

## Prioritizing Needs Using the CBMS: *The Case of Quezon, Southern Palawan\**

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Called the Philippines' "Last Frontier," Palawan is a small archipelago nestled between Mindoro Island and North Borneo and located approximately 586 southwest of Manila. Palawan is the Philippines' largest province, with a land area of 1.5 million hectares and composed of over 1760 islands and islets. Primarily known as an ecological haven, Palawan boasts of a vast diversity of exotic flora and fauna, pristine beaches and prime dive sites.

In January 2000, the Provincial Government of Palawan started the full implementation of the community-based monitoring system (CBMS). With technical assistance from the Micro Impacts of Macroeconomic Adjustment Policies (MIMAP) Project-Philippines, the province adopted the CBMS to fa-

cilitate the planning of programs and projects at the provincial, municipal and village levels. In addition, the implementation of said system is aimed at ensuring the delivery of appropriate responses to the needs of the province's constituents.

The CBMS is a system of gathering information on socioeconomic conditions at the grass roots level. Aside from basic demographic variables, disaggregated data on income, health, education, and political participation, among others, can also be derived from the system.

In Palawan, the system was launched in 1999 as a joint effort of the various local government units. It was formalized through Executive Order No. 15 issued by Gov. Salvador Socrates. To start the system, a pilot survey was conducted in two barangays of the municipality of Taytay in November 1999. Afterwards, the system was implemented in 21 out of the 23 municipalities of the province.

The strategy for the CBMS survey implementation is based on the

principle of resource sharing. The municipal governments are encouraged to take the lead in coordinating the implementation while the enumerators are being recruited from their respective villages (barangays). The role of the Provincial Planning and Development Office (PPDO), on the other hand, is to provide and disseminate the skills on all aspects of the survey and to give follow-up assistance after the survey.

### Quezon, Southern Palawan: One of first to complete information processing

Among the municipalities which have completed the processing of information and utilized the CBMS survey results in its development planning is the municipality of Quezon. Quezon is situated in the southwestern part of mainland

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\*This is the first of a series of articles that will feature the utilization of the CBMS data in the province of Palawan.

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### WHAT'S INSIDE

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for MIMAP advocacy work

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Part of the ongoing research activities of the Micro Impacts of Macroeconomic Adjustment Policies (MIMAP) Project-Philippines is the development of a MIMAP monitoring system. This consists of establishing and maintaining a database of selected macro and micro level indicators gathered from the different institutions of the Philippine statistical system and processed by the MIMAP Project Management Office.

Through its Impacts of Macroeconomic Adjustment Policies on the Environment (IMAPE) Project, the MIMAP has started using the Geographical Information Systems (GIS) technology as part of its database system. Maps were used in the presentation and simple analysis of the selected socioeconomic indicators. Environmental indicators will also be added to this GIS-based system.

## Using GIS-based data system for MIMAP advocacy work

Presentations using GIS prove to be a more advanced and innovative way to share data and enhance the usual table and graph appearance. The color coding in the maps gives life to a set of data usually tabulated and drawn as lines and dots. Basic statistics like percentages and percentiles can also be easily done. In fact, policymakers like Senators and Congressmen find this technology more appealing and are able to immediately relate the data and analysis with the actual "on-the-ground" developments in their respective areas of responsibility and concern.

The MIMAP project is also using the GIS technology in its community-based monitoring system (CBMS) collaboration with the provincial government of Palawan. The different municipal officers, like the policymakers mentioned, are likewise very responsive to the use of the GIS technology since the performance of a barangay or a municipality using a particular indicator can be easily compared to its surrounding barangays or municipality.

Selected preliminary CBMS results in GIS form were presented during the Provincial Development Council Convention held on September 20-21, 2000. The GIS technology made it easier for the identification of the top unmet needs of the province down to the barangay level, the different projects to be implemented and the locations wherein said projects should be implemented.

To date, 10 out of the 21 municipalities which implemented the system have been furnished with the preliminary results of the CBMS in GIS form. As soon as these data are validated and finalized, maps will be sent to the municipalities to be used in the planning and implementation of programs for the improvement of their respective localities.

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Palawan CBMS results in GIS form were presented to municipal representatives in a forum to be used in planning and program implementation for the improvement of their locality.

# RESEARCH RESULTS

## Using the CBMS... (From Page 1)

Palawan. It is 148 kilometers from the capital city of Puerto Princesa.

Classified as a second class municipality, Quezon consists of 14 villages (barangays) and has a total of 9571 households in its locality. Its terrain ranges from flat (33%) to hilly (31%) to mountainous (26%). About 10 percent of the land area is coastal and plain. Most of the barangays are coastal communities except for Kalatagbak, Pinaglabanan, and Malatgao. The hilly parts include Maasin, Sowangan, Malatgao, and Panitian while the mountainous areas are Pinaglabanan, Kalatagbak, Malatgao, and Quinlogan.

The municipality has rich mineral resources of both metallic and nonmetallic type. Unquantifiable deposits of nickel, chromite, copper and black sand are found in Berong. Nonmetallic minerals such as guano and limestone are available in the numerous caves and similar sites within the locality.

Farming is the main source of livelihood in Quezon. Other alternative sources of income and subsistence are fishing and gathering of forest products.

## Top unmet needs in Quezon, Palawan

For each CBMS indicator, the villages in Quezon were ranked from 1 (being the best-served) to 15 (least-served). Scores garnered by each village for the 16 indicators were

then added. The villages with the highest scores were noted as top priority areas. Meanwhile, scores garnered per indicator for all villages were likewise tallied. The indicators with the highest total accumulated values were noted as priority needs.

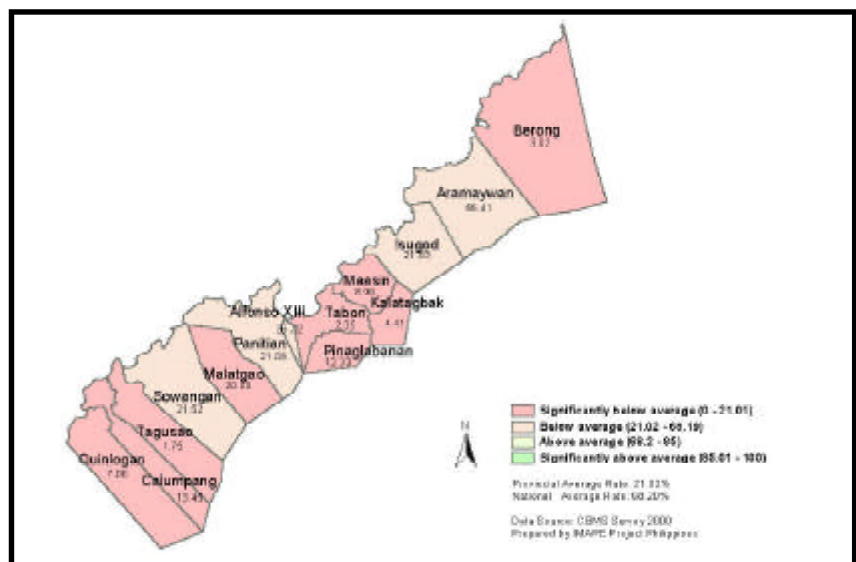
Among the top needs identified as a result of the CBMS survey in the municipality include: (a) lack of alternative productive employment opportunities, (b) need for greater access to safe water supply and sanitation facilities, and (c) need for improved school participation among children. Political participation was also found to be low in this municipality.

The observation regarding the *lack of alternative productive employment opportunities* in the municipality of Quezon was derived from the data showing that only 19.5 percent

of the households surveyed have incomes greater than the poverty threshold in spite of the fact that 92 percent of the households surveyed have at least one employed member. One probable reason could be the seasonal income earning opportunities in the area wherein the main source of employment is agriculture (48.2%). The underemployment figure is rather high at 50 percent signaling the need for additional hours of work to earn more. Based on the income data gathered, poverty incidence was found to be most prevalent in the villages of Tagusao and Tabon. Figure 1 shows that only 1.8 and 2.3 percent of households in barangays Tagusao and Tabon, respectively, have incomes above the poverty threshold. Poverty incidence is measured on the basis of the regional standard of P11,743 per capita in a year.

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**Figure 1: Proportion of households whose income is greater than the poverty threshold, Municipality of Quezon**



# RESEARCH RESULTS

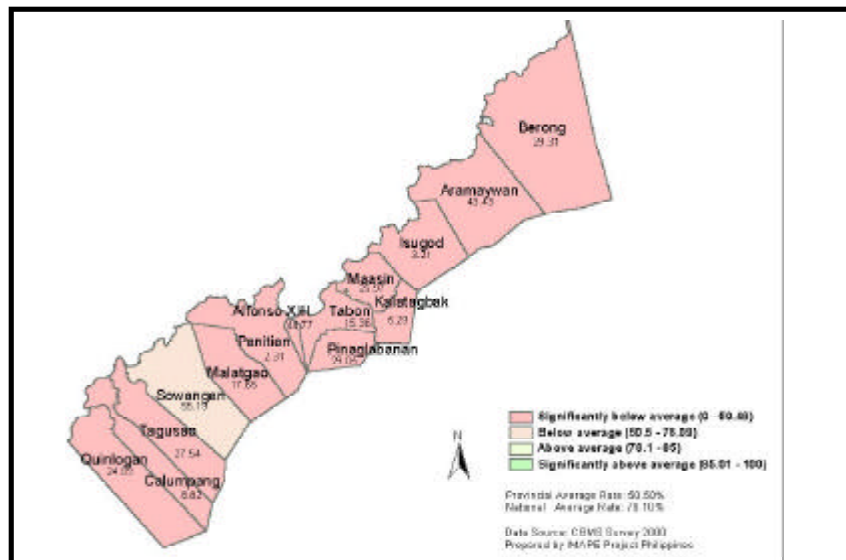
Using the CBMS... (From Page 3)

Meanwhile, it may be noted that all of the households surveyed in the village of Tagusao have at least one employed member. However, out of this, almost 90 percent have underemployed household members. On the other hand, almost 89 percent of households in Tabon have at least one employed member and about 48 percent of them have underemployed household members.

Furthermore, there seems to be a need for greater access to safe water supply in the municipality. Based on the prevailing standard, water is considered safe when obtained from community water sources and deep and artesian wells. Recent survey shows that only 24.3 percent of the households surveyed in the area have access to safe water. A greater proportion of households surveyed in Quezon obtain water either from streams, rivers, lakes and rain (32.3%), unclassified water sources (24.7%), and shallow wells (18.7%). Topping the list of villages (barangays) with low access to safe water supply as shown in Figure 2 are the villages of Panitian (2.3%), Isugod (3.2%) and Kalatagbak (5.3%). Among the villages that are best served, on the other hand, are Sowangan (55.1%), Alfonso XIII (44.8%), and Aramaywan (43.4%).

In terms of access to sanitary toilet facilities, meanwhile, data show that about 49 percent of the households surveyed in the municipality do not have access to this facility. Figure 3 shows that the lowest pro-

Figure 2: Proportion of households with access to safe water supply, Municipality of Quezon



portion of households with access to sanitary toilets is observed in the villages of Pinaglabanan (23.8%), Aramaywan (29.5%), and Kalatagbak (32.2%) while among the villages with the highest access are Alfonso XIII (75.8%), Maasin (65.1%) and Malatgao (64.3 %).

Regarding the proportion of households with children aged 13-16 years old who are going to school, the figures seem to be low in most of the villages. Data show that only 44.5 percent of children in this age group attend secondary education. Among the villages that are observed to have the lowest figures of households with children attending secondary education include Sowangan (20.1%), Tabon (22%), and Kalatagbak (22.4%). Meanwhile, the villages with highest secondary schooling participation among households are Alfonso XIII

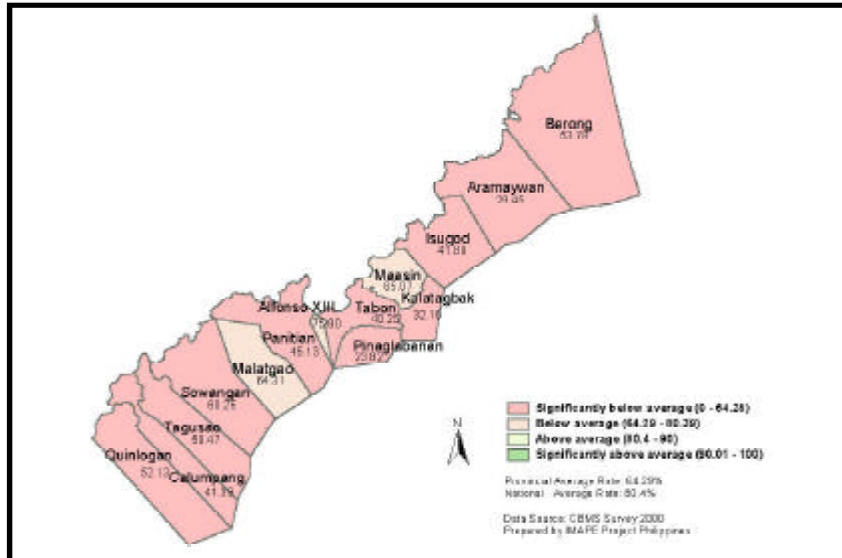
(67.2%), Quinlogan (59.9%) and Panitian (55.4%).

The survey also noted that about 31 percent of the households in the municipality have members who did not participate in the last electoral process (Figure 4). Among the villages which have the greatest number of households with members who have participated in the last electoral process are Malatgao (93.5%), Kalatagbak (78.4%), and Panitian (75%). On the other hand, the villages with the lowest number of households with members participating include Berong (55.0%), Tagusao (60.0%), and Maasin (55.0%).

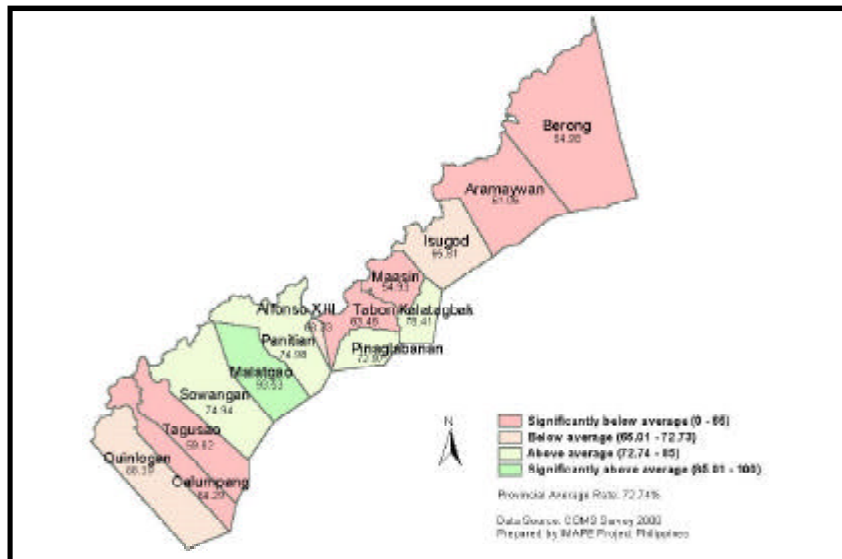
There is also a host of other interesting baseline information which may be used for planning, program identification and monitoring purposes that were generated

# RESEARCH RESULTS

**Figure 3: Proportion of households with access to sanitary toilet facilities, Municipality of Quezon**



**Figure 4: Proportion of households with at least one member who participated in the last electoral process, Municipality of Quezon**



from the recent CBMS survey in the municipality aside from those already discussed.

For instance, participation in

community organizations was observed to be low based on the survey results, with only 18.3 percent of all households surveyed having at least one member involved in an

organization. Among the villages with the lowest proportions are Quinlogan (7.1%), Aramaywan (8.3%) and Calumpang (9.8%).

## Priority barangays

The overall assessment of the various welfare indicators used in the recent CBMS survey as shown in Table 1 further indicates that among the villages, assistance is most needed in *Tabon*, *Tagusao*, *Kalatagbak*, and *Sowangan* (as can be seen in Figure 5). The prevalent problems in these barangays range from high incidence of poverty, high rate of underemployment, lack of access to safe water and sanitary toilet facilities, and low school participation among children.

Recent data reveal that *Tabon*, where the tourist spot—*Tabon Cave*—is located, is the poorest among the villages in terms of meeting the minimum basic need requirements for development. Poverty incidence is high at 97.7 percent. Though 88.7 percent of the households have at least one employed member, almost 48 percent have members who are seeking additional hours of work for additional income. Secondary school participation is noted to be the lowest in this village at 22 percent. Likewise, *Tabon* garnered one of the highest proportions of households with children not attending elementary education (43.8%). It also ranks as one of the villages with the least access to safe water (15.4%) and sanitary toilet facilities (40.3%). Malnutrition was also found to be most prevalent in this village of *Tabon* (41.5%).

# RESEARCH RESULTS

Using the CBMS... (From Page 5)

Political participation was also noted to be low in this area where indigenous people abound. Membership to community organization is only

11.1 percent. About 37 percent, on the other hand, did not participate in the last electoral process.

*Barangay Tagusao*, meanwhile, ranks second among the poorest. It has the highest incidence of poverty (98.3%) and the highest pro-

portion of households with underemployed members (90.4%). Furthermore, this area is noted to have the highest illiteracy rate at 35.4 percent. It is also known to have one of the highest proportions of households with children aged 6-12 years old not attending elementary school (42%). Political participation in this village is one of the lowest, with participation in community organization pegged at only 11.6 percent. Meanwhile, about 40 percent of the households have members who did not participate in the last electoral process.

Like *Tabon* and *Tagusao*, the village of *Kalatagbak* is marked with a high incidence of poverty at 95.6 percent. Compared to these two villages, though, this area is worst off in terms of employment, with about 18.5 percent of the households surveyed without any employed member. Underemployment in this area is one of the highest at 63.8 percent. On the other hand, poverty incidence is still lower in this area compared to *Tabon* and *Tagusao*. Meanwhile, access to safe water and to sanitary toilet facilities is one of the lowest at 5.3 and 32.1 percent, respectively. School participation in both elementary and secondary

Table 1: CBMS Indicators, Quezon, Southern Palawan

Area of Concern	Indicators	Variables	Rate (in percent)
<b>A. Survival</b>			
Health	1.	Proportion of households without infant death	99.4
	2.	Proportion of households without deaths of children (1-6 yrs. old)	99.0
Nutrition	3.	Proportion of households without malnourished children	91.9
Water and sanitation	4.	Proportion of households with access to safe water	24.3
	5.	Proportion of households with sanitary toilet facilities	51.4
<b>B. Security</b>			
Shelter Peace and order	6.	Proportion of households not in makeshift house	98.1
	7.	Proportion of households without members who were victims of crimes	99.8
	8.	Proportion of households without members who were victims of armed encounters	99.8
<b>C. Enabling</b>			
Income and livelihood	9.	Proportion of households with income greater than the poverty threshold	19.5
	10.	Proportion of households with at least one employed member	92.1
	11.	Proportion of households without underemployed workers	49.5
Basic education and literacy	12.	Proportion of households with children (6-12 yrs. old) attending elementary education	79.4
	13.	Proportion of households with children (13-16 yrs. old) attending secondary education	44.5
	14.	Proportion of households with all members who are literate	82.3
Political participation	15.	Proportion of households with at least one member involved in a community organization	18.3
	16.	Proportion of households with at least one member who participated in the last electoral process	68.7

# RESEARCH RESULTS

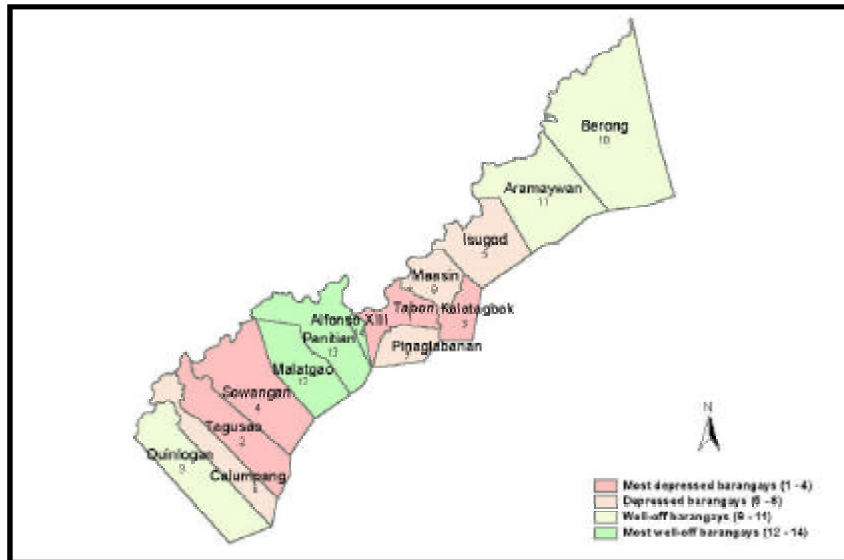
levels is among the lowest in this village pegged at 54.8 and 22.4 percent, respectively. Membership in community organization, however, is better compared to other villages at 38.4 percent. Likewise, this area garnered one of the highest proportions of households with members who have participated in the last electoral process (78.4%).

Like the three other villages, *Sowangan* is also noted to have a high poverty incidence at 78.5 percent. Though it garnered one of the highest proportions of households with incomes greater than the poverty threshold (21.5%) in the municipality, *Sowangan* is noted to have the highest rate of underemployment among households (92.7%). School participation in elementary and secondary levels in this area is also ranked the lowest at 53.3 and 20.1 percent, respectively. Political participation, though, is rather high in this village compared to the other barangays. Membership in community organizations is shown to be 48 percent while participation in the last electoral process is marked at 74.9 percent.

## Program responses

In a planning convention held in October 2000, the municipal gov-

**Figure 5: Barangay ranking in terms of CBMS indicators, Municipality of Quezon**



ernment of Quezon, together with the village (barangay) officials and representatives of the Provincial Planning and Development Office (PPDO), prioritized its projects and programs with the aid of the results of the CBMS survey. One of the top programs unanimously identified by the village planners is the development of farm-to-market roads. This indicates that the distance of the farming areas to the central market and the poor condition of roads limit the capacity of farmers to sell their produce at a profitable rate. Due to the seasonality of the nature of income in most of the villages, local planners further noted the need to provide for alternative livelihood assistance such as skills training in dressmaking, food processing, piggery/poultry, and goat/swine raising.

Other priority programs that were identified are the establishment of water system and sanitary

toilet facilities in villages that are in dire need of said facilities.

Identification of the program responses did not come easy, though, given that the nature of the needs identified is far beyond the direct provision of physical infrastructures. For instance, though the survey indicates the low secondary school

participation in the municipality, local planners favored to prioritize the need to expand economic opportunities in the area instead of building additional public high schools. It was noted that there are only four public high schools in the municipality. These are located in the villages of Alfonso XIII, Aramaywan, Quinlogan, and Tagusao. This indicates that the low secondary school participation among households with children aged 13-16 years old in Quezon may not be necessarily correlated with the lack of public schools in the area or with the accessibility of the school from the residential areas. According to an official<sup>1</sup> at the Municipal Planning and Development Office of Quezon, the problem has been attributed to the lack of willingness of parents to send their chil-



<sup>1</sup>Identified as Ms. Anna Dawadao.

## MIMAP PROJECT UPDATES

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### Using the CBMS... (From Page 7)

dren to school due to limited opportunities to earn income. This indicates the need to provide for greater incentives for school participation. It could include the creation or expansion of profitable job opportunities that would require at least secondary education or the provision of alternative profitable livelihood opportunities for poor families that would make them opt to send their children to school rather than have them work. Furthermore, greater advocacy on the value of education among parents could also be pursued.

This exercise seems to indicate that program responses among municipal and village planners vary, depending on the kind of development path that they envision for

*Given the limited resources that each village has, the concept of the installation of the community-based monitoring system would facilitate transparency in the choice of investments that local planners make on behalf of their constituents.*

their communities. Given the limited resources that each village has, the concept of the installation of the community-based monitoring system would facilitate transparency in the choice of investments that local planners make on behalf of their constituents. Aside from being tagged as a more "participatory approach" for development planning, the CBMS also seeks to monitor the relevance and usefulness of the investments made. Did investments made in the past or will those

to be made in the future lead to a better quality of life for the target beneficiaries? This is one of the questions that the CBMS will be able to help in answering. 

**MIMAP Project Updates-Philippines** is the quarterly newsletter of the MIMAP Project. This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.

The **Updates** may now be downloaded in Adobe Acrobat format for free from the Project's website. The site can be accessed through <http://www.panasia.org.sg/mimapph>.

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