As a whole, most male and female household members from all the villages (or 77.7%) live 0-2 kilometers away from the Health Care Center, 17.5 percent live 3-5 kilometers away and 4.8 percent live 6 or more kilometers away.

In the village of Sdei Leu, 94.4 percent of the total household members live 0-2 kilometers away from the Health Care Center, only a total of 5.6 percent of the total household members live 3 or more kilometers away. This could mean that either there are more than one Health Care Centers in the village or the Health Care Center of the village is strategically located in the middle of the village. But still (as seen in the previous table), although most of household members in this village live 0-2 kilometers away from the Health Care Center, only 2.3 percent of the total household members visit the center when they are sick. Most of them would rather visit a dedicated drug store.

In the village of Sei Kraom, 67.4 percent of the total household members live 0-2 kilometers away from the Health Care Center, 32 percent live 3-5 kilometers away and 0.6 percent live 12-14 kilometers away (Table 20). As seen in the previous table, only 29.6 percent of the total household members of this village go to Health Care Center when they are sick, most of them would rather visit the house of a doctor, a nurse or a medical professional.

Disability
Disabled household members of the whole commune comprise only 3 percent of the total household members, with the village of Bak
Table 20. Distance to Health Care Center by Village

<table>
<thead>
<tr>
<th>Health Facilities</th>
<th>Male</th>
<th>Female</th>
<th>Both sexes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Doun En</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Bak Rotah</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 21. Number of Disability by Village

<table>
<thead>
<tr>
<th>Village</th>
<th>Male</th>
<th>Female</th>
<th>Both sexes</th>
<th>Male</th>
<th>Female</th>
<th>Both sexes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>842</td>
<td>927</td>
<td>1769</td>
<td>18</td>
<td>8</td>
<td>26</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>617</td>
<td>679</td>
<td>1296</td>
<td>30</td>
<td>13</td>
<td>43</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>641</td>
<td>643</td>
<td>1284</td>
<td>7</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>575</td>
<td>650</td>
<td>1225</td>
<td>30</td>
<td>21</td>
<td>51</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>490</td>
<td>575</td>
<td>1065</td>
<td>28</td>
<td>29</td>
<td>57</td>
</tr>
<tr>
<td>Doun En</td>
<td>428</td>
<td>427</td>
<td>855</td>
<td>16</td>
<td>13</td>
<td>29</td>
</tr>
<tr>
<td>Bakrothe</td>
<td>447</td>
<td>467</td>
<td>914</td>
<td>26</td>
<td>9</td>
<td>35</td>
</tr>
<tr>
<td>Commune</td>
<td>4040</td>
<td>4388</td>
<td>8408</td>
<td>155</td>
<td>105</td>
<td>263</td>
</tr>
</tbody>
</table>

Percent

<table>
<thead>
<tr>
<th>Village</th>
<th>Male</th>
<th>Female</th>
<th>Both sexes</th>
<th>Male</th>
<th>Female</th>
<th>Both sexes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>97.9</td>
<td>99.1</td>
<td>98.6</td>
<td>2.1</td>
<td>0.9</td>
<td>1.4</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>95.4</td>
<td>98.1</td>
<td>96.8</td>
<td>4.6</td>
<td>1.9</td>
<td>3.2</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>98.9</td>
<td>97.7</td>
<td>98.3</td>
<td>1.1</td>
<td>2.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>95</td>
<td>96.9</td>
<td>96</td>
<td>5</td>
<td>3.1</td>
<td>4</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>94.6</td>
<td>95.2</td>
<td>94.9</td>
<td>5.4</td>
<td>4.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Doun En</td>
<td>96.4</td>
<td>97</td>
<td>96.7</td>
<td>3.6</td>
<td>3</td>
<td>3.3</td>
</tr>
<tr>
<td>Bakrothe</td>
<td>94.5</td>
<td>98.1</td>
<td>96.3</td>
<td>5.5</td>
<td>1.9</td>
<td>3.7</td>
</tr>
<tr>
<td>Commune</td>
<td>98.3</td>
<td>97.6</td>
<td>97</td>
<td>3.7</td>
<td>2.4</td>
<td>3</td>
</tr>
</tbody>
</table>
Amreak having the highest percentage at 5.1 percent and Prek Luong having the lowest percentage at 1.4 percent (Table 21)

Types of Disability
Disability of the leg is highest in the four villages, of Prek Luong, Sdei Leu, Sei Kraom and Bak Amreak. Disability of the eyes or being blind is highest in the villages of Sei Kraom, Rohal Suong and Doun En. In total, 24.7 percent of the disabled household members of the commune have leg disability as seen in Table 22.

Table 22. Percentage of disabled people by type of disability and village

<table>
<thead>
<tr>
<th>Type of disability</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sei Kraom</th>
<th>Rohal Suong</th>
<th>Bak Amreak</th>
<th>Doun En</th>
<th>Bak Koteh</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability of hand (arms)</td>
<td>23.1</td>
<td>14.0</td>
<td>13.6</td>
<td>11.8</td>
<td>19.3</td>
<td>6.9</td>
<td>14.3</td>
<td>14.8</td>
</tr>
<tr>
<td>Disability of leg</td>
<td>30.8</td>
<td>25.6</td>
<td>27.3</td>
<td>21.6</td>
<td>35.1</td>
<td>10.3</td>
<td>17.1</td>
<td>24.7</td>
</tr>
<tr>
<td>Disability of both hand and leg</td>
<td>3.8</td>
<td>20.9</td>
<td>22.7</td>
<td>11.8</td>
<td>8.8</td>
<td>13.8</td>
<td>14.3</td>
<td>13.3</td>
</tr>
<tr>
<td>Eye / Blind</td>
<td>19.2</td>
<td>20.9</td>
<td>27.3</td>
<td>27.5</td>
<td>8.8</td>
<td>27.6</td>
<td>8.6</td>
<td>19.1</td>
</tr>
<tr>
<td>Difficulty in listening/deaf mute</td>
<td>7.7</td>
<td>11.6</td>
<td>4.5</td>
<td>7.8</td>
<td>8.8</td>
<td>10.3</td>
<td>20</td>
<td>10.3</td>
</tr>
<tr>
<td>Other</td>
<td>15.4</td>
<td>7.0</td>
<td>4.5</td>
<td>19.6</td>
<td>19.1</td>
<td>31</td>
<td>25.7</td>
<td>17.9</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 23. Percent of Reason of Disability by Gender and Village

<table>
<thead>
<tr>
<th>Reason of disability</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sei Kraom</th>
<th>Rohal Suong</th>
<th>Bak Amreak</th>
<th>Doun En</th>
<th>Bak Koteh</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>From birth</td>
<td>44.4</td>
<td>35.0</td>
<td>13.6</td>
<td>13.7</td>
<td>28.1</td>
<td>20.7</td>
<td>31.4</td>
<td>26.3</td>
</tr>
<tr>
<td>From sickness</td>
<td>24.1</td>
<td>15.0</td>
<td>50.0</td>
<td>52.9</td>
<td>33.3</td>
<td>51.7</td>
<td>31.4</td>
<td>36.7</td>
</tr>
<tr>
<td>Mine/other weapons</td>
<td>16.5</td>
<td>5.0</td>
<td>18.2</td>
<td>2.0</td>
<td>1.8</td>
<td>3.4</td>
<td>2.9</td>
<td>5.4</td>
</tr>
<tr>
<td>Gun</td>
<td>4.75</td>
<td>4.5</td>
<td>2.0</td>
<td>17.5</td>
<td>10.3</td>
<td>14.3</td>
<td>9.3</td>
<td>9.3</td>
</tr>
<tr>
<td>Traffic accident</td>
<td>4.15</td>
<td>4.5</td>
<td>9.8</td>
<td>5.3</td>
<td>0.0</td>
<td>5.7</td>
<td>6.9</td>
<td>6.9</td>
</tr>
<tr>
<td>Fire burn</td>
<td>0.25</td>
<td>0.0</td>
<td>0.0</td>
<td>1.8</td>
<td>6.9</td>
<td>2.9</td>
<td>1.9</td>
<td>1.9</td>
</tr>
<tr>
<td>Snake bite</td>
<td>0.25</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Fall from tree/building</td>
<td>4.25</td>
<td>9.1</td>
<td>13.7</td>
<td>10.5</td>
<td>6.9</td>
<td>5.7</td>
<td>8.1</td>
<td>8.1</td>
</tr>
<tr>
<td>Violence</td>
<td>0.0</td>
<td>0.0</td>
<td>3.9</td>
<td>0.0</td>
<td>0.0</td>
<td>2.9</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Other</td>
<td>0.25</td>
<td>0.0</td>
<td>2.0</td>
<td>1.8</td>
<td>0.0</td>
<td>2.9</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Old age</td>
<td>4.125</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.3</td>
<td>2.3</td>
</tr>
</tbody>
</table>
Reasons of Disability
The first two highest reasons for disability are disability since birth (26.3%) and disability from sickness (36.7%). Disability since birth is highest in the villages of Prek Kuong, SdeiLeu and Bakroteh while disability from sickness is highest in the villages of Sei Kraom, Rohal Suong, Bak Amreak, Doun En and Bakroteh (Table 23).

Housing Characteristics
Housing and land data provide specific information on type of house, house owner, household lighting and cooking, and agricultural land. As for some data determinants, a house with a corrugated iron sheet roof, tile roof or concrete wall, normally reflects a more comfortable living condition than a thatched house. Moreover, a household with access to state or private electricity supply is the one with a relatively better living condition.

In this survey, the sanitation level can be assessed through the use of toilet and boiled water by the household as well as the use of mosquito net which serves also as an important health indicator. The every day use of toilet, boiled water and mosquito net help the individual to stay healthy.

**Table 24. Ownership of Building by Village**

<table>
<thead>
<tr>
<th>Village</th>
<th>Own House Number</th>
<th>Own House %</th>
<th>Parent’s house, relative or friend Number</th>
<th>Other Number</th>
<th>Other %</th>
<th>Village Number</th>
<th>Village %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>328</td>
<td>90.9</td>
<td>32</td>
<td>1</td>
<td>0.3</td>
<td>361</td>
<td>100</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>238</td>
<td>85.6</td>
<td>38</td>
<td>2</td>
<td>0.7</td>
<td>278</td>
<td>100</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>204</td>
<td>79.1</td>
<td>52</td>
<td>2</td>
<td>0.8</td>
<td>258</td>
<td>100</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>217</td>
<td>83.1</td>
<td>43</td>
<td>1</td>
<td>0.4</td>
<td>261</td>
<td>100</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>198</td>
<td>81.8</td>
<td>41</td>
<td>3</td>
<td>1.2</td>
<td>242</td>
<td>100</td>
</tr>
<tr>
<td>Doun En</td>
<td>143</td>
<td>88.8</td>
<td>14</td>
<td>4</td>
<td>2.5</td>
<td>161</td>
<td>100</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>145</td>
<td>76.7</td>
<td>35</td>
<td>9</td>
<td>4.8</td>
<td>189</td>
<td>100</td>
</tr>
<tr>
<td>Commune</td>
<td>1473</td>
<td>84.2</td>
<td>255</td>
<td>22</td>
<td>1.3</td>
<td>1750</td>
<td>100</td>
</tr>
</tbody>
</table>

Ownership of House by Village
As a whole Table 24 shows that 84.2 percent of the household members of the commune own the house where they are presently living in, 14.6 percent live either with their parents, relatives or friends. Ownership of the house they live in is of highest percentage in the village of Prek Luong, with 90.0% and is lowest in the village of Bakroteh with 24 percent.
House Size and Land stead
Most household members in the commune either live in a house with space less than 20 m² (44.9%) or 20-50 m² (43.9%). Only 11.2 percent live in a house with space which is more than 50 m². It can be observed that in Bak Amreak, a higher percentage of the household members live in a house with space less than 20 m² while in Sdei Leu, 53.2 percent of them live in a house with space 20-50 m² (Table 25).

Number of Households Living in a Space Classified as Land Stead
Out of the total number of households living with space classified as land stead, 64.2 percent have a space less than 500 m², 18.4 percent have a space between 500-1000 m² and 17.4 percent have a space more than 1000 m² (Table 26).
The type of wall of the houses in the villages under study differs a lot such that in the villages of Prek Luong, Sdei Leu and Rohal Suong, they have the thatched wall; in Sei Kraom, Bak Amreak and Doun En, they use mixed mud for their walls while in Bak Roteh, most of them use fibrous material for their walls. Percentage-wise, the overall highest (34.4%) is the use of the thatched wall (Table 27).

Type of Roof
Evidently, the most popular roofing material used in the commune is the zinc or aluminum such that in the overall rating it got 80.7%. They also used the thatched material as roofing but still it got 9.7 only (Table 28).

Type of Floor
About 76.1 percent of the houses in this commune use wood planks or bamboo strips as flooring of their houses. In Doun En, 95 percent
Table 29. Number of Household Living with Type of Floor by Village

<table>
<thead>
<tr>
<th>Type of Floor</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sei Kraom</th>
<th>Rohal Suong</th>
<th>Bak Amreak</th>
<th>Doun En</th>
<th>Bak Rotah</th>
<th>Commune</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood planks/Bamboo strip</td>
<td>60.9</td>
<td>85.3</td>
<td>77.1</td>
<td>40.6</td>
<td>94.2</td>
<td>95</td>
<td>100</td>
<td>76.1</td>
</tr>
<tr>
<td>Parquet/Polish wood</td>
<td>25.8</td>
<td>0.7</td>
<td>19</td>
<td>55.6</td>
<td>1.2</td>
<td>0</td>
<td>0</td>
<td>16.7</td>
</tr>
<tr>
<td>Ceramic Tiles</td>
<td>4.4</td>
<td>2.5</td>
<td>1.2</td>
<td>0</td>
<td>0.9</td>
<td>0</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Cement</td>
<td>3.3</td>
<td>2.5</td>
<td>0.4</td>
<td>1.1</td>
<td>1.7</td>
<td>0</td>
<td>0</td>
<td>1.5</td>
</tr>
<tr>
<td>Earth/clay</td>
<td>5</td>
<td>9</td>
<td>1.6</td>
<td>2.7</td>
<td>2.5</td>
<td>0</td>
<td>0</td>
<td>3.4</td>
</tr>
<tr>
<td>Other</td>
<td>0.6</td>
<td>0</td>
<td>0.8</td>
<td>0</td>
<td>0.4</td>
<td>3.1</td>
<td>0</td>
<td>0.6</td>
</tr>
<tr>
<td>Village</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 30. Percentage of Main Source of Lighting by Village

<table>
<thead>
<tr>
<th>Village</th>
<th>State electricity</th>
<th>Private electricity</th>
<th>Kerosene lamp or candle</th>
<th>Battery</th>
<th>Generator</th>
<th>Total Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>0</td>
<td>21.6</td>
<td>62.9</td>
<td>15.5</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>0</td>
<td>30.6</td>
<td>58.3</td>
<td>11.2</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>0</td>
<td>16.3</td>
<td>57.8</td>
<td>26.0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>0</td>
<td>0.8</td>
<td>70.9</td>
<td>27.6</td>
<td>0.8</td>
<td>100</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>0</td>
<td>2.9</td>
<td>82.6</td>
<td>14.0</td>
<td>0.4</td>
<td>100</td>
</tr>
<tr>
<td>Doun En</td>
<td>0</td>
<td>3.1</td>
<td>95.0</td>
<td>1.9</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Bak Rotah</td>
<td>0</td>
<td>2.1</td>
<td>81.5</td>
<td>16.4</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Commune</td>
<td>0</td>
<td>12.7</td>
<td>70.3</td>
<td>16.8</td>
<td>0.2</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 29. Number of Household Living with Type of Floor by Village

Table 30. Percentage of Main Source of Lighting by Village

(the highest among the villages) of their houses are made of wood planks or bamboo strips (Table 29).

Main Sources of Lighting
About 70.3 percent of the households in the whole commune use kerosene lamp or candle as main source of lighting, only 12.7 percent have private electricity and 16.8 percent have battery operated lights. Unfortunately, the whole commune is not yet provided with electricity by the state (Table 30).

Main Sources of Fuel for Cooking
Firewood is the most popular source of fuel for cooking in all the villages, with Bak Rotah having the highest percentage at 99.5 percent of its household members using firewood. Nobody in the whole commune uses electricity when cooking (Table 31).
As a whole, during the rainy season, the main source of drinking water of the household members of the commune is the water coming from the river or stream (Tables 32a and 33b).

During the dry season, the main source of drinking water of the household members of the commune is the water from the open well, pond or lake and the piped water.

**Main Sources of Drinking Water**

**Table 31. Percentage of Main Source of Fuel for Cooking by Village**

<table>
<thead>
<tr>
<th>Village</th>
<th>Firewood</th>
<th>Charcoal</th>
<th>Kerosene</th>
<th>Coconut bark</th>
<th>Electricity</th>
<th>Other</th>
<th>Total Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>92</td>
<td>5</td>
<td>0.6</td>
<td>2.5</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>89.2</td>
<td>8.6</td>
<td>0</td>
<td>2.2</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>95.3</td>
<td>4.3</td>
<td>0.4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>71.6</td>
<td>10</td>
<td>0</td>
<td>18.4</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>93.8</td>
<td>5</td>
<td>0.4</td>
<td>0.8</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Doun En</td>
<td>97.5</td>
<td>0</td>
<td>1.2</td>
<td>1.2</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>99.5</td>
<td>0.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Commune</td>
<td>90.6</td>
<td>5.3</td>
<td>0.3</td>
<td>3.8</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

**Table 32a. Household Classified by Source of Drinking Water in Rainy Season by Village**

<table>
<thead>
<tr>
<th>Village</th>
<th>Piped water</th>
<th>Hand pump</th>
<th>Open well</th>
<th>Pond/ lake</th>
<th>River/ Stream</th>
<th>Rain water</th>
<th>Other</th>
<th>Total Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0.6</td>
<td>9.4</td>
<td>87</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>0</td>
<td>0</td>
<td>7.6</td>
<td>24.1</td>
<td>45.3</td>
<td>23</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>0</td>
<td>0</td>
<td>5.4</td>
<td>2.7</td>
<td>20.5</td>
<td>71.3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>0</td>
<td>0</td>
<td>0.4</td>
<td>2.7</td>
<td>21.5</td>
<td>75.5</td>
<td>0.4</td>
<td>100</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>0</td>
<td>0</td>
<td>3.7</td>
<td>6.2</td>
<td>50.4</td>
<td>39.3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Doun En</td>
<td>0</td>
<td>3.1</td>
<td>0</td>
<td>42.2</td>
<td>54.7</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Commune</td>
<td>0.3</td>
<td>3.2</td>
<td>5.6</td>
<td>53.8</td>
<td>4.1</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 32b. Main Sources of Drinking Water in Dry Season by Village**

<table>
<thead>
<tr>
<th>Village</th>
<th>Piped water</th>
<th>Hand pump</th>
<th>Open well</th>
<th>Pond/ lake</th>
<th>River/ Stream</th>
<th>Rain water</th>
<th>Other</th>
<th>Total Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>6.4</td>
<td>0</td>
<td>46.8</td>
<td>8.6</td>
<td>38</td>
<td>0.3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>0.4</td>
<td>0.7</td>
<td>7.9</td>
<td>27.3</td>
<td>63.3</td>
<td>0.4</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>0.4</td>
<td>0</td>
<td>7.8</td>
<td>8.1</td>
<td>83.7</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>0</td>
<td>0</td>
<td>5.4</td>
<td>6.1</td>
<td>87.4</td>
<td>0.8</td>
<td>0.4</td>
<td>100</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>0</td>
<td>0</td>
<td>10.7</td>
<td>12</td>
<td>76</td>
<td>1.2</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Doun En</td>
<td>0</td>
<td>3.1</td>
<td>2.5</td>
<td>3.7</td>
<td>90.1</td>
<td>0.6</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Commune</td>
<td>1.4</td>
<td>0.4</td>
<td>14.6</td>
<td>10.2</td>
<td>72.9</td>
<td>0.5</td>
<td>0.1</td>
<td>100</td>
</tr>
</tbody>
</table>
Working Toward a Commune-Based Monitoring System

Try Sothearith

Drinking water by village

A bigger percentage of the household members of the commune drink water that is not boiled or a percentage of 51.8 percent, on the other hand, 47.2 percent drink boiled water.

Type of Toilet

As seen in the percentages, the whole commune has no public drainage system. Only 34.1 percent of the total households have a toilet, 33.6 percent of them have a septic tank while 0.5 percent has an open pitch toilet. Sixty-six percent (65.9%) of the total households have no toilets at home and 63 percent uses the open area as toilet, two percent go to the ricefields (Table 34).

Table 34. Household Classified by Toilet and Village

<table>
<thead>
<tr>
<th>Village</th>
<th>Connected to the public drainage system</th>
<th>Toilet with septic tank</th>
<th>Open pitch toilet</th>
<th>No toilet</th>
<th>Rice field/field</th>
<th>Other</th>
<th>Total Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>0</td>
<td>41</td>
<td>1.7</td>
<td>53.7</td>
<td>3.3</td>
<td>0.3</td>
<td>100</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>0</td>
<td>53.6</td>
<td>0.4</td>
<td>43.5</td>
<td>2.3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>0</td>
<td>36.4</td>
<td>0</td>
<td>61.6</td>
<td>0.4</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>0</td>
<td>26.4</td>
<td>0</td>
<td>67.4</td>
<td>1.3</td>
<td>4.6</td>
<td>100</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>0</td>
<td>33.1</td>
<td>0.4</td>
<td>65.3</td>
<td>1.2</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Doun En</td>
<td>0</td>
<td>14.3</td>
<td>0</td>
<td>82.6</td>
<td>3.1</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>0</td>
<td>13.2</td>
<td>0.5</td>
<td>85.2</td>
<td>1.1</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Commune</td>
<td>0</td>
<td>33.6</td>
<td>0.5</td>
<td>63</td>
<td>1.4</td>
<td>1</td>
<td>100</td>
</tr>
</tbody>
</table>
Mosquito Net Used by Household

Only 0.4 percent (7 out of 1743) of the total household members of the commune do not use a mosquito net. Thus, this survey concludes that the use of a mosquito net is a must in the whole commune as gleaned in Table 35.

<table>
<thead>
<tr>
<th>Village</th>
<th>Use Net</th>
<th>No use net</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>Prek Luong</td>
<td>360</td>
<td>99.7</td>
<td>1</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>278</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>257</td>
<td>99.6</td>
<td>1</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>260</td>
<td>99.6</td>
<td>1</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>242</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Doun En</td>
<td>158</td>
<td>98.1</td>
<td>3</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>188</td>
<td>99.5</td>
<td>1</td>
</tr>
<tr>
<td>Commune</td>
<td>1743</td>
<td>99.6</td>
<td>7</td>
</tr>
</tbody>
</table>

Disaster and Crisis

Disaster or crisis indicates the event that happens in a household member’s life such as it could cost the whole household a big amount of money. Such disasters or crises would be if someone in the household got seriously ill or was seriously injured, if the crops are destroyed or heavily damaged by pests, drought or flood and if the house gets robbed by a thief or a household member gets cheated by another person.

Household member got seriously ill or was injured

Almost half (46.6%) of the total commune members have been affected by this crisis and have cost them a big amount of money (in total is 134,781 USD) as shown in Table 36.
Table 36. Households with members got seriously ill or injured and that cost a lot of money

<table>
<thead>
<tr>
<th>Village</th>
<th>Number</th>
<th>Percent</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Affected</td>
<td>Not affected</td>
<td>Total</td>
</tr>
<tr>
<td>Prek Luong</td>
<td>151</td>
<td>210</td>
<td>361</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>127</td>
<td>151</td>
<td>278</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>67</td>
<td>191</td>
<td>258</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>154</td>
<td>107</td>
<td>261</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>138</td>
<td>104</td>
<td>242</td>
</tr>
<tr>
<td>Doun En</td>
<td>56</td>
<td>105</td>
<td>161</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>122</td>
<td>67</td>
<td>189</td>
</tr>
<tr>
<td>Commune</td>
<td>815</td>
<td>935</td>
<td>1750</td>
</tr>
</tbody>
</table>

Households that encountered natural disaster

Only 10.2 percent of the total number of households got affected by a natural disaster costing a total of 125,114,004 riels or 30,516 USD, the most being the village of Bak Roteh affecting 65 households and costing a total of 61,499,000 riels or 15,000 USD (Table 37).

Table 37. Household encountered Natural Disaster that cost a lot of money

<table>
<thead>
<tr>
<th>Village</th>
<th>Number</th>
<th>Percent</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Affected</td>
<td>Not affected</td>
<td>Total</td>
</tr>
<tr>
<td>Prek Luong</td>
<td>44</td>
<td>317</td>
<td>361</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>11</td>
<td>267</td>
<td>278</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>11</td>
<td>247</td>
<td>258</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>47</td>
<td>214</td>
<td>261</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>0</td>
<td>242</td>
<td>242</td>
</tr>
<tr>
<td>Doun En</td>
<td>0</td>
<td>161</td>
<td>161</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>65</td>
<td>124</td>
<td>189</td>
</tr>
<tr>
<td>Commune</td>
<td>178</td>
<td>1572</td>
<td>1750</td>
</tr>
</tbody>
</table>

Households that encountered yield of crops heavily destroyed

A total of 415 households got affected by pests that heavily destroyed their crops amounting to a total of 345,198,900 riels or 84,195 USD. The most heavily affected areas, in terms of number of households affected and cost of the crops damaged, were the villages of Rohal Suong and Bak Roteh as seen in Table 38.
Table 38. Household encountered yield of crops was heavily destroyed by pest that cost a lot of money

<table>
<thead>
<tr>
<th>Village</th>
<th>Number</th>
<th>Percent</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Affected</td>
<td>Not affected</td>
<td>Total</td>
</tr>
<tr>
<td>Prek Luong</td>
<td>23</td>
<td>338</td>
<td>361</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>25</td>
<td>253</td>
<td>278</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>26</td>
<td>232</td>
<td>258</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>102</td>
<td>159</td>
<td>261</td>
</tr>
<tr>
<td>Bak Anreak</td>
<td>73</td>
<td>169</td>
<td>242</td>
</tr>
<tr>
<td>Oun En</td>
<td>43</td>
<td>118</td>
<td>161</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>123</td>
<td>68</td>
<td>191</td>
</tr>
<tr>
<td>Commune</td>
<td>415</td>
<td>133</td>
<td>1750</td>
</tr>
</tbody>
</table>

Household Assets
Household assets provide information on the means of transport, communication as well as agricultural factors. The bicycle, rowing boat and motorcycle are means of transportation; the tractor, pumping machine, threshing machine, oxcart and livestock are used in their farming activities, and the television (TV) and radio are used for communication.

Aside from the household assets, the agricultural land is a valuable asset for the rural livelihood.

Proportion of Household having assets
The most popular of the household assets that the household members possess are the bicycle, motorbike, rowing boat, pumping generator, battery and television. Except for the television set, the rest of the household assets are used or are related to the occupation that the household members have as seen in Table 39.

Livestock
Monetary value of animals by village
All of the villages in the commune have (1) cows amounting to a total of 1,658,680.00 riels or 404,556 USD, (2) pigs amounting to a total of 126,501.000 riels or 30,854 USD, and (3) chickens amounting to a total of 71,157.568 riels or 17,355 USD (Table 40).

In the village of Prek Luong alone, the cost of the cows that they have is about \(\frac{1}{4}\) of the total cost of the cows of the whole commune,
Table 39. Proportion of household having assets by type of asset and village

<table>
<thead>
<tr>
<th>Type of property</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sei Kraom</th>
<th>Rohal Suong</th>
<th>Bak Amreak</th>
<th>Doun En</th>
<th>Bak Rotah</th>
<th>Commune</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorbike</td>
<td>38.8</td>
<td>35.3</td>
<td>34.1</td>
<td>45.2</td>
<td>34.7</td>
<td>32.3</td>
<td>35.4</td>
<td>37.0</td>
</tr>
<tr>
<td>Bicycle</td>
<td>78.4</td>
<td>69.8</td>
<td>55.8</td>
<td>57.5</td>
<td>45.9</td>
<td>46.6</td>
<td>36.0</td>
<td>58.6</td>
</tr>
<tr>
<td>Oxcart</td>
<td>10.0</td>
<td>8.6</td>
<td>3.1</td>
<td>3.4</td>
<td>0.8</td>
<td>2.5</td>
<td>2.6</td>
<td>5.0</td>
</tr>
<tr>
<td>Rowing boat</td>
<td>22.4</td>
<td>17.3</td>
<td>23.6</td>
<td>41.4</td>
<td>51.2</td>
<td>82.6</td>
<td>75.7</td>
<td>40.0</td>
</tr>
<tr>
<td>Tractor</td>
<td>0.0</td>
<td>0.4</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Semi-tractor</td>
<td>10.8</td>
<td>12.6</td>
<td>10.1</td>
<td>10.0</td>
<td>13.2</td>
<td>26.1</td>
<td>22.2</td>
<td>13.8</td>
</tr>
<tr>
<td>Pumping generator</td>
<td>13.3</td>
<td>17.6</td>
<td>27.5</td>
<td>31.0</td>
<td>30.6</td>
<td>31.7</td>
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<td>24.5</td>
</tr>
<tr>
<td>Threshing machine</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
<td>0.4</td>
<td>0.4</td>
<td>0.0</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Generator</td>
<td>0.8</td>
<td>1.4</td>
<td>0.8</td>
<td>4.6</td>
<td>2.9</td>
<td>1.2</td>
<td>3.2</td>
<td>2.1</td>
</tr>
<tr>
<td>Sewing machine</td>
<td>18.3</td>
<td>14.7</td>
<td>7.4</td>
<td>12.3</td>
<td>6.6</td>
<td>5.6</td>
<td>1.1</td>
<td>10.6</td>
</tr>
<tr>
<td>Motor boat</td>
<td>21.1</td>
<td>10.1</td>
<td>11.6</td>
<td>21.8</td>
<td>14.5</td>
<td>32.9</td>
<td>29.6</td>
<td>19.1</td>
</tr>
<tr>
<td>Battery</td>
<td>55.4</td>
<td>52.5</td>
<td>56.8</td>
<td>67.4</td>
<td>61.6</td>
<td>64.6</td>
<td>79.4</td>
<td>61.2</td>
</tr>
<tr>
<td>Television</td>
<td>59.5</td>
<td>56.5</td>
<td>46.9</td>
<td>49.0</td>
<td>46.7</td>
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<td>48.7</td>
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</tr>
<tr>
<td>Radio</td>
<td>39.6</td>
<td>17.6</td>
<td>22.1</td>
<td>30.7</td>
<td>31.4</td>
<td>13.0</td>
<td>28.6</td>
<td>27.4</td>
</tr>
<tr>
<td>Karaoke</td>
<td>2.2</td>
<td>2.9</td>
<td>2.3</td>
<td>7.7</td>
<td>3.3</td>
<td>1.9</td>
<td>1.1</td>
<td>3.1</td>
</tr>
<tr>
<td>Fan</td>
<td>6.9</td>
<td>7.2</td>
<td>2.7</td>
<td>3.4</td>
<td>3.7</td>
<td>0.6</td>
<td>4.2</td>
<td>4.5</td>
</tr>
<tr>
<td>Telephone</td>
<td>15.5</td>
<td>20.1</td>
<td>17.8</td>
<td>19.9</td>
<td>9.1</td>
<td>8.7</td>
<td>12.7</td>
<td>15.4</td>
</tr>
<tr>
<td>Others</td>
<td>2.8</td>
<td>1.4</td>
<td>2.7</td>
<td>1.5</td>
<td>0.0</td>
<td>0.0</td>
<td>4.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Total Household</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 40. Monetary value of animals based on current prices by Village

<table>
<thead>
<tr>
<th>Kind of animal</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sei Kraom</th>
<th>Rohal Suong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount in Riels</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cow</td>
<td>420,430,000.00</td>
<td>257,700,000.00</td>
<td>203,400,000.00</td>
<td>302,650,000.00</td>
</tr>
<tr>
<td>Buffalo</td>
<td>7,000,000.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Pig</td>
<td>25,780,000.00</td>
<td>50,330,000.00</td>
<td>6,755,000.00</td>
<td>15,340,000.00</td>
</tr>
<tr>
<td>Chicken</td>
<td>7,245,000.00</td>
<td>6,214,500.00</td>
<td>4,060,001.00</td>
<td>10,627,000.00</td>
</tr>
<tr>
<td>Duck</td>
<td>3,039,000.00</td>
<td>1,809,000.00</td>
<td>567,000.00</td>
<td>6,015,000.00</td>
</tr>
<tr>
<td>Goat</td>
<td>0.00</td>
<td>460,000.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Sheep</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Crocodile</td>
<td>10,000,000.00</td>
<td>22,000,000.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Amount in US$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cow</td>
<td>102,544.00</td>
<td>62,854.00</td>
<td>49,610.00</td>
<td>73,817.00</td>
</tr>
<tr>
<td>Buffalo</td>
<td>1,707.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Pig</td>
<td>6,288.00</td>
<td>12,276.00</td>
<td>1,648.00</td>
<td>3,741.00</td>
</tr>
<tr>
<td>Chicken</td>
<td>1,767.00</td>
<td>1,516.00</td>
<td>990.00</td>
<td>2,592.00</td>
</tr>
<tr>
<td>Duck</td>
<td>741.00</td>
<td>441.00</td>
<td>138.00</td>
<td>1,467.00</td>
</tr>
<tr>
<td>Goat</td>
<td>0.00</td>
<td>112.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Sheep</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Crocodile</td>
<td>2,439.00</td>
<td>5,366.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>115,486.00</td>
<td>82,564.00</td>
<td>52,386.00</td>
<td>81,618.00</td>
</tr>
</tbody>
</table>
thus making this village as the one having the biggest volume in money if the animals are sold at current prices.

Percentage of household having animal-raising, by kind of animal
The three most popular animals that the commune household members raise are the cow, chicken and pig (Table 41). These are either useful for them in their agricultural work or they raise these animals either for their own consumption or for business purposes.

<table>
<thead>
<tr>
<th>Kind of animal</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sei Kraom</th>
<th>Rohal Suong</th>
<th>Bak Amreak</th>
<th>Doun En</th>
<th>Bakroteh</th>
<th>Commune</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household with cow</td>
<td>51.8</td>
<td>38.8</td>
<td>32.9</td>
<td>42.9</td>
<td>46.3</td>
<td>44.7</td>
<td>39.7</td>
<td>42.9</td>
</tr>
<tr>
<td>Household with buffalo</td>
<td>0.6</td>
<td>0</td>
<td>0</td>
<td>0.8</td>
<td>0.6</td>
<td>0</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Household with pig</td>
<td>13</td>
<td>11.5</td>
<td>5</td>
<td>8.4</td>
<td>8.3</td>
<td>16.1</td>
<td>5.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Household with chicken</td>
<td>49</td>
<td>34.9</td>
<td>35.3</td>
<td>42.1</td>
<td>57.4</td>
<td>64</td>
<td>54.5</td>
<td>46.9</td>
</tr>
<tr>
<td>Household with duck</td>
<td>8.6</td>
<td>11.2</td>
<td>5</td>
<td>10.3</td>
<td>4.5</td>
<td>10.6</td>
<td>10.1</td>
<td>8.5</td>
</tr>
<tr>
<td>Household with goat</td>
<td>0</td>
<td>0.7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Household with sheep</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Household with crocodile</td>
<td>0.6</td>
<td>1.1</td>
<td>0</td>
<td>0</td>
<td>3.7</td>
<td>0</td>
<td>0</td>
<td>0.8</td>
</tr>
<tr>
<td>Household with other animal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total household</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Agriculture Land
Number of households having agriculture land
About 66 percent of the households have agricultural land that they till for their living although 34 percent have no land to till (Table 42). One can find the most number of households who have agriculture land in Prek Luong although in terms of percentage in relation to the total number of households, Doun En has the highest percentage at 81.4 percent while the village of Bak Amreak has the lowest at 60.7 percent.

Type of agriculture land
Except for the village of Bakroteh, the rest of the villages plant on rainy-season rice land and the seasonal crop land. This may be because they wait for the rainy season before they till the lands (Table 43).
Areas of agriculture land
Most household members either have the rainy-season rice land or the seasonal crop land, because as mentioned in the previous section, they wait for the rain before they could plant rice or other seasonal plants. There is only one planting season and this is during the rainy season (Table 44).
Violence, Security and Disorder
Domestic violence and security are also important poverty indicators. In this study, focus is made on violence in the household, sexual abuse in the household and the authority to ask for help when these problems occur.

Domestic Violence
As shown in Table 45, domestic violence is very minimal in all of the villages in this commune. A total of 95.4 percent of the respondents said that there has been no occurrence of domestic violence in their household, only 4.6 percent said that there is.

Other Violence
Members of households who had been victimized by sexual abuse. Based on the survey, there are only two cases of sexual abuse in the commune, one in Sei Kraom and another Doun En (Table 46).
Members of households who had been killed by village member
The results of the survey show that, there are only two incidents of killing in the village that happened in Doun En as seen in Table 47.

Table 47. Member of household who had been killed by village

<table>
<thead>
<tr>
<th>Village</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>0</td>
<td>361</td>
<td>361</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>0</td>
<td>278</td>
<td>278</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>0</td>
<td>258</td>
<td>258</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>0</td>
<td>261</td>
<td>261</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>0</td>
<td>242</td>
<td>242</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Doun En</td>
<td>2</td>
<td>159</td>
<td>161</td>
<td>1.2</td>
<td>98.8</td>
<td>100</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>0</td>
<td>189</td>
<td>189</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Commune</td>
<td>2</td>
<td>1748</td>
<td>1750</td>
<td>0.1</td>
<td>99.9</td>
<td>100</td>
</tr>
</tbody>
</table>
Place to consult when household have social problem

Approximately 75.1 percent of the total household members of the commune think that it is best to consult the village authority in case a social problem occurs. Likewise, 17.2 percent say that consulting own relatives is also a good alternative to do when solving social problems. (Table 48)

Table 48. Place to consult when households have social problem

<table>
<thead>
<tr>
<th>Village</th>
<th>Number</th>
<th>Village authority</th>
<th>Commune authority</th>
<th>District authority</th>
<th>Police</th>
<th>Relatives</th>
<th>Educated elderly</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>266</td>
<td>51</td>
<td>1</td>
<td>22</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>361</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>271</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>278</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>141</td>
<td>22</td>
<td>0</td>
<td>9</td>
<td>83</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>258</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>235</td>
<td>6</td>
<td>0</td>
<td>9</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>281</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>207</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>32</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>242</td>
</tr>
<tr>
<td>Doun En</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>154</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>161</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>187</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>189</td>
</tr>
<tr>
<td>Commune</td>
<td>1314</td>
<td>87</td>
<td>2</td>
<td>42</td>
<td>301</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1750</td>
</tr>
</tbody>
</table>

Income and Expenditure

Household income and expenditure, as the main poverty indicator, can provide useful insights into the economic conditions of the households. It shows the ability of a household to generate income and to spend on food. Agriculture is the main source of employment and income generation in the commune under study as well as in the whole country.

Income

Level of Average Monthly Income

Around 54.4 percent of the household members of the commune receive or earn between 100,001 – 400,000 riels per month, 37.8 percent earn 100,000 riels or below. Only 7.8 percent earn a monthly income of 400,001 riels or above as seen in Table 49.
Average monthly income, by village
The highest monthly average income per household is 234,173 riels or 57 USD (in the village of Sei Kraom) while the lowest is 82,241 riels or 20 USD (in the village of Doun En) as noted in Table 50.

Table 50. Average Monthly Income by village

<table>
<thead>
<tr>
<th>Village</th>
<th>Total household</th>
<th>Total income (Riel)</th>
<th>Average per household (Riel)</th>
<th>Total income (US$)</th>
<th>Average per household (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>361</td>
<td>73,081,800</td>
<td>202,443</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>278</td>
<td>54,474,711</td>
<td>195,952</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>258</td>
<td>60,416,512</td>
<td>234,173</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>261</td>
<td>56,241,703</td>
<td>215,485</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>242</td>
<td>35,856,090</td>
<td>147,339</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Doun En</td>
<td>161</td>
<td>13,240,800</td>
<td>82,241</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Bakroteh</td>
<td>189</td>
<td>41,897,700</td>
<td>221,681</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Commune</td>
<td>1,750</td>
<td>335,009,316</td>
<td>191,434</td>
<td>47</td>
<td></td>
</tr>
</tbody>
</table>

Expenditure
On the weekly expenses, the first five items that the household members spend the highest on are the purchase of (1) rice and other cereals, (2) fish and other seafoods, (3) meat, including poultry, (4) vegetables, and (5) spices. For other expenses, (other than for the daily food items),
Table 51. Average Expenditure by type of Expenditure per household

<table>
<thead>
<tr>
<th>Type of Expenditure</th>
<th>Prek Luong</th>
<th>Sdei Leu</th>
<th>Sei Kraom</th>
<th>Rohal Suong</th>
<th>Bak Amreek</th>
<th>Doun En</th>
<th>Bak Roteh</th>
<th>Commune</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Per Week</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cereals (rice, bread, corn, wheat flour, rice flour, corn meal, rice cakes, noodles, biscuits, ....)</td>
<td>26,282</td>
<td>17,503</td>
<td>25,972</td>
<td>23,716</td>
<td>26,490</td>
<td>22,882</td>
<td>20,810</td>
<td>23,584</td>
</tr>
<tr>
<td>Fish (fresh fish, salt and dried fish, canned fish, shrimp, prawn, crab, etc. ....)</td>
<td>19,436</td>
<td>19,187</td>
<td>14,753</td>
<td>8,688</td>
<td>10,845</td>
<td>7,736</td>
<td>13,410</td>
<td>14,188</td>
</tr>
<tr>
<td>Meat &amp; poultry (beef, buffalo, mutton, lamp, pork, chicken, duck, innards, dried beef, ....)</td>
<td>6,831</td>
<td>8,504</td>
<td>9,533</td>
<td>5,781</td>
<td>6,867</td>
<td>3,707</td>
<td>6,311</td>
<td>7,000</td>
</tr>
<tr>
<td>Eggs (chicken, duck, quail, fermented/salted eggs, etc. ....)</td>
<td>2,652</td>
<td>2,387</td>
<td>2,098</td>
<td>1,683</td>
<td>2,443</td>
<td>746</td>
<td>2,222</td>
<td>2,133</td>
</tr>
<tr>
<td>Fresh vegetables (takun, onion, shallot, cabbage, spinach, carrot, beans, chilli, tomato, etc.)</td>
<td>7,448</td>
<td>6,678</td>
<td>6,906</td>
<td>5,535</td>
<td>8,758</td>
<td>4,826</td>
<td>8,972</td>
<td>7,064</td>
</tr>
<tr>
<td>Spices (sugar, jaggery, salt, chocolate candy, coriander, red pepper, garlic, ginger, soy sauce,)</td>
<td>7,413</td>
<td>4,716</td>
<td>4,347</td>
<td>4,198</td>
<td>6,080</td>
<td>4,214</td>
<td>5,610</td>
<td>5,379</td>
</tr>
<tr>
<td>Oil and fats (rice bran oil, vegetable, pork fat, butter, coconut oil, etc.)</td>
<td>1,393</td>
<td>1,900</td>
<td>1,422</td>
<td>1,146</td>
<td>1,802</td>
<td>1,023</td>
<td>1,494</td>
<td>1,474</td>
</tr>
<tr>
<td>Prepared and preserved vegetables (cucumber pickles, tomato paste, other pickles, etc.)</td>
<td>1,639</td>
<td>578</td>
<td>179</td>
<td>361</td>
<td>1,365</td>
<td>24</td>
<td>857</td>
<td>794</td>
</tr>
<tr>
<td>Expenditure for bought food outside to take home, ....</td>
<td>505</td>
<td>1,619</td>
<td>1,140</td>
<td>600</td>
<td>2,932</td>
<td>863</td>
<td>1,943</td>
<td>1,314</td>
</tr>
<tr>
<td>Fruits and tuber (banana, orange, apple, sweet potato, cassava, potato, tea, etc.)</td>
<td>5,484</td>
<td>3,820</td>
<td>5,773</td>
<td>3,244</td>
<td>4,925</td>
<td>3,310</td>
<td>5,028</td>
<td>4,603</td>
</tr>
<tr>
<td>Other fruits (coconut, lotus nut, cashew nut, gourd seed, etc.)</td>
<td>2,522</td>
<td>2,402</td>
<td>2,207</td>
<td>1,383</td>
<td>522</td>
<td>1,020</td>
<td>2,863</td>
<td>1,910</td>
</tr>
<tr>
<td>Alcoholic beverages (beer, wine, whisky, scotch, other distilled spirits, ....) in Total (Riel)</td>
<td>939</td>
<td>1,066</td>
<td>627</td>
<td>721</td>
<td>1,968</td>
<td>336</td>
<td>1,477</td>
<td>1,025</td>
</tr>
<tr>
<td>Non-alcoholic beverages (canned or bottles soft drink, mineral water, juice, syrup, etc.)</td>
<td>2,155</td>
<td>2,372</td>
<td>2,780</td>
<td>2,036</td>
<td>3,197</td>
<td>655</td>
<td>2,860</td>
<td>2,346</td>
</tr>
<tr>
<td>Tobacco products (cigarettes, mild tobacco, strong tobacco, etc.)</td>
<td>2,595</td>
<td>2,284</td>
<td>1,685</td>
<td>2,201</td>
<td>2,995</td>
<td>2,503</td>
<td>2,437</td>
<td>2,382</td>
</tr>
<tr>
<td>Food outside home (meals at work, school, restaurant, snacks, coffee, soft drink)</td>
<td>242</td>
<td>392</td>
<td>4,029</td>
<td>148</td>
<td>2,254</td>
<td>975</td>
<td>172</td>
<td>1,148</td>
</tr>
<tr>
<td><strong>Per Year</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenditure for studying of all members-household</td>
<td>199,720</td>
<td>448,746</td>
<td>243,355</td>
<td>217,218</td>
<td>169,368</td>
<td>118,826</td>
<td>119,639</td>
<td>228,035</td>
</tr>
<tr>
<td>Expenditure for clothes, shoes, hats, coat, etc. ....</td>
<td>254,327</td>
<td>264,949</td>
<td>220,303</td>
<td>198,441</td>
<td>234,824</td>
<td>162,062</td>
<td>235,429</td>
<td>229,436</td>
</tr>
<tr>
<td>Expenditure for funeral/other ceremonies or festivals, ....</td>
<td>176,150</td>
<td>187,365</td>
<td>149,494</td>
<td>148,013</td>
<td>164,744</td>
<td>136,000</td>
<td>164,577</td>
<td>162,284</td>
</tr>
<tr>
<td>Expenditure for wedding reception/parties, etc. ....</td>
<td>315,677</td>
<td>354,450</td>
<td>232,171</td>
<td>311,795</td>
<td>330,612</td>
<td>212,981</td>
<td>234,089</td>
<td>250,580</td>
</tr>
<tr>
<td>Expenditure for own ceremonies (married, party, funerals, ....)</td>
<td>41,696</td>
<td>154,305</td>
<td>136,047</td>
<td>277,414</td>
<td>80,955</td>
<td>84,161</td>
<td>137,619</td>
<td>128,345</td>
</tr>
</tbody>
</table>
they spend the highest on weddings and other festive ceremonies as noted in Table 51.

\textbf{Poverty}

In this survey, the poverty rate was assessed through household expenditures. The poverty line was set at US$ 0.46 per person per day in the rural area. These household expenditures represented the value of the following items: rice, other food (meat, fish, eggs, vegetables, oil etc.), sweets and similar items (noodles, cakes, desserts, drinks, refreshments etc.), alcohol, cigarettes, education, health care, other expenses (ceremonies, clothing, soap, water, electricity). In this calculation, the production costs are excluded.

\textbf{Poverty by Village}

As a whole, the poorest village in this commune is Doun En where 83.9 percent of its residents are considered poor, the second being

<table>
<thead>
<tr>
<th>Village</th>
<th>Poor (%)</th>
<th>Non-Poor (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prek Luong</td>
<td>23.6</td>
<td>76.4</td>
</tr>
<tr>
<td>Sdei Leu</td>
<td>47.5</td>
<td>52.5</td>
</tr>
<tr>
<td>Sei Kraom</td>
<td>45.9</td>
<td>54.1</td>
</tr>
<tr>
<td>Rohal Suong</td>
<td>62.9</td>
<td>37.1</td>
</tr>
<tr>
<td>Bak Amreak</td>
<td>34.9</td>
<td>65.1</td>
</tr>
<tr>
<td>Doun En</td>
<td>83.9</td>
<td>16.1</td>
</tr>
<tr>
<td>Bakroteh</td>
<td>54.8</td>
<td>45.2</td>
</tr>
<tr>
<td>Commune</td>
<td>47.4</td>
<td>52.6</td>
</tr>
</tbody>
</table>

Table 52. Percentage of Poor and Non-Poor

\begin{tabular}{|c|c|c|}
\hline
\textbf{Village} & \textbf{Male} & \textbf{Female} \\
\hline
Prek Luong & 23.6 & 18.1 & 81.9 \\
Sdei Leu & 40.6 & 29.5 & 70.5 \\
Sei Kraom & 38.8 & 34.6 & 65.4 \\
Rohal Suong & 59.2 & 33.3 & 66.7 \\
Bak Amreak & 27.9 & 28.8 & 71.2 \\
Doun En & 83.1 & 77.4 & 22.6 \\
Bakroteh & 48.4 & 20 & 80 \\
Commune & 43 & 31 & 69 \\
\hline
\end{tabular}

Table 53. Percentage of Poor by Sex of Household


Rohal Suong having 62.9 percent of the household members as poor. The village having the least number of poor household members is Prek Luong, having only 23.5 percent poor household members (Table 52).

Poverty by Sex of Head of Household
In general, as shown in Table 53, there are more poor households headed by males than by females, the highest being in Doun En, the lowest being in Prek Luong for both sexes.

Conclusions and Recommendations

Local Capacity Development and Linkage
Cambodia is committed to undertake the long process of decentralization. It means that the lower levels of the government will take more responsibility in the planning, management, resource raising and resource allocation at the local level. The CBMS-Cambodia project has helped to develop the capacity of the local authorities to implement and to take responsibility for this work. As such, the twelve communes in the study areas now possess the commune poverty monitoring reports by village and the local authorities also have the capacity to do the CBMS in their commune by themselves.

The project has successfully built a link between commune, district, provincial and national level planning processes through the use of CBMS data. As part of a successful advocacy work for the CBMS, the NIS will conduct a national seminar/workshop of its results, including a detailed discussion of the various approaches used—from preparing poverty mapping at the local level to identifying poor households under the umbrella of the poverty reduction strategy.

The people working in this project encountered a number of problems during the implementation phase but were able to solve them along the way. Anyone or any group who would like to put up a project like this must be ready to encounter unexpected problems. Such issues are as follows:

· The training period was not enough for some enumerators to acquire the necessary skill.

· The education level of some selected enumerators was too low to meet the work requirement.
Some parts of the designed questionnaire were difficult to obtain a true answer (Ex. household income / expenditure).

The period to do the interviews was not so appropriate for Battambang province (should not be in the rainy and flooded season).

The announcement to recruit enumerators through local authorities was not widely disseminated.

Data crosschecking could not be done with all relevant institutions (Ex. Type of diseases).

Some village chiefs did not fully support the project’s work.

A lot of respondents tried to hide information with regards to their land and household violence incidents.

Many respondents expected to get some donation and assistance from the project.

Some rich families did not fully cooperate with the enumerators by not providing true information.

The survey was conducted during the time that coincided with the election campaign period, thus time availability and the cooperation of the village leaders and the commune councilors became limited.

After the election, some of the already trained commune councilors were replaced by newcomers; hence, there was a need to build their capacities again

Conclusion
The CBPMS has been set in Cambodia which produced conclusive results that satisfactorily describe the different facets of poverty in 12 communes of three economically different provinces. The project has successfully promoted links between the commune, district, provincial and national level planning processes through the use of CBMS data. The project has developed the capacity of local authorities to implement and take responsibility to upgrade CBMS in their localities. Twelve communes in this undertaking could produce their own poverty statistic books that can be used for planning and monitoring purposes. In addition to poverty rates at the village level, the exercise provided scientifically generated statistics regarding demography, education, housing, land, water, health, household expenditure, occupation and income, assets, livestock, and domestic violence. The results have been
widely shared with various stakeholders for consideration in the replication of the CBMS in other areas.

**Recommendations**

Among the recommendations to be considered are:

1. **Selection of sites.** Selecting the sites that have the willingness and capacity of people in the commune should be the main determinants.

2. **Designing questionnaires.** The questions should be very clear, simple and easy to understand for both interviewers and respondents. They have to be tested and revised before being put to use.

3. **Selection of interviewers.** All interviewers should come from the villages (commune in some cases) where they interview, and should have at least some interviewing experience as well as good understanding of numeracy. A better way to select candidates would have been to post a public announcement at the school or in other communal places.

4. **Data collection.** The enumerators have to be trained and supervised closely because their experience and knowledge are still limited.

5. **Timing of survey.** The survey should be conducted during the non-farming period. In most places, this will be February and March or August and September.

6. **Data processing.** It is necessary to process data manually in the village but this proves to be too difficult for certain villages where skill levels are relatively weak. One option, therefore, is to do it using resources from the commune. The other option is to use schoolteachers or qualified high school students in the commune. Training of data processors is also necessary.

7. **Interviewers’ fee.** Interviewers are paid at the rate of 1,000 riels ($0.25) per household they finish interviewing, which takes one hour to interview on average. They are expected to finish about six households per day. However, this number was not applicable for interviewers who interview households located in remote areas since most of the time is wasted in traveling to the village alone such that they are only able to interview two or three households per day.

   There is a need to study the possibility of increasing the rate per interview and to give transportation allowance to those who will be assigned to interview households located in remote areas.
References


CDRI (2005), Working Toward a Commune-Based Poverty Monitoring in Cambodia, (Cambodia Development Resource Institute: January 2007).


MIMAP-Ghana, Implementing a Community-Based Poverty Monitoring System in Ghana (2003-2006), A Project Proposal presented to MIMAP-CBMS.


Need and Usage of Commune Data System in Kratie Province, Cambodia

Kham Phoeun

Rationale and Objectives
This paper documents the experience of a decade of development in Kratie province. It has three major objectives:

1. Provide a general perspective on the democratic development strategy of the Royal Government of Cambodia through decentralization and deconcentration reform,
2. Present the experiences on the usage of the Commune Database and Commune-Based Monitoring System as well as the major constraints of the system for the development of communes in Kratie province, and
3. Declare the directional policy for the development of the districts and communes in Kratie province.

Profile
Geography
Kramie Province is located in the northeastern part of Cambodia. It is about 340 km from Phnom Penh along National route No.7.

Kratie is bordered by the Stung Streng province in the North, Kampong Cham province in the South, Modolkiri and Vietnam in the East, and Kampong Thom in the West. Its location is along Mekong River. Its highlands have fertile soil suitable for all kinds of agricultural products, fishery and forestry.

Kratie province can be divided into 2 geographical settings namely; The highland: the major part of Kratie and Sambor districts

* Provincial Governor in Kratie Province, Cambodia
and the whole Snoul district are bordered with Vietnam and have red soil which is good for rubber plantation (5,000 ha), agro-industrial crops and animal raising; and the lowland: this runs along the Mekong River with 140 km and has 4 districts- Sambor, Kratie, Preak Prasab and Chhlong. Due to the pattern of water, it brings high fertile soil, fishery, sand and gravel to the area and is good for agricultural production, industrial construction and eco-tourism.

Socioeconomic status

Demography

The province consists of 57,187 families, with a total population of 147,941 persons, as shown in Table 1. The birth rate is 1.87 percent per year. The province is the residence of 7 ethnic groups composed of 33,497 persons within 5,949 families.

Table 1. Population by district of Kratie province

<table>
<thead>
<tr>
<th>District</th>
<th># of communes</th>
<th># of villages</th>
<th># of families</th>
<th>Population 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Total</td>
<td>Female</td>
</tr>
<tr>
<td>Chhlong</td>
<td>8</td>
<td>40</td>
<td>9640</td>
<td>25198</td>
</tr>
<tr>
<td>Kratie</td>
<td>15</td>
<td>74</td>
<td>16913</td>
<td>44696</td>
</tr>
<tr>
<td>Sambo</td>
<td>10</td>
<td>52</td>
<td>9689</td>
<td>24870</td>
</tr>
<tr>
<td>Preak Prasab</td>
<td>8</td>
<td>48</td>
<td>12477</td>
<td>31750</td>
</tr>
<tr>
<td>Snoul</td>
<td>5</td>
<td>36</td>
<td>8468</td>
<td>21427</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>2503</td>
<td>57187</td>
<td>147941</td>
</tr>
</tbody>
</table>

Economic potential

Industry: The province has land for agro-industrial crops and mine resources such as marble and gold, among others. Its potential is suitable for the industrial sector.

Commerce: The province exported agro-industrial crops such as rubber, maize, peanut, sesame, cattle, sand, gravel and marble. It also imported metal steel, cement, machinery and equipments.

Tourism: There are 12 ecological and historical sites for tourism such as the Irrawady Fresh Water Dolphin in Kampi, Wat Rokakandal, Wat Sorsor 100, Phnom Sambok, Phnom Soporkalai, Snoul wild conservation zone and Prak Chimeang among others.
Provincial Administration and Provincial Rural Development Committee

Provincial administration
Kratie province covers 11,094 km divided into 5 districts: Chhluong, Prek Prasob, Sambor, Snuol and Kraties. It has 46 communes consisting of 250 villages. Decentralization policy is applied at the commune level. This set-up is shown in Figure 1.

Figure 1. Provincial Administration

Provincial Rural Development Committee (PRDC)
Role and Responsibility
The PRDC plays an important role in local development through the provision of local authorities in the various line departments. It also ensures that the Commune Council has used its authority in accordance to the national decentralization policy. Its structure is shown in Figure 2.

Figure 2. Provincial Rural Development Committee Structure
Decentralization reform
The reform of the sub-national governance system shall aim to: (i) consolidate and deepen the process of democratization at the grassroots, and (ii) promote local development and poverty reduction. The reform shall be guided by the following principles:

- **Democratic Representation**: Strengthen local councils which are democratically elected (either directly or indirectly) and expand their powers, responsibilities and resources.
- **Popular Participation**: Introduce systems and procedures for people’s participation in decision making at all levels of the sub-national governance system.
- **Public Sector Accountability**: Strengthen the accountability of public administration at all levels and facilitate people’s oversight of the administrative and financial performance.
- **Effectiveness**: Bring providers of services closer to the users and allow users to participate in the planning and monitoring of public services delivery in order to make the availability of public services responsive to local needs and priorities.
- **Efficiency**: Improve the administrative system, coordination and management capacity of the sub-national governance system to improve quality and access to public services at all levels.
- **Poverty focus**: Enhance the capacity of integrated authorities at all levels to better target public expenditures in order to eradicate poverty by focusing on the vulnerable groups and to achieve Cambodia’s Millennium Development Goals (MDGs).

Commune/Sangkat /Structure
Per provision of the Law on Commune/Sangkat administration and management, each Commune/Sangkat council shall have a specific structure. Depending on the size of the area and the number of people living in the area of the Commune/Sangkat, the Council will have 5, 7, 9, or 11 council members. The actual number of councilors for each Commune/Sangkat is determined by a sub-decree as seen in Figure 3.
Role and Responsibilities of major actors of Commune/Sangkat development
The Commune Council has the role and responsibility to support good governance to respond to the community’s needs in accordance to national policy. The commune Council has two specific roles:
   a) Serve the interest of the Commune/Sangkat and the people in its area, and
   b) Serve as the agent of the state under the management and nomination of state authority

Commune Database (CDB)
Program Background
As stated in the law of the Commune/Sangkat on decentralization, the preparation of the Five-year Commune Development Plan and the Three-year Commune Investment Program had been assigned to all Communes/Sangkat. The law requires the Commune/Sangkat to update the commune data annually as well.
In response to the decentralization reform policy, Commune Database (CDB) has been developed under the support of the UNDG/OPS/CARERE2 and PLG in 198 and the Seila program in 2001-2006. The database has been periodically upgraded to meet the actual needs of communes in the 24 provinces/municipalities. In 2002, 17 indicators were used. These are updated annually by the Ministry of Planning, bringing the current number of indicators being used to 341.

Database arrangement
Under the Commune/Sangkat Council management, the CDB will be collected within the whole country. The Ministry of Planning will coordinate the data collection with its line, provincial department or district office and under the support of the PRDC. All village leaders have to collect and update their village data book and send them to the Commune Council for checking and verification before sending it to the Department of Planning for data inputting. After the data entry, the Department of Planning sends them to the Ministry of Planning for consolidation into the country database and processing.

Data processing
The ministry of Planning checks, consolidates and sends back to the Provincial Department the data for analysis and printing. Provincial, district, and commune profiles using the CDP/CIP preparation for annually, individually, will interpret its data printed and define what occur within their level. The districts and communes will interpret their data with the support from the Ministry of Planning.

Data usage
The use of local data in planning is required by the national policy reform to empower the local authority in the execution of the decentralization process for the five-year development plans and the annually reviewed investment programs.

- **Province:** 5-year Provincial Development Plan is conducted every five years while the 3-year Provincial Investment Plan is annually reviewed and formulated.
Commune: Like the province, the 5-year Commune Development Plan is also conducted every five years and the 3-year Commune Investment Program is annually reviewed and formulated.

To ensure that the plan is transparent, accountable and relevant to the people’s needs, data at the village, commune and district levels are needed. Thus, the CBD provides great contribution on the matter.

Data are also for the use of institutions like NGOs in development and research.

**Necessity of CDB**

The significant contributions of the CDB can be seen from a comparison of the situation before and after the adoption of the CDB.

*Before CDB*
- There were inadequate local data for planning preparation;
- Data sourced from NGOs, institutes, research studies and NIS were the most important sources for various uses;
- Data collected from NGOs, institutes, research studies and NIS, however, generally represented the whole country rather than any specific commune, hence, they could not provide a clear picture of the specific needs;
- The National Institute of Statistics (NIS) was the most important data source for all.

*After CDB*
- The lowest level local data for each commune were gathered and updated annually and made available publicly,
- The CDB plays an important role in the national database and is the major source for most of the development projects.

**Community-Based Monitoring System (CBMS)**

*Background*

The program was first applied in Kratie in 2004 under the auspices of the Cambodia Development Research Institute (CDRI). It was used to investigate three communes, namely Snuol, Sre Char, and Khsem in Snuol districts. The data were then publicly used within
the communes. The system was conducted again in 2006 within the same areas. The results, however, are still being processed.

System focal point

The system focuses on poverty monitoring within each commune. The focal points of the questionnaire are on occupation, disability, birth status, settlement, power supply, water sources and sanitation, income and expense, land titling, agriculture, violence and mortality. These provide a wide range of information for organizations to use in development activities.

Data analysis

The CBMS is directly managed by the NIS in cooperation with the Ministry of Planning and the Commune Council. The Commune Council is required to do the data collection and the questionnaire and then send them to the Ministry of Planning for data entering. The final soft copy of the entries will later be sent to the NIS for analysis. The analytical and interpreted results will be sent back to either the Ministry of Planning and/or the Commune for usage and public dissemination.

Data usage status

Advantages: The information gathered from the CBMS are mainly related to what are needed by the NGOs and organizations working in development, especially economic and health status. It provides an evaluation of previous development activities. The system reflects the results of commune development and meets the need of NGOs for their development activities including progress, decision making information, and criteria for judgement.

Limitations: The coverage of areas is still limited and the information collected specifically represents the surveyed communes only. Other communes in the country might be able to use the findings as references only. The system is also a pilot and not widely used.

CBMS vs. CDB

The CDB includes the raw materials that serve as profile for every commune. It provides raw data that can be analyzed into different term. The CBMS, meanwhile, specifically analyzes poverty and provides
an image on the progress of the country. It represents the country. Table 2 shows the comparative advantage(s) and disadvantage(s) of each.

**Kratie Province's Policy to Support CBD & CBMS**

To support the decentralization and deconcentration policy, the Provincial Administration has played a very important role in the democratic development. The present policies of the province to support the local authority are:

- To support and monitor the Commune Council’s operations;
- To assure that line departments, offices, and districts are providing technical support to the Commune Council, especially related to capacity building;
- To support and coordinate the application of decentralization policy, and
- To encourage development activities and the NGOs to support the commune in workshops and training to enhance local livelihood improvement.

**Issues and Challenges of the CDB & CBMS**

Commune Database

At present, CDB has met some constraints and need to be addressed. These are:

<table>
<thead>
<tr>
<th>CBMS</th>
<th>CDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Mainly focused on wealth poverty and services</td>
<td></td>
</tr>
<tr>
<td>· Less usage and application since it is not well known</td>
<td></td>
</tr>
<tr>
<td>· Detail on income and expense</td>
<td></td>
</tr>
<tr>
<td>· Mainly used as basis for general study/research</td>
<td></td>
</tr>
<tr>
<td>· Publicly known and widely used</td>
<td></td>
</tr>
<tr>
<td>· Wholly applied in country and communes</td>
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</tr>
</tbody>
</table>
Reliability is low (around 70%) because data collection depends on village leaders who have very heavy workloads and little benefit.

Commune capacity is very limited. Most of the work needed is still supported by the government and civil society.

Commune data collection capacity is still inadequate.

Data entry, analysis, and description are prepared at the central level due to limited capacity, facilities and electricity, among others, at the commune level;

The commune concept is still that the data belong to the Ministry of Planning rather than the commune; and

Planning and implementation are not well prepared and always late.

**CBMS**

CBMS is being applied on a narrow aspect. Capacity in data collection is very limited since the experience with the system is not long enough and the application of the system is on an annual basis instead of more often as the CDB.

Community participation is hard to achieve especially on information related to income and expense. The residents think that the authority might know their income and increase their tax even if interviewers clearly introduced the project objectives at the outset.

Application of the finding is still limited due to its relative newness. Dissemination of findings is still limited in comparison to the CDB which exists in every commune.

**Line Development vs. Data System**

Line departments have used data for their planning. The strategies are defined as required and found in the CDB. Some activities of line departments within the past years can be briefly summarized as:

- Agriculture: agricultural extension, community-based organization establishment, agricultural agents training.
- Women Affair: training on violence, gender network establishment, etc.
- Rural Development: basic infrastructure improvement and rehabilitation.
- Water Resources & Meteorology: extension on usage of small scale irrigation system, water user group establishment, culvert, dam, repair and construction.
- Environment: plantation, community agent training, water pollution system building, awareness on environment.
- Health: health post construction, health awareness training.
- Education: construction of school building, illiteracy education.
- Information: news dissemination, publish quarterly newsletter.
- Land Management, Urban Planning & Construction: production of land use map, participatory land use planning application.
- Planning: coordination of plan development, documentation, district integration plan preparation, M&E.

**Conclusion & Recommendations**

Decentralization and Deconcentration Reform has provided great change and new ideas for the future direction of poverty reduction in Cambodia. The implementation of the poverty reduction policy has been gradually done to meet the millennium development goals under the umbrella of the national government and includes line ministries, institutions, departments, provincial departments, and district offices.

A reliable and valid Commune Database (CDB) as a tool toward qualified development plan to meet actual needs is being used and gradually upgraded. This is a new system for Cambodian Government to meet the democratic development of its country. The transparency, capacity, and accountability through local participation is being used and set up as a policy to reach good governance.

Planning and ownership still need lots of support from various institutions and civil society, especially from the Provincial Rural Development Committee that is playing a critical role in empowering and assuring that the process is on the right track.

CDB has contributed lots in local development, both for the Five-year Development Plan and the Three-year Investment Plan. It integrates the actual needs of the community people within the plan so that the community would know how their needs will be addressed.
Meanwhile, the CBMS has provided information on the local progress as it has been developed, especially on health and poverty. This is a vision and additional information to CDB and needs a lot of agencies, particularly NGOs, to define their development program.

The support of the district authority for the CDB & CBMS is very important to reach the development goal successfully. In addition, the PRDC has to provide more support, direction, coaching and delegation to ensure a smooth policy implementation.

Regular monitoring and evaluation on local development, data use and management using community participation under district and related agencies coordination is the process of strengthening decentralization.

In summary, the Provincial Rural Development Committee has recommended the following for the province’s future improvement and success:

- Assure that the local administration has the support of line departments and civil society, on the decentralization policy to achieve poverty alleviation.
- Motivate the Commune Council to perform as stated in the Law on Commune Council.
- Assure that the Commune Council will work for the protection of the natural resources.
- Strengthen the capacity building of the Commune Council, civil society, CBOs, and community people on planning. The CBMS is contributing to this and to a sense of ownership of the Plan.
Community-Based Monitoring System in Lao-PDR

Sengmany Keolangsy

CBMS Institutional Arrangements
The Lao-PDR government has two major goals: based on the Millennium Development Goals (MDG), it is to reduce poverty by 15 percent by 2015 and for its own goal, it seeks to overcome the status of a least developed country (LDC) by 2020.

In order to attain these goals, the Community-Based Monitoring System (CBMS) project will provide technical assistance to the local authorities such as province, district and village in the building up of the database of socioeconomic information in the local areas and in the monitoring of the poverty alleviation program in two pilot districts in Lao PDR.

As identified by the National Statistics Center (NSC), the host institution of the CBMS project in Lao PDR, and with funding from the International Development Research Centre (IDRC) of Canada, the pilot areas where the CBMS will be implemented are in 13 villages of Toumlan district in Saravane province and 11 villages of Sepone district in Savannakhet province.

The project team is made up of the National Statistics team (5 persons), Province team (4 persons), District team (4 persons) and Village team (50 persons), totaling 60 persons involved in the project. The task of provincial staff is to supervise and “steer the wheel” at the province level, the task of the district staff is to supervise and steer at the village level. In addition, 50 enumerators for data collecting in the

* Director of Social Division, National Statistical Center, Lao PDR
field were chosen by the head of the villages based on their capacity and education level.

The training on data collection for the supervisor and enumerators was conducted at the planning and investment office of Sepone district, Savannakhet province with 26 participants in attendance while for Saravane province, the training was conducted at the planning and investment office of Toomlan district, Saravane province with 30 participants on hand. The head of the planning and investment offices of the two provinces are co-chairmen for the opening of those training. In addition, the deputy of the district governor also joined these two training programs.

**CBMS Indicators**

The team improved the questionnaire and methodology for data collection of the Village Book as well as the household questionnaire by adding some indicators. The indicator of the CBMS aim to collect socioeconomic information from the grassroot level such as data on population, housing, agriculture, labor statistics or main activities, education, health and poverty. The village chief is responsible for filling up the improved Village Book using the CBMS indicators and for reporting to the districts. The districts then forward the report to the provincial office and then the latter forwards the report to the NSC.

The project team met with the local authorities, the NSC, concerned ministries and other users to discuss the selection of indicators for this project. The indicators, as listed in Table 1, total 158 and are those proven to be useful for application for policymaking strategy and planning in solving poverty in the country.

**CBMS Instruments and Training Modules**

*Data collection*

After one week of training, all enumerators returned to their villages to start collecting data from the households, checking and putting in the data in the Village Book. After three weeks of data collection, the enumerators then make the report to the district.

*Data validating and processing*

Upon receipt of the two kinds of report from the villages— the Village Report and the households questionnaire with fully completed data
Table 1. CBMS Indicators in Lao PDR

<table>
<thead>
<tr>
<th>No</th>
<th>Class</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Village profile</td>
<td>Urban or Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access to electricity</td>
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<td></td>
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<td>Access to water</td>
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<td>Access to road</td>
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<td></td>
<td>Access to market</td>
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<td></td>
<td></td>
<td>Access to health care centre</td>
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<td></td>
<td></td>
<td>Access to school</td>
</tr>
<tr>
<td>8</td>
<td>2.1. Number of Population and Households</td>
<td>Number of collective households</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of agriculture households</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of population</td>
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<tr>
<td></td>
<td></td>
<td>Number of females</td>
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<tr>
<td></td>
<td></td>
<td>Number of industry and handicraft households</td>
</tr>
<tr>
<td>13</td>
<td>2.2. Population change in the past 12 months</td>
<td>Number of newborn population</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of death population</td>
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<tr>
<td></td>
<td></td>
<td>Number of move-in population</td>
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<tr>
<td></td>
<td></td>
<td>Number of move-out population</td>
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<tr>
<td>19</td>
<td>2.4. Professional</td>
<td>Number of population who are lowland farmers</td>
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<tr>
<td></td>
<td></td>
<td>Number of population who are upland farmers</td>
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<td></td>
<td></td>
<td>Number of population who are government - private officer</td>
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<tr>
<td></td>
<td></td>
<td>Number of population who are State enterprise officers</td>
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<td></td>
<td></td>
<td>Number of population who are government officers</td>
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<td></td>
<td></td>
<td>Number of population who are private officers</td>
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<td></td>
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<td>Number of population who are transportation officers</td>
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<tr>
<td></td>
<td></td>
<td>Number of population who are construction officers</td>
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<tr>
<td></td>
<td></td>
<td>Number of population who are unemployed</td>
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<td></td>
<td></td>
<td>Number of population who are employed in other areas</td>
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<tr>
<td></td>
<td></td>
<td>Number of population who are students</td>
</tr>
<tr>
<td>30</td>
<td>2.5. Households characteristics</td>
<td>Number of population who are retired/sick / too old</td>
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<td></td>
<td></td>
<td>Number of households living in concrete house</td>
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<td></td>
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<td>Number of households living in mixed concrete/wood house</td>
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<td>Number of households living in wooden house</td>
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<td>Number of households living in bamboo house</td>
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<tr>
<td></td>
<td></td>
<td>Number of households living in other house</td>
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<tr>
<td>36</td>
<td>Sanitation</td>
<td>Number of households using modern toilet</td>
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<td></td>
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<td>Number of households using normal toilet</td>
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<td>Number of households with no toilet</td>
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<td>Class</td>
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<td>40</td>
<td>Water source</td>
<td>Number of households using water supply</td>
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<td>41</td>
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<td>Number of households using water from well, borehole, numlin</td>
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<td>42</td>
<td></td>
<td>Number of households using water from river, stream, pond</td>
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<td>Number of households using water from other sources</td>
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<td>45</td>
<td>Energy use for cooking</td>
<td>Number of households using energy from electricity</td>
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<td>46</td>
<td></td>
<td>Number of households using energy from petrol, gas</td>
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<td>47</td>
<td></td>
<td>Number of households using energy from wood/charcoal</td>
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<tr>
<td>48</td>
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<td>Number of households using energy from other sources</td>
</tr>
<tr>
<td>50</td>
<td>3. Agriculture</td>
<td>Area of lowland rice growing</td>
</tr>
<tr>
<td>51</td>
<td>3.1. Plantation</td>
<td>Area of irrigated rice growing</td>
</tr>
<tr>
<td>52</td>
<td>Planted and Harvest</td>
<td>Area of upland land rice growing</td>
</tr>
<tr>
<td></td>
<td>Area 2006</td>
<td>Area of maize growing</td>
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<tr>
<td>53</td>
<td></td>
<td>Area of root and nut growing</td>
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<tr>
<td>54</td>
<td></td>
<td>Area of vegetable growing</td>
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<tr>
<td>55</td>
<td></td>
<td>Area of soy bean growing</td>
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<td>56</td>
<td></td>
<td>Area of mung bean growing</td>
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<tr>
<td>57</td>
<td></td>
<td>Area of peanut growing</td>
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<td>58</td>
<td></td>
<td>Area of tobacco growing</td>
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<tr>
<td>59</td>
<td></td>
<td>Area of tea growing</td>
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<td>60</td>
<td></td>
<td>Area of coffee growing</td>
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<td>62</td>
<td></td>
<td>Area of corn growing</td>
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<td>63</td>
<td></td>
<td>Area of vig growing</td>
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<tr>
<td>64</td>
<td></td>
<td>Area of sak growing</td>
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<td>65</td>
<td></td>
<td>Area of ketasna growing</td>
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<td>66</td>
<td></td>
<td>Area of Ngangphara growing</td>
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<td>67</td>
<td></td>
<td>Area of tamarind growing</td>
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<tr>
<td>68</td>
<td></td>
<td>Area of mango growing</td>
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<tr>
<td>69</td>
<td></td>
<td>Area of other growing</td>
</tr>
<tr>
<td>70</td>
<td>Production</td>
<td>Production of lowland rice</td>
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<tr>
<td>71</td>
<td></td>
<td>Production of irrigated rice</td>
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<tr>
<td>72</td>
<td></td>
<td>Production of upland rice</td>
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<tr>
<td>73</td>
<td></td>
<td>Production of maize</td>
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<td>74</td>
<td></td>
<td>Production of root and nut</td>
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<td>75</td>
<td></td>
<td>Production of vegetable</td>
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<td>76</td>
<td></td>
<td>Production of soy bean</td>
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<td>77</td>
<td></td>
<td>Production of mung bean</td>
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<td>78</td>
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<td>Production of peanut</td>
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<tr>
<td>№</td>
<td>Class</td>
<td>Indicators</td>
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<tr>
<td>83</td>
<td></td>
<td>Production of tobacco</td>
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<td>84</td>
<td></td>
<td>Production of tea</td>
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<td>85</td>
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<td>Production of coffee</td>
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<td>86</td>
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<td>Production of sugar cane</td>
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<td>87</td>
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<td>Production of sugar corn</td>
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<td>88</td>
<td></td>
<td>Production of tamarind</td>
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<tr>
<td>89</td>
<td></td>
<td>Production of mango</td>
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<tr>
<td>90</td>
<td></td>
<td>Production of others</td>
</tr>
<tr>
<td>91</td>
<td>3.2. Agriculture, livestock</td>
<td>Number of cattle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of newborn cattle</td>
</tr>
<tr>
<td>92</td>
<td></td>
<td>Number of buffalos</td>
</tr>
<tr>
<td>93</td>
<td></td>
<td>Number of newborn buffalos</td>
</tr>
<tr>
<td>94</td>
<td></td>
<td>Number of pigs</td>
</tr>
<tr>
<td>95</td>
<td></td>
<td>Number of newborn pigs</td>
</tr>
<tr>
<td>96</td>
<td></td>
<td>Number of sheep &amp; goats</td>
</tr>
<tr>
<td>97</td>
<td></td>
<td>Number of newborn sheep &amp; goats</td>
</tr>
<tr>
<td>98</td>
<td></td>
<td>Number of poultry</td>
</tr>
<tr>
<td>99</td>
<td></td>
<td>Number of horses</td>
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<tr>
<td>100</td>
<td></td>
<td>Number of birth</td>
</tr>
<tr>
<td>101</td>
<td></td>
<td>Number of elephant</td>
</tr>
<tr>
<td>102</td>
<td></td>
<td>Number of fish released</td>
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<tr>
<td>103</td>
<td></td>
<td>Number of others</td>
</tr>
<tr>
<td>104</td>
<td>3.3 Agriculture, livestock died</td>
<td>Number of death cattle</td>
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<td></td>
<td></td>
<td>Number of death buffalos</td>
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<tr>
<td>105</td>
<td></td>
<td>Number of death pigs</td>
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<td></td>
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<td>Number of sheep &amp; goats</td>
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<td>108</td>
<td></td>
<td>Number of horses</td>
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<tr>
<td>109</td>
<td></td>
<td>Number of elephant</td>
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<tr>
<td>110</td>
<td></td>
<td>Number of others</td>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>4. Industrial and handicraft</td>
<td></td>
</tr>
<tr>
<td>113</td>
<td>4.1. Industrial and handicraft activities by sex</td>
<td>Number of population who do weaving</td>
</tr>
<tr>
<td>114</td>
<td></td>
<td>Number of population who do knitting</td>
</tr>
<tr>
<td>115</td>
<td></td>
<td>Number of population who do furniture production</td>
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<tr>
<td>116</td>
<td></td>
<td>Number of population who do earth burned production</td>
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<td>117</td>
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<td>Number of population who do carving</td>
</tr>
<tr>
<td>118</td>
<td></td>
<td>Number of population who do silver and gold production</td>
</tr>
<tr>
<td>119</td>
<td></td>
<td>Number of population who do bread &amp; biscuit production</td>
</tr>
<tr>
<td>120</td>
<td></td>
<td>Number of population who do ferment fish production</td>
</tr>
<tr>
<td>121</td>
<td></td>
<td>Number of population who do agricultural tools production</td>
</tr>
<tr>
<td>122</td>
<td></td>
<td>Number of population who do others</td>
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<tr>
<td>123</td>
<td>5. Education</td>
<td>Proportion of households which have members who can read and write</td>
</tr>
<tr>
<td>No</td>
<td>Class</td>
<td>Indicators</td>
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<tr>
<td>124</td>
<td></td>
<td>Proportion of households which have members who can not read and write</td>
</tr>
<tr>
<td>125</td>
<td></td>
<td>Number of population who are illiterate</td>
</tr>
<tr>
<td>126</td>
<td></td>
<td>Proportion of households which have members who dropped out from school</td>
</tr>
<tr>
<td>127</td>
<td></td>
<td>Proportion of households which have “no fund” as the main cause of members dropped out from school</td>
</tr>
<tr>
<td>128</td>
<td></td>
<td>Proportion of households which have “school is far” as the main cause of members dropped out from school</td>
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<tr>
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<td>Proportion of households which have “handicap” as the main cause of members dropped out from school</td>
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<td>6. Public health</td>
<td>Proportion of households which have a member ill in the past 12 months</td>
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<tr>
<td>131</td>
<td></td>
<td>Proportion of population who are ill associated with dengue fever</td>
</tr>
<tr>
<td>132</td>
<td></td>
<td>Proportion of population who are ill associated with malaria</td>
</tr>
<tr>
<td>133</td>
<td></td>
<td>Proportion of population who are ill associated with diarrhea</td>
</tr>
<tr>
<td>134</td>
<td>7. Poverty</td>
<td>Proportion of poor households</td>
</tr>
<tr>
<td>135</td>
<td></td>
<td>Proportion of poor non households</td>
</tr>
<tr>
<td>136</td>
<td></td>
<td>Proportion of poor households relating to lack of clothes</td>
</tr>
<tr>
<td>137</td>
<td></td>
<td>Proportion of poor households relating to lack of permanent house</td>
</tr>
<tr>
<td>138</td>
<td></td>
<td>Proportion of poor households relating to lack of expenditure on health care</td>
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<tr>
<td>139</td>
<td></td>
<td>Proportion of poor households relating to lack of expenditure on education</td>
</tr>
<tr>
<td>140</td>
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<td>Proportion of poor households relating to lack of rice</td>
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<tr>
<td>141</td>
<td>8. Income</td>
<td>Proportion of households which have agriculture as main source of income</td>
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<td>142</td>
<td></td>
<td>Proportion of households which have agriculture as main source of income</td>
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<tr>
<td>143</td>
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<td>Proportion of households which have private employee as main source of income</td>
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<td>Proportion of households which have government employee as main source of income</td>
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<td></td>
<td>Proportion of households which have hunting and forest products as main source of income</td>
</tr>
<tr>
<td>146</td>
<td></td>
<td>Proportion of households which have households business as main source of income</td>
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<td>147</td>
<td></td>
<td>Proportion of households which have others as main source of income</td>
</tr>
<tr>
<td>148</td>
<td>9. Property and durable</td>
<td>Proportion of households which own estate</td>
</tr>
<tr>
<td>149</td>
<td></td>
<td>Proportion of households which own a car</td>
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</tbody>
</table>
of households, the district level then rechecks (makes validation) the data. If there are some doubts, the district then sends back the reports to the enumerators at the village for improvement. If not, the district would be paid the rest of the 20 percent of podium for them. Thereafter, the district prepares the report and the filled households questionnaire and sends them to the province. The province then rechecks the data before entering them in the database with the use of the SPSS, word and excel softwares in cooperation with the National Statistics Center which does the analysis and publication.

Uses and application
After the processing and analysis, the results were disseminated through two workshops. One was the dissemination workshop at the district level where many visitors like the deputy chair of the district governor and various divisions attended. The other one was the workshop held at the Vientiane Capital where concerned ministries, international organizations, and other users were invited. The head of the committee for planning and investment served as chairman of this workshop. After the workshops, the reports were then disseminated through hard copies and electronic files to all the two districts. At the same time, the NSC also placed them in the NSC website.

Status of implementation and next steps
As earlier mentioned, the CBMS project was hosted by the NSC supported by IDRC and implemented by the local areas: province,
district and village. This project can be said effective since many organizations such as line ministry, national organizations, department of planning, district authority, province authority themselves, GTZ and other organizations related to the topic used the results, especially the National Committee of Poverty Reduction.

However, despite the success, there were also several shortcomings like the following:

1. less computer at the district level
2. some heads of villages who served as data collectors have low education and do not even know the Lao language
3. Based on the head of the village regulation, every two years, they have to change the new one that’s wide every year they have to retrain.
4. the time of the training was quite short so it affected some of the enumerators who were slow in understanding
5. The results of the survey can not be used for the whole province and at the national level because the small sample size of only two districts.

Nonetheless, in view of the subject matter, the NSC has lined up the following steps:

1. try to expand sample size from 24 villages in two provinces to 54 villages at the same province,
2. continue to make the final report based on the regional CBMS format guidance,
3. continue to draw maps,
4. continue to send 142 district staff to the 3-month statistics course after which they will be given 1 computer for each district;
5. prepare the action plan for the second phase; and
6. continue to look for budget from government and other sources.
Community-Based Monitoring System in the Planning and Monitoring Process in Saravan, Lao PDR

Phosy Keosiphandone

Introduction
The government of Lao PDR has reiterated its strong commitment to the objective of poverty eradication in order to achieve its national development goals. Toward this goal, the government endorsed the National Growth and Poverty Eradication Strategy (NGPES) in June 2004. The NGPES emphasizes certain essential linkages among the main sectors, namely: (a) several supporting sectors, (b) cross-sector priorities, and (c) specific national programs. A community-driven and access-oriented rural development strategy is a base for district development. Rural development is central to the government’s poverty reduction efforts as rural poverty is a primary concern and a community-based approach essential to poverty eradication. In this regard, the principles of participation and decentralization play an important role in linking the planning system to the poverty reduction strategy.

Lao PDR is implementing a number of economic programs, namely: stabilize the macro economy, promote growth, and subsequently reduce poverty. The implementation of the NGPES, therefore, demands to have more information about the poor especially at the community level. It is necessary to have a system for monitoring and evaluation, especially for programs and policies toward poverty alleviation. The monitoring in Lao PDR has been adopted as a bottom-up approach from the community to the
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national level. This approach or system is based on the data collection of the National Statistics Center (NSC) through the “Village Book”.

However, there is a need to build up and develop the capacity at the grassroot level to ensure the effectiveness of decentralization. This will help in the designing and prioritizing of programs and policies that will alleviate rural poverty.

During the 1990s, poverty analysis and monitoring were drawn heavily from the Lao Expenditure Consumption Surveys (LECS), which take place every five years. It looks apparent that the monitoring of poverty during the 1990s was not effectively put in place since annual assessment did not exist at all until 2001.

In 2004, the Community-Based Monitoring System (CBMS) was introduced by the regional office in Singapore of the International Development and Research Center (IDRC) and by CBMS coordinators in the region to the NSC. Based on this, Lao PDR adopted and implemented the CBMS in 11 villages in Toumlan of Saravan province.

It is expected that in the future, the CBMS will be adopted nationwide. All data information received and analysis of the CBMS project will be made as fundamental supplement of the existing “Village Book” for the monitoring and evaluation of socioeconomic development and poverty in the country at the local level.

Poverty Measurement and Monitoring in Lao PDR

Poverty monitoring and analysis in the Lao PDR has so far been mainly based on the Lao Expenditure and Consumption Surveys (LECS). The last LECS III was conducted in 2002/2003. The fourth round of LECS (LECS IV) has just started in April 2007 and will be completed by March 2008. However, to assess and monitor poverty in the Lao PDR, quantitative measures were used as well as qualitative assessments.

Quantitative measurement using poverty lines

Poverty lines were constructed for use in quantitative poverty research. The Lao Expenditure and Consumption Survey (LECS) data sets from 1992/1993, 1997/1998 and 2002/2003 have provided the base for the monitoring.
The establishment of the food poverty line follows the current standards used in developed countries, wherein use of the figure of 2100 calories per day per person as the necessary food requirement is adopted. Those with total expenditures and consumption less than the equivalent of 2100 calories are considered to be living below the food poverty line.

**Qualitative assessment**

Qualitative analysis of poverty nationwide began with the implementation of the Participatory Poverty Assessment (PPA) in the year 2000, which made possible a comprehensive analysis of poverty in Lao PDR that emphasized causation and perceptions of poverty throughout the multi-ethnic population. The PPA recorded the experiences and concerns of the people in order to initiate and identify public and private actions to reduce poverty. This was accomplished by combining different forms of knowledge on poverty (statistical, cultural, anthropological, institutional, economic, etc.) and by understanding the views of poor people and applying these toward the goal of poverty reduction. The goals of participatory assessment are to improve the understanding of actions that may be expected to make positive difference to the livelihoods, well-being and quality of life of poor people.

**Village Book**

To fill in the gap between LECS data collection and analysis, the Lao Government is in the process of developing a reporting system on poverty level within the country following the Prime Minister’s Instruction No.10 dated 25 June 2001. The Instruction introduced specific criteria (Annex 1) for defining poverty at the household, village, district and provincial levels and provided the following definition of poverty: “Poverty is the lack of ability to fulfill basic human needs such as: not having enough food, lack of adequate clothing, not having permanent housing, disadvantage in health, education and transportation.”

These criteria were incorporated into the data collection system—Village Book—as a tool for monitoring. The Village Book aims to collect socioeconomic information from grassroots level, which consists of data on population, housing, agriculture, labor
statistics, education, health and poverty. The village chief is responsible for filling this book and reports to the district. The district reports to the provincial office which then reports to the NSC once a year. However, there are still some issues to be improved, particularly the capacity building at the villages and districts as well as at the provincial level.

The Village Book is a main source for data collection from the grassroots level in support of the Prime Minister’s Instruction No. 10. It helps the village chief to get the profile of their village. The provincial and district officials, in collaboration with the villages’ officials, have to visit the households in order to collect information and assess the situation in each village.

The “Village Statistics Book” is a useful instrument for monitoring the socioeconomic profile of villages, especially within the context of districts being the planning and fiscal units, and villages the implementing units.

Implementation of the CBMS in Toumlan, Saravan
The primary objectives of the CBMS project were to strengthen local capacity for data capture and data analysis, particularly to supplement the existing system of data collection at the village level known as “Village Book”; and to develop appropriate tools for poverty monitoring by the village chief and provide the district governor with a reliable dataset and information. At the same time, it was intended to improve the coordination between the NSC and the local authority.

Before introducing the CBMS in Toumlan district of Saravan, the project team found that the current system of Village Book is more appropriate for data aggregation and data reporting instead of primary data collection. It consists of aggregated indicators of the village. One step in primary data collection at the household level, however, is missing. Villagers are asked to aggregate data into the Village Book without being provided with any tools to collect data.

Learning from this experience the team felt the need to develop a specific questionnaire to apply in the collection of primary data at the household level, then compile the indicators and aggregate them into the Village Book. In this regard, the CBMS
found its important role to complement the efforts of the Village Book system by gathering other additional information/indicators relating to poverty.

The objective and purpose of the Village Book is very similar to the CBMS. Its main focus is capacity building of local authority but has a different methodology of data collection and data processing. CBMS has a more reliable and scientific method and is easier for the village chief to aggregate the data.

The CBMS project in Toumlan was undertaken over a period of 24 months, from March 2004 to March 2006, divided into three phases: the first phase from March 2004 to September 2004 was the preparation; the second from October 2004 to March 2005 was the testing (pilot) phase; and the third one went on from April 2005 to March 2006 covering 11 villages of Toumlan district. At the start, the questionnaires for the village and households were reviewed and developed. Training on data collecting and gathering to fill in the Village Book for village chiefs and district officers was organized. The training has also been conducted for provincial staff on data analysis, data processing and data tabulation. At the end, the final report of the findings was prepared and disseminated to the policymakers at the national and local levels.

During the implementation of the CBMS project in Toumlan (2004-2006), the local government also spent 40 millions Kip (nearly 4,000 USD) for similar trainings/workshops in other districts with the purpose of transferring knowledge and methods of the CBMS. Selected participants were sent to Toumlan for field study. After the completion of the CBMS in Toumlan, a similar amount in the budget for fiscal year 2006-200 was also allocated by the Saravan provincial government for the expansion of the CBMS knowledge to other districts. However, due to this very limited funding, only few people were able to be trained. As of this writing, there is no other international organization or NGO supporting village level statistics in Saravan.

The summary of the main information gathered in Toumlan are as follows:

- Characteristics of village:
  - access to electricity
  - availability of clean water
The Uses of CBMS in the Planning and Monitoring Process

The Lao government continues its decentralization policy by emphasizing “villages as implementation unit, districts as planning and fiscal unit, and provinces as strategic unit”. The link of planning, implementation and monitoring are fundamental to this initiative. While capacity building at the national level is very important, that in the provincial and district levels is a major concern. Increasing the capacity at the district level will be the factor that enables village participation in the planning process and enhances the interaction between district officials and villagers in the data collection, planning and monitoring process.

Reliable and systematic data and information from the villages are essential for analyzing the past development pattern. In this connection, the CBMS in Toumlan provided the local government with most valuable and reliable bases from where to start with the socioeconomic development planning. By answering important questions such as: what are the strengths and potentials of a particular area; what programs have been implemented with what outcomes and effects; and what are the weaknesses of past public investment programs addressing the needs of the poor, the local authorities found the combination of the CBMS with the Village Book to be very useful. For example, microfinance schemes in some villages did not succeed as intended because of the lack of market access while most of the other villages received remarkable progress. Some areas did not call for public investment but they have much potentials for private investment.
The information from the CBMS or Village Book are also used for improved targeting of projects for poverty alleviation and for allocation of resources in public investment planning. At the same time, private investors, NGOs and donors found the data sources from the CBMS-based Village Book to be very comprehensive, thus they need not conduct extra surveys for their own purposes as they used to do in the past. Examples of this are for projects on gender issue, beneficiaries for local health care services, among others.

The CBMS and Village Book also found their strengths for local poverty monitoring. The CBMS-based Village Book not only identifies the poor households, poor villages and poor districts in combination with other data sources, mainly the Lao Expenditure and Consumption Survey, but also shows, from time to time, data on the progress and development of each household, village and district. Interestingly, the data showed that one village, in the first year, has high increase of income but at the end of the second year, the poverty level did not decline. The reason for this, as was found during the interviews and validations, was that the village’s residents spent most of their increased income on alcohol and satellite TV. This kind of information could not be seen by using periodic survey.

In the past, various organizations such as NGOs, private investors or line ministries collected many types of statistics at the village level, which were mostly duplicative. The village chief had to provide all the required data. The different needs for data have happened quite often during a year and most of the work were ad hoc. This made the job of the village chief difficult and overloaded, thereupon possibly having a negative impact on data quality.

There was also no system for local authority to control and monitor their own community. In most of the villages, the village chief only filled in the form without reference and there was no system of keeping records at the village. When the Village Book was incorporated with the CBMS system, the burden of work for the local people has been reduced. It also assisted them to make database available at the village. In line with this, the technical capacity and the sense of ownership of the local people have increased.

To summarize, the important benefits of the CBMS to the local authorities are as follows:
Increasing awareness of the importance and quality of data and the use of data;

- Strengthening the village’s capacity in data collection, compilation methodology, checking and validation of data, and preparation of the village and district profiles;

- Strengthening professional skills of district and provincial officers in data processing and data analysis;

- Increasing the participation of local people in poverty monitoring and poverty reduction; and

- Increasing the participation in community ownership, planning and decision making.

**Challenges and Obstacles**

Albeit the value and relevances of the use of the CBMS with the Village Book, a number of challenges in the process still need to be addressed as shown in the succeeding paragraphs so that it can be used more widely.

Village Book/CBMS focuses on the household as the unit for target implementation and should cover all units in the village. For this purpose, it requires strong governance, qualified staff and financial resources. Without the necessary capacity and facility at the local office, the CBMS/Village Book cannot be expected to attain full coverage in terms of implementation.

To implement the CBMS/Village Book system the local government has to have its own resources to conduct data collection and reporting. At the same time, it also needs to have skilled staff working at the village and district levels. Also, the village chief who is the main data provider, is elected every 2 to 3 years which makes the sustainability issue a big concern. The experience in Toumlan shows that in order to secure sustainability, the following conditions must be met:

- First, the tool for CBMS must be appropriate to the village data collector and the results must meet the needs of local authority.

- Second, the personnel should be well trained and they must be committed to work in the village for a long period, at least 3 years.
- Third, sustainability requires some amount of budget for the work over a long period.
- Fourth, the local government must pay attention to and be committed to the implementation of the CBMS and use it for their decisionmaking and planning process.
- Finally, the technical assistance from the central government and outsource funding is needed to build the fundamentals in setting up and sustaining a CBMS in the country.
Annex 1: Poverty Definition and Poverty Criteria (Prime Minister Instruction No. 10/PM 25/2001)

The definition of poverty: “Poverty is the lack of ability to fulfil basic human needs such as: not having enough food [i.e. less than 2,100 calories per day/capita], lack of adequate clothing, not having permanent housing, not capable of meeting expenses for health care, not capable of meeting educational expenses for one’s self and other family members, and lack of access to transport routes”.

Instruction 10 specifies that “there is to be a systematic accounting of village and district poverty levels. Thereafter, these findings must be incorporated into the poverty eradication planning.

Criteria have been developed in order to assist local authorities in monitoring changes in poverty, especially in poor households and districts, and to help the district and provincial authorities themselves to better understand the poverty situation at the grassroots level. These officially used criteria are divided into three levels as follows:

Household level:
Households considered as poor are households with an income (or the equivalent in kind) of less than 85,000 kip (100,000 kip for urban and 82,000 kip for rural) per person per month (at 2001 prices). This sum allows the purchase of about 16 kilograms of milled rice per person per month; the balance is insufficient to cover other necessities such as clothing, shelter, schooling and medical costs.

Village level:
Villages considered as poor are villages are:
- Villages where at least 51 percent of the total households are poor.
- Villages without schools or schools in nearby and accessible villages.
- Villages without dispensaries, traditional medical practitioners or villages requiring over 6 hours of travel to reach a hospital.
- Villages without safe water supply.
- Villages without access to roads (at least trails accessible by cart during the dry season).
District level:

- Poor districts are:
  - Districts where over 51 percent of the villages are poor.
  - Districts where over 40 percent of the villages do not have local or nearby schools.
  - Districts where over 40 percent of the villages do not have a dispensary or pharmacy.
  - Districts where over 60 percent of the villages do not have an access road.
  - Districts where over 40 percent of the villages do not have safe water.

Provincial and national levels:

The measurement of poverty at the provincial and national levels is a compilation of poverty at the district level. It may then be combined with poverty analysis based on household consumption and expenditure surveys performed by the NSC.

CBMS key person at the district level is mainly required to prepare a summary situation report where all the villages’ views, problems, comments or any recommendations will be integrated and compiled. The report at the district level will address the situation of the users of CBMS data, the problems in the villages and recommendation on how the problems will be solved.

CBMS key person at the province level is mainly required to prepare the administrative and statistical report as input for CBMS. The provincial supervisor will take the lead in the discussion with local authority. The issues of using the CBMS result as well as how to expand the CBMS approach will also require discussion in the provincial report.

Based on input report from villages, districts and provinces, the NSC’s research team will take responsibility in investigating the data from CBMS sites with the participation of local supervisors and in writing an analytical report of the project. The report will be presented at the local and national levels.

Dissemination

Local Level: The CBMS findings will be disseminated first through
a consultative meeting with local authorities. While ownership of the survey is by the specific village authority, it is expected that the outcome of the project—the CBMS results—will be disseminated beyond the selected village, districts and province. It is expected that the provincial authorities will further disseminate the pilot CBMS to other villages and districts for consideration and potential adoption through their regular work and will contribute resources for the future continuation of the CBMS.

Results from the CBMS will produce a poverty monitoring report system, which will be a main tool for district and provincial authorities to better monitor and evaluate the impacts of development policies and program undertaken in their locales and to inform decisions about allocation of resources to reduce/eradicate poverty. A combination of CBMS and the Village Book will feed into the national data collection on socioeconomic and poverty monitoring system for the country. NSC is hoping that this CBMS project would help the existing Village Book of Laos to have appropriate tools and be suitable with the local authority needs.

**National Level:** The CBMS results will be disseminated through a national workshop to all partners of the project and relevant government agencies so that they will continue to expand the CBMS. NSC would encourage all the users and policymakers to use the CBMS data for analytical study of the poverty situation in the selected villages. The information would help design policy interventions and target the vulnerable groups, including the poorest of the poor in the district.
Local Level Poverty Monitoring System: An Approach to Involve Local People in Poverty Monitoring

Ranjan Kumar Guha*

Introduction
Every human being has the birth right to have and maintain a minimum standard of living in the society. A good number of people in third world countries, however, fail to maintain minimum standard of living and ultimately become victims of poverty. Poverty is multidimensional and multifaceted in nature. Because of this, it is essential to clarify the approaches of poverty analysis; otherwise, the findings of poverty analysis may carry wrong signals to the policymakers.

There are four approaches in analyzing poverty, namely; (a) monetary approach, (b) capability approach, (c) social inclusion approach, and (d) participatory approach. Under the monetary approach, a poverty line is determined by identifying a minimum level of income for maintaining a minimum standard of living. This approach, however, does not address the access to social services. The capability approach, on the other hand, considers competence of a person in terms of the ability to lead a long life, to function without chronic mobility, to be capable of reading and writing, and to be capable of moving from one area to another. These are all essential to lead a decent life. A person who is deprived of having a minimum acceptable standard of living is considered poor. Meanwhile, under the social exclusion approach, if people fail to participate in social activities in their own environment, they live in isolation from the community which result in poor capability and low income. And under the participatory approach, the poor themselves identify the

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meaning of poverty and make recommendations for influencing policy in accordance with their own context (UN, 2004). It is really difficult to single out one cause for attacking the problem of poverty because in general, poverty is the outcome of weak institutional arrangements, lack of access to basic services, weak governance, inability of a person to harness the opportunities from the market, lack of capacity of a person to face crises, lack of infrastructure, lack of decent employment opportunity and lack of purchasing power, among others. Causes of poverty also vary from one area to another. Thus, finding out the contextual reason is essential to be able to formulate needs-based programs to solve the problem. To assess the impact of programs on poverty reduction as well as to track the dynamics of poverty, monitoring is very essential. In view of this, monitoring poverty at the local level was undertaken in Bangladesh as an experimental project under the banner of Local Level Poverty Monitoring System (LLPMS). The project was undertaken with the technical and financial support of the Community-Based Poverty Monitoring System (CBMS) Coordinating Team based in the Philippines, and International Development Research Centre (IDRC)-Canada. This paper deals with the process, findings and lessons gained from the process.

Background of LLPMS

During the period 2001-2002, a research project was undertaken under MIMAP-Bangladesh to develop some indicators and methodology for monitoring poverty at the local level. The Bangladesh Academy for Rural Development (BARD) and the Bangladesh Institute of Development Studies (BIDS) jointly experimented the project. On the basis of the experiences from the four pilot villages in 2001-2002, BARD experimented the use of the indicators and methodology developed therein in one Union of Muhammadpur (West), Daudkandi Upazila, and all villages of Comilla in the year 2003-2006. The essence of the project was to feed the local government authority at the grassroots level with required information to enable them to assess the poverty situation at their respective areas, formulate needs-based projects or programs and serve the targeted population. Keeping the local government at the grassroots level as the central point, local people were involved in the process of
data collection and data analysis.

Poverty monitoring at the macro level in Bangladesh is conducted by the National Statistical Institute (NSI) and disaggregated data up to the divisional or district level may be found there. The LLPMS tried to go beyond these levels, up to the household level, thereupon addressing the gap of information at the grassroots level. The specific objectives of the projects were:

1. To implement the methodology and the indicators of the LLPMS, tested under the MIMAP-Bangladesh project on a regular basis at the local level;
2. To create a database of the local level poverty and development indicators and a mechanism for regular updating of the database by the users themselves; and
3. To motivate and assist the local government functionaries in the use of the information for initiating local level plans, and develop sustainable linkages with government organizations, NGOs and other development partners for implementing the plan (BARD, 2003).

Approaches to Poverty Analysis under LLPMS

Participatory approach was followed for analyzing poverty under the LLPMS. Poor people identified poverty from their own context and identified the poor on the basis of the criteria developed by them. People felt that the physical manifestations of living are self-explanatory and quite evident in order to identify the poor and non-poor. Because people from the same village know each other and have ideas about each other’s livelihood, it is not difficult to identify the poor and non-poor. The observations of the community as well as the feelings of individuals were taken into consideration in analyzing poverty. Community people think that dependency mainly on physical labor for livelihood, uncertainty in income, irregular flow of income, less income than the family requirement, frequent morbidity, lack of treatment capacity, lack of marketable skill and illiteracy, among others, are indicators of poverty. Results of focused group discussions (FGDs) with the poor households suggest that poverty is when something is lacking and is inherited since as their forefathers were also poor and lacked material assets. Ultimately, they did not get the opportunity to acquire skills to explore their latent
potentiality. People of inherited occupations felt they are poor due to the poor demand for their product or services in the market. Widows felt that they are poor due to the loss of their income. Some of them believed that they are poor because they do not have good relations with powerful persons in the society, which is a precondition for getting support services. Unanticipated occurrences i.e., sudden sickness and natural calamity, push them in the pit of poverty. Lack of capital and lack of capability. IGAS were also identified as causes of poverty. The outcomes of poverty are isolation from the benefits of modern society, inhuman behavior from the society, anxiety, non-consultation, lack of freedom, dependency, and near starvation, among others. From the discussion with the community people and individual households, it is clear that poverty is a syndrome of disgrace, which denies the fulfilling of the minimum needs of a human being. These include social, economical and psychological needs.

Conceptual Framework for Poverty Monitoring at the Local Level
Poverty can be addressed through generating decent employment opportunity, increasing income through productive work, developing capacity to face crisis in a positive manner and reducing the adverse effect of seasonal vulnerability, among others, of a household. It is also true that some of the people would not be able to harness the opportunity of market due to their lack of capability or their livelihood would be in danger due to some vulnerability related to changes in technology, policy, economy and political situation. The State comes forward with a package of safety net programs to protect them from further deterioration of their status. Information is needed to identify the strategies for generating productive employment opportunity, augmenting production, increasing capability and reducing vulnerabilities of the people in a given society.

On the other hand, in order to ensure the delivery of support services to the targeted population efficiently and to know the impact of poverty alleviation programs and policies, information is a prerequisite. Identification of some core indicators related to causes and outcomes of poverty needs to be developed in assessing changes over the years in particular areas. Collecting
information related to indicators and updating them regularly would provide insights on the changes over the years of specific indicators. Increasing support on the decentralization of government activities also advocates the importance of involving local government and local people in poverty monitoring. This mechanism will create ownership of the generated information and value will be added in terms of reducing time and cost of poverty monitoring. Finally, the governance of the decentralized unit of government will be improved.

Figure 1 shows the conceptual framework evolved under the LLPMS.

**Figure 1. Process of Local Level Poverty Monitoring System**

**Setting objective**
The LLPMS started with the necessity of information generation at the grassroots level to help the local government identify the needs of the community and to strengthen the capacity of local government. To set the objective of poverty monitoring at the grassroots level, a meeting was organized, with the functionaries of local government as well as extension workers of different development organizations in attendance. The main purpose of the meeting was to know the
information availability at the grassroots level as well as to emphasize the necessity of information at the grassroots level. It was likewise agreed during the meeting that some information would help local officials prepare a pragmatic plan, serve the targeted population, and ensure an evidence-based decisionmaking and bargaining capacity.

**Identification of indicators**

Indicators can be defined as structured information that are measurable and comparable. Identification of indicators depends on the objective of the course of action. For research purpose, it can be done by analyzing the objectives but for the practitioners at the local level, it is a very difficult task as it requires harmonizing the approaches of academicians and practitioners. Academicians are always in favor of standard indicators that are recognized nationally and internationally while the practitioners favor the development of indicators that consider the capacity and needs of the local people. Hence, a compromise or balance between these two approaches is a very tricky task.

For the LLPMS, the compromised/balance between these two approaches was agreed on in a workshop organized by the LLPMS team. Professionals and practitioners in the field of rural development, service providers and local people were invited to the workshop. The nature of information needed by the service providers, including officials and elected representatives at the grassroots level, were identified. Then the professionals and practitioners in the development arena suggested the indicators for poverty monitoring at the grassroots level. The list of indicators is shown in Annex 1. Some of the indicators were calculated by following the national definition while others were developed in consultation with different stakeholders. The nature of information required for calculating the identified indicators was also identified in the workshop.

**Instrument of data collection**

Two sets of questionnaires were prepared for data collection. One was used for collecting data from the community and another was for household information. Participatory Rural Appraisal (PRA) and Household Survey were used for data collection. Seven persons were trained for data collection. A village person having a minimum
educational qualification of Secondary School Certificate was selected as enumerator. On the basis of the criteria, the enumerators were chosen primarily by the functionaries of Union Parishad. Finally, they were selected by the researchers on the basis of the results of their examination. After selection, they were trained on the techniques of PRA and Household Survey. A two-day training course emphasizing learning by doing through demonstrations of practical exercise was organized. The respective Ward member and members of Gram Sarker were also oriented with the process. Participatory techniques, i.e., social mapping, resource mapping, etc. were practiced for identifying the resources of the village as well as identifying households in the villages along with their social stratification. Soon after the completion of the PRA survey, the findings were disseminated to the villagers. Finally, the enumerator surveyed every household of the village. The functionaries of local government and members of Gram Sarker motivated people to provide real information and monitored the data collection done by the enumerator. After completion of the data collection, every questionnaire was checked by the enumerator at the Union Parishad Office in the presence of functionaries of the local government and extension workers of development organizations.

Data processing
Data processing was done in two stages. First, partial tabulation was done by the enumerator. The questionnaire was designed in that way which makes it easy to get some aggregate results of the variables. For example, in calculating literacy rate, two variables are essential. One is how many persons in the village belong to the 15 years old and above age category and how many of them can read and write. In that way, the enumerator provided a framework for calculating indicators. Finally, collected data were processed through SPSS by the researchers.

Developing database
Under the LLPMS, community and household level information were collected, processed and disseminated with the involvement of local people under the leadership of the local government. For
adding more value in the process of local level poverty monitoring system, an initiative has been taken to develop the Ward Information Book (WIB) that articulates the aggregate information of socioeconomic conditions of rural people and some basic information of each household in a community. A computer-based database has also been developed, with the use of the Natural Resource Database (NRDB), a computer software, for displaying the information with a digitized map to the policy planner and service delivery agency and for using the databank as reference year information. Several indicators are used in the database and some of them are very much related with the MDGs. As a means of attaining MDGs, it was found that service delivery agencies can easily identify the deprived areas of development and deprived households that in turn help them to deliver needs-based support services.

For tracking the progress of MDGs, it would help to compare the performance of several indicators after a specific period. To ensure the wider use of the database, capacity building of different stakeholders needs to be given due priority. During the Ward meeting and planning workshop, information from the WIB were disseminated and a databank developed through computer, respectively. The community people and service delivery agencies were very interested to investigate the causes of lagging of one area from other areas. These meetings also served as the forum where orientation about the MDGs was given to the grassroots level people. The functionaries of the local government understood the necessity of information for their project planning and committed to serve the disadvantaged within their capacity.

Some of the examples of the outputs of the database are shown in Maps 1 to 5. Figures 2 and 3 display the boundary of Union and Ward of the study areas. Figure 4 shows the primary enrolment rate along with the location of primary school. The red and yellow portions describe the worst performance while the blue portions indicate good performance. Figure 5 displays the household of a village while in Figure 6 red color indicates the poor households of a village. Some reports can also be produced from the database. One such report is one describing the landless households of a village (Table 1).
Map 1. Union Map with Infrastructure

Map 2. Location of Wards
Map 3. Enrollment Rate with Location of School

Map 4. Location of Households in a Village
Comparing indicators with same geographical or administrative unit
Comparing the result of indicators among different geographical or administrative hierarchies allows one to determine the lagging and advanced areas in different aspects. This sort of comparison is helpful in identifying the program needs of a lower unit of an administrative unit. This sort of analysis makes people competitive and motivate them to take some initiatives for their development.
Information dissemination
To disseminate the information, a Ward Meeting was organized. The members of the respective Wards played pivotal role in this respect. The information of every village under a Ward and aggregate information of the Ward were disseminated. Finally, the findings of the Ward were disseminated in a planning workshop organized with service delivery agencies in attendance. The Ward meeting served as the outlet for data validation. In the Ward meeting, the Members of respective Wards disseminated the findings of the PRA and household survey of each village under a Ward, in the presence of representatives of different professional and socioeconomic groups. The Ward Information Book (WIB) was also kept open to check the information. In that way, data validation was done.

Identifying the course of action
To identify the course of action, a Union Plan is prepared. The functionaries of local government and field functionaries of the nationbuilding department were trained to analyze the information articulated in the WIB and prioritize the problems considering their own resources. On the basis of their experiences and findings of the WIB, each Ward identified some courses of action necessary to solve the problems. Finally, the functionaries of Union Parishad again prioritized the courses of action according to their financial strength and prepared a plan of action for the next year. The plan was presented by the Chairman of Union Parishad at a planning workshop organized at the Upazila level in the presence of officials of service delivery agencies. They also got some commitment from the service delivery agencies for the implementation of their plan of action.

Findings
The data gathered were analyzed using SPSS. In the main report, the indicators were presented on the basis of gender and poverty status. Information disaggregation on the basis of landholding size are useful to the program implementers as most of the programs deal with landholding size as criteria for beneficiary selection. In this report, some of the indicators on the basis of landholding
size have also been presented. The household owning land up to .49 acres and .50-.99 acres are considered as landless and marginal farmers respectively. Small farmers occupy land with the size of 1 to 2.49 acres while the medium farmers hold 2.50 acres to 7.49 acres of land. Households occupying land of 7.5 acres and above are considered as large farmers.

**Household and population**
The total number of households and population register at 3,761 and 21,411, respectively, which implies that the average household size is 5.69. Considering the landholding size, it is found that 59 percent of the households and 55 percent of the population are landless. A small portion of households and population belong to the category of large farmers. Small farmer- and marginal farmer-households constituted 18.6 and 14.9 percent of the households, respectively, as seen in Table 2.

**Table 2. Number of households and population in different land holding size**

<table>
<thead>
<tr>
<th>Land Holding Size</th>
<th>Household</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Landless</td>
<td>2228</td>
<td>50.2</td>
</tr>
<tr>
<td>Marginal</td>
<td>562</td>
<td>14.9</td>
</tr>
<tr>
<td>Small</td>
<td>700</td>
<td>18.6</td>
</tr>
<tr>
<td>Medium</td>
<td>261</td>
<td>6.9</td>
</tr>
<tr>
<td>Large</td>
<td>10</td>
<td>0.3</td>
</tr>
<tr>
<td>Total</td>
<td>3761</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: LLPMS Survey 2004-05

The above figures indicate that the landless constitute the highest proportion among the households and populations in the study areas. Although the population growth rate is manageable, the cumulative effect of the large number of population leads to fragmentation of land and increasing landless households.

**Main profession of household head**
Analysis of the profession of household heads facilitates the understanding of the nature of the economic activities as well as survival strategy of the population in an area. In the study site, one-fourth of the households depend mainly on agriculture while others rely on other
sectors. Table 3 shows the profession or nature of work of the household heads in accordance to the household’s landholding size. Nearly 37 percent of landless households are dependent on selling labor and rickshaw pulling.

The landless households and marginal households are more vulnerable vis-à-vis their main source of employment since they rely mostly on work that needs more physical labor than other farmers. This aggravates their capacity to earn because they become more prone to illnesses and physical injuries.

Table 3. Main Profession of the Household Head According to Landholding Size (in percentage)

<table>
<thead>
<tr>
<th></th>
<th>Landless</th>
<th>Marginal</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>15.35</td>
<td>36.19</td>
<td>41.2</td>
<td>41.38</td>
<td>30</td>
<td>25.13</td>
</tr>
<tr>
<td>Service</td>
<td>9</td>
<td>11.05</td>
<td>12.73</td>
<td>15.33</td>
<td>-</td>
<td>10.42</td>
</tr>
<tr>
<td>Business</td>
<td>13.51</td>
<td>18</td>
<td>18.45</td>
<td>14.18</td>
<td>30</td>
<td>15.19</td>
</tr>
<tr>
<td>Laborer</td>
<td>24.85</td>
<td>10.34</td>
<td>3.72</td>
<td>0.38</td>
<td>-</td>
<td>16.98</td>
</tr>
<tr>
<td>Rickshaw puller</td>
<td>12.74</td>
<td>1.25</td>
<td>0.86</td>
<td>-</td>
<td>-</td>
<td>7.89</td>
</tr>
<tr>
<td>Inherent profession</td>
<td>7.34</td>
<td>3.92</td>
<td>1.29</td>
<td>0.38</td>
<td>-</td>
<td>5.2</td>
</tr>
<tr>
<td>Professional</td>
<td>0.86</td>
<td>1.43</td>
<td>1.86</td>
<td>1.92</td>
<td>-</td>
<td>1.2</td>
</tr>
<tr>
<td>Remittance earner</td>
<td>5</td>
<td>5.88</td>
<td>7.58</td>
<td>5.75</td>
<td>10</td>
<td>5.68</td>
</tr>
<tr>
<td>Others</td>
<td>11.35</td>
<td>11.94</td>
<td>12.3</td>
<td>20.89</td>
<td>30</td>
<td>12.31</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: LLPMS Survey 2004-05

Incidence of poverty
Villagers identified households as poor, very poor, lower middle class, middle class and rich on the basis of some criteria and their experiences. Table 4 shows that 51 percent of the population are poor based on this self-perception. Landholding size also suggests that the landless people are more often victims of poverty, followed by marginal and small farmers.

In recent times poverty analysis has moved from the land-centered criterion. While the terms “landless” and “poor” are used interchangeably for identifying the targeted population since the incidence of poverty is higher among the landless people, data also indicate, though, that a good portion (24 percent) of them are non-poor. Thus, shifting focus from land as the sole criterion in selecting beneficiaries of development projects is reasonable. Moreover, 40
percent and 15 percent of marginal and small farmers, respectively, are also poor and as such, would also need programs to help remove their vulnerability.

Table 4. Incidence of Poverty According to Villagers’ Perception (in percentage)

<table>
<thead>
<tr>
<th>Social Stratification</th>
<th>Landless</th>
<th>Marginal</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Poor</td>
<td>36.16</td>
<td>9.58</td>
<td>3.24</td>
<td>-</td>
<td>-</td>
<td>22.17</td>
</tr>
<tr>
<td>Poor</td>
<td>40.53</td>
<td>40.53</td>
<td>11.65</td>
<td>1.57</td>
<td>-</td>
<td>29.84</td>
</tr>
<tr>
<td>Lower Middle Class</td>
<td>10.66</td>
<td>10.66</td>
<td>16.46</td>
<td>6.22</td>
<td>-</td>
<td>12.53</td>
</tr>
<tr>
<td>Middle Class</td>
<td>11.05</td>
<td>11.05</td>
<td>49.22</td>
<td>40.48</td>
<td>7.5</td>
<td>25.14</td>
</tr>
<tr>
<td>Rich</td>
<td>1.6</td>
<td>1.6</td>
<td>19.43</td>
<td>51.74</td>
<td>92.5</td>
<td>10.33</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: LLPMS Survey 2004-05

Education attainments
Education has a direct relation with capacity building, which is considered very useful in fighting against poverty. Net primary and secondary enrolment rates are found to be 81 and 37 percent, respectively, for the total but the landless group is the one lagging behind other groups (Table 5). The same trend is observed with the literacy rate.

The landless group needs motivational support along with economic support for strengthening the capacity of by getting education.

Table 5. Educational Attainment According to Landholding Size

<table>
<thead>
<tr>
<th>Educational Indicators</th>
<th>Landless</th>
<th>Marginal</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Primary Enrolment Rate</td>
<td>76.85</td>
<td>87.59</td>
<td>89.12</td>
<td>93.15</td>
<td>100</td>
<td>81.23</td>
</tr>
<tr>
<td>Primary Drop Out Rate</td>
<td>1.65</td>
<td>0.825</td>
<td>0.94</td>
<td>-</td>
<td>-</td>
<td>1.3</td>
</tr>
<tr>
<td>Net Secondary Enrolment Rate</td>
<td>27.36</td>
<td>43.02</td>
<td>52.75</td>
<td>58.64</td>
<td>87.5</td>
<td>37.19</td>
</tr>
<tr>
<td>Secondary Drop Out Rate</td>
<td>13</td>
<td>6.49</td>
<td>2.52</td>
<td>1.79</td>
<td>-</td>
<td>7.56</td>
</tr>
<tr>
<td>Literacy Rate 7 Years Plus</td>
<td>33.94</td>
<td>51.66</td>
<td>62.14</td>
<td>73.19</td>
<td>81.82</td>
<td>46.28</td>
</tr>
<tr>
<td>Adult Literacy Rate 15</td>
<td>36.98</td>
<td>56.73</td>
<td>66.16</td>
<td>77.48</td>
<td>84.62</td>
<td>50.84</td>
</tr>
</tbody>
</table>

Source: LLPMS Survey 2004-05
Crisis and crisis coping mechanism

Crisis is defined as an unanticipated occurrence that leads to financial losses or unforeseen expenditure of a household. Ultimately, the well-being of a household suffers. In the study area, around 6 percent of the households reported having experienced crisis during the preceding year of the survey. Large farmers did not report any crisis while the other categories of farmers reported of crisis-facing. Table 6 shows the nature of crisis by landholding category.

<table>
<thead>
<tr>
<th>Nature of Crisis faced by Different Landholding Category HHs</th>
<th>Landless</th>
<th>Marginal</th>
<th>Small</th>
<th>Medium</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death of earning member</td>
<td>0.9</td>
<td></td>
<td></td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Expenditure for treatment</td>
<td>4.6</td>
<td>37.3</td>
<td>32.5</td>
<td>31.8</td>
<td>38.4</td>
</tr>
<tr>
<td>Crop damage</td>
<td>40.2</td>
<td>47.5</td>
<td>60</td>
<td>29.1</td>
<td>47.4</td>
</tr>
<tr>
<td>Theft</td>
<td>3.7</td>
<td>5</td>
<td>2.5</td>
<td>4.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Litigation</td>
<td>0.9</td>
<td>5</td>
<td>2.5</td>
<td></td>
<td>1.9</td>
</tr>
<tr>
<td>Lose work</td>
<td></td>
<td>5</td>
<td>4.5</td>
<td></td>
<td>1.4</td>
</tr>
<tr>
<td>Dowry</td>
<td>2.8</td>
<td>2.5</td>
<td>4.5</td>
<td></td>
<td>1.9</td>
</tr>
<tr>
<td>Others</td>
<td>8.4</td>
<td>2.5</td>
<td></td>
<td></td>
<td>4.8</td>
</tr>
</tbody>
</table>

Source: LLPMS Survey 2004-05

The highest percentage of crisis faced by the households related to crop damage and expenditure on treatment. This crisis affected everyone irrespective of landholding size. The crisis related to dowry was reported by the landless and marginal farmers only. Although dowry is more or less common to other households of various land categories, the landless and marginal farmers reported it as crisis as they do not have an opportunity to be prepared for this and they have to collect money by borrowing and lending.

Crisis coping mechanism includes the strategy followed for meeting the crisis. Two kinds of mechanism are generally followed to address a crisis. One is positive mechanism and another is negative mechanism. Under positive mechanism, the households do not lose any assets nor are they put in further indebtedness. In the study area, using one’s own saving and borrowing without interest are found to be positive mechanisms while the negative mechanisms are related to sale of permanent asset, getting mortgage for assets and taking credit with interest (Table 7).
It is found that around 47 percent of households used positive mechanisms with a variance of 38 percent to 58 percent for the landless group and medium farmers.

**Use and application**

The Ward Information Book (WIB) prepared under the LLPMS is now with the Union Parishad. The functionaries of the local government consult the WIB for identification of beneficiaries and the non-government organizations are requested to use this information Book. The potential uses of this WIB need government directives and for this reason, advocacy is being continued for the formulation of a WIB in other Unions. The database developed through the NRDB is appreciated by the functionaries of local government but due to a lack of capacity to handle this database at the local level, advocates push for the initiation of this WIB at the higher level, i.e. Upazila level (sub district level). Information generated through the LLPMS can be used as benchmark information for assessing the progress of different indicators after a specific period of time.

**Status of Implementation and Next Steps**

The BARD is providing consultancy support to prepare a database using the NRDB software at the poverty-stricken areas of Bangladesh, utilizing the experiences of the LLPMS. A tripartite Memorandum of Understating has been signed among the CBMS International Network, the BARD, and the Power and Participation Research Center (PPRC) to develop a database in the northern areas of Bangladesh using the

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**Table 7. Crisis coping mechanisms of different land holding size**

<table>
<thead>
<tr>
<th>Crisis coping mechanism</th>
<th>Landless</th>
<th>Marginal</th>
<th>Small</th>
<th>Medium</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Saving</td>
<td>28.4</td>
<td>35.9</td>
<td>46.2</td>
<td>63.6</td>
<td>36.8</td>
</tr>
<tr>
<td>Borrowing from relatives, well wishers and friends</td>
<td>9.2</td>
<td>23.1</td>
<td>2.6</td>
<td>4.5</td>
<td>10.0</td>
</tr>
<tr>
<td>Sale of permanent asset</td>
<td>5.5</td>
<td>7.7</td>
<td>10.2</td>
<td>0</td>
<td>6.2</td>
</tr>
<tr>
<td>Taking credit money lender</td>
<td>3.7</td>
<td>2.6</td>
<td>-</td>
<td>-</td>
<td>2.4</td>
</tr>
<tr>
<td>Taking credit from other source</td>
<td>45.0</td>
<td>28.2</td>
<td>41.0</td>
<td>22.7</td>
<td>38.8</td>
</tr>
<tr>
<td>Giving mortgage of asset</td>
<td>-</td>
<td>2.6</td>
<td>-</td>
<td>4.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Other</td>
<td>8.3</td>
<td>-</td>
<td>4.5</td>
<td>4.5</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Source: LLPMS Survey 2004-05
NRDB. In the meantime vulnerable villages and vulnerable households have been identified and a dummy database was presented to the DFID office and different stakeholders at the district level. Some neighboring Union Parishads have also shown their interest to develop a similar database. But before going to further steps, it is essential to get some commitment from the policy planners about its use. BARD is continuing its advocacy toward this end, with the use of materials for advocacy, i.e., publications and a CD on the process of the LLPMS.

Lessons Learned

- Involving relevant nationbuilding departments in the process of CBMS would facilitate the replication of the system quickly.
- The indicators should be developed considering the need and capacity of the local people. The indicators may vary from one area to another according to the nature of problems.
- The local government unit should be involved in the process of the CBMS. For planning purpose, the local government unit having resources can be made the focal point.
- Integration of the CBMS-GIS is very essential for making advocacy effective. The output of the CBMS can be made visible to the policy planner by using the NRDB, which is a good value added to the existing poverty monitoring system.
- Definition of every indicator needs to be clarified before conducting the survey. Data collection needs to be completed within a specific period of time.
- In generating employment-related information, seasonality exercises through the PRA may give more reliable information at the grassroots level.

Conclusion

Poverty monitoring with the involvement of local people and local government at the grassroots level is a challenging task. There might be academic debate on the capacity of local people and reliability of information generated through local people. The experiences show, however, that for programming purpose, the initiative is very well
accepted. Nothing is perfect; in every initiative, there are some limitations. The main lesson from the research project is that the local government unit at the grassroots level can do the task of poverty monitoring with the help of local people and field functionaries of development organizations if they are provided with adequate support. The quality of information generated would be improved further by practicing the process.
Annex 1. Indicators of LLPMS

<table>
<thead>
<tr>
<th>Broad Areas</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic</td>
<td>Number of Households (HH)</td>
</tr>
<tr>
<td></td>
<td>Number of Population</td>
</tr>
<tr>
<td></td>
<td>Average Household Size</td>
</tr>
<tr>
<td></td>
<td>Sex Ratio (males per 100 females)</td>
</tr>
<tr>
<td></td>
<td>% of HH in Different Religion</td>
</tr>
<tr>
<td></td>
<td>Age Structure of the Population</td>
</tr>
<tr>
<td>Income Poverty</td>
<td>Head Count Rate under Self Perception Method</td>
</tr>
<tr>
<td></td>
<td>Head Count Rate under Villagers Perception Method</td>
</tr>
<tr>
<td>Health</td>
<td>Infant Mortality Rate (per 1000 live births)</td>
</tr>
<tr>
<td></td>
<td>Maternal Morality Rate (per 1000 live births)</td>
</tr>
<tr>
<td></td>
<td>% of HH not using sanitary latrine</td>
</tr>
<tr>
<td></td>
<td>% of tube wells contaminated by arsenic</td>
</tr>
<tr>
<td></td>
<td>Parentage of deliveries both by Trained Birth Attendants or in health centers</td>
</tr>
<tr>
<td>Education</td>
<td>Net Enrolment Rate (Primary)</td>
</tr>
<tr>
<td></td>
<td>Net Enrolment Rate (Secondary)</td>
</tr>
<tr>
<td></td>
<td>Drop out Rate (Primary)</td>
</tr>
<tr>
<td></td>
<td>Drop out Rate (Secondary)</td>
</tr>
<tr>
<td></td>
<td>Literacy Rate (7 years and above)</td>
</tr>
<tr>
<td></td>
<td>Adult Literacy Rate (15 years and above)</td>
</tr>
<tr>
<td></td>
<td>% of People having SSC or above qualifications (15 years and above)</td>
</tr>
<tr>
<td>Productive Asset (Land)</td>
<td>Average owned land per households (acres)</td>
</tr>
<tr>
<td></td>
<td>Average operated land (acres)</td>
</tr>
<tr>
<td></td>
<td>% of HH involved in renting-in land</td>
</tr>
<tr>
<td></td>
<td>% of HH involved in renting-out land</td>
</tr>
<tr>
<td></td>
<td>Average of rented-in land (acres)</td>
</tr>
<tr>
<td></td>
<td>Average of rented-out land (acres)</td>
</tr>
<tr>
<td>Productive Assets</td>
<td>% of HH having oxen</td>
</tr>
<tr>
<td></td>
<td>Average number of oxen</td>
</tr>
<tr>
<td></td>
<td>% of HH having cows</td>
</tr>
<tr>
<td></td>
<td>Average number of cows</td>
</tr>
<tr>
<td></td>
<td>% of HH having goats</td>
</tr>
<tr>
<td></td>
<td>Average number of goats</td>
</tr>
<tr>
<td></td>
<td>% of HH having duck/poultry</td>
</tr>
<tr>
<td></td>
<td>Average number of duck/poultry</td>
</tr>
<tr>
<td>Housing</td>
<td>% of HH having houses made of CI sheet or pucca building</td>
</tr>
<tr>
<td>Household Assets</td>
<td>% of HH having electricity</td>
</tr>
<tr>
<td></td>
<td>% of HH having tape recorder or radio</td>
</tr>
<tr>
<td></td>
<td>% of HH having television</td>
</tr>
<tr>
<td></td>
<td>% of HH having mobile telephones</td>
</tr>
<tr>
<td></td>
<td>% of HH having chair</td>
</tr>
<tr>
<td></td>
<td>% of HH having cot</td>
</tr>
<tr>
<td></td>
<td>% of HH having cupboard</td>
</tr>
<tr>
<td></td>
<td>% of HH having sewing machine</td>
</tr>
<tr>
<td></td>
<td>% of HH having table</td>
</tr>
<tr>
<td>Employment and Income</td>
<td>Labor Force Participation Rate</td>
</tr>
</tbody>
</table>
### Broad Areas

<table>
<thead>
<tr>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment Rate</td>
</tr>
<tr>
<td>Under Employment Rate</td>
</tr>
<tr>
<td>Child Labor</td>
</tr>
<tr>
<td>Per HH per month average income (Tk.)</td>
</tr>
<tr>
<td>Per HH per month average expenditure (Tk.)</td>
</tr>
<tr>
<td>Wage Rate</td>
</tr>
<tr>
<td>% of HH involved in development organizations</td>
</tr>
<tr>
<td>Average number of people per HH involved in development organizations</td>
</tr>
<tr>
<td>% of HH having taken loan</td>
</tr>
<tr>
<td>Average number of loanees in HHs</td>
</tr>
<tr>
<td>Nature of Crisis</td>
</tr>
<tr>
<td>Crisis Coping Mechanism</td>
</tr>
</tbody>
</table>

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**CBMS Network Database**

*Kenneth Ilarde**

**Introduction**
Let me begin by giving you a brief background of the CBMS Network. Then I will provide you with information about the CBMS database which consists of data produced by member countries of the CBMS Network. And finally, I will present the future directions in terms of developing and making these databases available to various potential users of CBMS information.

**The CBMS Network**
The Community-Based Monitoring System (CBMS) is one of the tools developed through the Micro Impacts of Macroeconomic Adjustment Policies (MIMAP) Research Program of the International Development Research Centre (IDRC) of Canada to provide policymakers and program implementers with a good information base for tracking the impacts of macroeconomic reforms and various policy shocks.

Through the development and institutionalization of a community-based monitoring system, the Network aims to build and strengthen the capacity of planners and program implementers at the national and local levels for a more improved and transparent system of resource allocation and governance.

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* Based on the transcript of presentation delivered during the Sixth PEP Network General Meeting
** Member, CBMS Network Coordinating Team
What is CBMS?
The CBMS is an organized way of collecting household level information at the local level. In particular, the CBMS intends to fill information gaps for diagnosing the extent of poverty at the local level, determining the causes of poverty, formulating policies and programs, identifying eligible program beneficiaries, and assessing impact of policies and programs.

However, the CBMS is more than just a data collection system. It also seeks to integrate the use of data in local level planning and program implementation, thereby promoting evidence-based decisionmaking at all geopolitical levels.

Locally based CBMS
Based on the experiences of the CBMS implementation in the Philippines and in the other countries, the CBMS is most effective if it is based in a local government unit (LGU).

The CBMS taps existing LGU personnel and community volunteers as monitors. To make the CBMS work, the full support and participation of the community and the local government from which the data are collected are needed. The involvement of the local leaders, planners and other potential data users in the CBMS process also proves to be advantageous.

The CBMS has a core set of indicators that captures the different dimensions of poverty. These indicators should be measurable and feasible to collect given existing institutional conditions/structures in the communities where the system will be implemented.

The system involves a census of households to collect information at the household and individual levels. It involves a complete enumeration of all households to provide the LGU with a comprehensive profile of households that would allow household and individual-level targeting.

It likewise establishes databanks at each geopolitical level. Data are submitted to the next higher geopolitical level, allowing for the establishment of databanks that are accessible to users from the national down to the local levels of government.
CBMS Initiative
CBMS work involves the design, pilot test and implementation of a methodology for data collection and data processing, validation and utilization of CBMS data for needs identification as well as for the design and monitoring of program interventions at the national and local levels.

The challenge for CBMS researchers is to design a monitoring system that can be sustained by the community and local government. This means that the design has to take into consideration the existing local capacity which may later be upgraded and strengthened based on aspects of the design where they are needed. Capacity building and the use of the CBMS information are important to ensure the institutionalization of the CBMS.

CBMS Countries
In this regard, the extent of CBMS work varies across countries in terms of level of research development and implementation, methodology, and indicators being monitored. Some are in the pilot phase while others are expanding to cover more sites in their respective countries.

CBMS research work is currently ongoing in the following countries: Bangladesh, Cambodia, Indonesia, Lao PDR, the Philippines, and Vietnam in Asia; and Benin, Burkina Faso, Ghana, Senegal and Tanzania in Africa.

This year, the CBMS will also start its implementation in Kenya and Zambia.

The CBMS Database
One main output of the CBMS is the database. The CBMS database has been developed and improved to meet stakeholders’, particularly local government units’, needs for information.

Developments have been made in encoding and processing data from the questionnaire, from manual or tallying to the use of computers. Likewise, several softwares have been used and some are developed in order to compute the indicators and generate poverty maps to present results in visual form.
The features of the CBMS database are as follows:
- Contains all the information gathered from the data collection.
- Lodged in the community or local government. A CBMS database is also established at each geopolitical level to make it accessible to all users.
- Enables the LGU to share and disseminate the CBMS results to local planners and policymakers, non-government organizations and other interest groups.

Table 1 summarizes the available data collected by CBMS country projects. A handout containing some information on the CBMS country projects and the information in terms of indicators and variables found in the database has been prepared for this conference session.

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Source of Data</th>
<th>Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>2004</td>
<td>6 wards in Muhammadpur Union</td>
<td>3,761</td>
</tr>
<tr>
<td>Benin</td>
<td>2006</td>
<td>13th District of Cotonou</td>
<td>12,337</td>
</tr>
<tr>
<td>Cambodia</td>
<td>2004</td>
<td>181 villages in 3 provinces</td>
<td>22,298</td>
</tr>
<tr>
<td>Ghana</td>
<td>2004</td>
<td>3 communities in Dangme West District</td>
<td>6,730</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2005</td>
<td>Cianjur and Demak Districts</td>
<td>5,379</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>2004</td>
<td>4 villages in Sepon and Savannakhet Districts</td>
<td>458</td>
</tr>
<tr>
<td>Philippines</td>
<td>2000-07</td>
<td>15 provinces and 5 cities</td>
<td>1,145,142</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2006</td>
<td>K/Ndege Ward and Nala Village</td>
<td>4,901</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2006</td>
<td>42 communes in 5 provinces</td>
<td>42,000</td>
</tr>
</tbody>
</table>

Below is a discussion of the CBMS initiatives and databases in Bangladesh, Benin, Cambodia, Tanzania and the Philippines.

**CBMS-Bangladesh**

*Project abstract*

The Bangladesh Academy for Rural Development (BARD), in collaboration with the Bangladesh Institute of Development Studies (BIDS) and under the auspices of the MIMAP-Bangladesh, developed the methodology and indicators for poverty monitoring at the local level in Bangladesh. In view of the successful outcomes of the pilot test phase of the local level poverty monitoring system (LLPMS) under the MIMAP-Bangladesh Project, the project intends to extend the coverage area of the LLPMS at the union level. In the pilot phase, only one ward (village) was covered. For the next phase
of implementation, taking one entire union will be helpful to establish its feasibility at both the ward and union levels. An operational LLPMS at the union level will play a complementary role with the national initiatives of poverty monitoring in providing both poverty and development related information and policy guidelines.

**Project objectives**
The general objective of the project is to create a community based poverty monitoring system at the local level in Bangladesh and ensure active participation and effective use of relevant information by the local government functionaries.

The specific objectives are as follows:

i. Implement the methodology and the indicators of the LLPMS, tested under the MIMAP-Bangladesh, on a regular basis at the local level;

ii. Create a database of the local level poverty and development indicators and a mechanism for regular updating of the database by the users themselves; and

iii. Motivate and assist the local government functionaries to use the information in initiating local level plans and develop sustainable linkages with the government organizations, NGOs and other development partners for implementing the plan.

**Database information**

<table>
<thead>
<tr>
<th>Pilot area(s): Source of data</th>
<th>Six wards in Union of Muhammadpur(west), Daudkandi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference year for which the data were taken: Database information:</td>
<td>2004 Upazila, Comilla District</td>
</tr>
<tr>
<td>Number of observation:</td>
<td>Households: 3,761/Individuals: 21,411</td>
</tr>
<tr>
<td>Number of variables:</td>
<td>173 variables</td>
</tr>
<tr>
<td>Format:</td>
<td>SPSS, MS Access</td>
</tr>
<tr>
<td>Software used to store/retrieve information from the database:</td>
<td>SPSS</td>
</tr>
</tbody>
</table>
Sample list of indicators/variables

- Health: infant, maternal, deliveries not handled by trained health attendants, access to safe water and sanitary latrines
- Education: enrolments, drop-out, literacy rates
- Productive assets: land and livestock ownership
- Housing and house assets: housing condition, access to electricity, ownership of amenities
- Employment and income: employment, underemployment, income, wage, expenditure
- Participation in development organization and access to credit

CBMS-Benin

Project Abstract

The Republic of Benin is situated in West Africa. The economic growth of Benin between 1960 and 1999, like that of the majority of the third world, was characterized by a saw tooth evolution. A diagnosis of the Beninese economy reveals a weakness of growth that is incapable of reducing poverty, the major economic policy objective. From a financial point of view, more than one in two Beninese are poor or vulnerable to poverty. Into this Beninese national context came the Poverty Reduction Strategy Paper (PRSP). The PRSP defined strategies for strong and sustainable growth and was adopted to put in place said strategies. To permit a real undertaking of the process and a real capitalization on the results, it is indispensable that local communities be associated at every step of the monitoring/evaluation of the PRSP. For this reason, the participation of the target populations will be preferred during the monitoring/evaluation process. As such, the CBMS-Benin proposes, in a context of decentralization, to observe the living conditions of populations in relatively limited groups (like those of the communes and/or the municipalities of the country).

Project objectives

The objective of the CBMS in Benin is to provide the local authorities with information on all the households of the locality so as to monitor their living conditions and to better define local strategies of combating poverty.

The specific objectives are:
i. Provide knowledge of the characteristics of the households;
ii. Define the local development strategies,
iii. Provide the local authorities with a data base on the living
conditions of the households; and
iv. Provide the local authorities with a decision-making tool.

Database information

<table>
<thead>
<tr>
<th>Pilot area(s): Source of data</th>
<th>13th District of Cotonou</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference year for which the data were taken: Database information:</td>
<td>October 2006-November 2006</td>
</tr>
<tr>
<td>Number of observations:</td>
<td>Households: 12,337/Individuals: 40,130</td>
</tr>
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<td>Number of variables:</td>
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<td>Format:</td>
<td>ASCII (encoded using CSPro)</td>
</tr>
<tr>
<td>Software used to store/retrieve information from the database:</td>
<td>SPSS</td>
</tr>
</tbody>
</table>

Sample list of indicators/variables

- Housing: dwelling type and construction, access to water, sanitation, lighting and fuel used
- Socio-community infrastructures: access to education, health and socio-community infrastructure
- Health: common illness of children, main health problems
- Income and poverty: household income

CBMS-Cambodia

Project abstract

The Community-Based Poverty Monitoring System (CBPMS) was successfully pilot tested in Cambodia in 2003-2005 by the Cambodia Development Resource Institute (CDRI) in close collaboration with the National Institute of Statistics and the Seila Program. It provided valuable results which satisfactorily describe the different facets of poverty in 6 communes in two different provinces. It has also successfully promoted links between the communes and provincial and national level planning processes through the use of CBPMS data. The project has also developed the capacity of local authorities to implement the CBPMS in their localities.

To meet the long-term objective of creating a sustainable system to locally monitor poverty reduction over time, the project will place
emphasis on institution and capacity building at the local level and leadership by the National Institute of Statistics. There are two parts of the current project or Phase II. The first part is to repeat the implementation of the CBPMS in the piloted six communes in Phase I that consisted of some 12,000 households and were located in two districts in two provinces. The second part of the project is to expand the coverage to cover one full district in one of the poorest provinces. The identified province is Kampong Thom, which was estimated to be one of the three poorest provinces by the national socio-economic survey in 2004.

**Project objectives**

i. Select appropriate indicators for commune-based poverty monitoring and analysis;

ii. Provide practical, scientifically generated data to commune councils for their effective planning, monitoring and evaluation of development projects;

iii. Produce Commune Poverty Monitoring Reports based on the CBPMS results;

iv. Build capacity of the selected commune councils in survey methods and data processing, analysis and use;

v. Promote the link between commune and provincial/national level planning processes in utilising CBPMS data;

vi. Cement the link between PMATU and NIS and commune councils and prepare for an eventual nationwide CBPMS;

vii. Promote a firm process of decentralisation which has a high commitment from the Government and donors.

**Database information**

<table>
<thead>
<tr>
<th>Pilot area(s): Source of data</th>
<th>181 villages in 3 districts of three provinces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference year for which the data were taken:</td>
<td>2006</td>
</tr>
<tr>
<td><strong>Database Information:</strong></td>
<td></td>
</tr>
<tr>
<td>Number of observation:</td>
<td></td>
</tr>
<tr>
<td>Number of variables:</td>
<td></td>
</tr>
<tr>
<td>Format:</td>
<td></td>
</tr>
<tr>
<td>Software used to store/retrieve information from the database:</td>
<td>SPSS</td>
</tr>
<tr>
<td>Households: 22,298/Individuals: 116,618</td>
<td></td>
</tr>
</tbody>
</table>

Major variables (see list of variables):

- MS Excel, SPSS
Sample list of indicators/variables

- Education: literacy, access to school, enrolment, drop-out rates, reason for drop-out
- Employment: occupation, child labor
- Health: fertility, mortality, access to health care, disability
- Housing: house ownership, house type, source of power supply
- Water and sanitation: source of water, toilet type
- Income, consumption (by major items) and ownership of lands, livestock and household assets
- Peace and order: crime incidence, domestic violence

CBMS-Tanzania

Project abstract
The Government of Tanzania has sought to encourage participatory bottom-up planning with a focus on the objectives of poverty alleviation since the year of independence in 1961. In 2004, the Government developed the Opportunities and Obstacles to Development (O&OD) methodology, which defines a process to be followed by the municipalities to achieve participatory planning and monitoring in the context of decentralization. The O&OD methodology is a holistic process that recognizes the role of the local communities in the identification, preparation, and implementation of development projects. However, since it focuses on community groups, the methodology cannot address the socio-economics of individual people and households; hence, it is less applicable for poverty monitoring purposes. The Dodoma Municipal Council, therefore, implemented a Community-Based Poverty Monitoring System (CBPMS) which concurs with the O&OD methodology but goes further to the household level to monitor the poverty status of the individuals in the selected pilot areas and can later be replicated in a wider area. The CBPMS, with its aim to provide a good information base for policymaking and project impact monitoring, is highly complementary to the O&OD methodology in establishing a system in place for the reliable datasets within the council’s lower tiers and for achieving a higher standard of living for the marginalized folk.

Project objectives
The general objectives of this work are:
i. Develop a comprehensive municipal information system that captures municipal, ward and village level data, and produces reports and analyses that facilitate good planning and decisionmaking for poverty alleviation; and

ii. Promote participatory planning and budgeting through the use of the CBMS.

The specific objectives for better interpretation of the general ones are as follows:

i. Improve the capacity of data collectors at the municipal, ward and village units for better processing and analysis;

ii. Offer grassroot level communities with simple and easy tools to collect data on poverty indicators, and determine the impact of strategies and the trend of poverty;

iii. Provide policymakers with data to be used for prioritization of projects, effective planning and monitoring of developmental programs in various communities;

iv. Facilitate the preparation of poverty profiles and development plans;

v. Strengthen the flow of information and dissemination of poverty data and information among the stakeholders at all levels; and

vi. Test a locally feasible data capturing, processing and dissemination system, without necessarily relying on central government resources.

Database information

<table>
<thead>
<tr>
<th>Pilot area(s):Source of data</th>
<th>K/Ndege ward and Nala village in Dodoma Municipal Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference year for which the data were taken:</td>
<td>2006</td>
</tr>
<tr>
<td>Database Information:</td>
<td></td>
</tr>
<tr>
<td>Number of observation:</td>
<td>Households: 4,901, (K/Ndege ward = 2,423 households, Nala village = 2,478 households)</td>
</tr>
<tr>
<td>Number of variables:</td>
<td>Individuals: 4,901 (respondent information–household head or adult member)</td>
</tr>
<tr>
<td>Format:</td>
<td>28 variables (see list of variables)</td>
</tr>
<tr>
<td>Software used to store/retrieve information from the database:</td>
<td>Ms excel and text (ASCII file)</td>
</tr>
<tr>
<td></td>
<td>Ms Excel NRDB</td>
</tr>
</tbody>
</table>
Sample list of indicators/variables

- Primary enrolment
- Secondary enrolment
- Literacy rate
- Skilled people
- Infant mortality rate
- Child mortality rate
- Morbidity cases
- Prevalence of micro-nutrition deficiencies
- Common diseases
- Access to safe water
- Access to latrine
- Availability of solid waste disposal facility
- Average yield per hectare (bags)
- Number of livestock
- Land ownership
- Roads passable to services
- Distance to major services by road
- Means of transport
- Permanent housing
- Makeshift housing
- Asset ownership (as proxy for income poverty)
- Income greater than the poverty threshold
- Employment
- Membership in community-based organizations
- Registration to formal elections
- Attendance to public/community meetings
- Crime incidences
- Violence rate around the neighborhood

CBMS-Philippines

Project abstract

The CBMS in the Philippines is now being adopted and used as part of the local development planning and monitoring process by a growing number of local government units in the country. Many LGUs all over the country have already formed partnership with the CBMS-Philippines Team, apportioning resources from their own development funds for the
implementation and utilization of the CBMS in their respective localities. Since 1999, the CBMS Team has provided free technical assistance to LGUs who are willing to implement the CBMS. The CBMS-Philippines Team, together with concerned national government agencies such as the National Anti-Poverty Commission (NAPC) and the Department of Interior and Local Government (DILG), is working toward the expansion of the coverage of the CBMS implementation in the country. As of February 2007, the CBMS is being implemented in 28 provinces – 16 of which are implementing it province-wide. This covers 348 municipalities and 24 cities covering 9,088 barangays.

Project objective
The CBMS project aims to collaborate with partner local government units, nongovernment organizations, donor agencies and other development stakeholders on the implementation and full-scale institutionalization of a CBMS in the Philippines.

Specifically, the project has the following objectives:

i. Provide technical support to concerned national government agencies (NGAs) and other interest groups on poverty assessment and monitoring system-related initiatives as well as in the building of a national repository of CBMS data;

ii. Conduct advocacy with government and non-government funding organizations for the use of CBMS data in formulating appropriate policies and programs and in targeting eligible beneficiaries;

iii. Provide trainings on data collection, data processing, data validation and planning and budgeting using CBMS data;

iv. Develop and refine CBMS methodologies to incorporate new developments and demands from partners; and

v. Document and disseminate CBMS experiences and related findings of local partners.
**Database information**

<table>
<thead>
<tr>
<th><strong>Pilot area(s): Source of data</strong></th>
<th>15 provinces and 5 cities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reference year for which the data were taken:</strong></td>
<td>2000-2007</td>
</tr>
<tr>
<td><strong>Database information:</strong></td>
<td><strong>Number of observations:</strong></td>
</tr>
<tr>
<td></td>
<td>Households: 1,145,142/Individuals: 5,415,447</td>
</tr>
<tr>
<td></td>
<td>(see list of variables)</td>
</tr>
<tr>
<td></td>
<td><strong>Number of variables:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Format:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Software used to store/retrieve information from the database:</strong></td>
</tr>
<tr>
<td></td>
<td>text (ASCII) files Natural Resource Database (NRDB), CBMS Statistical Simulator</td>
</tr>
</tbody>
</table>

**CBMS core indicators**

- Proportion of children’s deaths (0-5 years old)
- Proportion of women deaths due to pregnancy-related causes
- Proportion of children 0-5 years old who are malnourished
- Proportion of households living in makeshift housing
- Proportion of households who are squatters
- Proportion of households with no access to potable water supply
- Proportion of households with no access to sanitary toilet facilities
- Proportion of children aged 6-12 years old who are not in elementary school
- Proportion of children aged 13-16 years old who are not in secondary school
- Proportion of households with income below the poverty threshold
- Proportion of households with income below the food threshold
- Proportion of households that experienced food shortage
- Proportion of persons who are unemployed
- Proportion of persons who were victims of crime

**Specific studies for specific uses**

In terms of research activities, aside from the development of CBMS methodologies, the Network is focusing on potential applications of
the CBMS for localizing the Millennium Development Goals (MDGs), for poverty mapping, for program design and targeting, and means testing.

**CBMS Network data repository**

Work is also on-going for the development and maintenance of the CBMS data repository. The Network Repository would store poverty indicators generated from CBMS across countries where CBMS is being implemented. The said database will be made available to researchers, poverty analysts, policymakers and program implementers subject to authorization from partner institutions.

We emphasize “authorization” here with regard to the ownership and confidentiality of the CBMS information. In the Philippines, for instance, we secure the LGUs consent before we release the data to other researchers.

**Future Directions**

Our vision is to be able to develop a repository of CBMS data at the country (national) level and aggregate the results through the CBMS Network Repository.

To do this, we will work on the following areas:

- Use free softwares and develop open source softwares
- Improve user friendly interfaces
- Improve access to the CBMS database through IT (internet, knowledge management, mobile phones and PDAs).
Indonesian Experience with the CBMS and the Way Forward*

Sudarno Sumarto*

Introduction
This presentation will be organized as follows:

- The state of poverty and budget for poverty programs
- The existing monitoring system and why we need the CBMS
- Design of the pilot CBMS Indonesia
- Implementation and results of the pilot CBMS
- Uses of CBMS data
- Lessons learned and the way forward

Despite some economic progress through the years, poverty is still a major issue in Indonesia as can be gleaned from the graph below. About 40 million of the Indonesian people are still living below the poverty line. This number is equivalent to the combined populations of Malaysia, Brunei and Singapore.

In addition, most of those who escape from poverty are still vulnerable to poverty. This is evident from the sensitivity analysis shown below which indicates that with US$1.50 per day as the poverty line, about 16.7 percent of the population are noted to be living below said line. But then once you have an increase to US$2.00 per day for the poverty line, the percentage of the population shown to be living below such line jumps to about 45.4 percent.

* Based on the transcript of presentation of Dr. Sudarno Sumarto of the SMERU Research Institute, Jakarta, Indonesia
At the same time, the poor are widely disadvantaged in terms of non-income poverty dimensions like health, education and sanitation as seen in the following illustration:
However, the decentralization policies have created fiscal spaces for the districts to address poverty. For one, since 1997, the budget of local government units (LGUs) has doubled (see below).
In addition, the national budget for poverty reduction has increased significantly in recent years. In 2002, 16.5 trillion rupees have been allocated for poverty reduction. This has more than doubled to 51 trillion rupees in 2007 as noted below.

**Figure 5. National Budget for Poverty Programs**

![Graph showing the national budget for poverty programs from 2002 to 2007.](image)

However, many targeted poverty programs are poorly coordinated and targeting is insufficient. One of the reasons is the lack of timely, reliable and appropriate set of data. Data are available on how many poor people are in specific locations but not much information are available on who they are. Efforts to target beneficiaries and monitor social impacts of development projects, including the Millennium Development Goals (MDGs), rely on the national socioeconomic survey (Susenas), BKKBN (National Family Planning Coordinating Board), economic survey (PSE05) or village census (Podes) data. These data are necessary but they are insufficient for effective targeting as they are neither locally specific nor participatory in the collection process. Given the decentralized system in Indonesia, identifying beneficiaries and monitoring MDGs at the local level should involve local govern-
ments. Thus, a localized monitoring system and locally tailored indicators are needed. The CBMS can provide for these needs.

**Design of CBMS Indonesia (pilot phase)**

In 2005, the CBMS was pilot tested in four villages in two districts in West and Central Java. The CBMS was carried out to identify locally specific poverty conditions and to rank the welfare level of every family in a location.

This is a census like in other countries. A total of 63 welfare indicators were used and the questionnaire used mainly the “yes/no” response format. Locals were recruited to collect data (mostly primary school teachers and health workers at the local level). For the analysis, the Principal Components Analysis (PCA) was employed to rank households, with the implementation completed in about six to seven months.

**Table 1. Simple Benefit Incidence Analysis of the UCT Program**

Baseline Data CBMS with UCT Recipients 2005, Kedondong Village, Demak District

<table>
<thead>
<tr>
<th>Quintile</th>
<th>KKB Recipients Per Quintile</th>
<th>% KKB Recipients to Total Household Per Quintile</th>
<th>KKB Distribution Received Per Quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>205</td>
<td>74.55</td>
<td>42.01</td>
</tr>
<tr>
<td>Q2</td>
<td>125</td>
<td>44.96</td>
<td>25.61</td>
</tr>
<tr>
<td>Q3</td>
<td>78</td>
<td>28.26</td>
<td>15.98</td>
</tr>
<tr>
<td>Q4</td>
<td>59</td>
<td>21.30</td>
<td>12.09</td>
</tr>
<tr>
<td>Q5</td>
<td>21</td>
<td>7.58</td>
<td>4.30</td>
</tr>
<tr>
<td></td>
<td>488</td>
<td>35.29</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Total population: 1,383 households. Quintile Size: 275-278 households.

The questionnaire was simple but sufficiently detailed for its purpose and its use was preceded by a rigorous training for enumerators. It is possible to objectively generate village-specific poverty criteria using simple data collected by locals. Since the criteria were based on the data generated themselves, they were not known prior to data collection, thereby making tampering with the data difficult to make. Using the PCA method enabled the generation of poverty indicators in each village as well as the welfare ranking of every family in each village. Other than the PCA, the data also permit the calculation of other welfare indicators (e.g., sanitation, education). The poverty
criteria can be used to identify “relatively” poor families who require government assistance.

Other uses of CBMS data
What has been the use of the CBMS in Indonesia? CBMS data were used for the implementation of the Unconditional Cash Transfer (UCT) program of the government. In 2005, the government of Indonesia provided nearly a quarter of Indonesian households about US$10 per month for 12 months. This is considered one of the largest unconditional cash transfers in the world. The CBMS data were used to monitor the effectiveness of the program. Table 1 shows that the program is not yet well targeted, though, because while about 67 percent of the poor households get assistance under the program, a substantially large percentage (27 percent) of those in the second and third quintiles was also able to get assistance.

The CBMS data also permit the calculation of other welfare indicators, including the monitoring of MDGs at the local level. The current CBMS data can provide village level (or hamlet level) indicators for MDGs 1 – 5. Data for other goals could also be collected in future data collection activities. As the data also get decomposed, one could see that even across hamlets, the achievement of the MDGs varies. This again indicates the need to disaggregate the MDGs in order to provide information to the LGU officials (Table 2).

Lessons learned from the Indonesian CBMS Pilot
The CBMS proves that targeting and monitoring can be done using simple data collected by locals which are methodologically sound, locally specific, and cost effective. The poverty criteria can be used to identify “relatively” poor families who require government assistance. Combined with geographical targeting, leakage and under-coverage can be minimized. The CBMS data can also be used for benefit incidence analysis of the poverty programs. Since the MDGs at the national level do not necessarily reflect the achievements at the provincial and local areas, localized MDG monitoring is therefore required. For this, the CBMS can make a substantial contribution. An important next step is to promote this methodology to districts throughout the country.
Table 2. MDG Accomplishments per Hamlet

<table>
<thead>
<tr>
<th>Education</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment Rate (%)</td>
<td>Maternal Health (%)</td>
</tr>
<tr>
<td>Elementary</td>
<td>Junior Secondary</td>
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<tr>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>Hamlet 1</td>
<td>83.3</td>
</tr>
<tr>
<td>Hamlet 2</td>
<td>92</td>
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<tr>
<td>Hamlet 3</td>
<td>78.4</td>
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<tr>
<td>Hamlet 4</td>
<td>68</td>
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<tr>
<td>Hamlet 5</td>
<td>100</td>
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<td>Hamlet 6</td>
<td>100</td>
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<tr>
<td>Hamlet 7</td>
<td>96.2</td>
</tr>
<tr>
<td>Hamlet 8</td>
<td>100</td>
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<tr>
<td>Hamlet 9</td>
<td>92.5</td>
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</tbody>
</table>
The way forward
The SMERU Research Institute has been working on promoting CBMS to local and central governments, NGOs, and others through workshops, consultation, and publications. Two regional workshops were held where government officials, members of the press, representatives of civil society, and local leaders were invited. In both workshops, a CD of the Indonesian CBMS was distributed for free to the participants. An edition of a newsletter focused on CBMS Indonesia as well as other publications were also published. There have been a number of organizations interested in using the CBMS but so far, the realization has been slow. A similar initiative was undertaken in Sulawesi Province under the SoFEi-DSF umbrella.

Recently, in collaboration with PATTIRO (a Jakarta-based NGO) SMERU prepared a proposal to promote the implementation of CBMS in Pekalongan City, Central Java. The City of Pekalongan is located strategically in the heart of Java, with a population of 265,000 people and more than 66,000 households. The Mayor of Pekalongan has welcomed the idea of using CBMS and has mentioned this during his national television appearance. SMERU, PATTIRO, and the City of Pekalongan are at the final stages of negotiation to implement the CBMS.

Assuming that the International Development Research Centre (IDRC) of Canada will provide USD50,000 of funding for the second phase of CBMS Indonesia, the City of Pekalongan has committed to co-fund approximately USD50,000 to be invested in the CBMS initiative. SMERU has the staff and skills to help the City of Pekalongan implement this initiative. It is hoped that other cities and districts will eventually implement the idea in the near future.
City of Pekalongan: Toward a More Participatory Planning Approach and Reliable Welfare Monitoring System*

Basyir Ahmad**

The City of Pekalongan, located in Central Java, is a coastal area whose main source of employment is a combination of agriculture and industry. Batik - a well-known type of clothing - comes from this area. The city has a total population of 264,932, with 66,092 households. Table 1 presents a capsulized profile of the city.

Table 1. Key Variables About the City of Pekalongan

<table>
<thead>
<tr>
<th>Area (hectares)</th>
<th>4,525</th>
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</thead>
<tbody>
<tr>
<td>Number of sub-districts (kecamatan)</td>
<td>4</td>
</tr>
<tr>
<td>Number of villages (kelurahan)</td>
<td>46</td>
</tr>
<tr>
<td>Number of households (2004)</td>
<td>66,092</td>
</tr>
<tr>
<td>GRDP per capita (2003)</td>
<td>USD 811</td>
</tr>
</tbody>
</table>

Vision for the city
Our vision for Pekalongan is for it to become an environmentally aware city of trade, service, and industry, with a physically and spiritually prosperous community blessed by God the Almighty. Our mission with regard to education is (1) to improve the infrastructure for education in order to produce a qualified base of human resources; (2) to strive for affordable education for the people; and (3) to improve the prosperity of teachers. In terms of the economy, our mission is (1) to support industrial sector development - including the facilitation of the marketing of local

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* Presented by Dr. Sudarno Sumarto of the SMERU Institute
** Head of Local Government of Pekalongan, Indonesia
products - as part of employment creation efforts; and (2) to empower medium, small, and micro enterprises. Meanwhile, in the area of governance reform, our mission is (1) to ensure clean and good governance; and (2) to support community-based participatory planning and implementation of policies and programs.

In short, we dream of Pekalongan as a BATIK city which means:

B = Bersih  (clean)
A = Aman    (secure)
T = Tertib   (orderly)
I = Indah   (beautiful)
K = Komunikatif (communicative)

In order to realize our vision and mission, we have established the following poverty reduction programs:

· The local community empowerment programs (Program Daerah Pemberdayaan Masyarakat, PDPM) that include:
  o Urban Poor Program (P2KP), and
  o Coordination of community empowerment institutions (LPM – BKM); and
· Program to eradicate slum housing.

In successfully implementing these programs, we realize that we need accurate data to inform policy and program planning. Fortunately, there is a “new” method for socio-economic (welfare) data collection and analysis, i.e., the Community-Based Monitoring System (CBMS), which was developed and introduced by the SMERU Research Institute of Indonesia to our city.

Relative to this, we have a plan to conduct a census of families and the lowest level of administration (i.e. Rukun Tetangga RT) which covers 46 villages (kelurahan) in 4 sub-districts (kecamatan), with nearly 78,000 families and 1,382 RTs. We are trying to strengthen our resources and harness support in order to realize this plan. The SMERU Research Institute has proposed technical assistance and capacity building programs, with possible support from the International Development Research Centre (IDRC) of Canada through the PEP Network.

Should this plan push through, we expect the following outputs from this collaboration:
1. A census of all families in the city that will provide accurate data for planning policies and programs, and monitoring the human development index (HDI) and the Millennium Development Goals (MDGs).
2. Baseline data that consist of information on infrastructure, education, health, head of family characteristics, family consumption patterns, housing facilities, assets, credit and savings, and access to information, access to government programs, among others.
3. Welfare ranking of all families in the City of Pekalongan.

Table 2 presents the stages of CBMS implementation and their corresponding activities.

**Table 2. Stages of CBMS Implementation**

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Implementation</th>
<th>Reporting</th>
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</thead>
<tbody>
<tr>
<td>Building of cooperation with other institutions (i.e., SMERU-Pattiro), particularly for technical assistance and capacity building purposes</td>
<td>Training of trainers and enumerators</td>
<td>Writing of the data collection and analysis report</td>
</tr>
<tr>
<td>Coordination within government institutions</td>
<td>Data enumeration (family census), data entry, management, and analysis</td>
<td>Verification of the data analysis results using community focus group discussions (FGDs)</td>
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<tr>
<td>Preparation of questionnaires</td>
<td>Conduct of workshop to introduce and present the enumeration plan.</td>
<td>Presentation of the results</td>
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<td></td>
<td></td>
<td>Dissemination of outputs (The outputs will be provided in two forms: final report and an interactive CD)</td>
</tr>
</tbody>
</table>
A Local Poverty Monitoring System (LPMS) for Tana River District, Kenya

Mary Amuyunzu-Nyamongo and Sussy Nchogu

Research objectives and questions

Objectives

The general objective is to establish a local poverty monitoring system (LPMS) for Tana River district.

The specific objectives are to:
1. Determine local specific causes of poverty in Tana River district;
2. Establish the relationship between ethnic conflict and drought on poverty in the district;
3. Determine the effects of poverty on the ability of households to access social services such as health, education, safe drinking water and wealth creation opportunities;
4. Establish a process through which communities characterise and identify the poorest among them for support;
5. Assess the poverty reduction initiatives already in place and their long-term viability; and
6. Assess the capacity of the communities to implement a LPMS.

Research questions

The study will be guided by seven key research questions:
1. What are the local specific causes of poverty in Tana River district?
2. What is the relationship between ethnic conflict and drought on poverty in the district?
3. What are the effects of poverty on the ability of households to access services such as health, education, safe drinking water and wealth creation opportunities?
4. Is there a process through which communities characterise, identify and support the poorest among them?
5. Are there poverty reduction initiatives in place and what is their long-term viability?
6. Are the communities able to use a local specific process of monitoring poverty on a sustained basis?
7. What is the capacity of the communities to implement a LPMS with support from the local government?

Knowledge gaps and scientific contribution of the research
Poverty is a localised phenomenon to such an extent that centrally planned national poverty alleviation programs may not adequately address the specific needs of local areas. Thus, there is need to understand the regional dimensions of poverty that would allow poverty alleviation efforts to work most effectively. Since local conditions and the problems faced by the communities are best understood by their members, it calls for a monitoring system that is conducted and owned by the communities; hence, the term local poverty monitoring system (LPMS) adopted for this study. For instance, there are yearly reports in Tana River district of acute drought that is often accompanied by destitution and ethnic conflict around the sharing of natural resources (WLEA, 2002). Both drought and ethnic conflict retard development and thus entrench poverty (Omosa, 2005; USAID & CARE, 2001). This is because drought compels local people to deplete their savings in the purchase of food and in meeting other basic needs while ethnic conflict does not only lead to destruction of human life but also of property, including crops and livestock (Ndurubagiye, 1996; Kimenyi, 2002; Heinrich, 1997). Indeed, ethnic conflict compromises the ability of individuals to engage in economic activities such as trade and farming, consequently adversely affecting savings and entrenching poverty and destitution, especially in resource-poor environments such as Tana River.
In Tana River district, conflict is mainly in the form of inter-tribal clashes often centering on communal water and pasture resources (WLEA, 2002; GoK, 2002). This is despite the fact that the warring communities pursue diverse socio-economic activities and, to some extent, have different religious orientations. Whereas the Wardei and Orma are mainly nomadic Muslim communities, the Pokomo are largely Christian peasant farmers. Although there has been intermarriage between the communities, this has not helped ease the hostilities (WLEA, 2002). In addition, the district falls in the Arid and Semi-Arid Lands (ASAL) ecological zone that is known for few economic opportunities as a result of frequent droughts, difficult terrain and less fertile soils (Wasamba, 1999; GoK, 2002).

Although there have been efforts by non-governmental organizations (NGOs) and faith-based organizations (FBOs), particularly the Catholic Diocese of Garissa, and the government to address poverty in the district through measures such as conflict resolution, the district continues to experience loss of human and animal life and property (GoK, 2002; WLEA, 2002). There has, however, not been an intervention by way of developing a LPMS that would highlight community-specific vulnerabilities and incorporate an early warning system against drought and ethnic conflict in the district in particular and the country in general (IPAR, 2002; NCCK, 2001). It therefore remains unclear whether certain community members most vulnerable to poverty are identified and targeted with support especially in times of drought, acute food shortages and ethnic strife. It is probable that certain coping strategies, including foraging and sale of property, deepen the impoverishment of poor families/households. The proposed study is aimed at developing a LPMS that would inform the district and serve as a model to be replicated in other parts of the country with similar characteristics.

Policy relevance

Importance of the study

strategy is the development of the ASAL through the improvement of security and diversification of livelihoods. In Kenya and many other developing countries, it is more the practice than the exception for the government to initiate development initiatives without an appropriate understanding of the local needs (Chitere, 1994; Kona, 1999; Chitambar, 2001; Mulwa & Nguluu, 2003). An example in this regard is the Bura Irrigation Scheme in Tana River district that interfered with the livelihoods of the pastoralists and thus failed. Indeed, it is important that before initiating any development project in an area, the local people should be involved in defining the problem and the viable solutions. It is thus important to understand local-specific poverty indicators, including food security, livestock production, conflict and access to services to generate a deeper understanding of community level conditions. A LPMS would facilitate the generation of information for better planning and implementation of poverty alleviation programs.

Decentralization policy and local governance structure
The Government of Kenya established a decentralization policy in the early 1980s known as the District Focus for Rural Development Strategy (DFRDS). This gave the district development planning team the power to plan local development, with technical and financial supervision provided by the central government. Thus, every district in Kenya, including Tana River, has a District Development Committee (DDC) composed of district level government officials (District Commissioner, District Development Officer, Officer Commanding Police Division and other departmental heads) and local leaders (including members of parliament, civic leaders/councilors, women and youth leaders). In addition, most districts have a presence of NGOs and FBOs engaged in various sectors, including water, health, governance and conflict resolution. There are several ministries in the government, each headed by a Minister and assisted by technical bureaucrats. In particular, there is in Kenya under the Office of the President, a Minister in charge of special programs that include emergencies, disaster operations and response to drought and floods. Each of the ministries is represented at the district level.
**Structure of the Government of the Republic of Kenya and its relevance to LPMS**

The Government of Kenya has an elaborate bureaucratic structure from the national to the village level, which is shown in Figure 1.

**Figure 1. Structure of the Government of the Republic of Kenya.**

1. National/Central Government headed by an elected President and the Cabinet of Ministers
2. Provinces that are each headed by a Provincial Commissioner, a central government appointee.
3. Districts that are each headed by a District Commissioner, a central government appointee
4. Divisions that are each headed by a District Officer, a central government appointee
5. Locations each headed by a Chief, a central government appointee.
6. Sub-locations each headed by an Assistant Chief, a central government appointee.
7. Villages each headed by a Village Headman/woman who is not an official government appointee, but appointed by the Chief or Assistant Chief to assist him/her.
8. Households (this is not a government, but a social structure).
In each of the layers of government bureaucracy, the subordinate level is directly accountable to the next (upper) level structure up to the national or central government. When it comes to implementation of development activities, the district level is the most important and all the structures at this level (from the village to the district) work as a team. Thus, in each of the levels, there are potential government and non-governmental stakeholders for LPMS. However, the district is the most appropriate given that it is the local development coordinating arm of the central government, which every stakeholder by law should work with. A parallel development arm is the constituency.

In 2003, the National Rainbow Coalition (NARC) government introduced the Constituency Development Fund (CDF). Through the CDF, MPs and communities are supposed to jointly identify and implement priority development projects in their areas covering all sectors, including education, health and agriculture. Under the CDF Act, each of the 210 constituencies is entitled to a fixed amount of money pegged to the Gross Domestic Product (GDP). In the 2004/5 financial year, the Minister of Finance allocated Kshs. 1.2 billion to the fund. He increased the allocation to Kshs. 5.6 billion during 2005-07. This was further increased to 50 billion in 2006/7 (around 10 million per constituency). In addition to the CDF, MPs are in charge of Kshs. 5 million per year for the Bursary Fund (for secondary school scholarships), and Constituency Roads Development Fund (CRDF), which provide the constituencies a further Kshs. 5-7 million per year for improving the road networks. The LPMS would facilitate a refined process of defining community level problems/needs and identifying priority areas.

Relationship with government policy
The Government of Kenya developed a Poverty Reduction Strategy Paper (PRSP) aimed at improving the living standards of its people (GOK 2001). However, to effectively implement any development initiative, it is prudent to investigate why the livelihoods are at the level at which they are in the first place (Bergdall, 1993). A recent government study on poverty placed Tana River among the poorest districts in Kenya, positioned at 65 out of 72 (CBS et al., 2005). One of the shortcomings of this study, however, is

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1Constituency boundaries are defined differently from the administrative boundaries. Due to the vastness of the district and the sparse population distribution, a constituency in Tana River District combines several sub-locations.
that it did not look at the causes and impacts of poverty; rather, it measured specific indicators at a very general level. In addition, the study did not seek to determine what specific factors lead to poverty especially among the pastoral-nomadic ethnic groups (Wasamba, 1999). This creates a gap with regard to addressing the most appropriate and culturally sensitive interventions in any one area, thus necessitating a study and system such as the one we propose. Furthermore, the CDF process relies (or is supposed to rely) on local people’s priorities, yet the systems to facilitate the generation of such information have not been institutionalized and are currently very weak.

Methodology

Selection of study site
The Tana River district has been selected purposively because it is one of the poorest in the country and prone to both drought and ethnic conflict. The selection of Bura, Garsen and Galole divisions is also deliberate due to the multi-ethnic nature of the inhabitants. The inhabitants who are peasant farmers (Pokomo) and nomadic pastoralists (Wardei and Orma) pursue diverse livelihoods with different determinants of poverty. The possibility of individuals descending in and out of poverty is high especially during water shortages, drought, famine and conflicts. Again, there could be differences among the divisions and households that would ultimately contribute to the design of an encompassing monitoring system that caters to both pastoralists and farmers.

Data collection
The process will be in three phases: (i) qualitative data collection; (ii) household census; and (iii) implementation of the revised LPMS design. First, however, we present an outline of the key indicators to be assessed and incorporated into the LPMS (Table 1).

The foregoing indicators have been provisionally selected for this study because they have a direct bearing on poverty in the district. For example, large family size is associated with limited access to services as most members are likely to be young people, while educational attainment has been related to improved earnings, consequently lowering poverty levels (Manda et al., 2001). In addition, the poor are likely to be sick more often, take longer to heal and register higher ill-health induced fatalities than the non-poor (Watkins, 1995). Hence, disease incidences are more
pronounced among the poor than the non-poor, with the poor being unable to cope due to inadequate access to health facilities. An examination of these factors, among others that are specific to the study sites, will be carried out to determine local poverty levels and more specifically the fate of the most vulnerable community members.

Study Design
Owing to the mobile nature of the Orma and Wardei communities during dry seasons, February to May and August to September, we propose the commencement of data collection in October when both the sedentary

Table 2. List of Key Indicators

<table>
<thead>
<tr>
<th>Poverty Indicators</th>
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<tbody>
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<td>a. Health</td>
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<tr>
<td>1. Proportion of under-five-year old children’s deaths</td>
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<td>2. Proportion of women deaths due to pregnancy related causes</td>
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<td>3. Proportion of households that access health services including FP, when required</td>
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<td>4. Proportion of household members who have been sick in the last two weeks (prior to the date of data collection)</td>
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<td>5. Proportion of households with members suffering from preventable conditions, e.g., malaria and diarrhea</td>
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<td>b. Nutrition</td>
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<td>6. Proportion of children 0-5 years old who are malnourished</td>
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<td>7. Proportion of households that had at least 3 balanced meals a day in the last one month</td>
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<td>c. Family size and type</td>
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<td>8. Proportion of dependents in households</td>
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<td>9. Proportion of polygamous families</td>
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<td>10. Proportion of female-headed households</td>
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<td>d. Shelter/housing</td>
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<td>11. Proportion of households living in makeshift housing</td>
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<td>12. Proportion of households that are squatters</td>
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<td>e. Water and sanitation</td>
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<td>13. Proportion of households with access to water supply</td>
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<td>14. Proportion of households with access to sanitary toilet facilities</td>
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<td>15. Average distance covered by women in search of water</td>
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<td>16. Proportion of children aged 6-12 years old who are not in elementary school</td>
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<td>17. Proportion of children aged 13-16 years old who are not in secondary school</td>
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<td>18. Proportion of youth aged 15-24 years old who are not literate</td>
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<td>g. Income proxies</td>
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<td>19. Proportion of households that experienced food shortage in the last 12 months</td>
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<td>20. Proportion of households with livestock</td>
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<td>21. Proportion of households with productive land for sustenance all year</td>
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<td>22. Proportion of households that lost farm produce in the last 12 months</td>
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and migratory groups are present. However, if not possible due to conflict or heavy rains, data collection will be carried out when the migratory groups are moving probably in February since not all members of the migratory groups move (the elderly, women and children are left behind).

**Phase one: qualitative data collection**

This will be a participatory process that will seek to engage the community members in in-depth discussions regarding the community life, their cultural ways of relating to their neighbours, access to services, wealth characterization, conflict resolution strategies and the changes that have occurred over time. The study will be inclusive, targeting participants from the three communities while at the same time focusing on the elderly, adult men and women, and the youth (the latter regarded as future leaders and communities). In addition, the discussions will be utilized to refine the questionnaire for use in the household census. The tools to be used in this phase will be seasonal calendars, focus group discussions and key informant interviews, as briefly described below.

1. **Seasonal calendars:** This technique will be used to map out periods of food shortages, crime and insecurity in the communities. It is from the mapping of such occurrences that the periodicity of implementing the LPMS will be determined, especially in situations where interventions are to be initiated. For example, once the most vulnerable households are
identified, it would make provision of emergency or sustained support more efficient.

2. **Focus group discussions (FGDs):** This tool will be used to explore community perceptions and experiences of poverty including the characterisation of wealth. The discussions will explore factors that expose people to and deepen poverty levels. Community coping strategies will be discussed with a view to identifying viable home-grown solutions. There will be 18 FGDs – 6 per sub-location that will comprise groups of 8-10 male/female youth, adult men/women and elderly men/women. All groups will be segregated by gender for cultural sensitivity and to allow free discussions among the participants.

3. **Key informant interviews (KIIs):** Local opinion leaders (including village elders and clan leaders), government officials and other service providers such as directors of local NGOs, CBOs and FBOs will be interviewed on the central issues identified for this project. This tool will mainly target categories of people who are knowledgeable about the local socio-political dynamics. The most vulnerable community members such as conflict victims and the poorer members will be sought and interviewed to gain insights on the causes of poverty at a more personal level. In-depth interview guides will be developed in line with each study objective. In total 45 key informant interviews will be conducted – 15 in each of the three divisions. Case studies will also be constructed through this technique.

**Phase two: household census**
The household census will be conducted on a pilot basis in three sub-locations as presented in the table below.

The CBMS questionnaire used in Indonesia will be adapted to the local conditions through the qualitative process described above. The census will be conducted in all households in the three sub-locations sequentially. Mapping of the migratory routes will then be done and proportions of those who move will be established.
Pre-testing study instrument
For the purpose of pre-testing the questionnaire, 60 households will be interviewed. The sample will be distributed proportionately based on the number of households in each sub-location. Thirty five households will be interviewed for the pre-test in Ngao sub-location (398 households), eleven in Halo sub-location (172 households) and fourteen in Bohoni sub-location (187 households) giving a total of 60 households. After this pre-test, the instrument will be refined, standardised and administered.

Data analysis
Data collected from the participatory process will be analysed manually according to the study themes. The community members will be assisted in undertaking the analysis (e.g., developing analysis charts for FGD data and mapping the information on the charts). In addition, the enumerators will be trained and involved in the analysis of the quantitative data in simplified formats. The research team will enter and analyse the household data using the Statistical Package for Social Sciences (SPSS). The data (including the codes) will be made available to the government as required.

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2 These figures are based on the 1999 census; therefore, the numbers of households and people are presumably higher as of now.

3 We would appreciate receiving any other questionnaires developed/utilized by PEP members for adaptation and use.
Poverty Mapping

Aggregate national level indicators often hide important differences between regions or areas. The analysis of poverty, its determinants and poverty-reducing interventions therefore requires a focus on poverty information that is further geographically disaggregated. In addition, poverty and inequality are multidimensional – consumption and income, education, health, opportunities, voice, etc. – and have multiple determinants – geographic and agro-climatic factors, services, infrastructure, etc. The plotting of such information on maps is useful to display information on the spatial distribution of welfare and its determinants. It is also useful to display simultaneously different dimensions of poverty and/or its determinants (World Bank webpage). We will use the proxy indicators of income to prepare poverty maps that will be used to identify the poor in the study site for targeting. Poverty maps will also be useful for members of parliament as a basis for implementing projects in their constituencies through the CDF.

Phase three: Implementation of the revised LPMS design in Bura division of Tana River district

This phase aims to assess the implementation of the LPMS in the entire Bura division. The community will lead the data collection process and preliminary analysis, with support from the local government. AIHD will only provide supervisory support. Having conducted training and imparted skills during the pilot to the community and local government, we will use this capacity in expanding CBMS to Bura division. We have already engaged the district officer of Garsen division on the proposed pilot in his division and we hope to do the same for the other two divisions but specifically Bura division since this is where the expansion of the CBMS is proposed. There are developmental organisations in the district such as Arid Lands, Garsen Division Peace Net Organisation, Caritas International, Tana Pastoralist Forum, among many others, whom we intend to bring aboard to facilitate the successful expansion and eventual institutionalization of the CBMS. The three local MPs of the district will also be engaged in the process since the results from the CBMS would provide critical information for use in implementing projects and determination of beneficiaries of the CDF and the bursary fund for needy children.
The project team and eventual institutionalization of the LPMS

The initial activity of this study will be to hold discussions with the District Commissioner of Tana River to brief him and to seek his support and engagement. Thereafter, a Project Team (comprised of about 10-12 members) will be put in place – composed of government district representatives (these shall include representatives from each of the participating divisions), NGOs involved in poverty/conflict alleviation, CDF chairpersons, local community leaders, and members. This is an important strategy in the pilot and the implementation of the revised LPMS design in the remaining households of Bura division and future rollout of the LPMS in other parts of the district. This team will plan the study and direct the implementation and dissemination activities. The involvement of chiefs, their assistants, women and youth leaders is important because they are key opinion leaders. While it is a legal requirement that local leaders, and more specifically government officials, be involved in any development project, they are critical entry points into the communities. Indeed, local leaders are crucial in community mobilization as development advocates/agents. It is only through the incorporation and involvement of these stakeholders that the LPMS would acquire local ownership and legitimacy, thus ensuring its sustainability and replication. Specifically, it is proposed that the inclusion-exclusion criteria for representatives from each sub-location will be left to the respective residents. The aim of doing this is to allow residents to choose/nominate people of their own choice, whom they consider well-placed to adequately represent them. This will essentially go a long way to instil community ownership of the LPMS and by so doing, ensure its sustainability. In addition, this would ensure that the LPMS becomes a tool for both local and national planning and budgeting.

The Government of Kenya works with non-governmental stakeholders especially in matters directly relating to the communities such as the LPMS. For this reason, since the LPMS fits directly into the government decentralization and constituency development policies, it is expected that bringing the government and other stakeholders on board is inevitable and would be welcomed on the part of the decision makers. This will be done through the national offices that would be requested to clear local (district) level government officials to be actively involved in the proposed work.
Data requirements and sources
This study requires both quantitative and qualitative data, which will be obtained from the community members, government officials, NGO, FBO and CBO officials and community opinion leaders. Efforts will be made for the process to be inclusive; that is, engaging the elderly, women, and youth. This information will be obtained using various data collection techniques as outlined in the methodology section. A review of published and unpublished literature from organizations working in the district and elsewhere will also be conducted to provide a broader understanding of issues in the geographical area of study and on the topic.

Recruitment and training of research assistants
Apart from Dr. Amuyunzu-Nyamongo and Ms. Nchogu who will oversee the implementation of the study, 12 enumerators (6 males and 6 females) will be recruited to assist with data collection. All the enumerators will be local people residents in the respective sub-locations. Possession of at least a form four certificate will be a key requirement in the selection criteria in order to address the capacity of the community to undertake the CBMS. The enumerators will be centrally trained at the district headquarters for 5 days and will be continuously mentored during the study period as a strategy of building their capacity to institutionalise the LPMS.

Validation and information dissemination strategies
The findings will be disseminated at various levels. There will be feedback meetings organized for the participating communities. Through these meetings, the information will be validated before wider dissemination and any concerns raised by the community members during the feedback (validation) will be taken into consideration. The purpose of this validation will be to ensure that the information collected is accurate while at the same time helping the communities to take account of their own problems and thereby ensure ownership of the LPMS findings. Meetings will be organized and facilitated by the Project Team at the district and divisional levels.

The validation at the divisional level will involve various stakeholders including community, local leaders and government and local NGO/FBO representatives. The district level validation will gather stakeholders from each division, NGOs, FBOs, CBOs, provincial and national representatives to discuss the study findings. We consider this a
key group to consume the information generated through the LPMS process because it will also be involved in the implementation and dissemination of the LPMS. This forum will provide the community and all other stakeholders, including the government, an opportunity to discuss poverty and issues around ethnic conflict. Specifically, provincial and national/central government representation will be important for the purpose of initiating the LPMS in other parts of the district and the country.

For the purpose of dissemination at the sub-location level, this will be assigned to respective sub-location development committees under the guidance of an officer from AIHD, in collaboration with divisional level leaders (including DOs, Chiefs and their assistants, civic leaders/councillors, women and youth group leaders, among other interest groups). For broader dissemination, the study findings will be posted on both Poverty and Economic Policy (PEP) Network and the AIHD websites. In addition, copies of the raw data and codes will be made available to the government (through the relevant departments) and other interested parties, including NGOs, for further analysis and use. The researchers, with the permission of PEP, will endeavour to publish the results in peer reviewed international journals for wider dissemination at the global level. Linkages will be established with local and international groups working on poverty indicators and early warning systems, including the United Nations.

**Expected capacity building**

The tools being utilized for this study provide a process that enhances the community’s capacity to analyse its issues. The construction of seasonal calendars is an inclusive process that allows the members to critically look at their communities. In so doing, they develop a means of self-evaluation. The LPMS will enhance the capacity of the government and other organizations working in the district to address poverty issues in a targeted and comprehensive manner. The local people, who will serve as enumerators, will also be trained in the various data collection tools, thereby creating an important resource within the communities. Moreover, the enumerators will be involved in the entire process of the LPMS, from planning, implementation and dissemination. This is intended to create ownership by the communities. This approach has been adopted due to an understanding of the fact that local problems are better solved locally
with the intended beneficiaries playing a central role, thereby ensuring sustainability.

From an organizational perspective, the process of carrying out this study will improve AIHD’s ability to work among a diverse group of people in what is largely considered a hardship area.

**List of expected outputs**

1. Initial and final design (after the pilot, changes may be recommended) of the Local Poverty Monitoring System.
2. Database containing the data collected from the Local Poverty Monitoring System both at the pilot and implementation phases.
3. Poverty profiles.
4. Assessment of poverty reduction initiatives already in place.
5. A tested process of identifying the poorest for support.
7. Paper on the effects of poverty on the ability of households to access basic services and wealth-creation opportunities.
References


Community-Based Poverty Monitoring in Sri Lanka

Nishara Fernando

Background
The Social Policy Analysis and Research Centre, (SPARC), formerly the IMCAP program, of the University of Colombo has been involved in the development of a conceptual framework as well as the testing of new methodological approaches to undertake community-based poverty monitoring in Sri Lanka, with support from the Institute of Policy Studies (IPS). In this regard, with assistance from the International Development Research Centre (IDRC)-supported Community-Based Monitoring System (CBMS) network, the CBMS was adopted in four locations in Sri Lanka, covering the urban sector (Colombo District), the rural sector (Hambantota District), the Estate Sector (Nuwara Eliya District) and one in the conflict-affected regions (Batticaloa District) in the eastern part of Sri Lanka.

Main efforts to institutionalise the CBMS in cooperation with local government authorities have been concentrated at the Colombo location whereas in Hambantota and Batticaloa, the project supported the setting up of groups of community members trained in quantitative as well as qualitative data collection techniques to carry out monitoring exercises. This was seen as an attempt to empower local communities by giving them the opportunity to articulate their interests and needs in a more evidence-based manner. On the other hand, the collection and utilization of household data need to be institutionalized within partner institutions such as the

* Social Policy Analysis and Research Centre (SPARC), Faculty of Arts, University of Colombo
Samurdhi Authority, the Village Upliftment Programme (Gama Neguma) and local councils.

The IPS-supported CBMS project came to an end in June 2005. The main outcomes of this project were presented at the 4th Annual PEP conference held in Colombo, Sri Lanka on 13-17 June 2005. At the conference, the Sri Lanka CBMS team outlined two important areas for future research, namely, incorporating conflict sensitivity into the CBMS and investigating the potential of CBMS in community preparedness for disaster management in the aftermath of the Tsunami.

The persistence of the marginalisation of local government institutions in the Sri Lankan political system has been a hindrance to institutionalising CBMS within the local government framework in Sri Lanka. In this regard, some of the more recent developments in the country, particularly after the last Presidential elections held in 2005, are significant in particular, the explicit recognition by the government of the need to establish a system for the collection and utilization of household data at the community level. The detailed policy document entitled ‘Mahinda Chinthana” put forward by the newly elected government spells out the need to establish village centers that would collect and collate household data needed for local level planning purposes. While it is necessary to continue with the efforts to institutionalize the CBMS within the local government system by working in close collaboration with the Sri Lanka Institute of Local Government (SLILG), the project team with establish collaborative links with relevant institutions dealing with poverty and local level development issues such as the Ministries of Samurdhi (Poverty Alleviation) and Rural Livelihood Development. CBMS can be a vital tool in the management of their community level intervention programs.

The Government of Sri Lanka implements its poverty alleviation program primarily through the Ministry of Samurdhi. The Ministry’s primary function has been to deliver small amounts of cash to poor households ranging from 100 to 1000 rupees per month (one US$= 108 rupees). In recent years, attempts have been made to diversify its program including the promotion of savings through a network of banks established for the purpose. Part of the accumulated capital has been used to give credit to beneficiary
households for productive and other purposes. A program of social benefits such as small grants to cover certain household expenses has also been launched in the recent past.

Given the highly political significance of welfare benefits in Sri Lanka, successive governments over the last two decades have not been willing to rationalize the Samurdhi program. As a result, the proportion of households receiving Samurdhi benefits has continued to hover around 50 percent of the population.

The Ministry of Samurdhi has not taken an active interest in systematic monitoring of poverty either at the local or national level. This is in spite of the fact that it has the capacity to reach almost all the villages in the country through its extensive network of village level functionaries (samurdhi niyamakas). In fact, these village level workers can be trained and deployed throughout the country to collect household and community level data in a systematic manner. Yet, the country continues to rely on data coming from household surveys conducted by the Department of Census and Statistics, the Central Bank and multilateral donor agencies like the World Bank.

**Scope of the Project**

In order to further develop and institutionalize the CBMS approach and to share experiences within the larger CBMS network, this proposal seeks support from the network to continue with an institutionalized, longitudinal poverty monitoring program in a number of selected locations and to provide an analytical documentation of the emerging trends. The CBMS Sri Lanka project is in the advantageous situation of having carried out a full household census on the poverty situation in two locations in the Kalametiya division in Southern Sri Lanka. One of the village locations had been hit directly by the Asian Tsunami in December 2004, while the other location has just barely been spared. This provides a unique opportunity to compare different poverty dynamics evolving in these two locations in the aftermath of the Tsunami and to directly monitor the impact of the respective rehabilitation efforts by governmental, non-governmental and private initiatives, aside from focusing on developments in other locations to be selected for the project.
Moreover, the project seeks to launch an advocacy campaign in Sri Lanka on the importance and relevance of the CBMS for collecting and analyzing data on poverty at the sub-national level, particularly in relation to diverse contexts such as the national program of poverty alleviation and empowerment of local councils and community-based organizations under the Ministries of Local Government and Rural Livelihood Development. The CBMS approach will be promoted not only in terms of better efficiency and effectiveness in poverty monitoring at the local level but more so as an important tool for conflict-sensitive and pro-poor development planning. The potential of this tool to inform policymakers and development practitioners on emerging factors and processes undermining social and economic integration of communities will be highlighted. Particular focus will be on the possibility of development planning contributing to worsening poverty as well as increasing the risk for violent conflict at the local level. It should be noted that conflict sensitivity is an issue not only in conflict-affected North and East but also in areas where there is little ethno-linguistic diversity. In these areas, conflicts have emerged due to unfair distribution of resources, favoritism and discrimination based on caste, class and political affiliation.

Impact of the Tsunami in Sri Lanka and the Role of CBMS
The tsunami disaster in Sri Lanka on the 26th of December 2004 has caused enormous destruction in terms of property and livelihoods as well as of social and psychological impact for people affected. Based on preliminary damage and needs assessments undertaken by various national as well as international agencies, more than 30,000 people lost their lives, nearly 100,000 houses have been completely destroyed and more than 400,000 people are displaced.

Although the percentage of affected persons in comparison to the overall population remains small and the overall macroeconomic situation appears to be stable, there is a strong indication that the poor have been affected to a much greater extent. This is due to the fact that many people living along the coastal areas in Sri Lanka were poorer than those living in many other areas. In addition, the hard-hit North East region had already
suffered from the 20-year long ethnic conflict. Although there is a relative lack of comprehensive data available for these regions, the poverty situation is supposed to be much worse in this part of Sri Lanka.

As mentioned earlier, the tsunami also affected two CBMS sites in Sri Lanka, namely Kalametiya division in the Hambantota district and Periyakallaru division in the Batticaloa district. At the Batticaloa CBMS location, 224 out of 394 families were affected, while at the Hambantota location, 136 families out of 240 were affected. The damage ranges from loss of fishing boats and gear, damaged or fully destroyed houses, and loss of family members. The Colombo location, on the other hand, was not affected, as it is located away from the coastline.

A rapid assessment was undertaken in early 2005 on the impact of the tsunami on the CBMS site in the Hambantota District on the Southern coast of Sri Lanka. The site, which consists of two coastal lagoon systems – Kalametiya and Rekawa - typically represents poor rural coastal communities that were badly affected by the tsunami. For the rapid assessment, participatory research methods were adopted and these included focus group discussions and a household survey.

Data collection was undertaken with the assistance of local field researchers from the community who had previously been engaged in the CBMS study. These community members played a vital role in data collection and methodology development. In addition, the communities in both sites extended their utmost cooperation and support during data collection, even if these were very difficult times for them. This can at least be partly attributed to the involvement of local field researchers in the process, giving the communities a sense of ownership and empowerment.

The household survey covered 210 households, which have been the subject of ongoing research on factors affecting rural livelihoods since 2002. The fact that baseline data were available allowed a much better assessment on the impact of the tsunami both on household and productive assets. The community’s views on the new coastal zone management policy issues that have emerged as a result of the tsunami (e.g., 100 meter buffer zone on the south coast) were also solicited. In addition, the survey included questions
on what coping strategies were adopted by the household immediately after the tsunami and how their sense of personal wellbeing and security was affected.

The exercise made it very clear that the process of relief, rehabilitation and reconstruction involves a large number of issues that should not be addressed in an ad-hoc manner. Although it is urgent to address the immediate requirements of the population affected, there is also a need for careful planning and implementation of mid- and long-term rehabilitation efforts. This would require an intense policy debate with regard to various options available not only to ensure that affected people are treated fairly and equitably but also to avoid adverse consequences such as increasing social tensions and violent conflicts. Building capacities of local communities to play a role in planning and implementation of rehabilitation efforts is one crucial task in this context.

The CBMS methodology – as demonstrated in the Kalametiya case – has the potential to support a participatory and human rights-based approach toward socio-economic development, including empowerment of local government institutions and civil society at the local level, with a view to institutionalize a participatory approach. Respective efforts by members of the Sri Lankan CBMS team could be further developed to improve livelihood assessments. In view of the team’s involvement in the two affected communities, the team felt that it is reasonable to include these communities in the new project phase, in addition to other locations to be selected for CBMS work in Sri Lanka.

**Project Objectives**
The Sri Lankan CBMS team would like to continue poverty monitoring activities in the Kalamatiya location in the Hambantota district and three other communities to be selected in consultation with the key partner organizations, namely, the Sri Lanka Institute of Local Governance, the Gama Nagma Program of the Ministry of Rural Livelihood Development and Smurdhi Authority. The locations shall comprise both tsunami-affected areas as well as others. Given the prevailing security situation in the Baticaloa district, though, CBMS work cannot start there soon.
The data collected will be used to:

a) improve poverty monitoring efforts through active dissemination strategies,

b) introduce principles and strategies of community-based development planning, and

c) initiate, together with the Sri Lankan Institute for Local Governance (SLILG) and other partner organizations, an advocacy and implementation program at the national and local levels and further institutionalize the Sri Lankan CBMS approach in the relevant agencies. By working in close collaboration with the above organizations, in particular those that have a mandate to engage in local level planning and poverty alleviation, the project seeks to improve data collection, analysis and utilization by these organizations. It is also envisaged to establish a database on poverty that would complement macro data sets generated by national institutions like the Department of Census and Statistics.

The six communities to be included in the sample shall comprise approximately 2300 households with a population of 11000 persons. A comprehensive census will be carried out as an initial step in the research process in the communities where such work has not been done. The household questionnaires already tested in earlier locations will be used for this purpose.

A comparative analysis of the three tsunami-affected communities is expected to provide comparative information that would be of relevance for other similar communities in Sri Lanka. The differentiation between communities in terms of degree of impact appears to be critical in view of the fact that the bulk of tsunami aid is currently going only to the directly affected victims of the tsunami. This may not only overlook other serious problems that communities are being exposed to in the vicinity of the tsunami impact but may also lead to increasing social tension between neighboring communities with different levels and kinds of exposure to the disaster. The other three locations to be selected in consultation with partner organizations will be drawn from the interior regions of Sri Lanka, taking into account ethnic and socio-economic factors such as poverty incidence and social vulnerability.
The action research to be conducted in the selected locations are expected to achieve the following objectives:

**In general terms:**
- To identify most relevant factors of livelihood vulnerability as well as most vulnerable social groups (by referring to indicators developed during the previous CBMS exercises, with main emphasis on socio-economic security, food security and personal security) and other socio-economic vulnerabilities.
- To incorporate conflict-impact assessment approaches into the CBMS methodology, with a special focus on rehabilitation and development efforts. CBMS household questionnaires will be expanded to include a few questions to address persisting or emerging conflicts within communities.
- To identify suitable mechanisms to improve capacities of local institutions and communities through CBMS.

**In specific terms:**
- To develop a better understanding of livelihood and coping strategies of different communities over a longer period of time.
- To make an assessment of the emerging situation in selected areas with respect to the satisfaction of needs and aspirations of people and to empower local communities to formulate sustainable and conflict-sensitive development strategies.
- To disseminate the CBMS approach beyond the confines of the selected locations while at the same time taking concrete steps to institutionalize CBMS in the relevant institutional contexts.

**Methodology**
Methodologies used in the earlier phase of the CBMS will also be used with further refinements. The CBMS team employed a combination of data collection techniques, both qualitative and quantitative. These included:
- **a)** Household census using a structured questionnaire
- **b)** Case studies of a sub-sample of households
c) Focus group discussions  
d) Key informant interviews  
e) Environmental maps  
f) Detailed mapping of sites using GIS techniques

g) Community resource mapping based on interviews and field observations  
h) Secondary sources such as official records, published reports, etc.

The data collection techniques mentioned above are complementary. For instance, preparation of detailed site maps have been based on household data collected through questionnaire survey and case studies.

Household census is a vital source of data on various aspects of the sample population. The broad areas that the questionnaire covers are given below.

No attempt was made to develop social, political and environmental maps of the field areas though it became quite clear that the life chances of the local population depended very much on social and political networks and natural resources in and around field sites. In the proposed phase of the CBMS project, such maps

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<tr>
<th>Indicators</th>
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<td>Demography</td>
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<td>Health and nutrition</td>
<td>Morbidity and nutrition status</td>
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<td>Water and sanitation</td>
<td>Type of water source and toilets</td>
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<td>Shelter</td>
<td>Quality of housing</td>
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<td>Security</td>
<td>Crime, armed encounters, violence</td>
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<td>Secondary enrolment</td>
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<td>Basic literacy</td>
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<tr>
<td>Political participation</td>
<td>Participation in community organizations, participation in the political process</td>
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<td>Infrastructure and utilities</td>
<td>Access to roads, electricity, telephone, information, transport etc.</td>
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<tr>
<td>Assets</td>
<td>Land, equipment, skills, savings</td>
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</tbody>
</table>
will be prepared using GIS techniques. The data for such maps will be collected from both primary and secondary sources.

Quantitative analysis of household data will be done using SPSS. Detailed qualitative data collected through case studies, in-depth interviews and field observations will be used to identify vulnerable households and various coping strategies used by individuals and families.

As in the earlier phase, selected community members will be trained and deployed to collect household data under the guidance of the CBMS research team. These are usually active community members or educated youth in the village who can function as community volunteers. Training workshops are organized in the community to provide necessary skills to community volunteers so that they can conduct the household census. Quantitative data analysis will be done by the data analyst in collaboration with local level functionaries attached to partner organizations. Their involvement in field research naturally makes them active partners of the project. Unlike in conventional social surveys where the respondents become passive and voiceless informants, the CBMS research process enables them to have a voice as they do not disappear into the background once the questionnaires are completed by the visiting enumerators. Since the households are kept informed of the results of the field research, the community members become aware of their own situation.

The advantages of CBMS in poverty mapping are well known to the researchers involved. Quantitative analysis of poverty based on household surveys becomes highly abstract and statistical, leading to broad generalizations. By contrast, CBMS techniques enable researchers to develop detailed, community level poverty maps where individual households figure prominently along with their socio-economic circumstances such as access to resources, social and political problems, among others. CBMS efforts thus fill a long-standing gap in poverty analysis, making development interventions more people-friendly.

Planned project activities
Some empirical studies have already been done with funding from UNU-EHS to assess the vulnerability situation of tsunami-affected communities. Additionally, a private trust fund has been set up to directly support tsunami relief and rehabilitation efforts in the
The trust fund will also be utilized to support the set up of a small community-owned unit to coordinate the monitoring exercise. This unit can be the focal point within the community for regular continuation of poverty monitoring in the future and will closely liaise for this purpose with SPARC at the University of Colombo (which will continue to provide backstopping and continuity in methodology and indicators used). In the other selected locations, necessary institutional arrangements will be made in collaboration with the relevant agencies, in particular for training and mobilization of community members and local level functionaries attached to relevant institutions such as local councils, Samurdhi Authority and the Gama Neguma Program. The researchers have already made contact with these institutions regarding the proposed project.

However, as these activities will rely on the use of the CBMS methodologies, this proposal seeks support from the CBMS network primarily for those activities aimed at further exploring and analysing the methodological approach for CBMS, the data collection process and the activities required for improving community involvement in monitoring and planning exercises. This will take place through the following activities:

1. The Environment and Human Security program of the United Nation University (UNU-EHS) supported a six-month (Jul. – Dec. 2005) vulnerability assessment in the townships of Galle and Batticaloa. The following indicators were tested in this research to measure “Tsunami” vulnerability:
   - Amount of young and elderly people in the total population (demographic susceptibility)
   - Income and employment (economic susceptibility)
   - Land ownership (socio-economic susceptibility and recovery potential)
   - Social networks and membership of organizations (coping capacity pattern)
   - Loans and savings (coping capacity)

   This research has informed the CBMS on particular vulnerabilities that a natural disaster of the scale that the Tsunami has imposed on the certain groups within the Sri Lankan coastal belt and can serve as a guide to modify the proposed CBMS questionnaire and/or to add new areas to include in the monitoring exercise.
Continuation of CBMS activities in the selected locations to further develop the CBMS approach, including:
  o Continuation of training exercise in data collection for community members
  o Conduct of data collection by trained community members
  o Continuation of academic guidance to the community members by resource personnel from SPARC
  o Close collaboration with relevant partner institutions as well as NGOs operating in the area (such as Action Aid International) in order to further promote and institutionalize the utilization of the CBMS approach.
  o Documentation and in-depth analysis of CBMS exercises in the selected locations.

Facilitation of meetings and training workshops with regional as well as national stakeholders to promote the utilization of the CBMS for improving poverty alleviation efforts in Sri Lanka

Strengthening of the collaboration between SPARC and Sri Lanka Institute of Local Governance to incorporate the CBMS in the annual training program of the latter, targeting local council functionaries so that the CBMS methodology and its applicability for sustainable and conflict-sensitive development planning can be disseminated to local councils in different parts of the country.

Implementation Strategy

Local level
SPARC will implement the CBMS project in close collaboration with local communities and relevant partner organisations. As mentioned earlier, these include local officials of the Ministries of Samurdhi and Rural Livelihood Development and the local councils in the area.

National level
During the current project phase, SPARC shall assist the relevant organizations to incorporate the CBMS methodology in their regular programs at the local level in particular training of their local level officials and establish systems for collection, analysis and utilization of data at the household and country levels. The Gama Neguma
Program comes under purview of the President and is a major channel of state funding for rural development. Institutionalization of the CBMS in selected locations would pave the way for its replication in the other parts of the country.

SPARC will facilitate the dissemination of the approach as well as the findings of the monitoring exercise at the national and regional levels among relevant government agencies and local and international NGOs.

The above approach would serve SPARC’s interest to facilitate a longitudinal approach to poverty monitoring and to stay engaged in a policy debate on poverty alleviation and social policy in Sri Lanka. Equally, it would support the empowerment of local communities by facilitating the development and implementation of action plans based on data generated by these communities. Finally, this will also augment the Sri Lankan knowledge base on community-based poverty monitoring and poverty alleviation strategies.

Main Project Partners
The CBMS team shall collaborate with the Sri Lankan Institute of Local Governance (SLILG) to support reform efforts of the local governance system which at present is not in a position to take up major responsibilities for development planning or implementation. Being the prime capacity-building institution for local government and instrumental in supporting a political reform process to strengthen the role of local government in Sri Lanka, the SLILG is

Any approach to strengthen local government authorities has to take into account Sri Lanka’s highly centralized public administration that functions almost independently of the elected local government structures. Most of the central government and donor funds are handled by the public administration officials at district and divisional levels. This makes it extremely difficult to expect any financial powers to be allocated to these local bodies. Unfortunately, this is not only the case with government controlled funds, but very much also with donor and NGO funds, as the legal framework imposed by the central government makes it extremely difficult for local authorities to receive any such funds. However, the political debate in Sri Lanka increasingly recognizes the need for more decentralized government structures not only to improve local development but also as a means to find solutions to the various violent conflicts the country is facing. The CBMS project hopes to contribute to the debate on decentralization by highlighting the CBMS approach as a tool for local authorities to play a greater role in designing and monitoring development interventions.
an important partner to further institutionalize the CBMS in Sri Lanka.

The research team also had discussions with two relevant central government ministries, namely, the Ministries of Poverty Alleviation (Samurdhi) and Rural Livelihood Development to explore the possibilities of incorporating the CBMS in their local level development programs. The response from the relevant authorities has been very positive. The Ministry of Poverty Alleviation was established about 11 years ago and is responsible for the implementation of the national poverty alleviation program through a network of officials at different levels in all parts of the country. The ministry has been beset with serious problems of targeting benefits to potential recipients for want of reliable and useful data collected on an on-going basis independently of political and other interferences. The CBMS Sri Lanka team’s discussions with the authorities revealed that the CBMS methodology can be effectively employed to address this issue, initially in the selected communities not only to identify deserving households but also to determine other interventions needed to address the problems faced by poor households. The data could also be used for monitoring poverty and well-being using the comprehensive set of indicators developed by the CBMS.

The newly established Ministry of Rural Livelihood Development has a mandate to develop basic facilities in rural and disadvantaged urban areas with the participation of potential beneficiaries in the implementation process. The intervention programs of the ministry require it to develop community profiles in terms of existing and required community infrastructure. Since CBMS data cover community level resources and resource gaps, including environmental and social problems, the CBMS methodology can be very useful for the ministry to collect the data needed for community level planning and decisionmaking. The new ministry has also taken steps to establish community centers to coordinate its local level activities, including data collection and analysis. The CBMS team will collaborate with such centers in the selected field sites with a view to institutionalizing CBMS at the local level. The divisional secretariat and the Grama Niladharis will also be local level partners of the project.
As already mentioned, the CBMS team will continue to collaborate with the Sri Lanka Institute of Local Governance. Given its main function of capacity building of local councils by way of skills and knowledge transfer to local functionaries, training on the CBMS methodology can be incorporated in its programs. In recent years, several donor agencies such as the USAID, through Asia Foundation, have demonstrated their willingness to support selected local councils to improve their management and service delivery functions. Already, 35 local councils have been assisted by this project. The emphasis of the project is on participatory planning and community involvement in the implementation of local-level projects. The Ministry of Local Government has decided to extend this project to a number of other local councils in the Western and Sabaragamuwa provinces. Some of the CBMS field sites fall within the project area.

SPARC already has strong links to the SLILG. The Director of SPARC is a member of the Governing Council of the Institute. The modalities of incorporating CBMS in the advocacy and training programs of the Institute need to be worked out. Potential donor funding can also be useful in these efforts.

It should also be noted that SPARC has also established links with Action Aid International (AAI) in Sri Lanka, an NGO engaged in community level development activities. AAI also supports a country-wide “People’s Campaign” for better local development and community empowerment.

**Potential Uses of CBMS Data in Sri Lanka**

Given the comprehensive nature of the data that the project would generate, it is possible to identify a range of uses that the data could be put to. The most important purposes for which CBMS data can be used are as follows:

- Poverty analysis at household and community levels
- Monitoring of poverty and welfare indicators
- Better targeting of welfare benefits
- Identification of needs of communities and regions
- Formulation of local development plans
- Advocacy
- Evaluation of the impact of policies and development interventions
Equitable allocation of resources
Identification of specific needs of vulnerable groups and communities

Main Project Outputs and Outcomes
Major outputs of the project are as follows:
  a) Detailed poverty profiles of the selected communities including GIS maps,
  b) Detailed and systematic analysis of census data using appropriate statistical techniques,
  c) Compilation of case studies of selected households as illustrative examples,
  d) Detailed action plans to address local issues based on community level data analysis to be taken up by relevant partner organizations

Major outcomes of the project are as follows:
  a) Institutionalization of the CBMS methodology in the relevant institutions so that it becomes a tool in the hands of local level planners and project implementers,
  b) Empowerment of local communities through training and participation so that they become active partners in their own development rather than passive recipients of doleouts,
  c) Partner organizations to be involved are expected to adopt the CBMS methodology in their programs in the selected field areas and elsewhere,
  d) Heightened awareness and knowledge regarding CBMS methodology among other stakeholders such as the Department of Census and Statistics, academics and researchers via seminars and training workshops that the researchers would organize during the course of the study.

The proposed new phase of CBMS work in Sri Lanka builds on the experience gained during the earlier phase in 2004-2005. The development and refinement of the CBMS methodology in the Sri Lanka context on the basis of extensive empirical work, compilation of community poverty profiles, use of GIS and livelihood and vulnerability indices, and empowerment of community members would be the main project outcomes. Initial steps taken to institutionalize CBMS at the local level have produced some tangible results. However, institutionalization...
of CBMS in the context of relevant institutions needs to be pursued more vigorously. This would also be a major preoccupation of the project in the current phase. The researchers shall work in close collaboration with the identified partner organizations to achieve the above objectives.

The proposed project intends to consolidate on the above achievements and expand the scope of CBMS in Sri Lanka by covering a large sample of households and a number of new field locations to be selected in consultation with project partners. One of the main project outcomes the research team expects is the institutionalization of the CBMS process in the relevant partner agencies through advocacy, training and actual implementation of CBMS activities in specific poverty alleviation and rural development settings coming under the purview of selected partner organizations. Initial discussions with the key officials of these organizations revealed a high level of commitment on their part to work with the CBMS team, with a view to institutionalize CBMS in their respective organizations. The researchers would establish a steering committee with adequate representation from key partner organizations to guide the implementation process over the next two years.

**Institutional Background**

The Social Policy Analysis and Research Centre (SPARC) of the Faculty of Arts, University of Colombo provides a focal point within the Sri Lankan University system to integrate research, teaching, training, policy analysis and advocacy on critical areas of social and economic development. The centre facilitates close collaboration between the academics and institutions outside the University system, including governmental as well as non-governmental agencies that are dealing with issues related to social policy. As one of its core objectives, SPARC will facilitate and institutionalize independent research within Sri Lankan universities on social development related issues and identify opportunities for social policy reform in Sri Lanka by focusing on important target groups such as the youth, women, and the elderly and by analysing experiences in other Asian countries. The research findings will also feed into new short-term diploma courses on social policy relevant topics set up by the Centre.
The new Centre is an integral part of the Faculty of Arts of the University of Colombo. A Board of Management holds the executive authority to carry out the objectives of the Centre under the overall supervision of the Vice Chancellor of the University of Colombo. The Board of Management consists of 9 members, out of which 4 are appointed from outside the University. The Dean, Faculty of Arts, is the Chairperson of the Centre whereas a director is selected by the Board of Management among the senior staff from within the University. Prof. S.T. Hettige, Senior Professor of Sociology, has been appointed as the first director of the Centre. A senior program coordinator organizes the day-to-day activities of the Centre.

SPARC hosts a core staff to coordinate the regular functions of the Centre, but may recruit additional research and other staff on the basis of fixed term contracts as and when necessary. Overseas scholars who wish to pursue teaching or research in Sri Lanka may be accommodated as Junior or Senior Visiting Fellows of the Centre.

The establishment and official inauguration of SPARC in June 2005 culminates a process that was set in motion at the Colombo University several years back with the launching of the “Improving Capacities for Poverty And Social Policy Research” (IMCAP) program in late 2000, a staff and student development program to strengthen skills of younger academics from different social science backgrounds on poverty, and social policy analysis and research. IMCAP has also implemented a number of significant research studies on poverty, youth alienation, education, social and economic security, and conflict impact assessment. Main funding agencies for the above research studies have been ILO, DFID, and GTZ. The new Centre will continue to host IMCAP as a capacity building unit to facilitate training programs on research methodology and to coordinate study streams for undergraduates on poverty and conflict impact assessment.

The research team also had discussions with two relevant ministries, namely the Ministries of Poverty Alleviation (Samurdhi) and the Ministry of Rural Livelihood Development. While the former has been in existence for the last 11 years, the latter was established less than a year ago, following the last presidential elections.
The Ministry of Samurdhi (Poverty Alleviation) is responsible for the implementation of the national poverty alleviation program through its implementation arm, Samurdhi Authority of Sri Lanka. It has continuously faced the problem of targeting benefits to deserving households. The lack of reliable and useful updated data from the relevant households has been a major problem that the implementing authorities have been faced with. The team’s discussions with ministry authorities revealed that the CBMS methodology could be effectively employed initially in several selected pilot areas not only to identify deserving households but also to identify the services that may be needed by the beneficiary households. The data could also be used to monitor household and community level programs in terms of improvement or deterioration of household poverty situation.

The new Ministry of Rural Infrastructure Development has a mandate to improve rural infrastructure with the participation of community members. The program of the ministry requires it to develop community profiles in terms of existing and required community infrastructure. The CBMS methodology covers community level social and economic conditions such as common reservoirs, common amenities, and environmental and social problems.

The Sri Lanka Institute of Local Government is also a key partner linked to SPARC. The two institutions will work in close collaboration with each other to introduce the CBMS to local government institutions.
Development of a Community-Based Monitoring System in the Northern Region of Peru

Julia Maturana Coronel

Relevance of the system
*Rationale of implementing CBMS in Peru*
Peru is a developing country, characterized by a low economic growth rate and increasing levels of poverty and unemployment, and commonly experiencing social and political tensions. In this context, the amount and quality of statistical data fail in accuracy, frequency and specificity to provide a solid basis for developing effective social policies in the achievement of the reduction of poverty.

The implementation of macroeconomic reforms in the past political periods has been successful in promoting growth, as shown in the growth of the GDP, but has failed in achieving a reduction in poverty and inequality. The income per person (a basic measure of economic progress) has in fact actually worsened during the last quarter century (Weisbrot, 2006). The poverty levels in Peru remain high and the effects on the population and the development of the country are evident. As stated in the last national household surveys (ENAHO), 37.6 percent of the population are considered to be poor, with 15.9 percent of them being extremely poor.

As for the availability of production land, Peru shows one of the lowest rates in Latin America, with 0.07 hectares per person based on the last agro-pecuarian census (1994). The main reason behind this is geographical: the coastal area is mostly desert land; the east is a humid tropical forest area with a highly fragile ecology; and the mountainous area is characterized by a steep topography, causing

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erosion problems and raising the transportation costs for the agricultural products, thereby having a direct implication on rural poverty.

Poverty indicators fail to capture the movement in poverty and are calculated only for macro regions or Provinces, making it difficult to track the effects of a given poverty alleviation policy or action and to react quickly to make changes and improvements in the policy. The last data available from the National Institute of Statistics and informatics (INEI) date back to 2001 and are based on the last national census of 1993 (and a pre-census of 1999) and the periodical but smaller samples obtained from the ENAHO.

Implementing a Community-Based Monitoring System in Peru (CBMS-Peru) may be a solution to the problems of lack of accurate, regular and quickly available data on poverty alleviation, allowing a more efficient estimation of the impact and efficiency of poverty alleviation policies and actions. The implementation of a CBMS will improve local government’s capacity for data collection, providing a warning tool and improving the timing for policy reactions. It seeks to provide communities with easy and simple poverty indicators as a tool to assess poverty status and to promote welfare at the community level.

There is an urgent need to establish a mechanism to measure and monitor poverty indicators over time in Peru. This need is more urgent given the scarcity in financial resources and the variety and magnitude of the needs.

**Rationale of implementing CBMS in the northern region**

With the decentralization process initiated in 2002 and reinforced by the current government of President García, the decisionmaking power of the local governments has been boosted, giving them more freedom to allocate financial resources according to their specific needs. For instance, a recently approved decree (May 2007) gives the local and regional governments the option to hire personnel from the private academic and research centers to do specific tasks for which the local and regional governments are not competitive. Regional governments now have the support and means to make their own investment plans and to set priorities according to their respective realities.

Additionally, it is necessary to have disaggregated socioeconomic data available for the regions to allow the required
corrections for the “no answers” in the national surveys. The lack in disaggregated socioeconomic data makes it unfeasible to do these corrections for the regions, being only possible for Lima (the capital), with the data from the National Household Surveys (ENAHO) mainly located in Lima and including less than 19,000 households (INEI, 1997) in a country with a population of over 27 million people.

The northern region of Peru is a highly populated region with a fast population growth rate, although a large percentage of the people live in rural areas. It is also a region where the suburban settlements process –so important in Peru and other Latin American countries- is observed. This region shows a ‘medium’ level of development, based on the last Human Development Index (HDI) map for the country with some medium low and medium high areas, being fairly representative of the situation of the country [see HDI (or IDH in the local context) map below].

The rate of poverty in the Lambayeque region is 44 percent (ENAHO 2003), with the regional economy showing positive rates of growth in the nineties mainly due to a strong growth in the manufacturing and services sector. The poor are mainly the temporary rural and urban workers and the informal merchants and ambulatory vendors in towns.

The regional government of Lambayeque, including the Provinces of Ferreñafe, Chiclayo and Lambayeque, is beginning its second period with the same president. This regional president shows a great interest in the development of the Region, being quite an accessible person. He has also shown interest in participating in the implementation of a CBMS in the region.

**Objectives of the research**
The objective of the research is to design and pilot test a Community-Based Monitoring System in Peru, which will:

1. Review existing monitoring systems in the country with an analysis of the kind of data sources available and identification of data gaps.
2. Review current indicators used and propose and test new indicators for the measurement of poverty in the country.
3. Pilot test the CBMS in a municipality in the northern area of Peru.
4. Disseminate CBMS results at the regional and national levels as a way to advocate for the institutionalization of the CBMS in Peru.
Institutional framework of Peru

There are five geopolitical levels in Peru. The regional level is a sub-national administrative unit at the departmental level, comprising of several provinces with similar geographic characteristics and historical integration. It is also the largest unit in the political structure which is headed by an elected regional president.

The provinces consist of a varying number of districts with their respective municipalities whose authorities are elected every three years and have political, economic and administrative autonomy in handling municipal tasks.

Each district has an elected mayor holding coordinative and supervisory duties in relation to its component cities and municipalities. The municipalities also have elected municipal mayors. A municipality consists of a number of towns and settlements and/or households, depending on the size of the municipality and its regional location. The municipalities are the basic political units.

Peru has 24 departments and one constitutional province; 194 provinces; and 1,818 districts.

In Peru, poverty is measured through several indicators, and calculated by the National Institute of Statistics and Informatics (INEI), based on information obtained from the following sources:

1. National census = cost and time-consuming (the last one was conducted in 1993 with a pre-census in 1999);
2. National household surveys (ENAHO) = done yearly but focused only in Lima and use a smaller sample.

A procedure has been established to determine absolute poverty (the minimum acceptable for basic needs satisfaction) in the country, using three methods: (a) the poverty line method (LP), based on the minimum level of income deemed necessary to achieve an adequate standard of living; (b) the unsatisfied basic needs method (NBI), that characterizes the population in terms of basic needs; and (c) the integrated method (MI), which is a combination of the first two.

The poverty line value is measured in monetary units using the family income or expenditure. If total family income is lower than the poverty line, then said family is considered to be poor. The NBI method defines basic needs for a family, considering being poor those who can not satisfy those needs (INEI, 1997).
In Latin America – with Peru not being an exception – there is a difficulty related to the lack of information available to accurately measure poverty through these methods. There is also a difficulty in the kind of indicators to be chosen. The current indicators are: overcrowding, improvised or inadequate houses, lack of safe water supply, lack of sanitary sewerage, number of children not attending primary school and a direct indicator relating household’s educational level with the economic dependence rate (INEI, 1997).

An additional problem is related to the scale of the surveys, influencing its frequency and national distribution. The high costs of implementing the surveys limit the number of surveys to be implemented and the size of the sample, focusing on the capital and leaving out most of the provinces in the country. Additionally, the fact that these surveys were not developed exclusively for poverty assessments leads to the measurement of only few poverty indicators.

In the beginning of this decade, Peru began a survey and household conditions measures’ improvement (Programa MECOVI - Perú), with the support of the Inter-American Development Bank (BID), the World Bank (BM) and the Latin American and Caribbean Economics Commission (CEPAL). These efforts have resulted in specific studies analyzing the statistical data and improvements in the availability of the data (INEI, 2000).

Despite these efforts in improving the surveys and questionnaires, information related to family income, poverty and income distribution, usually present measurement problems. The necessary correction to the data has to be based on additional sources of information, sometimes unavailable or incomplete. This problem has been constantly mentioned by CEPAL (1991, 1993); Beccaria and Minujín (1991); (CEPA, 1993); Espíndola (2006); Llach and Montoya (1999); among others.

**Difference of the proposed project with ongoing or related initiatives**

There are no similar initiatives in Peru. The National Institute of Statistics and Informatics (INEI) is the only entity gathering poverty related data that are reliable and consistent enough to allow comparisons and analysis over a period of time.
Some non-government organizations and research institutions have undertaken localized initiatives but mainly related to their own program objectives or to specific research projects. In any case, none
of these aforementioned initiatives allows transversal comparisons given the difference in methods and objectives.

There are no initiatives providing (or promoting) nationwide, locally based information on poverty that could provide a basis for policy definitions or monitoring.

**Proposed methodology**

**List of indicators to be monitored**

The National Institute of Statistics and Informatics (INEI) considers six factors determining poverty in the country: human capital, economic activity of the family members, household composition, regional or spatial localization, institutional capital, social capital, public capital and private capital.

The project proponents propose to monitor the same indicators measured by INEI in the country, to facilitate the adoption and use of the survey data results at the national level, including:

1. House overcrowding
2. Improvised or inadequate houses
3. Lack of safe water supply
4. Lack of sanitary sewerage
5. Number of children not attending primary school
6. Household’s economic dependence rate

**Plus some additional indicators:**

1. Access to ownership / accumulation (based on the arguments presented in Figueroa, 1991; De Janvry et. al. 1989)
3. Access to have and to develop capacities (based on Sen (1985) and Dréze and Sen (1989)).
4. Access to information / technology (based on Ruttan (1982) and Figueroa (1991))
5. Access to health services (based on UNFPA, 2004 and Romaguera, 1994)
The asset-based approach focuses attention on the productive, social and locational assets of households, with the understanding that the quantity, quality and productivity of their portfolio of assets determine the potential for long-term growth and poverty reduction (Siegel and Alwang 1999; Deininger and Olinto 2000). As such, household assets are considered the “drivers” of sustainable growth and poverty reduction. The asset-based approach can be used to explore relationships between: assets, context, behaviour and, outcomes (Janvry and Sadoulet, 2001).

The assets of a household are broadly defined to include the productive, social and location assets that determine the opportunity set of options for livelihood strategies (the household’s revealed behavior). These actions, in turn, determine outcomes in terms of household well-being. Among the productive assets are transportation, communication, power, housing, water, and sewage facilities, disposal of solid residues, natural assets, livestock, equipment, household composition, access to ownership and access to markets. The social assets are social networks, interest groups, empowerment, and access to health services, exclusion and political rights.

Of critical importance is the context, the policy and institutional milieu and the existence or absence of risks. Among the risk conditions are malnutrition, drug abuse, alcoholism, juvenile delinquency, and prostitution, mother head of household, father head of household, mental diseases and mental deficiencies. Among the institutional characteristics are community organizations, power, leaderships and community resources.

The welfare-generating potential of assets depends on the interface between assets and the context. Thus, policy reforms and the building of assets need to be considered in tandem, and integrated with risk management strategies (IADB 2000). Household assets include tangible assets such as land and other natural assets, specific agro-ecological conditions, equipment and other physical assets, livestock, housing, financial assets, human capital (education, skills, health and nutritional status) and household composition. Intangible assets are also important such as social capital and political rights (the degree of inclusion/exclusion), and the capacity and openness of institutions. In addition, community and regional assets such as
infrastructure (roads, communication, markets), educational and health infrastructure, location and access to infrastructure and services affect households' livelihood opportunities and returns on other assets. Although most economic analyses focus on productive tangible assets and how they generate returns (data for tangible assets are more easily collected and available), there is growing consensus that both tangible and intangible assets, and their interplay, are important, especially in the context of risk management of vulnerable households.

As noted by Narayan and Pritchett (1997), poverty analyses that focus exclusively on tangible household assets miss a large part of the “poverty puzzle”, by ignoring the community and social context. A major determining factor of the context in which the rural economy operates is how institutions at the macro, middle and micro levels function, their degree of inclusiveness, and how they interact. This includes public and private sector institutions, civil society and NGOs and any other formal and informal organizations and groups. Indeed, issues of governance are critical, and many new initiatives toward decentralization have been stymied by the lack of governance capacity and skills. Incompetence and corruption are also widespread. Governance issues are important for area comparative advantage and competitiveness and are receiving more attention from development agencies (World Bank, 2002). The issue of “access” to assets and to markets is also closely linked to the context, where the “rules-of-the-game” are set (e.g., human and property rights, rules and regulations that relate to social and political inclusion, and environmental quality standards and enforcement).

The final indicators to be measured will be defined in the preliminary steps for implementing the survey, allowing changes, inclusions or exclusions, according to the specific realities of Peru and previous experiences of other researchers or institutions. To achieve this, the proponents propose to use several consultation methods and to undertake field tests with focus groups, including staff from the regional government of Lambayeque and local NGOs addressing social and poverty issues. These indicators could also be matched with the Millennium Development Goals (MDG) relating each MDG with one or several indicators, as shown in Table 1.
To carry out the pilot test of the CBMS implementation in the northern region of Peru, the proponents propose to work with the municipality of La Victoria in the province of Chiclayo, Lambayeque region. There is no disaggregated information available for the municipality but the district counts on around 15 thousand households and shows a good political stability since it is the only district in the Region that has reelected its authorities and has not had strikes or other hostile social mobilizations so common in the province. The reason for this is mainly due to a strong communal organization.

This municipality has a number of characteristics that make it ideal for conducting a pilot CBMS study and testing the proposed methodology and indicators such as:

1. The willingness of the mayor of La Victoria to participate in social processes and research schemes for the benefit of its municipality. This will facilitate the survey process and the adoption of the results for the following policy-oriented actions, setting a good start for the CBMS adoption in the Region.

### Table 1. MDG and CBMS core indicators proposed for Peru

<table>
<thead>
<tr>
<th>MDG</th>
<th>CBMS Core Indicators</th>
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<tr>
<td>Goal 1: Eradicate Extreme Poverty</td>
<td>Access to electricity/communication</td>
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<td></td>
<td>House overcrowding</td>
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<tr>
<td></td>
<td>Improvised or inadequate houses</td>
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<tr>
<td></td>
<td>Access to ownership/accumulation</td>
</tr>
<tr>
<td>Goal 2: Achieve Universal Primary Education</td>
<td>Number of children not attending primary school</td>
</tr>
<tr>
<td>Goal 3: Promote Gender Equality</td>
<td>(Data generated from the second and third indicator of Goal 1 and the indicators of Goal 6 and 8)</td>
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<tr>
<td>Goal 6: Combat Diseases</td>
<td>Access to health services</td>
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<td></td>
<td>Household’s economic dependence rate</td>
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<tr>
<td>Goal 7: Ensure Environmental Sustainability</td>
<td>Access to the markets or market incompleteness</td>
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<tr>
<td></td>
<td>Lack of safe water supply</td>
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<td></td>
<td>Lack of sanitary sewerage</td>
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<tr>
<td>Goal 8: Develop a Global Partnership for Development</td>
<td>Access to integration</td>
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<td></td>
<td>Access to have and to develop capacities</td>
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</tbody>
</table>
2. The existence of strong local organizations already formed and working closely with the municipality. This will speed the process of informing the community about the CBMS objectives and facilitate the exchange of information in both ways (community – CBMS working team – community).

3. High poverty degree. There is an urgent need for having disaggregated and reliable poverty data and information that show a clearer picture of where the poorest people are, who they are and why they are poor, to define target-oriented plans of investment and actions.

4. Lack of previous data on poverty. This is one of the municipalities where donors and NGOs working on poverty issues have not focused on as they are mostly concentrated in the more rural municipalities.

5. A proportion of rural and urban population. This municipality includes a large urban area with several important suburban settlements and some rural villages, showing the heterogeneity of the national settlement reality.

6. Administrative offices of the regional government and several government units are based in the province of Chiclayo, along with important research and academic institutions and NGOs: facilitating the negotiations with the regional government in the implementation of the CBMS in other municipalities and the use of the resulting data in the regional management plans as well as the wider dissemination of the results.

7. It is an important municipality, in the third biggest district in the Province, with 9 percent of its total population. It is also the district with the highest rural area in the city (26% of rural inhabitants).

8. It is an “emerging” district with many municipal projects in the pipeline. The resulting data may be of immediate relevance in the decision of investment priorities.

La Victoria is located in a district that concentrates zones of regular and extreme poverty, with some emergent zones. This is the reason why it is possible to observe in this district different socioeconomic development levels. On the one hand, it concentrates 30 percent of the small companies of the city (although most are informal) and on the other hand, it has a high (41%) deficit in
educational infrastructure; 23 percent of malnutrition (in children under five years old); concentrates 30 percent of absolute poverty and a high number of households with no access to clean water (26%), sanitary sewerage (47%) and electricity (18%).

The latest data for this district show a raw picture of its socioeconomic development (Table 2).

**Advocacy and workplan**

It is crucial to ensure a good flow of information related to the CBMS pilot test, allowing the investment of time to inform the mayor and its working team of the objectives and potential benefits of adopting a CBMS to collect and update social data. It is also important to define to them their involvement and responsibilities to ensure that they are capable and willing to commit time and other resources in the process. This is one of the reasons why the municipality of La Victoria was proposed, given the strong existing local organizations and their close relation with the municipal government. The mayor of La Victoria is a very proactive person and is always willing to participate in social processes and research activities for the benefit of its municipality.

Additionally, the regional president has recognized the crucial importance of having disaggregated social data as a way to facilitate the prioritization process for regional policies and

**Table 2. Socioeconomic data for the district of José Leonardo Ortiz**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>158.11</td>
</tr>
<tr>
<td>District IDH Ranking</td>
<td>27</td>
</tr>
<tr>
<td>Human Development Index</td>
<td>0.5677</td>
</tr>
<tr>
<td>General IDH Ranking</td>
<td>605</td>
</tr>
<tr>
<td>Life expectancy at birth</td>
<td>72</td>
</tr>
<tr>
<td>Ranking</td>
<td>252</td>
</tr>
<tr>
<td>Literacy</td>
<td>93.3</td>
</tr>
<tr>
<td>Ranking</td>
<td>274</td>
</tr>
<tr>
<td>Family Income per household</td>
<td>3,982</td>
</tr>
<tr>
<td>Ranking</td>
<td>264</td>
</tr>
</tbody>
</table>

Source: (PNUD, 2005)
action plans and to track the impact of such policies and actions. He has shown interest in implementing a CBMS in the region.

The inclusion of a regional government delegate in the elaboration of this proposal and his full awareness of the relevance of adopting a CBMS system for the region facilitates approaching the mayor of La Victoria and the inclusion of the local government’s vision in the methodology being proposed here.

The project team will work with the group of communal leaders of La Victoria who work closely with their municipality to discuss with them (finally targeting local people at the household level) the relevance of participating in the CBMS and to get involved in the workplan process.

Once the data are obtained, the team will facilitate the publication of the results at the regional and national levels to promote nationwide awareness of the implementation of a CBMS in the country and its relevance as a way to promote target-oriented policies and actions. In doing this, the team will organize and conduct regional and national workshops in collaboration with the municipal government and the regional government of Lambayeque.

**Data Collection**

Data collection at the municipal level is a critical need because of the lack of this kind of data and the importance of targeting poverty reduction at the local level. The present ENAHO allows only a rough approximation of the magnitude of poverty at the regional and household levels (INEI, 1997), being useless in the analysis and understanding of poverty factors in the regions, districts or municipalities. It is also unable to show the importance of conditional (external) factors.

The data collection must be a census of households with the assistance of local people and local government staff working as enumerators. Previous training will be required to ensure a proper collection of the data and a proper use of the proposed surveys and indicators. The final set of indicators and the elaboration of the survey sheets will be done in collaboration with the local (in the region) research and academic institutions and authorities. The proponent academic institution (USAT) will prepare and administer the necessary trainings to the local government staff and local enumerators in order
to ensure a proper understanding of the survey questions and indicators. These trainings will take place at the USAT facilities and will be administered at two different levels:

- Training for the local people and local government enumerators;
- Training for the local governments and local people future trainers.

The future trainers will be those community leaders and municipal government officers who - also being enumerators - are capable and willing to train future and additional enumerators to ensure a constant base or source of trained human resources for the CBMS updating process. Being capable mainly refers to their stability as staff of the local government or as inhabitants in the area as well as being literate. The academic institution (USAT) will also be willing to retrain the trainers every year or every two-three years to ensure that the survey sheets are properly used and to revise the indicators used, if required.

Academic institutions can also make available qualified human resources such as high school students for the data collection and professors/researchers for all the required management level tasks and the required external evaluation.

The collaboration of municipal government staff and the group of organized local people in this process will facilitate the adoption of the information obtained from the surveys for the improvement of policies, regulations and actions, helping in the definition of priorities and priority areas to target poverty alleviation at the local level.

INEI members are also proposed to be involved in the surveys’ definition and the data collection process to provide supervision and procedure tips given their vast experience in handling these kinds of surveys and data.

Data Processing
To facilitate the data processing, the survey results will be pre-processed at the local or municipal level. Depending on the existing facilities and the presence of qualified personnel, this data processing may be manual or computerized. The persons in charge for the pre-processing must be trained in the handling of the data and transcription of wrong/illegible or lack of responses. This training must be regular to ensure coherence with the
required changes in the indicators to be measured and to avoid problems related to personnel changes.

The pre-processed data will then be sent to the participating academic institution (USAT) for the final processing of the data and the preparation of related reports and analysis. The centralization of the data aggregation in one institution will facilitate INEI support whenever required and ensure coherence in the handling of the data, minimizing human mistakes and subjectivities. This could alternatively be done at the regional government if it can commit the time and personnel required for this process.

**Data Validation**

The data obtained from the surveys and the resulting analysis and draft reports will be brought back to the municipality and local people during a workshop to present the obtained results and to envision possible future actions and target areas. This process will allow the validation of the data and its most immediate results.

A two-day workshop is proposed to allow the validation of the data. The first day will focus on comparing obtained answers, to estimate the coherence and rationality of the responses. This will be done with the municipality staff. The second day of the workshop will include the community leaders and will focus on assessing the coherence of the resulting (processed) data with their reality and to propose required changes and inclusions.

A second validation step requires the comparison of the data sets and the results obtained with other similar information available at the national and international levels. An additional analysis and comparison of results with other CBMS experiences may also be helpful for data validation.

**Database building and management**

The CBMS database will contain all the data gathered at the local level. This database will be kept at the municipality of La Victoria and will be validated with the community leaders and community participants as per earlier described. Additional copies will be provided to the regional government and INEI at the national level.

The data obtained from the surveys will be analyzed to produce reports and define target areas for policy instruments or actions. These resulting reports, maps and analyses will be loaded to the website hosting
the CBMS information. A link to this website will be hosted in the INEI web page.

The updating of the data will be done by the local people and local government officers who participated in the initial surveys and/or those who are newly interested. A frequent training of the enumerators will be done by the local government and local people trainers. The academic institution (USAT) will provide the training sessions for the trainers. The training will be provided yearly if required.

The database will be available in the municipality for the local community use, along with the resulting set of maps and priority areas definition. A copy of the database will also be kept by the regional government and the National Statistics Institution (INEI).

**Dissemination strategy**

*Target users of research results*

Target users are mainly the policymakers and other influential policy actors. Municipal authorities, local institution’s leaders, regional and national authorities are also specific target users of the research results. Poverty-related information is necessary in the development of policies and in the definition of investment and expenditure priorities and priority areas to achieve poverty reduction.

Local communities and leaders can use the information as a way to define their poverty situation and to lead external actions and financial resources to the areas and priorities identified. Local governments and regional and national authorities can also use the information in the way envisioned for local leaders but additionally use it as a compass to set the direction for policies and actions.

Other national and international influential actors will also have a source of complete, widely distributed, reliable and comparable data set on poverty to define in a more sharpened way their financial help and efforts targeting poverty reduction.

*Modes and frequency of dissemination of research results*

Research results will be disseminated through regular publications (leaflets) and through a web page created for the CBMS-Peru. This web page will be specifically designed for the CBMS to facilitate access to the CBMS-gathered information. A direct link to the CBMS web page will be hosted in the INEI
Development of a CBMS in the Northern Region of Peru

Julia Maturana Coronel

web page to allow data searchers to access the CBMS poverty data along with the INEI data.

Databases will be revised on a yearly basis, adding any new information according to their production. Leaflets will be also produced on a yearly basis.

Publication
Publications will be related to the analysis of the data obtained and will specifically relate to measuring problems, strengths and weaknesses of the indicators, analysis of the data in relation to policy proposals and policy impact assessments. These publications will be promoted and proposed by the academic and research institutions involved and aimed at scientific international and national journals.

Website
The website will be a core element for the timely dissemination of the information. The website will be specifically developed for the CBMS based on previous experiences. Trial sites will be tested and improved to maximize accessibility and searching matches.

Workshops/Conferences
Conferences and workshops will be organized by the research and academic institutions on specific issues related to the CBMS development. Some of the issues may be related to those mentioned above: measuring problems, strengths and weaknesses of the indicators, analysis of the data in relation to policy proposals and policy impact assessments.

The goal of these workshops and conferences will be to stimulate a wide social participation on the discussions and formulation of new issues.

Institutional arrangements
Background information on administering institution
The Universidad Católica Santo Toribio de Mogrovejo (USAT) is a well-known and well-positioned academic institution, and a leader in the introduction of the scientific research methods and methodology as a way to achieve academic goals.

The University has a large number of qualified professionals in a total of 14 schools and eight departments, including social science,
informatics, health and education. All its academic staff have important research backgrounds. There are three research centers under a formalized research division and countless research activities and projects.

Although being fairly new, it is becoming a leading academic institution in the northern region. Its strategic location in the city of Chiclayo, Department of Lambayeque provides a privileged position for the USAT to administer and develop CBMS pilot tests and to implement them in the northern area of Peru.
References


Espíndola, E. 2006. La encuesta de hogares: potenciales y problemas para la medición de indicadores educativos. Reunión de expertos “Hacia la ampliación del marco de análisis de la educación en el contexto del seguimiento de los objetivos de desarrollo del milenio”. CEPAL. Santiago de Chile.

Fondo de población de las naciones Unidas. 2004. Relaciones entre la Población, el Crecimiento Económico Sostenido y el Desarrollo Sostenible. UNFPA


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