

Identifying the Urban Poor and Investigating Local Level Poverty Dynamics through CBMS: A Case of Colombo

*Nishara Fernando**

Abstract

The urbanization process in Sri Lanka has facilitated the movement of people from rural areas toward Colombo and its peripheral areas. Concentration of people and wealth in Colombo has generated new opportunities as well as new risks for city dwellers and has even led to an aggravation of some existing problems in relation to urban poverty. It is evident from recent data that nearly 20 percent of Colombo population are poor (Silva, 1998). There are nearly 1506 underserved settlements in the Colombo Municipal area with 66,021 housing units. A majority of these settlements belong to slum and shanty type of settlements, popularly known as low income settlements (REEL, 1998).

For urban development to be truly sustainable, the livelihoods of the urban poor must be secure. Unfortunately, poor people are exposed to a range of long term economic, social, natural and physical related risks. Moreover, poor people often have no capacity to protect themselves due to unrealized livelihood strategies, i.e., inadequate assets, improper and unsuccessful asset management and lack of savings. Nevertheless, there are households that were 'poor and vulnerable' in the past but have become 'better-off and secure' today owing to successful and proper asset management and accumulation strategies.

* Member, CBMS-Sri Lanka Research Team.

It is against the above background that the first part of this paper discusses the implementation of CBMS in an urban resettlement location, particularly focusing on the different steps in the training of community members, data collection, data processing, community validation, analysis, dissemination and also some challenges of institutionalizing CBMS at the community level.

The second part of the paper elaborates on the indicators that were developed to identify poor and better off households considering five different types of vital household or livelihood assets (such as physical, human, economic and social-cultural) based on fieldwork carried out in a relocated urban settlement in Colombo. These exercises led to a better understanding of different poverty dimensions at the community level in general and household level in particular. The data provided a good basis to monitor and evaluate different impacts of poverty reduction programs implemented by various government and non-governmental organizations at regular intervals in time using the 'community-based monitoring system'. This paper also argues that in general, households are poor due to their lack of income diversification, income security and savings. However, there are situations where some households are poor due to the above mentioned reasons as well as some other factors such as hard drug addiction, alcoholism and chronic illness which are hidden sources of poverty.

Introduction

The urbanization process in Sri Lanka has accelerated its pace during the past two decades largely toward the Colombo centre and its peripheral areas compared to other parts of the country¹. This has occurred under the impact of globalization and economic liberalization

¹ Since the mid-80's Colombo has experienced a rapid growth of its larger suburban areas. The Colombo district experiences a population increase of approximately 20 percent between 1981 and 1992 and has an urban population of more than 60% (whereas other districts are clearly below 15 percent of urban population) (Rajapakse 1996, Wanasinghe 1994). These numbers may even be higher, especially when keeping in mind that Sri Lanka does not have any proper definition of urban areas. The distinction between urban and rural division serves only administrative purposes and is being decided by the Ministry for Local Government without any binding criteria (Siddhisena/ Indrasiri/ Edirisinghe 1994).

policies and generated new opportunities as well as socio-economic and environmental problems for city dwellers. It likewise further deteriorated some of the existing problems like urban poverty, violence, crime, drug trafficking and even floods during the intermonsoon and southwest monsoon periods which require serious attention of urban authorities and land planners. According to recent sources, there are nearly 1,506 slum and shanty settlements, mostly illegally constructed in state lands in the Colombo Municipal area with 66,021 housing units popularly known as low-income settlements (REEL, 1998). A majority of the urban poor live in these settlements suffering from a combination of different dimensions of deprivation. For urban development to be truly sustainable, the livelihoods of the urban poor must be secure. This is a difficult task, though due to the high degree of exposure to short- and long-term external risks arising out of the abovementioned factors and the low capacity of poor people to protect themselves from these risks due to inadequate assets.

Colombo City Flood Prevention and Human Environment Development Project (FPHEP)

In response to the above needs, the government relocated the shanty dwellers living on embankments of canals and slum settlements located in the vicinity of some of the selected canal banks in and around the Colombo Municipal Council region, with the intention of not only repairing and maintaining the canals to control flooding in the future but also of improving the economic and social lives of these poor inhabitants. The Japanese government provided the funding for this project and the National Housing Development Authority, together with the Land Reclamation and Development Board, initiated the scheme. The illegal inhabitants who resided on the embankments of such canals were moved to seven locations (Sri Maha Vihara Mawatha, Badowita, Bathiya Mawatha, Obeysekarapura, Dematagoda Armaya Road, Kadirana Waththa and Wadugoda Waththa) situated in or around the immediate suburbs of the Colombo Municipal Council area. This was done with the intention of doing minimum harm on the social

relationships and livelihood activities of these persons. Under the above project, they were also provided with 1-2 perches of land and Rs. 20,000 in four installments as an interest-free loan to build their houses.

The study region: Badowita low-income relocated settlement

“Badowita” is the largest relocated settlement under the Flood Prevention and Human Environment Development Project (FPHEP) project situated in the Dehiwala - Mount Lavinia Municipal Council Region and spread over thirty-five acres of land located under the Katukurunduwaththa *Grama Niladhari* Division². This settlement is divided into four stages and the number of plots allocated for each stage varies in relation to the extent of land allocated for the respective stage (Table 1). The settlement was initially started in 1992 with the relocation of certain selected families to ‘stage 1’. The other stages followed a few months later. The total population of the settlement in relation to the all-island census in 2001 is approximately 4,500.

The settlement as a whole is being subject to marginalization from the outside world with regard to social and economic activities not just due to the unlawful activities of settlers such as drug peddling, illicit liquor selling, and crime and violence but also due to the nature of casual employment of settlers especially in the informal sector. One key informant interviewed further elaborated:

“Outside people believe that all the thieves and thugs in the region live in this settlement so we do not like to say that we live in ‘Badowita’. If we say so, principals in the surrounding schools show reluctance to register our children in their schools and people cannot find decent employment”.

Conversely, some settlers say that the situation is now getting better compared to before because of frequent police hunts of drug

² Smallest administrative unit

Figure 1. The study region

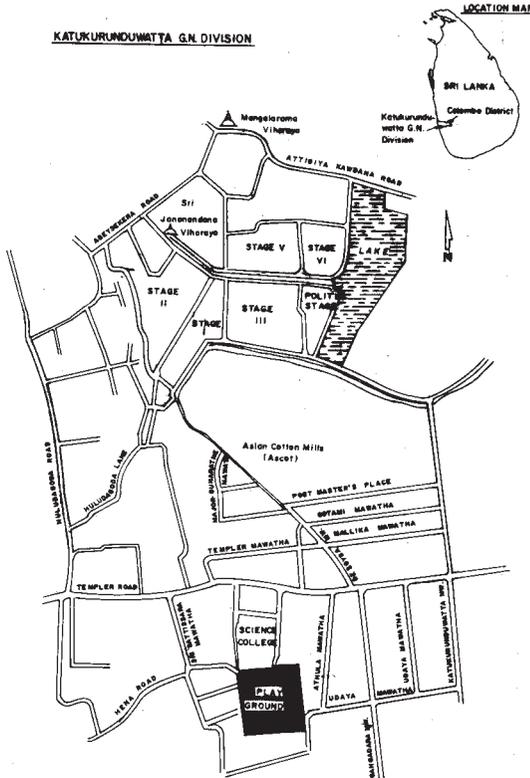


Table 1. Number of housing units allocated for each stage by extent of land

	Stage -1	Stage-2	Stage-3	Stage-4
Number of plots	136	364	284	93
Extent of land allocated	4 acres	14 acres	11 acres	6 acres

Source: Land Reclamation and Development Board

peddlers and criminals by different police stations in the region. It is important to mention here that this researcher personally observed such events throughout the study period.

The infrastructure of the main settlement consists of public as well as individual water and electricity connections for households. There are two Buddhist temples and two Christian churches in the settlement and also a few other churches functioning in some housing units. With regard to educational facilities, there are two national girls' schools, (one is a co-educational national school) both teaching up to A levels, including science and mathematics subjects. There is also one primary school situated in the vicinity of the settlement and two pre-schools situated within the settlement - one managed by the Dehiwala-Mount-Lavinia Municipal Council and the other by a non-governmental organization (NGO). There are also nearly 25 small-, medium- and large-scale grocery shops and one private telecommunication centre in the settlement.

With regard to government institutions, the GN office, Water Board office and Garbage recycling office are also situated in the settlement

The study setting: stage 2

In the past, the land in the present location had been used for paddy cultivation. In the late 1980s, the whole plot of land was taken over by the government owing to the abandonment of land from paddy cultivation. A few months later, the low-level land was filled and prepared for the present settlement by the Land Reclamation and Development Board. One can enter the research site from two different roads: Wattrappala Road from Mount Lavinia and Attidiya-Dehiwala Road from Attidiya. The research location is well connected to the above main roads by either tarred or gravel roads with frequent public transport for travelling to all directions. The study location consists of 384 housing units in an area of 14 acres, with 1 to 2 perches of land for each housing unit. It is important to note that the Badowita

resettlement project is surrounded by Villa Lotus Grove, Vajira and Keells – upper class private housing schemes.

It is against the above background that the first part of this paper briefly discusses the implementation of CBMS at the Badowita low-income housing settlement focusing on the steps of community orientation, data collection, data processing, community validation and dissemination. The second part discusses the Experimental Livelihood Security Index that was developed to identify poor and more affluent households considering five different types of vital household assets such as physical, human, economic, social and cultural. All are important livelihood assets, based on fieldwork carried out in a relocated urban settlement in Colombo.

Empowering community through participation in CBMS

An attempt is made to discuss the main research steps that were followed and the relevant experience gained under each of these steps in conducting the field survey. A household interview schedule was constructed and pilot tested in stages 1, 3, and 4 in four different types of households (i.e., always poor, always better off, earlier poor and now better-off, and earlier better off and now poor) during the first phase of the study. Moreover, 20 household interviews were conducted for each location (five households from each sub-category). In the household interview schedule, different types of household assets such as social, cultural, human, financial, physical and natural were explored. On the basis of fieldwork experiences gained from the pilot phase, the household interview schedule was further revised and translated into Sinhala.

Orientation and data collection

The Community Development Society (CDS) in the second stage of the location was selected as the local partner for conducting the field work for two main reasons: one, it is the main village-based organization that initiated various infrastructure development programs in the settlements such as the securing of water and

electricity supplies to the individual households and a solid waste disposal system for the community in collaboration with relevant authorities such as the National Water and Drainage Board, Ceylon Electricity Board and Dehiwala-Mount Lavinia Municipal Council. Two, it also implemented various social development programs by linking up with several external NGOs. For instance, several small-scale saving groups have been formed with the assistance of the Sarvodaya Economic Enterprise Development Program. A pre-school and a community library have also been established with the initial funds from Shanthi Foundation. In other words, this CBS maintains a very good relationship with government as well as NGOs. The collaboration that the CBMS team has established with the CBS is a good foundation to further empower this organization and continue with the planning and monitoring activities.

The CDS members were briefed on the objectives and uses of CBMS by the University team. Six CDS members were trained on the use of the household interview schedule, particularly on the different types of questions in the schedule as well as field logistics prior to conducting the field survey. Three graduates were to assist community enumerators on the fieldwork component since most of the community members did not have any prior fieldwork experience.

Three research groups consisting of two community members and one experienced graduate assistant (to supervise and coordinate each group) were formed. During the fieldwork period, the graduate field assistants supported the community research assistants in various ways to successfully complete the fieldwork. It took nearly one month to complete the administration of household interview schedules in 384 households although there were 264 housing units in stage two of the settlements. This was due to the number of households which had more than one family who cooked separately. As a result, the decision was taken to treat these families as separate households.

As regards the advantages of developing community members as field assistants under the guidance of graduate assistants, it was evident that most of the community members were willing to provide

the required information to local research assistants without any hesitation, as they already knew most of the household members in the community. Moreover, a good level of prior rapport that local communities have with the community members has helped to improve the quality of data. Local enumerators could also deal with sensitive questions such as those regarding hard drug addicts, alcoholics, different types of conflicts, and legal and illegal income sources of the household members.

Nevertheless, there were some instances where the enumerators were questioned by some household members specifically on the objectives of the research project, saying that, "*nothing is going to happen to us in terms of improvement of our lives even though a lot of studies have been conducted since we came to this settlement*". This kind of response shows that there is a negative attitude toward social surveys on the part of some community members. Some respondents refused to provide information on income and savings suspecting that it would lead to a discontinuation of their monthly social benefits. In spite of these difficulties, enumerators were able to administer the interview schedules and collect the relevant information—once the community members gained a clear understanding of the research objectives. Only three households refused to cooperate.

Enumerators also got an opportunity to observe the actual living conditions in the community in terms of economic, health and social aspects.

Data processing and community validation

Developing household socioeconomic profiles of the location was the first objective of the data analysis since it will help to understand household level poverty dynamics. Quantitative method of data analysis was applied in order to generate data in two different forms, namely: frequency tables and statistical indexes

The main patterns that emerged from the data were first presented in a community forum for validation. The Codebook, which consists

of frequency tables that represent the aggregate results of different household assets was, constructed and translated into Sinhala. A short description explaining the patterns of frequency tables was also provided in simple Sinhala language for all tables to enable community members to understand the statistical tables without much difficulty.

The set of frequency tables was handed over to the CDS for possible identification of various issues and problems in the community in general and in the households in particular to be able to plan necessary interventions and other programs. This would facilitate a dialogue between public officials, on the one hand, and community members, on the other.

Maps constructed using geographical information system (GIS)

Some maps have been constructed to visually present the salient features of the households in order to provide a general as well as specific understanding of the location. This in-depth understanding will help identify families that need special attention and care especially to overcome poverty. For instance, based on the GIS maps, households that have at least one or more school dropout youths in the settlement can be identified. Higher drop-out rates are prevalent in low-income urban settlements which could facilitate the transmission of poverty from one generation to another. Therefore, identification of these households may help to minimize intergenerational transmission of poverty from one generation to another. Planners, community members, government authorities and non-governmental organizations may therefore use the information gathered from the maps to form various programs and other interventions with a spatial orientation.

Experimental Livelihood Security Index (ELSI): methodological considerations

This section will examine the development of the Experimental Livelihood Security Index (ELSI) using some indicators to identify poor families of the location. This will help various stakeholders in

designing and implementing programs and projects to move them out of poverty.

The index was constructed taking into account five different types of vital household assets such as physical, human, economic, social and cultural (Table 2) which are important as livelihood assets to identify poor and better off households. This exercise was expected to help the research team to obtain a clear understanding of different poverty dimensions at the community level in general and household level in particular.

There are two approaches to identify poor households: one is to conduct a large scale, long-term, quantitative survey in order to understand different characteristics of households at different periods in time by recording the changes in household assets and activity portfolios. This will help to statistically measure poverty by understanding how frequently households with particular characteristics experience distress and measure the outcomes in the form of income and consumption in each period. The other is the identification of poor households by investigating the life histories of certain members of selected households as a qualitative method. However, identifying poor households by a few individual in-depth interviews could be highly questionable due to the inability of generalizing the findings of individual in-depth interviews of all the

Table 2. Assets that are used to construct Urban Poverty Index

<p>Physical assets Owned land</p> <p>Human assets Educational attainment Skills</p> <p>Household composition: Chronically ill</p>	<p>Economic assets Income security Income diversification Savings Household composition: Labour force Debt</p> <p>Socio-Cultural assets Household composition: Hard drug addicts Household composition: Alcoholics Membership in community based societies or other organizations</p>
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households at the study location and also due to the impracticability of this method for the use of development planners.

The approach pursued in this research combines elements of both these methods hoping that the weakness could be overcome by such an overlap. In the first phase of the study a detailed interview schedule was administered among the 284 households in the study location. Key informant interviews were also conducted in order to get clear understanding about the study community. In order to understand the community members' point of view regarding poverty factors, a mapping exercise with selected key informants was also carried out. For both the data collection and analysis aspects, more than one tool or instrument of a "triangulation of methods" was used.

The index proposed here is developed in a specific empirical context and cannot be used in a very different setting without careful modification. However, the approach is somewhat generally applicable. For each household, each indicator assigned has an integer value in the range where minus four (-4) indicates a large contribution to livelihood insecurity and plus four (+4) to prosperity. All indicators are given the same weight in the index, so that the Experimental Livelihood Security Index is defined as,

$$\text{ELSI} = \frac{\text{Sum of variable values}}{\text{Number of indicators}}$$

The number of indicators in this case is 12. Some of these indicators (Table 3) are the following:

Physical assets

Owned land

Land ownership is an important indicator for livelihood security as it serves as a security for bank loans, mortgages and can even be sold at times of crisis. Moreover, it can be used in order to start a home-based income earning activity. With regard to the total land ownership,

Table 3. The index key and assigned values

Values/ Indicators	0	1 (-1)	2 (-2)	3(-3)	4(-4)
Owned land	No land property in or outside the settlement	Owned only 1 perch (1)	Owned 2 perches of land (2)	Owned 3-20 perches of land (3)	More than 20 perches of land (4)
Educational attainment	No member has any formal education	No member studied beyond grade 5 (1)	At least one member completed grade 6, 7,8,9 or up to O/L's (2)	At least one member passed O/L (3)	At least one member passed A/L (4)
Skills	No member has any formally or informally acquired skill	All ordinary skills(1)	At least one member has formally or informally acquired skill(2)	At least two members have formally or informally acquired different skills or one member has two different skills (3)	At least three members have different skills or one member has three different skills (4)
Household composition: Health	-	One chronically ill household member(-1)	Two chronically ill members household(-2)	Three chronically ill household members(-3)	Four chronically ill household members(-4) Five or more different sources of income (4)
Income diversification	One source of income	Two different sources of income (1)	Three different sources of income (2)	Four different sources of income (3)	
Income security	No source of secure income	Income only from unskilled casual work, unskilled self employment	At least one income from skilled work or self employment based on skilled work	At least one minor formal employment in either private, government or NGO sector or medium scale trade owners and contractors	At least one full time formal employment in either government, private or NGO sector or large scale grocery shop owners or contractors
Savings	No sources of informal or formal savings	Rs. 1-9999 (1)	Rs. 10,000-19,999 (2)	Rs. 20,000-29,999 (3)	Rs. 30,000 or more (4)
Household composition labour force	Equal number of active and dependent members	More active members (1) ----- More dependent members(-1)	-	-	-

Table 3. Cont'd.

Values/ Indicators	0	1 (-1)	2 (-2)	3 (-3)	4 (-4)
Household composition: Alcoholics	-	One alcoholic in the household (-1)	Two alcoholics in the household(-2)	Three alcoholics in the household (-3)	Four alcoholics in the household(-4)
Household composition: Hard drug addicts	-	One hard drug addict in the household(-1)	Two hard drug addicts in the household(-2)	Three hard drug addicts in the household(-3)	Four hard drug addicts in the household(-4)
Debt	No debt	Rs. 1-9999(-1)	Rs. 10,000-19,999 (-2)	Rs. 20,000-29,999 (-3)	Rs. 30,000 or more (-4)
Membership in community based societies or other organisations	No membership	At least one household member is a member of one CBO (1)	At least one household member is a member of two different CBOs or two household members have membership in two different CBOs (2)	At least one household member is a member of three different CBOs or three household members have membership in three different CBOs (3)	At least one household member is a member of four different CBOs or four household members have membership in four different CBOs (3)

any household that has more than 20 perches of land has been given the highest Value 4. Value 1 is for 1 perch of land. There are families without a single perch of land in or outside the settlement and live either on rent or with their kinsmen in their households. Therefore, their degree of vulnerability to poverty is very much higher compared to other households in the settlement.

Human assets

Educational attainment

Sri Lanka's free education system is said to have been marginally beneficial only to the urban poor due to their high school dropout rates and low educational attainment (Silva and Athukorala, 1991). Formal education (from *Pirivena*³ or schools) is one of the most

³ Type of school conduct teaching in Buddhist temples.

important aspects of human capital formation. Value 4 is assigned if there is at least one member in the household who has passed A/Level. Value 1 is given to households that have no members who have studied beyond the primary level while 0 is assigned to the households with no formal education at all.

Skills

People acquire income-generating skills such as carpentry, masonry, motor mechanism, among others, as a result of informal and formal training. It is noteworthy that income generating skills of all household members are considered here including those of heroin addicts and alcoholics even though they are not actively involved in household activities. All household members with ordinary skills, i.e. gardening, cooking, house painting and polishing are assigned value 1. And value 4 is given to one household member who has three different skills or at least three members with three different skills.

Household composition: chronically ill members

Household members who are either completely or partially disabled or suffering from chronic illnesses such as diabetics, hypertension, cancer, asthma, etc., often incur a considerable additional expenditure. Therefore, (-1) is given if there is only one chronically ill member, if there are two chronically ill household members (-2), if there are three chronically ill family members (-3) and if there are four chronically ill household members (-4) are assigned, respectively.

Economic assets

Income security

Bromley and Gerry (1979) have pointed out casual employment as a contributing factor for urban poverty in Third World cities due to lack of employment security and unstable income. Many casual workers are engaged in part-time work or do several casual jobs in order to live. They are very much dependent on contractors, suppliers, and other employers to find work owing to their lack of marketable

skills and low literacy. On the other hand, they are also susceptible to any economic, social, political, ecological or technological changes, which may affect their work. If casual employment becomes a permanent characteristic of a particular community, then it can become a root cause for several negative outcomes as well.

The income security factor refers to the main income-generating activity including all legal and illegal (those who are engaged in heroin or other hard drug selling and illicit liquor selling) income-generating activities. Among the different sources of income, it is understandable that certain sources of income are more secure than others. For instance, heroin or other hard drug selling and selling illicit liquor are more insecure income earning activities when compared to the income earned as a casual labourer or waste picker. Therefore, value 0 is given to households that do not have any secure income other than those illegal income sources and 1 is given to those who earn an income only from unskilled casual work and unskilled self-employment. Value 2 is given to households that earn an income from one from skilled worker such as carpentry, masonry, motor mechanism etc or self-employment based on skilled work. Value 3 is given to households which have at least one member engaged in minor formal employment in private, government or NGO sector and Value 4 is given to a household with at least one member engaged in full time formal employment in government, private or NGO sector.

Income diversification

Income diversification is an important indicator because the more diversified the household income, the more stable it is in stress situations. In other words, a household depending on a range of livelihood strategies and has a number of workers is less vulnerable and would recover faster from a household member losing a job compared to a household with only one income earner (Meikle, 2002). If two or more household members earn by engaging in the same income earning activity, it is counted as only one source of income. Monthly income from Samurdhi, pension and renting out rooms of

the house are considered as another source of income. However, short-term seasonal income earning activities such as selling Christmas cards during Christmas period or selling ready made garments for the New Year or during other festive seasons are not taken into consideration. Household members who earn from five or more different sources of income are given value 4 as it is assumed that they are economically better-off compared to others.

Savings

Saving money by formal (government, private or non governmental organizational banks) or informal (saving in tins, *Seetu*⁴ etc) methods is a very important indicator as it helps to recover or to mitigate households in different uncertain situations without worsening the problem. People also purchase jewelry (movable assets) and other types of immovable assets as savings that they can use these in an uncertain situation. However, only the total household monetary savings are considered here.

Household composition: labor force

This refers to the ratio of the active to the dependent members of a household. For the purpose of the present study, the labor force is defined as persons who are between 10-65 years of age and who are able and willing to work. It is noteworthy, that 'active' does not necessarily refer to those who are engaged in income generating activities. All members who contribute to household livelihood are counted here including unpaid family workers and the elderly. Schooling children, household members who study full-time, imprisoned and unproductive elderly members as well as the non-income earning disabled are counted as dependents. The values assigned to these are ratios of -1, 0 and 1.

⁴ A small group saving system.

Debt

Loans can be obtained from informal (grocery shop owner, informal money lender etc) and formal (banks, work place, etc.) sources for various purposes such as physical, financial investments, household consumption, to purchase consumer durables or even to settle debts, etc. What is important to note here is that even if people take loans for investments or other purposes, it could be a huge burden to the household members until the full amount is settled. The total amount of money that a household has to settle at the time of the research is considered here.

Socio-cultural assets

Household composition: hard drug addicts

Heroin and other hard drug usage have been widespread in urban areas in Sri Lanka since the early 1980s due to the open economic policies after 1977. Relaxation of international trade restrictions has facilitated the inflow of hard drugs into the country and low-income settlements became the main distributional as well as marketing places for these drugs. As a result, the number of heroin addicts has increased particularly in the low-income settlements.

With regard to the study location situation, the data show that there is a significant proportion of male heroin addicts compared to their female counterparts. Heroin addicts normally inhale at least three packets per day while some long time addicts inhale up to ten packets per day. At the time of the fieldwork, the price of one packet of heroin had increased up to Rs.250 from the earlier price of Rs.50. The price increases particularly during periods when the police conduct raids. Heroin addicts devote a significant part of their earnings on this, some even the entire monthly earnings without any or very little contribution to their household expenses. On the other hand, they also disrupt household activities by stealing valuables from either other household members, neighbors or even outsiders in order to buy daily dosage of drugs. This type of behaviour leads to arguments and violent activities, which disturbs family functions, and is also a disturbance

for the whole neighborhood. Therefore, domestic violence, crime and problems with law enforcement agencies are common in these households, while one can even observe hidden female-headed households⁵. The values assigned are -4 to 0 depending on the number of family members falling into this category.

Household composition: alcoholic household member

Alcoholism is widespread among the community members and the majority of them consume illicit liquor. Household members who consume alcohol on a daily basis regardless of the amount spent on it are considered alcohol dependents. It is important to discuss some of the negative impacts of alcoholism on their household economy, as they devote not only their own earnings, but also ask or take from the earnings of other household members for alcohol consumption. These situations most probably lead to domestic violence.

Membership in community based societies or other organizations

It is argued that the poor households use social relationships and networks not only to survive but also to improve their livelihoods as a vital part of their livelihood strategies (Phillips, 2002). Membership in community-based societies is important for vulnerable households as a part of social relations and networks since it provides social and material support not only in crisis situations such as death or illness but also assists the poor to develop their skills, knowledge, and increase their access to resources. This is an important reason why the majority of urban poor have recognized the importance of being involved in community-based societies and demand improvement of their community (Sevanatha, 2002).

⁵ It is important to mention here is that there are hidden female-headed households which consist of father and mother where father is not the main income earner and the decisionmaker of the household due to his heroin drug addiction, imprisonment or alcoholism, etc. Therefore, a single, nuclear or extended household headed by a woman as the main breadwinner or key decisionmaker in a household treated as a hidden female-headed household.

The values of the ELSI for some selected households ranked in ascending order are presented in Table 4. The mean value of the index is 0.79, with a standard deviation of 0.34. As expected, the index is strongly associated with income security (Pearson's $r = 0.625$), income diversification (Pearson's $r = 0.570$), savings (Pearson's $r = 0.580$) and skills (Pearson's $r = 0.538$), and statistically significant at .01 level. Furthermore, the relationship between educational attainment (Pearson's $r = 0.442$) and land ownership (Pearson's $r = 0.439$) are moderately correlated and statistically significant ($p < 0.01$) with the index. In other words, households with a combination of secure and more diversified sources of income, more savings and more skills are concentrated towards the lower end of the index. It is important to note that even though there are few chronically ill household members in the better off households (e.g., Id 239, 194 and 89), the negative impact of these members is low due to the strength of other positive factors such as income security and more diversified sources of income, among others. On the other hand, households with a combination of chronically ill members, with no secure and diversified income sources, hard drug addicts and alcoholics are concentrated toward the upper end of the index.

In order to confirm the findings of the index and also to get people's ideas about poor and vulnerable households in the location, a mapping exercise was carried out with certain selected members in the location. In the exercise, the selected members were first asked to identify the main characteristics of the poor and least better off households in the location and then to identify and mark them on the location map that was given to them. It is worth mentioning that people had identified households with heroin addicts, alcoholics, more dependents, low education and one source of income which is mainly from casual employment as the main characteristics of the poor households. The better off household characteristics had different sources of legal income earning activities, no unnecessary expenses on heroin or alcohol, and moderate education. Finally, the identified poor and better-off households with the index that was developed

Table 4. The Experimental Poverty Index for some selected cases

Id	Owned land	composition: Labour force	Composition: Health	composition: Alcoholics	composition: Hard drug addicts	Income diversification	Income security	Savings	Debt	Educational attainment	Skills	community based societies	ELSI
84	2	-1	-1	0	0	0	0	0	0	0	1	0	0.08
102	1	-1	0	0	-2	0	1	0	0	1	1	0	0.08
20	2	0	-2	0	-2	1	1	0	0	1	1	0	0.17
38	2	0	-2	-1	0	0	1	0	0	1	1	0	0.17
157	2	-1	-1	-1	0	1	1	1	-2	1	1	0	0.17
167	0	-1	-1	0	0	0	1	0	0	2	1	0	0.17
22	0	-1	0	0	-2	1	1	1	0	2	1	0	0.25
27	0	-1	-1	0	0	0	1	1	0	2	1	0	0.25
32	0	-1	0	0	0	0	1	0	0	1	2	0	0.25
101	1	-1	-1	0	0	0	1	0	0	2	1	0	0.25
131	0	0	-1	0	-1	0	3	0	-1	2	1	0	0.25
135	0	0	-2	0	0	0	1	0	0	3	1	0	0.25
151	0	-1	-1	-1	0	1	1	0	0	2	2	0	0.25
158	0	-1	0	-1	0	0	2	0	0	2	1	0	0.25
204	0	-1	0	0	0	0	1	0	-1	2	2	0	0.25
221	2	-1	-1	0	0	2	1	0	-4	2	1	1	0.25
2	2	-1	-1	0	0	0	1	1	-1	1	2	0	0.33
10	2	0	0	-1	0	0	1	0	0	1	1	0	0.33
13	0	-1	0	0	0	0	2	0	-1	2	2	0	0.33
21	2	0	-1	0	0	0	1	0	0	1	1	0	0.33
70	2	-1	-1	-1	0	0	4	0	-3	2	2	0	0.33
28	2	1	-1	0	0	2	4	1	0	2	2	3	1.33
57	2	0	-2	0	0	3	4	4	0	2	4	0	1.42
73	2	1	0	0	0	2	4	1	0	3	3	1	1.42
93	2	1	-1	-1	0	4	4	4	-3	1	4	2	1.42
250	2	1	0	0	0	1	4	4	-1	3	2	1	1.42
89	2	1	-1	0	0	4	4	1	-1	3	4	1	1.5
194	2	1	-1	0	-1	3	3	4	0	2	4	1	1.5
239	2	-1	-1	0	0	1	4	4	0	3	4	2	1.5
251	2	1	0	0	0	2	3	3	0	3	4	0	1.5
59	2	1	0	0	0	3	3	2	0	3	4	1	1.58
72	2	0	0	0	0	2	4	1	0	4	4	2	1.58
92	3	1	0	-1	0	2	4	4	-1	3	1	3	1.58
257	2	1	-1	0	0	3	4	4	0	4	3	0	1.67
274	3	1	0	0	0	4	4	2	0	3	4	0	1.75
258	4	1	0	0	0	2	4	4	0	3	4	0	1.83
246	2	1	0	0	0	3	4	4	0	2	4	4	2

were cross-checked. As such, it can be concluded that the ELSI gives a reliable picture of the actual situation.

Conclusion

The first part of this paper discussed the implementation of CBMS at the Badowita low-income housing settlement focusing on the steps of community orientation, data collection, data processing, community validation and dissemination.

Meanwhile, the second part attempted to answer the question of how poor people can be targeted and identified. By applying both qualitative and quantitative data collecting tools, a quantitative index of livelihood security was formulated to measure household poverty level in the study setting or to rank households according to their livelihood security level. The matrix proposed here deals with different types of vital household assets such as physical, human, economic, and social-cultural. Under clearly defined situations, this type of index may be helpful to identify poor households in a study location. However, there are some serious methodological issues that need to be addressed. For instance, how an indicator should be weighed in relation to another is completely open and the relative weights depend heavily on the definite situations in the study location.

In relation to the findings, it is clear that in general, households are poor and vulnerable due to their lack of income diversification, income security and savings. However, there are situations where certain households are poor not only because of the abovementioned reasons but also due to other factors such as hard drug addiction, alcoholics and chronic illness which are hidden sources of poverty. Considering the fieldwork done, one can thus argue that the use of household income as an indicator of poverty especially in relation to the urban context needs further research.

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Comments

- The project focuses on the understanding of the dimensions of urban poverty by looking particularly at the low-income resettlements in Colombo where the majority of the urban poor reside. This is also an area where social problems such as crime and drug trafficking are rampant. As such, the use of CBMS data would be very helpful in providing a deeper understanding of the nature and causes of poverty for policy purposes.
- The focus not only on collecting outcomes but also some explanatory factors to generate sound understanding of causalities are good. However, the paper does not indicate how data are collected, analyzed and validated. The involvement of the local government units in the CBMS process is also not clear. It would be useful to elaborate on these elements in the proposal.
- The list of indicators and the choice is important as it tells us what kind of poverty one is trying to measure. One may get a different result depending on the choice of indicators. A stronger basis for inclusion of the indicators is needed since there could be selection bias here.
- No doubt, the indicators chosen were all relevant indicators for poverty but one can equally argue that other indicators may give a better measure of poverty. For example, one would have expected to see water and sanitation or nutrition among the core indicators. The physical asset only includes land ownership. Some questions regarding sanitation, housing and nutrition are included in the household survey but these are not incorporated in the LSI.
- The same weight given to all indicators is problematic and can be highly contested. Methodologically assigning equal weights

to all indicators is easy and will avoid the problem of subjectivity and bias in assigning different weights to different indicators. However, by doing this, it is saying that, for example, the fact that a household has income insecurity or low levels of employable skills contributes to the same level of poverty as, for example, the existence of a disabled person/dependent living in the household or that of the household's social capital (i.e., membership in community organizations). It can be argued that some of the indicators carry more weight than others in determining the household's level of poverty and wellbeing. In this light, information is needed as to what extent the LSI would be helpful in allowing for a better understanding of poverty.

- The inclusion of drug and alcohol abuse is interesting and in a way useful, particularly considering the magnitude of the problem in the settlement. The immediate concern, however, is ethical consideration. Collecting this kind of sensitive data poses potential ethical concerns, particularly given that the name of the household is recorded. It would be interesting to know if this has gone through an ethics committee review and what steps are taken to maintain confidentiality and anonymity. Another issue is data reliability, particularly given the way the question is introduced. There is likely to be a serious underreporting. In addition, even if one assumes that relatively accurate data can be obtained, the model assumes that the presence of any one alcoholic or drug addict member of a family equally affects the household's livelihood regardless of the role of the individual within the household. For example, if an unemployed youth in the household is a drug addict, it carries the same weight as that of a main breadwinner being an addict. This is problematic. The drain on family's resources is very likely to be radically different between the two and giving all equal weight can over or under value the impact on overall household livelihood. Finding information about the impact of social problems such as drug abuse and

alcoholism is useful but the method of capturing it may not be the best.

- The measure of income security is also interesting given the fact that it considers formal, semi-formal and informal employment. The inclusion of social capital is also interesting although there are doubts on the weighting system.
- The data indicate that some households are relatively better off than others in terms of composite poverty index – i.e., relative poverty. However, composite indicators aggregate away and therefore it is difficult to use this kind of information to inform policy choices. Individual indicators around health, education, etc. would be more relevant for policy purposes. Explain who would use this information and how does it link to policy and to local planning.
- The title of the paper suggests the use of CBMS data to understand urban poverty dynamics. This is a bit misleading since there is not much that can be said about poverty dynamics with the data collected so far. However, if repeated over time, this lays the basis to examine poverty dynamics. This leads to the question on whether the data collection can be repeated over time or not and who will take this on. Will the local government do so? And will CDS continue to do so?
- In trying to quantify poverty, it moves one step ahead. The problem is in poverty indicator. In getting the index, in terms of urban poverty, it is better to focus on household characteristics rather than on individual characteristics. Big households are benefiting from the method used here.
- A true indicator may be developed by taking economic assets plus household supportive assets and socio cultural assets.