MICRODIS: Integrated Health, Social and Economic Impacts of Extreme Events: Evidence, Methods and Tools

FIELD OPERATIONS REPORT
Albay Province, Philippines
March 2009

Prepared by:
Citizens Disaster Response Center (CDRC)
Field Operations Report

This report covers the activities conducted for the MICRODIS survey site in Albay Province, Philippines from September 2008 to February 2009.

I. About the Site

The province of Albay is located in the Bicol Region in Luzon (one of the three island groups in the country). Its capital is Legazpi City. Mayon Volcano is the symbol most associated with the province. This nearly perfectly-shaped active volcano forms a scenic backdrop to the capital city of Legazpi 15 kilometers to the south.

Geography. Albay province is located in the southern part of Luzon. The province is bounded by the Lagonoy Gulf and Camarines Sur on the north-northwest; the Pacific Ocean on the east; the province of Sorsogon on the south; and the Burias Pass on the southeast.

Figure 1. Albay Map

Albay has a total land area of 2,552.6 square kilometers or 255,257 hectares, which is 14.5% of the Bicol Region’s total land area. It is the
26th smallest province in the country. Most of Albay is located on mainland Bicol Peninsula and has four major islands to the east: Rapu-Rapu, Batan (part of Rapu-Rapu), Cagraray (part of Bacacay), and San Miguel (part of Tabaco City).

The province is generally mountainous with scattered fertile plains and valleys. Approximately 40% of the land area is flat, surrounded by the mountains of Masaraga (1,337 m. high), Malinao (1,629 m. high), Pantao (527 m. high) and Mayon Volcano (2,496 m. high), the most famous landform.

Basically an agricultural province, 61% of the land area is considered as agricultural crop zone. Total forest land covers 19% of the total provincial land area.

Albay has 15 municipalities, 3 cities and 720 barangays (villages).

The two particular survey sites in Albay are the Municipality of Polangui and the City of Legazpi.

**Figure 2. Polangui Map**
Demography. The second most populated province in the Bicol Region is Albay with 1,090,907 persons (2000 census, marking a 21% increase from the 1990 population of the province). High concentration of the population is found in Legazpi City, Tabaco City and Daraga. They comprise one-third of the provincial population, with Legazpi City eating much of the bulk. The population density in Albay is 427 persons per square kilometer. It has a household population of 1,089,752; and 208,640 number of households.

Economy. By July 2000, 70% of the provincial population has been accounted to be members of the labor force. Of this, about 61% are said to be actively looking for work, while 11% are unemployed. Majority of the potential labor force is in the rural areas.

The service sector absorbs 49% of those in the labor force. On the other hand, agriculture and the industrial sector account for 27% and 24%, respectively.

As of 1997, the average annual family income in the province is P89,386, while the average annual family expenditure is P78,305, both of which are the highest annual averages in the region. Of the total of 215,216 families, 72% earn below the provincial average annual family income.
By source of income, 122,682 families source their income from wages and salaries, most of which are non-agricultural related. Those families who source their income from entrepreneurial activities reach 62,743. The rest of the 13.8% have other sources of income such as cash receipts from domestic sources, as well as abroad.

Agriculture is the main industry in Albay, which produces such crops as coconut, rice, sugar and abaca. Handicrafts are also a major source of rural income.

Health. There are nine government hospitals and 27 privately owned hospitals in the province as of 2006. The number of rural health units is 15, and the village health stations are 194. Health professionals in ratio to the population are 1 doctor for every 31,200, 1 dentist for every 72,700, 1 nurse for every 22,700 and 1 midwife for every 6,300.

There are 87.9% households with access to potable water, and 54% with access to sanitary toilet facilities.

Education. As of school year 1999-2000, there are 550 elementary schools and 62 secondary schools in the province. All these are government education institutions. They are being provided with 7,565 public school teachers.

Religion. Majority of the people living in Albay practices Catholicism.

Language. Bicol is the local dialect. Surprisingly, it constitutes a strange variety inwords and in diction among the seventeen municipalities comprising the province. In some towns, there are clear distinctions of variable terminologies in their use of words to convey their messages as compared with the nearest neighboring towns. What puzzles visitors and tourists are the amazing variations of many words of the same meaning for one object or concept among the people in every town.
**Disaster experience.** Albay has 3 types of climate. The eastern areas experience no dry season with a very pronounced maximum rain period from December to January, the western areas have more or less heavily distributed rainfall throughout the year and the central areas have no pronounced maximum rain period with a short dry season from November to January. The province has a yearly average of 20 typhoons ranging from 60-180 kph. Average rainfall is 233 millimeters with a lowest at 130 millimeters in April and the highest at 389 millimeters during December. Average temperature is 33.15 Celsius high and 22.60 Celsius low.

Albay is one of the most typhoon-prone provinces in the Philippines. The area is located on the typhoon belt and experiences this hazard at the average of two major destructive typhoons per year.

Houses partially covered by mud and ash flows during Typhoon Reming.
Photo by: Philippine Coast Guard

In November 2006, Albay was one of the areas hardest-hit by Typhoon Reming (International name: Durian). Reming was one of the most deadly and destructive tropical cyclones to ravage the Philippines in recent years. The typhoon brought 466 millimeters of rainfall, the
highest in 40 years. A number of communities in Albay were immediately buried under tons of rocks and mud that rushed down from Mayon Volcano’s slopes during the typhoon. Aside from Reming, three other major typhoons hit Daraga in 2006: Tropical Storm Caloy (Chanchu), Typhoon Milenyo (Xangsane), and Typhoon Seniang (Utor).

Recently, back to back super typhoons battered the Bicol Region once again. Typhoons Lando (Hagibis) and Mina (Mitag) affected 69,465 families in Region V last year (November 2007). Both typhoons caused flashfloods and landslides.

II. Process of carrying out fieldwork

Building Linkages for Coordination. In order to facilitate the smooth entry of researchers in the survey sites, courtesy calls to local government officials were conducted. Preliminary data were also gathered during the pre-survey site visit which includes profiles of each municipality.

The pre-survey site visits were conducted by the Country Team last September 16-18, 2008. In Albay, courtesy calls with the Provincial Governor of Albay, the Municipal Mayor of Polangui, the OIC-Mayor of Legazpi City, the Provincial Disaster Coordinating Council Officer of
Albay, and the Municipal Disaster Coordinating Council officer of Polangui were done.

After the courtesy calls, the team successfully clinched the approval and support of the local officers on the survey. Data on the survey sites like site maps, demographic profiles, socio-economic profiles, and disaster profiles were obtained by the team as well. The local executives also gave the commitment to endorse the project to the village-level officials.

The local government officers in turn requested for the results of the survey to be returned to the communities in the form of study dissemination.

After the pre-survey site visit conducted by the Country Team, the local partner organization and regional center of CDRC, Tarabang Para sa Bicol (TABI), made follow-up visits to village-level officials to inform them about the survey, and gain their support. Accommodations of the enumerators within the villages for the actual survey were
arranged by TABI as well. Most village officials offered their barangay (village) halls for free.

**Adaption of Instruments to Local Context.** Together with Xavier University, the survey questionnaire was adapted into the local context. The core questionnaire was extended to include reproductive health questions as a focus issue. The questionnaire was then translated from English to Filipino from October 1-13.

The translated questionnaire was pre-tested in a flood-prone community in Dagat-dagatan, Caloocan City to 10 respondents on October 14-15, 2008. Problems with the questionnaire surfaced during the pre-test. In the Social Core, many of the respondents found some of the questions repetitive. The enumerators sometimes had to switch to the “second person” and rephrase some of the statements into question form in order to be understood. In the Health Core, the enumerators were hesitant at first to ask some of the more personal questions like vaginal discharges, etc. In the Economic Core, most respondents had a hard time estimating the cost of repairs, and even their monthly expenditures and income.

Based on these feedback and comments during the pre-test, the survey instrument was revised accordingly on October 16.
Training of Enumerators. CDRC started the process of recruitment for field enumerators right after the Microdis training workshop in Hanoi in May 2008. Xavier University, as Principal Investigator of the country team survey, gave a set criteria for the choice of enumerators. CDRC in turn asked its regional centers to look for suitable candidates for the job. Unfortunately, many of the potential applicants did not meet the criteria set by XU. Foremost of this is the requirement for a field enumerator with experience in doing quantitative survey. So the Country Team finally decided, after much difficulty in getting local enumerators on the site, to employ seasoned researchers from XU who are readily available for deployment.

![Training of enumerators at Xavier University.](image)

The enumerators' training, jointly organized with Xavier University, was conducted on November 25-27 in Cagayan de Oro City. The training facilitated a standard interpretation of instruments and ensured that data entry procedures and guidelines were uniformly understood by the enumerators.

The objectives of the study, sampling design, methodology, area coverage, team composition, deliverables and timeline were discussed during the training.
A line by line discussion of the survey questionnaire was done to facilitate clarity and uniform understanding of the key concepts and variables used in the study.

On the third day of the training, the enumerators field tested the questionnaire in nearby communities in Cagayan de Oro City. Several issues and clarifications were ironed out after the field test. It also gave the enumerators a feel of the actual interview, and how long it would take to complete one questionnaire.

**Deployment.** The CDRC team arrived on the site ahead of the enumerators for last minute coordination and preparations with TABI and its designated local coordinator. From November 29-30, 2008, CDRC and TABI made final technical arrangements in the survey areas.

On December 1, 2008, seven (7) seasoned enumerators from Xavier University, plus the CDRC field coordinator and the TABI local coordinator arrived in Barangay Maysua, Polangui, Albay. As standard operating procedure, a courtesy call with the village chief was the first thing that the team did upon arrival. The team introduced themselves to the Barangay Council, and explained the purpose of the research. The team also asked for the household list from the Barangay Secretary for the sampling of the household respondents.

The team chose to enter the municipality of Polangui first, and then the City of Legazpi next for the conduct of the survey. Both of these municipalities are typhoon-prone areas, with Typhoons Milenyo and Reming as their recent disaster experience in late 2006.
In all of the survey villages, the barangay chief and/or council graciously offered to house the enumerators in their respective barangay halls for the entire duration of the survey.

**Survey Team**

CDRC Team:
Coordinator – Lou Escandor
Researcher – Suyin Jamoralin
Sociologist – Prof. Tomasito Talledo
Statistician – Prof. Adolfo de Guzman

Field Support:
Logistics Officer – Edna Luna
Local Coordinator – Mauro Maravilla (TABI)

Enumerators:
Prospercora S. Vega (team leader)
Lourdes A. Wong
Esther V. Briones
Rowena F. Abilija
Alberta S. Aposakas
Al Nino C. Te
Sanbert Marie C. Garcia
Vergil F. Boac (IDI)
Carla S. Vergara (IDI)
Mike (IDI)

**III. Survey Experience**

Actual field work in Albay happened from December 1 to 22, 2008, covering 1 municipality (Polangui), 1 city (Legazpi), 8 villages, 400 quantitative respondents (50 for each barangay), 12 in-depth interviews, and 4 focus group discussions in the most affected barangays.
Table 1. Selected Sample Barangays in Albay

<table>
<thead>
<tr>
<th>Municipality/City</th>
<th>Most Affected Barangays</th>
<th>Least Affected Barangays</th>
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</thead>
<tbody>
<tr>
<td>Legazpi City</td>
<td>Bonga</td>
<td>Cabangan</td>
</tr>
<tr>
<td></td>
<td>Matanag</td>
<td>San Francisco</td>
</tr>
<tr>
<td>Polangui</td>
<td>Kinale</td>
<td>Maysua</td>
</tr>
<tr>
<td></td>
<td>Balangibang</td>
<td>Napo</td>
</tr>
</tbody>
</table>

After arriving on the site on December 1, 2008, the field researchers started actual household interviews the following day in Barangay Maysua, one of the least affected barangays in Polangui. Maysua is also the farthest barangay from the town center. It is an uphill village accessible only through motorbike or tricycle. Jeepneys and other public transportation rarely go up to the barangay. The team had to hire a van in order to reach the site.

Four days later (December 5), the team moved on to the next least affected village, Barangay Napo.

The first few days of field work was admittedly a bit slow for the enumerators. However, the pace picked up in the subsequent weeks after the interviewers started getting used to the instruments. By this time, the interviewers were already averaging 3 to 4 interviews a day, as opposed to the initial 2 interviews a day.

Three days later (December 8), the team moved on to the two adjacent and most affected barangays, Kinale and Balangibang. One more enumerator arrived, prompting the team to divide itself into two sub-teams in order to cover the two barangays simultaneously: Team A for Barangay Kinale and Team B for Barangay Balangibang. In-depth interviews also started by this time.
A focus group discussion (FGD) for the most affected barangays in Polangui was also launched in Barangay Kinale on December 8, and in Barangay Balangibang on December 10. Participants from the health, women and youth sectors attended the sessions.

On December 11, 2008, the CDRC team paid a courtesy call to the town Mayor of Polangui to extend appreciation for his hospitality. The following day, Team B pulled out of Barangay Balangibang and entered one of the least affected barangays in Legazpi City, Barangay San Francisco. Team A joined Team B to form one survey team in Barangay San Francisco on December 13.

On December 15, the team once again divided itself into 2 sub-teams to do simultaneous surveys in the two adjacent and most affected villages, Barangays Matanag (Team A) and Bonga (Team B).

An FGD in Barangay Matanag was held on December 14, and in Barangay Bonga on December 16. Both are most affected barangays.
On December 18, the team moved on to the last village, Barangay Cabangan. This time, the enumerators stayed at the TABI office, which was near the location of the barangay. The interviews in Cabangan ended on December 21.

Enumerators in Barangay Cabangan.

The enumerators traveled to the CDRC office in Quezon City on December 22 for the final editing of the questionnaires. Then they all went back to Cagayan de Oro City after Christmas, December 25.

The enumerators brought all the survey forms to Xavier University for a centralized data processing.

IV. Challenges and Achievements

Facilitative Factors in Data Collection. One of the main factors that facilitated the success of the field survey was the good coordination on the ground. Months before the actual survey, the team has already sought the support of local executives. From the Governor, Mayors, down to the Barangay Captains -- everyone in the community was properly informed.
The proper endorsement from the Governor and the Mayors was important in gaining entry into the communities. They also provided necessary documents like maps and town profiles to the research team.

The cooperation and support of the village councils on the other hand was just as important. They provided accommodation, access to their facilities, and even security to the enumerators during their stay in the communities. The village councils also provided the list of households, and much needed assistance to the researchers in finding their way around the communities.

The role of the local coordinator was also very important in the smooth flow of the field operations. He made all the initial arrangements with the barangay heads, informing them beforehand about the purpose, requirements and schedule of the survey. A local person representing a local organization like TABI, who already has a good track record in the locality, helped ease whatever hesitations that the village councils might have had.

Finally, having seasoned enumerators with years of experience in doing field research made it even easier for the team to move forward without too much problem. The researchers are used to rough terrains, changing weather conditions, and sparse accommodations, that these things never bothered them.

**Rapport-building with the Community.** Getting the trust of the community members was an important factor in the success of the survey. The enumerators would often mingle with the residents after interview sessions or during breaks for informal talks. They would also
oblige if there were invitations to attend village gatherings. These interactions made the residents at ease with the survey team. Often, the residents would even offer snacks to the enumerators after the interviews. Knowledge of the local culture was also very important in building rapport with the community.

Informal talks with village members during breaks.

**Problems Encountered.** The weather posed a challenge to the enumerators during the conduct of the survey. It was the rainy season, and the team had to brave muddy terrains just to get to the respondents. The houses in some of the villages were also far apart, and the team had to trek or hike to reach some of the hilly sites.

The questionnaire itself was very thick, and some of the respondents have shown fatigue in answering it. Others found the social questions repetitive, and the economic questions too detailed.
The baseline data gathered from the government also became a problem. The enumerators found out during the survey that the barangay classified by the local government as least affected was in fact a most affected barangay.

Several people from the community were asking why they were not included in the survey. They said they too have stories to tell. The team patiently explained that the selection of respondents was random, and was not biased at all.

Finally, the people were asking what they could possibly get from the survey. They aired sentiments of previous researchers coming into their communities, but were never heard of again. The team promised to return and report the results of the research.

**V. General Conclusions and Preliminary Observations from the Field**

The survey was conducted successfully and right on schedule in 1 municipality (Polangui), 1 city (Legazpi) and 8 villages (barangays) in the province of Albay. There were 400 quantitative respondents (50 for each barangay) and 12 in-depth interviews. Four focus group discussions were also held in the most affected barangays.
There were more female (75.8%) than male (24.3%) respondents who participated in the household interviews. One observation was that, husbands were usually out in the farm during the day.

Most of the respondents were from the 30-39 age bracket (28%) and 40-49 age bracket (22.8%). 80.5% of the respondents were married.