CBMS and Disaster Risk Reduction and Management

Risks to disasters have escalated in recent years. Natural hazards such as typhoons, flooding, landslides, and sea-level rise among others have been felt in different parts of the world. Governments have established Disaster Risk Reduction and Management (DRRM) frameworks, plans and policies in a preventive, responsive and adaptive manner.

Damage from the Philippine Typhoon (AP Photo/Aaron Favila)

Disaster risk reduction is the concept and practice of reducing disaster risks through systematic efforts to analyse and reduce the causal factors of disasters. Reducing exposure to hazards, lessening vulnerability of people and property, wise management of land and the environment, and improving preparedness and early warning for adverse events are all examples of disaster risk reduction (UNISDR.org).

As the front liner in provision of basic services to their constituents, local governments units (LGUs) use the community-based monitoring system (CBMS) as a tool to: a) track the impacts of policies, programs and various shocks on the poor and the vulnerable; b) be used as inputs to policymaking and program implementation and; c) have a sustainable mechanism that would facilitate evidence-based decision making and impact-monitoring at lower geopolitical levels.

The socioeconomic information of individuals, households and communities collected in the CBMS instruments are a rich source of information. As it is a census, information on demographics and socioeconomic characteristics on the whole population are made available. Consolidated information provides data on the total counts of households and individuals. They can also be disaggregated to generate specific information such as who the vulnerable are. Children, elderly, pregnant women, disabled members and other relevant groups of the communities can be easily identified in the CBMS database.

Disaster-related and climate-change related information are also collected in the CBMS instruments. These questions include observance of climate-change related effects on agriculture and livelihood, temperature, water and drought as well as having disaster preparedness kits of households.

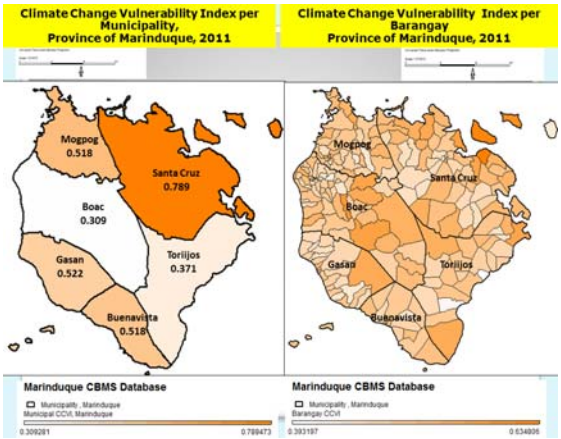
Aside from information availability, one of the strengths of the CBMS is community empowerment. Different members of the community are involved in several aspects in the CBMS implementation. Volunteers such as community health officers and nutrition scholars, students and teachers are usually tapped as enumerators, monitors and coordinators in data collection. Local government staff acts as data processors. When the communities are aware of the available information, they are aptly equipped to use it.

Preventive measures such as disaster preparedness and response can be made based on the CBMS data results. For instance, a policy or program can be crafted if a significant number of households are affected by a natural disaster or calamity in the previous year.

CBMS data are also proven to be useful in post-calamity intervention such as identification of beneficiaries of disaster relief operations as well as prioritization of communities with most affected number of population and relevant vulnerable groups.

A more recent initiative done by the CBMS Network is climate change vulnerability mapping. The CBMS data together with natural hazards data and other administrative information was used to identify vulnerable areas in selected pilot sites. The climate change vulnerability index is comprised by 3 general sub-indices: exposure to climatic hazards, sensitivity and adaptive capacity.

Adopting the definition of the Intergovernmental Panel on Climate Change (IPCC), *vulnerability* is the degree to which a system is susceptible to, or unable to cope with the adverse effects of climate change, including climate variability and extremes. It is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, the sensitivity and adaptive capacity of that system. *Exposure* refers to the exposure of a system of interest to stimuli that act on that system. *Sensitivity* refers to the responsiveness of a system to climate hazards. This is often represented conceptually as a dose-response model – the more sensitive a system, the larger the rate or magnitude of an adverse response to a given hazard. *Adaptive capacity* is the ability of a system to adjust to climate change (including climate variability and extremes), to moderate the potential damage from it, to take advantage of its opportunities, or to cope with its consequences.



Map here shows areas which are more vulnerable to climate change. Taking all indicators on exposure to hazards, sensitivity and lack of adaptive capacity, Santa Cruz municipality is highly vulnerable as compared to the other municipalities in the province. On the other hand, Boac, the provincial capital, is least vulnerable.

At the community level, while the highest vulnerability index was recorded in Santa Cruz, other communities in other municipalities are significant as well.

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