# pep toolbox

## Community-based monitoring systems - CBMS

**Developing and implementing local poverty-monitoring systems to track a variety of welfare indicators at the household level, collecting data that will provide detailed measurement of poverty in a multidimensional sense.**

Often implemented in collaboration with local government units, community-based monitoring systems (CBMS) provide low-cost and reliable information in the absence of comprehensive national statistical databases for assessing the extent of multi-dimensional poverty and identifying the poor.

CBMS recognizes that: 1)the poor must be involved in planning public programs that affect their well-being, and 2) in order to be effective, development programs must be well-targeted and informed by relevant, timely, reliable and disaggregated data. To this end, CBMS brings together communities and local authorities to collect, monitor and analyze information regarding the actual living conditions of a target population, and to use this information to assist in planning, policy-making and program implementation.

### CBMS provides
- Local-level census generating various socioeconomic indicators
- Detailed measurement of many dimensions of poverty/welfare
- Identification of households that are poor in each dimension
- Poverty maps

### For local & national governments, NGOs, international institutions, etc.
- to guide use of local budgets, as well as to target programs and beneficiaries
- to advocate for additional resources to address locally-relevant dimensions of welfare
- to monitor the MDGs, or the impacts of crises and policies

### CBMS data helps
- promote evidence-based policymaking
- formulate well-designed and targeted interventions
- empower local communities to participate in the process

Up to 2013, with PEP support, community-based monitoring systems have been implemented in 17 developing countries in Africa, Asia and Latin America.

The CBMS network office was established in 2002 in Manila, Philippines (PEP Asian office), to coordinate support and other activities related to the development and implementation of CBMS in developing countries, as well as to promote CBMS knowledge and initiatives internationally.

**To find out more about CBMS, contact the program office/coordinator:**
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## Macro-micro development policy modeling

**Research conducted under the MPIA program uses economy-wide models as "laboratories" to simulate macro policies/shocks and their impacts on welfare at the household level.**

This particular PEP research program combines computable general equilibrium (CGE) models and sophisticated household survey-based microsimulation techniques, to link the impact of macro shocks/policies to poverty and other dimensions of household welfare.

**Steps:**

1. Construct macro model of the national economy (e.g. CGE model - see below)
2. Use the model as a laboratory to simulate "business as usual", i.e. no shock/policy
3. Introduce and simulate the effect of a specific policy intervention or shock
4. Compare outcomes from both simulation scenarios
5. Construct micro model (using household-survey data) to link the simulated macro effects to various dimensions of welfare at the household level
6. Compare the micro impacts of various scenarios

PEP's unique expertise in the application of these combined techniques - especially in the specific context of developing countries - has been used in the conduct of several, often large-scale, research initiatives and specific donor-commissioned studies. Such as, for example:

- to assess the impact of the global financial crisis and appropriate policy responses
- to analyze the distributive impacts of various growth strategies - e.g. investing in public infrastructure
- to analyze public spending and fiscal space on child welfare
- to analyze various policy issues related to employment and inclusive growth in low-income countries
- etc.

### PEP standard CGE models

Over the past few years, PEP's renowned international modelling experts have devoted time and energy to offer the international scientific community **a series of new reference CGE models** that allow more country-specific and extensive applications - including dynamics, global modeling and international financial assets.

These models now stand out among the most widely acknowledged of PEP contributions to the advancement of research in development economics and policy analysis. All PEP CGE models are made available for public access on the PEP website.

**To find out more about this PEP research program and/or the PEP CGE models, contact:**

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## Impact evaluations and RCTs

**Using experimental or non-experimental approaches to provide rigorous assessments of the impacts - including both expected benefits and un-intended effects - of programs and policies on a variety of outcomes.**

Impact evaluations can be done either "**ex-ante**" to assess the potential impacts, or "**ex-post**" to estimate the actual social gains after the program.

Outcome indicators include food security, nutrition, health, poverty and inequality.

### Experimental approach - using randomized controlled trials (RCTs)

*In this type of study, a population is divided in two (or more) groups, which are randomly allo-cated (by chance alone) to either receive/be subjected to, OR NOT, the specific intervention (program/policy) under study. Such experiments may, for example, be conducted as follows:*

- **Identify eligible population** (e.g. unemployed youth, school-age children, etc.)
- **Collect baseline data** on relevant behaviour/characteristics of households/individuals in both groups (surveys of households, communities, schools, unemployment offices, health posts, etc.)
- **Randomly assign** subjects (population) to "treatment" and "control" groups
- **Conduct intervention** for the treatment group ONLY
- **Follow-up**: collect the (same) data again for both groups
- **Compare changes** in outcomes between treatment and control groups.

### Non-experimental approach

*In this case, the groups of the population under study are not "randomly assigned" - for example, if the intervention (program/policy) has already started or been implemented. Then...*

- **Problem of the counterfactual**: What would have happened to the population without the intervention?

*To solve this problem, common methods of (non-experimental) evaluations would...*

- **Compare with situation of similar population** that has not experienced the intervention:
  ⇒ Individuals just outside of the eligibility cutoff - *Regression discontinuity*
  ⇒ Individuals with similar observed characteristics - *Propensity score matching*
- If data is available from both (treated and non-treated) populations before and after the inter-vention, **comparison of changes** can be done using "*double differencing*".

These assessments provide sound empirical evidence to inform program managers, donors, policy-makers and civil society on program effectiveness, budget use and ways to improve the design of future programs. Such evidence may also be used to generate political support for continuation or expansion of programs or policies, both within and beyond national boundaries.

**To find out more about PEP impact evaluations, contact:**
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# Microeconomic analysis
## of poverty, gender and sustainable development

**Designing and applying concepts, techniques and tools to measure and analyze development issues at the microeconomic level in a multi-dimensional setting, primarily using household survey data.**

Through this particular PEP research program, local researchers in developing countries are enabled to use complex monitoring and measurement techniques to build comprehensive "profiles" of the state of welfare or development amongst target populations, which are then used to inform policy decisions.

## DAD and DASP software tools

As through the other research programs, the expertise and experience of PEP lead researchers in microeconomic analysis have yielded major contributions to the field with the **development of two world-renowned software tools, Distributive Analysis/ Analyse Distributive (DAD) and Distributive Analysis for Stata Package (DASP).**

Development researchers, analysts and practitioners worldwide have since been using these tools to provide a fuller characterization of the nature, distribution, causes and consequences of poverty, building profiles used to inform debates and assist in policymaking - whether to make decisions in terms of public spending on infrastructure, agriculture, health, education and other investments to address a wide range of specific welfare issues - inequality, gender, health, nutrition, labor, child poverty, environment, etc

## A multidimensional approach

To this day, a great majority of poverty analyses in developing countries is still based on a unidimensional monetary approach. Poverty is, however, a multidimensional phenomenon, and the poor are generally deprived in more than one dimensions of welfare - health, income, education, nutrition, sanitation, housing, security, etc. - all of which must be taken into account in development policy decisions.

Using a combination of cutting-edge methods and tools, this program promotes a new, multi-dimensional perspective on welfare issues, to provide more comprehensive profiles for better-targeted interventions, including social protection to reduce negative impacts on vulnerable groups.

The outcomes of such analyses will provide reliable evidence to assist policymakers in facing challenges such as:

- How should national priorities for public/government spending be defined?
- Which dimensions of welfare are most important and should be prioritized?
- Which populations (region, age group, sex, education, etc.) should be targeted and how?

**To find out more about this PEP research program, contact the program coordinator:** Jean-Yves Duclos, jean-yves.duclos@ecn.ulaval.ca

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