

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATION

Vulnerability assessment helps the community to identify risks and threats especially when climate variability is concerned. The Philippines is one of the countries in need of one. Determining whether the area is vulnerable or not is very important nowadays specially when there are risk related. Climate issues in several areas are not well known. Most of the time people see it as a normal situation or an event. The specific site for this study is in Claveria, Misamis Oriental, Philippines. Claveria is an upland area experiencing biophysical problems like soil erosion and the like. The climate variability threat identified both by BSWM and Manila Observatory in Misamis Oriental is from El Niño.

The study aimed to assess the role of Landcare in enhancing the adaptive capacity of the communities to climate variability in Claveria, Misamis Oriental. Test were made to verify if: (1) Landcare as a community-based organization enhances the adaptive capacity of upland communities to climate variability; (2) Landcare membership enhances adaptive capacity; and (3) adoption of Landcare technologies promotes resilience.

Interviews, and assessments were conducted to test the hypotheses. This was based on the social and economic aspects, the levels of food availability, water demand, livelihood situation, health condition and accessibility to different assistance areas. On the

biophysical component, the soil quality, soil problems and water use are taken into consideration. The climate variability impacts, its level of awareness and their adaptive measures are also part of this assessment.

The people in Claveria belong to the economically challenged families. Claveria is characterized through its farming communities. Most of the respondents are elementary graduates. The household size have 4 to 6 family members with family income less than or equal to Php 5000.00 allowing to have savings of equal or less than Php 500.00. The house structures are mostly made of wood and the farm size is from 1 to 2 hectares. Soil problem (soil erosion and poor soil characteristics) is prevalent in the area accompanied by heavy rainfall. Thus, resulting to poor yield, poor crop quality and low income. Accessibility of the areas to medical facilities, municipal's office and hospital is sometimes a problem due to distance and lack of road infrastructures. Most areas that are vulnerable to the climatic hazards are those in the upper elevation followed by those in the middle elevation. The areas mentioned have the poorest soil condition (aside from the fact that the communities are on the high elevation so accessibility is a problem).

Landcare conceived the soil problem accompanied by intensive rainfall. Soil and water conservation, training, seminars, information dissemination and technology distribution was catered by Landcare to help the communities of Claveria. With the existence of Landcare in Claveria, Misamis Oriental the overlapping problem on climate variability reduces the threats through the approaches and technologies employed. Landcare served

as the coping mechanisms needed to achieve resiliency among the communities. The technologies and other services that Landcare provided to the communities are the means for enhancing the adaptive capacity. Landcare approach have been an effective medium in the agricultural landscape of the communities. The study showed that with the existence of Landcare, the lives of the communities in Claveria were improved.

Results of the study showed that Claveria is in a moderate level of vulnerability to climate variability. In terms of prioritization (who needs the immediate action), the twenty-four barangays of Claveria can be categorized into three, according to the computed means obtained, to the levels of priority. The study showed that barangays of Gumaod, Madaguig, Panampawan, Punong, Plaridel, Poblacion, Patrocinio, and Cabacungan are in the low level of priority. Barangays from Sta. Cruz, Luna, Mat-I, Rizal, Kalawitan, Hinaplanan, Malagana, and Pelaez are in the moderate level of priority while, barangays from Ane-I, Parmbugas, Lanise, Tamboboan, Aposkahoy, Bulahan, Tipolohon, and Minalwang are in the high level of priority.

Each index was assessed as well. The indices provided the answer on who might be at risk in terms of difficulties in livelihood, water, food and health. This might be helpful in considering the resources and some policies in response to prioritization. As for the **livelihood index**, Mat-I, Madaguig, Gumaod, Ane-I, Cabacungan, Pelaez, Malagana, and Patrocinio are in the low level. Sta. Cruz, Luna, Kalawitan, Rizal, Plaridel, Hinaplanan, Bulahan, and Panampawan are in the moderate level. The barangays that are

in the high level are Poblacion, Lanise, Parmbugas, Tamboboan, Minalwang, Aposkahoy, Tipolohon, and Punong.

The study also revealed that in **water index**, Gumaod, Panampawan, Pelaez, Cabacungan, Bulahan, Kalawitan, Punong, and Luna are in the low level. In moderate level barangays Poblacion, Lanise, Rizal, Parmbugas, Madaguing, Malagana, Plaridel, and Aposkahoy were identified. High level are seen on the barangays of Ane-I, Minalwang, Sta. Cruz, Tipolohon, Hinaplanan, Tamboboan, Patrocinio, and Mat-I.

For the **food index**, Ane-I, Malagana, Madaguing, Mat-I, Gumaod, Bulahan, Cabacungan, and Parmbugas are in the low level. In the moderate level the barangays under are Patrocinio, Hinaplanan, Punong, Panampawan, Luna, Kalawitan, Sta. Cruz, and Poblacion. For the high level there are the barangays of Plaridel, Rizal, Minalwang, Aposkahoy, Lanise, Tamboboan, Tipolohon, and Pelaez.

Lastly, the **health index** showed that barangays Panampawan, Gumaod, Cabacungan, Ane-I, Rizal, Pelaez, Poblacion, and Kalawitan are in the low level. The barangays in the moderate level are Hinaplanan, Madaguing, Lanise, Luna, Punong, Sta. Cruz, Patrocinio, and Mat-I. High level are recognized in the barangays of Malagana, Plaridel, Parmbugas, Aposkahoy, Tipolohon, Bulahan, Minalwang and Tamboboan.

The study proved that (1) Landcare as a community-based organization enhances the adaptive capacity of upland communities to climate variability and (3) adoption of Landcare technologies promotes resilience.

Recommendation

Certain policies and action plans are still needed to address climate variability threat cognizant of the knowledge that Claveria is prone to adverse effects of El Niño. Given that Claveria is an El Niño prone area, the government should set some policies, planning, control or actions regarding the matter. Information drive as well could be helpful in the area. As an observation, schools could be a very effective place where the students could be educated on climate variability and the ways to cope with it. Awareness of other institutional offices is needed. Threats and the corresponding coping mechanisms should be integrated in the community programs. Since there is a threat of El Niño, the government should settle and anticipate its effects on the communities. From the identified possible effects planning and necessary actions should be incorporated.

Claveria should also plan on how they have easier access to the possible relief area of any infrastructures like hospital or medical facilities. The appropriate technologies or activities that will benefit the people and their farm should be implemented in the communities. Social interaction or linkages might be necessary in information dissemination.