3-Day Training on
Analysis of Disaster Risk Management Systems in Agriculture and Fisheries

CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE
San Jose, Pili, Camarines Sur

CELY S. BINOYA, Ph.D.
Dec. 7-9, 2011
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ACKNOWLEDGMENT

The Central Bicol State University of Agriculture (CBSUA), through its training team headed by Dr. Cely S. Binoya would like to express appreciation to institutions and people who had been very instrumental to the successful conduct of the 3-day training on Analysis of Disaster Risk Management Systems in Agriculture and Fisheries. This training was conducted at CBSUA on Dec. 7-9, 2011 by the Food and Agriculture Organization of the United Nations’ (FAO) team of experts, Dr. Stephan Baas and Ms. Tamara Van’t Wout. The two FAO experts shared all necessary inputs, facilitated the workshops and guided the participants in analyzing information and data gathered from the communities for developing Disaster Risk Management Systems for the local government units and communities with special focus on the agriculture and fisheries sectors.

Appreciation and thanks are also due to Mr. Genaro Castro and Mr. Kasuyuki Tsurumi of FAO Philippines for facilitating the release of the funding support for the training, to DA – RFU V most especially to Dr. Jose Dayao, Regional Executive Director, Dr. Salvador Gavino and Mr. Lorenzo Alvina, Project staff for the FAO project and the TCP/PHI/3203 (D) team under the leadership of Dr. Arnulfo Mascarinas for the support given to the training team;

To the CBSUA family, especially to Atty. Marito Bernales for hosting the training, Prof. Petronilo Munez Jr. for sharing information on the DRM system in the Philippines, the training committees steered by Dr. Stephan Baas, Dr. Cely Binoya and Ms. Tamara Van’t Wout, Ms. Analyn Olano, Dr. Asuncion Orbeso, Dr. Carmelita Cervantes and all the training staff of the CBSUA Extension Division for the great help extended to the training Coordinator;

Great appreciation is also being forwarded to the host LGUs and communities of the training field work, most especially to Mayor Melquiades Gaite of LGU Baao and Mayor Ben Decena of Bula, Mr. Ramon Bitao, the Municipal Agriculturist of Baao and Engr. Catalino Tria, Jr., the MDRRMO of Bula and their staff who served as community coordinators in preparation for the field work; and

To all participants who actively participated in all the activities relative to training. They all contributed to the very successful conduct of the training.

May the learning’s we got from the training be transferred to all Local Government Units in our Region and to other Regions in the Philippines to enable us to promote pro-active disaster risk management system in our country for the benefit of the agri-fishery sectors.

CELY S. BINOYA, Ph.D.
Training Coordinator/ Facilitator and
Director, Institutional Planning and Development
1. INTRODUCTION

The FAO project titled “Strengthening Capacities for Climate Risk Management and Disaster Preparedness” with special focus on Agriculture and Fisheries terminated last December 2011. The project was implemented by the Department of Agriculture, Regional Office V in partnership with the Central Bicol State University of Agriculture (CBSUA), the Bicol University College of Agriculture and Forestry (BUCAF), and PAGASA.

CBSUA was tasked to do the situational assessment of the disaster risks in Bicol and use the results in planning and institutionalizing DRM systems at the barangay and municipal levels; BUCAF was tasked to identify good practice options in agriculture and fisheries and pilot test the suitability of identified technologies in the project sites to choose best practice options for dissemination and upscaling in Bicol, and PAGASA was in-charge of assessing and installing early warning systems in the project sites to come up with quarterly climate forecast which will be used by the Department of Agriculture in developing agricultural weather outlook and cropping calendar as guide to farmers.

To effectively carry out the institutionalization of the DRM systems at the Local Government Units, especially at the barangay and municipal levels, there was a felt need to capacitate the Local Government Unit project partners to do the task hence a 3-day training on Analysis of Disaster Risk Management Systems in Agriculture and Fisheries on Dec. 7-9, 2011 was conducted by the Food and Agriculture Organization of the United Nations (FAO). This training generally aims to build the capability of local officials in planning and implementing programs for disaster risk management most especially in the agriculture and fisheries sectors, the most vulnerable livelihood sectors in the country.

This training was held at the Central Bicol State University Training Center by Technical Experts from FAO in the person of Dr. Stephan Baas and Ms. Tamara Van’t Wout.

1.1 Objectives of the training

The 3 – day training aims to capacitate the members of the Municipal/Barangay Disaster Risk Reduction and Management Council (M/BDRRMC) and the Provincial DRRMC in the project sites and in other provinces in the region in conducting Disaster Risk Management (DRM) analysis to be able to institutionalize disaster risk management systems in local governance.

Specifically, the training aimed to achieve the following objectives:

1. To generate understanding of the institutional demand for shifting from response-oriented disaster risk reduction (DRR) to pro-active DRR in agriculture and fisheries.
2. To discuss the future roles / responsibilities of the M/BDRRMC and the PDRRMC in the whole continuum of disaster risk management;
3. To expose participants to field situations where they can apply their learning’s from the training.

**The expected outputs of the training were as follows:**

1. Expert trainers must have share inputs on pro-active DRR in agri-fisheries
2. Identified / formulated roles / responsibilities of the M/BDRRMC and PDRRC in DRR
3. Applied learning’s in field situations
4. Validated the DRRM plans of the partner municipalities/ provinces

From the above objectives and expected outputs, the training was deemed useful to the DRRM implementers in Bicol, particularly in planning, implementing and institutionalizing DRM programs which are oriented more on mitigation, prevention and preparedness rather than on response, rehabilitation and recovery.

1.2 **Training schedule and participants**
The training required 3 days to be able to achieve the learning objectives.

Participants were invited from the project sites, including other provinces in Bicol consisting of local leaders who are in-charge of planning, implementing and institutionalizing DRM systems in the LGUs. There were a total of 38 participants from Bicol Region consisting of Planning Officers, Municipal and Provincial DRRMO, Municipal Agriculture Officer, Provincial Agriculturists, Provincial Public Safety and Environmental Mgt. Office, DRR officers of State Colleges and Universities and of the DA RFU V. Table 1 shows the list of participants, their designations and offices/ agencies represented.

Table 1. List of participants in the training and their positions.

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Catalino V. Tria, Jr.</td>
<td>Municipal Engineer/ MDRRMO</td>
<td>LGU-Bula</td>
</tr>
<tr>
<td>2</td>
<td>Celestina E. Esteve</td>
<td>Agriculture Technologist</td>
<td>LGU-Bula</td>
</tr>
<tr>
<td>3</td>
<td>Marinette B. Briñas</td>
<td>AT/ SWMO</td>
<td>LGU-Bao</td>
</tr>
<tr>
<td>4</td>
<td>Carlos P. Brüca</td>
<td>ZO/MDRRMO</td>
<td>LGU-Bao</td>
</tr>
<tr>
<td>5</td>
<td>Marlon B. Medes</td>
<td>MAFC Chairman</td>
<td>AFC-Guinobatan</td>
</tr>
<tr>
<td>6</td>
<td>Robert E. Dagñalan</td>
<td>OIC-MAO</td>
<td>LGU-Gubat</td>
</tr>
<tr>
<td>7</td>
<td>Faustino E. Taclan</td>
<td>MPDC</td>
<td>LGU-Gubat</td>
</tr>
<tr>
<td>8</td>
<td>Rhalen Endeno</td>
<td>MDRRMO</td>
<td>LGU-Gubat</td>
</tr>
<tr>
<td>9</td>
<td>Edgar A. Collao</td>
<td>Municipal Agriculturist</td>
<td>LGU-Buhi</td>
</tr>
<tr>
<td>10</td>
<td>Sylvia SL. Oaferina</td>
<td>Agriculture Technician</td>
<td>LGU-Buhi</td>
</tr>
<tr>
<td>11</td>
<td>Rita N. Talay</td>
<td>DRR Quick Response Team</td>
<td>CBSUA</td>
</tr>
<tr>
<td>Team Leader</td>
<td>Area Coordinator</td>
<td>Organization</td>
<td></td>
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</tr>
<tr>
<td>Flordeliza Valenzuela</td>
<td>DRR Quick Response Team</td>
<td>CBSUA</td>
<td></td>
</tr>
<tr>
<td>Ligaya M. Tango</td>
<td>DRR Quick Response Team</td>
<td>CBSUA</td>
<td></td>
</tr>
<tr>
<td>Nestor A. Nava</td>
<td>Research Chief</td>
<td>OPAG-Sorsogon</td>
<td></td>
</tr>
<tr>
<td>Arnel S. Ferrer</td>
<td>PSO IV</td>
<td>PDRRMO</td>
<td></td>
</tr>
<tr>
<td>Francia C. Pajares</td>
<td>Acting Prov. Agri.</td>
<td>OPAG-Cam. Norte</td>
<td></td>
</tr>
<tr>
<td>Eleanor O. Daep</td>
<td>Sr. Agriculturist</td>
<td>OPAG-Albay</td>
<td></td>
</tr>
<tr>
<td>Jose F. Lopez</td>
<td>SPDRMO</td>
<td>DRRMO Sorsogon</td>
<td></td>
</tr>
<tr>
<td>Rodel P. Tornilla</td>
<td>Agri. I</td>
<td>DA-RFU 5</td>
<td></td>
</tr>
<tr>
<td>Maribel O. Bitao</td>
<td>Agri. II</td>
<td>DA-RFU 5</td>
<td></td>
</tr>
<tr>
<td>Salvador M. Gavino</td>
<td>Agri. II</td>
<td>DA-RFU 5</td>
<td></td>
</tr>
<tr>
<td>Lorenzo Alvina</td>
<td>Agri. I</td>
<td>DA-RFU 5</td>
<td></td>
</tr>
<tr>
<td>Arnold V. Velarde</td>
<td>AQ II</td>
<td>BFAR-RO 5</td>
<td></td>
</tr>
<tr>
<td>Stephan Baas</td>
<td>Resource Person</td>
<td>FAO</td>
<td></td>
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<tr>
<td>Tamara Van’t Wout</td>
<td>Resource Person</td>
<td>FAO</td>
<td></td>
</tr>
<tr>
<td>Edgardo Dela Torre</td>
<td>A/ES Nat’l Com.</td>
<td>DA-RFU V/ FAO Consultant</td>
<td></td>
</tr>
<tr>
<td>Meriem R. Carbonel</td>
<td>PO</td>
<td>PAGASA</td>
<td></td>
</tr>
<tr>
<td>Yolanda S. Agawa</td>
<td>HRD Director</td>
<td>CBSUA</td>
<td></td>
</tr>
<tr>
<td>Cely S. Binoya</td>
<td>Director – Res. Gen.</td>
<td>CBSUA</td>
<td></td>
</tr>
<tr>
<td>Carmelita N. Cervantes</td>
<td>Director - Extension Div.</td>
<td>CBSUA</td>
<td></td>
</tr>
<tr>
<td>Maria Theresa G. Dela Cruz</td>
<td>Program Head, ESD</td>
<td>CBSUA</td>
<td></td>
</tr>
<tr>
<td>Petronilo P. Muñez, Jr.</td>
<td>Director - IPPO</td>
<td>CBSUA</td>
<td></td>
</tr>
<tr>
<td>Manolo A. Carbonell</td>
<td>Campus Director</td>
<td>CNSC</td>
<td></td>
</tr>
<tr>
<td>Lorvi B. Pagarogon</td>
<td>R&amp;D Director</td>
<td>DEBESMSCAT</td>
<td></td>
</tr>
<tr>
<td>Lailani G. Pavilando</td>
<td>Extension Director</td>
<td>Bicol University</td>
<td></td>
</tr>
<tr>
<td>Augusto N. Calabines</td>
<td>Campus Director</td>
<td>SSC</td>
<td></td>
</tr>
<tr>
<td>Tito M. Ciruelos</td>
<td>R&amp;D Director</td>
<td>SSC</td>
<td></td>
</tr>
<tr>
<td>Annalyn I. Olaño</td>
<td>Project Staff</td>
<td>CBSUA</td>
<td></td>
</tr>
</tbody>
</table>

### 1.3 Training Activities

Table 2. Schedule of the 3-day training activities and training facilitators.

<table>
<thead>
<tr>
<th>Date / Time</th>
<th>Activity</th>
<th>Person In-Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 0: 6 December 2011</td>
<td>Arrival of Participants, Registration and Billeting</td>
<td>Analyn Olano</td>
</tr>
<tr>
<td>15.00 – 18.00</td>
<td>Dinner</td>
<td></td>
</tr>
<tr>
<td>Day 1: 7 December 2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Activity</td>
<td>Presenter</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>7.00–8.00</td>
<td>Breakfast</td>
<td></td>
</tr>
<tr>
<td>8.00–8.15</td>
<td>Continuation of Registration</td>
<td>Analyn Olano</td>
</tr>
<tr>
<td>8.15–9.00</td>
<td>Opening program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Opening prayer</td>
<td>AVP</td>
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<tr>
<td></td>
<td>Lupang Hinirang</td>
<td>AVP</td>
</tr>
<tr>
<td></td>
<td>Welcome address</td>
<td>Atty. Marito T. Bernales, Ph.D.</td>
</tr>
<tr>
<td></td>
<td>Overview of the training</td>
<td>Dr. Cely S. Binoya</td>
</tr>
<tr>
<td></td>
<td>Leveling of expectations</td>
<td>Prof. Pertronilo Munez, Jr.</td>
</tr>
<tr>
<td></td>
<td>Introduction of resource persons</td>
<td>Dr. Cely S. Binoya</td>
</tr>
<tr>
<td>9.00–9.30</td>
<td>Introduction to the workshop by the Facilitators – <strong>Dr. Stephan Baas and Ms. Tamara Van’t Wout</strong></td>
<td></td>
</tr>
<tr>
<td>9.30–10.45</td>
<td><strong>Module 1 – Basic Concepts &amp; Frameworks in DRR/M</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Key concepts and frameworks related to DRR and DRM</td>
<td></td>
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<tr>
<td></td>
<td>✓ Disaster risk reduction and Climate change adaptation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Benefits of conducting DRM system’s analysis</td>
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<tr>
<td></td>
<td>✓ A brief introduction to DRR/M and CCA in the Philippines (by internal resource person)</td>
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<tr>
<td>10.45–11.00</td>
<td>Coffee break</td>
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<tr>
<td>11.00–12.30</td>
<td><strong>Module 1 cont’ – Basic Concepts &amp; Frameworks in DRR/M</strong></td>
<td></td>
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<tr>
<td>12.30–13.30</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>13.30–15.30</td>
<td><strong>Module 2 – Understanding the institutional setting &amp; requirements for DRM at national, intermediate, community level</strong></td>
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<tr>
<td></td>
<td>✓ Assessment of the risk and vulnerability context of the Philippines</td>
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<tr>
<td></td>
<td>✓ Importance of conducting institutional analysis at national, intermediate, community level</td>
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<td></td>
<td>✓ Recommended steps for understanding the institutional setting and assessing operation capacities of DRM-related institution</td>
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<tr>
<td></td>
<td>✓ Qualitative assessment of institutional functioning of current DRM system</td>
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<tr>
<td>Time</td>
<td>Activity</td>
<td></td>
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<tr>
<td>--------------</td>
<td>---------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>15.30 – 15.45</td>
<td>Coffee break</td>
<td></td>
</tr>
<tr>
<td>16.00 – 17.30</td>
<td><strong>Module 2 cont’ – Understanding the institutional setting &amp; requirements for DRM at national, intermediate, community level</strong></td>
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</tr>
<tr>
<td>8.30 – 9.00</td>
<td>Review of learning outcomes from Day 1 and introduction to Day 2 activities</td>
<td></td>
</tr>
<tr>
<td>9.00 – 10.45</td>
<td><strong>Module 3 – Differences between a reactive and proactive approach to DRM (agriculture sector perspective)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Reactive vs. proactive approach</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The double challenge of the agriculture sector: food security and climate change</td>
<td></td>
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<tr>
<td></td>
<td>- Role of agriculture in DRR/DRM</td>
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<tr>
<td></td>
<td>- What do actors concretely do in a proactive approach (vs. a reactive approach)? example of the agriculture sector</td>
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</tr>
<tr>
<td></td>
<td>- The value-added of a proactive approach to DRM at field level</td>
<td></td>
</tr>
<tr>
<td>10.45 – 11.00</td>
<td>Coffee break</td>
<td></td>
</tr>
<tr>
<td>11.00 – 12.30</td>
<td><strong>Module 3 cont’ – Differences between a reactive and proactive approach to DRM (agriculture sector perspective)</strong></td>
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<tr>
<td>12.30 – 13.30</td>
<td>Lunch</td>
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<tr>
<td>13.30 – 15.30</td>
<td><strong>Module 4 – Conducting a reality check at community level</strong></td>
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<tr>
<td></td>
<td>- Confronting findings at national/district level with local field realities</td>
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<tr>
<td></td>
<td>- Use of Participatory Rural Appraisal (PRA) tools to facilitate dialogue with communities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Objectives of the field work on Day 3</td>
<td></td>
</tr>
<tr>
<td>15.30 – 15.45</td>
<td>Coffee break</td>
<td></td>
</tr>
<tr>
<td>15.45 – 17.00</td>
<td><strong>Module 4 cont’ – Conducting a reality-check at community level</strong></td>
<td></td>
</tr>
<tr>
<td>17.00 – 17.30</td>
<td>Wrap-up and key messages of day 2 + introduction to day 3</td>
<td></td>
</tr>
</tbody>
</table>
1.4 Resource Persons and Specialization
Trainers were invited from FAO Rome in the persons of Dr. Stephan Baas and Ms. Tamara Van’t Wout. They are experts in the field of climate change and institutional planning for disaster risk management. Training Facilitators from CBSUA include Dr. Cely S. Binoya, Prof. Petronilo Munez, Jr. and Ms. Analyn Olano.

1.5 Logistical Arrangements
The preparation for the training took about one month, including preparation of training design, request for funding support from FAO, invitation of Resource Speakers, facilitators and participants, and coordination for the field work.

**Preparation for the field work (Day 3):**

Based on the advisory from Ms. Tamara Van’t Wout, the purposes of the field work include: 1) to listen to the locals and get the local perspective of the functioning of the DRM system at district and community level (using PRA tools to facilitate dialogue); 2) to check whether the operational organizational structures for DRM are in place and to assess *how the national setting for DRM translate at district/local level*; 3) to assess the mechanisms that are in place at the district/local level to strengthen preventive action and contribute to the shift towards a more proactive way to address disasters.

It was envisioned that the field work should assist participants to formulate concrete recommendations on how to better inform the DRM process from a bottom-up perspective.
**Organization of Field Work:**

The organization of the field day required considerable support from national and local counterparts, hence, appointments with district and local authorities were fixed well in advance and village communities were informed beforehand about the purpose of the visit of workshop participants.

**Organization of Working Groups in the Field:**

As ideally desired, the field work was conducted in two different municipalities, the LGU of Bula and LGU of Baao. Both LGUs are subject to different hazards; both have low lying areas which are vulnerable to floods and with highland areas which are vulnerable to drought. For both sites, different groups were invited representing various stakeholders from relevant provincial, municipal and barangay offices and livelihood groups.

**Organization of Group Meetings:**

<table>
<thead>
<tr>
<th>Municipality of Bula (subject to flood and drought)</th>
<th>Municipality of Baao (subject to flood and drought)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1: Municipal authorities</td>
<td>Group 4: Municipal authorities</td>
</tr>
<tr>
<td>Group 2: Barangay authorities</td>
<td>Group 5: Barangay authorities</td>
</tr>
<tr>
<td>Group 3: Farmer/ fisher groups</td>
<td>Group 6: Farmer / fisher groups</td>
</tr>
</tbody>
</table>

**Fixing Field Appointments before the Training:**

Appointments with LGU authorities were fixed in advance. The CBSUA Training Coordinator, Dr. Cely Binoya and Ms. Analyn Olano with the assistance of the Municipal Agriculturists, Agricultural Technicians, and the MDRRM officers in the two LGUs identified and selected the key informants with whom the training participants will extract required information from. Community structures were also informed in advance of the participants’ visit in the context of the training and it was made clear to them what the expectations from the participants are.

**Travel Time from the Venue:**

Areas selected were not more than 40 minutes drive from CBSUA.
Other Logistical Arrangements:

The 3 – day training was conducted at the Central Bicol State University of Agriculture Training Center involving the Extension Services Division, the Regional Center for DRM and Climate Change Adaptation of the CBSUA Graduate School, and the Quick Response Team of CBSUA.

Funding for the training was sourced out from the Food and Agriculture Organization of the United Nations through the project “Strengthening Capacities for Climate Risk Management and Disaster Preparedness in Bicol”.

Training Committees:

Steering Committee: Chair: Dr. Stephan Baas
Co-Chair: Dr. Cely S. Binoya
Ms. Tamara Van’t Wout

Program/Invitation: Chair: Dr. Carmelita Cervantes
Member: Ms. Analyn Olano

Training kit/certificates: Chair: Dr. Asuncion Orbeso
Member: Lileth Lascano

Field Trip: Chair: Dr. Cely Binoya
Co-Chair: Prof. Pete Munez
Members: Ms. Lanie Villaraza
Ms. Analyn Olano

Venue and other Logistical Arrangement: Chair: Mr. Reuel Pamor
Member: Ms. Analyn Olano

Documentation: Chair: Ms. Teresa dela Cruz
Member: Ms. Lileth Lascano
Ms. Analyn Olano

2. Training Delivery Experiences

The trainers adopted various training methodologies to ensure that the trainees will really learn and develop their analytical and data processing skills from the training. Training methods used include pre-test, lecture – discussion with the aid of PowerPoint presentations, workshops and presentation of workshop outputs, brainstorming sessions, field work where participants engaged major DRRM stakeholders, community leaders, farmers / fisherfolks and women in
focus group discussions, Venn diagramming, hazard mapping and other assessment tools for hazard, vulnerability and capacity assessment. Trainees were also exposed to analytical exercises for analyzing information / data gathered from the field and in using those information in making decisions for DRM.

Day 1 – Dec. 7, 2011

2.1 Part I: Opening Program
The Opening Programme was graced by Atty. Marito T. Bernales, SUC President. At the outset, he greeted Dr. Stephan Baas and Ms. Tamara Vantwout, the Resource Persons and training facilitators from the FAO Headquarters in Rome; the Training coordinators and facilitators from CBSUA headed by Dr. Cely Binoya and Prof Pete Munez, Jr.; the participants from the Regional Office of the Department of Agriculture headed by Dr. Salvadora Gavino who is the FAO project staff of the technical cooperation project in Bicol (TCP/PHI/3203), and from the Bureau of Fisheries and Aquatic Resources – Mr. Arnold Velarde, Project Consultants and implementers from Bicol University- Dr. Noli Mascarinas, Dr. Plutz Nieves and Dr. Luis Amano, from PAGASA – Dr. Meriem Carbonel, Mr. Ed dela Torre, Project consultant, Provincial DRRMOs, Provincial Agriculturists, representatives from the 4 state colleges and universities in Bicol, representatives of the municipalities who were the project partners from Buhi, Guinobatan and Gubat, and the participants from the selected training immersion sites – Bula and Baao.

He mentioned that he is very much honored that CBSUA was chosen by the FAO as the partner and host of the 3-day training on Institutional Analysis for Disaster Risk Management in Bicol, with special focus on agriculture and fisheries. He also thanked in particular Dr. Stephan Baas for bringing the training at CBSUA in the service of the Bicol Region and the Bicolano community.

He also stressed that the training was a very laudable move of FAO to ensure that the leaders in Bicol are capacitated in doing institutional analysis for developing a disaster risk management plan for building community resilience particularly in the agriculture and fisheries sectors. He said that these sectors are the most vulnerable groups to climate change and disasters, hence, if leaders in Bicol can mainstream climate change and disaster risk reduction concerns of the agri-fisheries sector in the local DRRM plans, then the region can be assured of food security in the near future. He further said that “we can install preventive and mitigation mechanisms so that farmers and fisherfolks can ably cope with these phenomena in the near future, especially because Bicol region is also highly vulnerable to natural hazards like typhoon, floods, drought, and volcanic eruptions”. He expressed appreciation to the attendees by saying that their presence brings the signal that “we in Bicol now recognize the need to capacitate ourselves to make our communities resilient”.

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On behalf of CBSUA, Atty. Bernales welcomed all participants and trainers from FAO Rome to CBSUA and wished everyone a very productive 3 days of learning. He again expressed thanks to FAO for the training.

The training overview was given by Dr. Cely Binoya. She explained to the participants the purpose of the training and the expected outputs. She also gave a rundown of the scheduled activities for the three day training.

The leveling of expectations was facilitated by Prof. Petronilo Munez, Jr. Four metacards of different colors were provided to the participants; on the green metacard, they were instructed to write their expectations from the trainers, orange metacard for their expectations from their co-participants; blue for their expectations in terms of training delivery; and yellow for their expectations on what to learn from the training.

After the leveling of expectations, Dr. Cely Binoya gave a brief introduction of the resource persons.

2.2 Part II: Training Proper

After the opening program, Dr. Stephan Baas and Ms. Tamara Van’t Wout started the training proper.

Module 1 – include the discussion of the Basic Concepts & Frameworks in DRR/M. Topics include:

a. Key concepts and frameworks related to DRR and DRM
b. Disaster risk reduction and Climate change adaptation
c. Benefits of conducting DRM system's analysis

A brief introduction to DRR/M and CCA in the Philippines was given by Prof. Petronilo Munez, Jr. After Pete’s presentation, the trainers continue with their discussion on Module 1 on the Basic Concepts & Frameworks in DRR/M. Lunch break followed.

In the afternoon of day 1, the trainers discussed Module 2 – Understanding the institutional setting & requirements for DRM at national, intermediate, community level. Topics discussed include:

a. Assessment of the risk and vulnerability context of the Philippines
b. Importance of conducting institutional analysis at national, intermediate, community level

c. Recommended steps for understanding the institutional setting and assessing operational capacities of DRM-related institutions

d. Qualitative assessment of DRM-related institutions

d. Analysis and synthesis of collected information

Brainstorming activities, question and answer and brief workshops made the training process lively and interesting to the participants.

Day 2 Activities – 8 December 2011

The morning session started at 9am and ended at 12:45pm. There was an AV Presentation of Local Voices, Global Choices (DRRM) after which the audience were asked to share what they learned from the video presentation. In general, the participants learned that programs and policies on DRRM should be implemented through partnerships; that DRR officials must be aware of their accountability to community and stakeholders; and that early warning system was necessary to generate proper response. After this, the trainers continued their discussion on Module 2 as shown below:

Module 2 – Understanding the Institutional Setting & Requirements for DRM at National, Intermediate and Community Level

1. Assessment of the Risk and Vulnerability Context of the Philippines – Ms. Tamara Van’t Wout

2. Importance of Conducting Institutional Setting and Assessing Operation Capacities; Recommended Steps for undertaking the Institutional Setting and Assessing Operation Capacities of DRM – related Institution; and Qualitative Assessment of Institutional Functioning of Current DRM System – discussed by Dr. Stephan Baas

Exercise 1. Qualitative Assessment of Institutional Functioning of Current DRM System at the National, Intermediate and Community Level

- Trainees were divided into 6 groups
- Groups 1-2 were assigned to work on checklist for national level analysis
- Groups 3-4, worked on checklist on Intermediate level and
Groups 5-6, worked on checklist on Community level

Ms. Tamara then distributed copies of the exercise materials for each group (Monitoring sheet of key processes in DRM systems at different levels)

- After the instruction given by Dr. Baas, each group discussed the, 1.) relative importance of the suggested criteria/ indicators in each group’s institutional level, 2.) choose 2-3 most important, and 3.) out of the 3, explain the most important one through the group leader.

- Presentation order:
  1\textsuperscript{st} group – national level
  2\textsuperscript{nd} group – intermediate level, c/o Dr. CSB
  3\textsuperscript{rd} Group - intermediate level, c/o Prof. Petronilo Munoz Jr.
  4\textsuperscript{th} group – community level
  5\textsuperscript{th} group – community level
  6\textsuperscript{th} group – national level, c/o Dr. Salvador Gavino

3. Analysis and Synthesis of Collected Information – Dr. Stephan Baas

- Functioning DRM Systems – Ms. Tamara Van’t Wout and Dr. Stephan Baas lead the participants to Exercise 2. SWOT Analysis on the Role of Agriculture in Bicol. The participants were divided into 5 groups. Each group assess the SWOT of the current DRM system for agriculture in Bicol depending on their hazard context, they provide a qualitative assessment for each key process and the overall DRM system like storms/ floods, drought and others

- WS Output presentation
  Presentation order:
  Group 1 – c/o Dr. Yolanda Agawa – AM presentor
  Group 2- Buhi group - AM
  Group 3- Albay - AM
  Group 4 –Bao - AM
  Group 5 – Sorsogon group - AM

Workshop Output for December 8, 2011 are shown below:

Exercise 1. Qualitative Assessment of Institutional Functioning of Current DRM System at the National, Intermediate and Community Level
Group 1- National level

Multi-hazard risk and vulnerability assessment
- Conduct community-based multi-hazard risk and vulnerability assessment down to the smallest unit of society (zone or sitio)
- Formulate well-defined policies on agricultural risk reduction (e.g. chemical leaching from agricultural lands)
- Accessibility of hazard maps to all sectors of society, hazard maps should include natural resources and must be understandable by non-technical persons

Legal and institutional arrangement for DRM
- Conduct awareness/training on the common understanding and implementation of RA 10121
- Implementation of PENAL PROVISIONS as stipulated in the law

DRR Planning and Monitoring
- An evaluation of all DRR Activities must be included in all DRR Plans and used as bases for future plans
- Adopt a standard format for all D-N-A reports
- Immersion of DRR Practitioners
Group 2 - National Level

Disaster Management Information System and Awareness raising on DRR
- Long term approach
- Consequent analysis affecting socio economic vulnerability
- Integrated early warning system
- Improved communication products (Forecast, Alerts, Updates, etc.)

Land use planning
- Land classification / use
- Integrate R.A. 10121
- Hazard zonation
- Risk and vulnerability assessment

Promotion of Hazard-proof technologies
- Development of technology (appropriate to present condition) ex. IPM, IFM
- Promotion of good practices ex. Soil, water conservation / crop rotation
- Packaging of technologies
- Building resilient livelihood

Group 3

Preparedness for Response
- Community emergency preparedness plan exist:
  - No Plan yet
  - IEC on Early Planting – Early Harvesting with the use of seasonal local planting calendar and pest and diseases of crops

- Roles and Responsibilities allocated and directory of the names and inventories of equipments for use during emergency available:
  - Not well defined roles/ no inventory of equipment
- Roles and responsibilities defined, with directory of names and inventory of equipments

- Shelters and ground available to ensure lives and livelihoods
  - Not all
  - Self-help practices – they evacuate to relatives with concrete house

- Warehouses for emergency food and other supplies available in the area
  - No warehouse
  - Purchase commodities when needed. Some area do stock piling of goods and supplies

- Evacuation routes identified and local people informed
  - No existing plans yet
  - Contingency plans – in-process

- Regular mock evacuation exercises conducted at community level
  - Some volunteers were trained
  - No regular enhancement

- Volunteers trained to provide support in case of an emergency
  - Trained volunteers available
  - No drill or no enhancement – Pre training plan

Group 4

Livelihoods recovery and rehabilitation

- Reactive
  - Distribution of assistance (seedlings, etc.)

- Proactive
  - Appropriate and functional seed banking system accessible to vulnerable farming (community based, government assisted)
  - Adoption of location specific good adaptation practices (e.g. appropriate cropping pattern, use of stress tolerant varieties, crop diversity)

- Details
  - Appropriate hazard proof varieties
  - Appropriate cropping calendar
  - Capacity building for farmers
  - Plan for alternative livelihood
  - Incorporation gender perspective
  - Long term coping mechanism
  - Regulated fishing activities
Provision of post harvest facilities

Risk Transfer
- Reactive
  - Dependent on PDIC
- Proactive
  - Development of weather based insurance system (utilizing EWS of PAGASA, Gender-based under writers)
- Details
  - Wider coverage of insurance for agricultural commodities / products
  - Crop diversification
  - Buffer stocks for seedling
  - New windows for agricultural crop insurance
  - Under writers for wider insurance coverage (include fishermen)

Scaling-up community based DRM
- Reactive
  - Fragmented / overlapping functions
- Proactive
  - Mainstreaming/institutionalization of CBDRM Plan on LGU Agri-Fishery Development Plan
- Details
  - R.A. 10121 clearly identified actors and functions
  - Coordinated efforts from higher to lower DRRM
  - CSO, PO and NGO collaborations

Group 5

Multi-hazard early warning system (EWS)
- National
  - Mechanism and policies exist to ensure wide public awareness and protection against agriculture and fisheries man-made and natural hazards like agricultural chemical leaks and pollution, oil spill, transboundary animal pest and diseases, crop failures/bio-security risk and soil erosion
- Intermediate
  - Long term Early warning seasonal forecast translated into seasonal agricultural management system (seasonal cropping calendar, Choice of crops and varieties)
Community
- Indigenous and science-based knowledge incorporated in EWS
- Long term early warning seasonal forecast translated into seasonal agricultural management system/outlook

Group 6

Infrastructure rehabilitation (building back better)

Existing /Past Practice
- Building code
- Presence of the following facilities
  - Irrigation system
  - FMR
  - Seed storage
  - Post harvest facilities

National
- Circular to standardize building designs for necessary agricultural facilities
- Provide budget for agricultural infrastructure construction, rehabilitation/reconstruction and for retrofitting

Intermediate
- Adaptation of national circulars
- Inventory of infrastructures to determine the presence of necessary facilities and needs
- Passage of an enabling resolution supportive to national laws, policies and circulars
- There must be an LGU DRRM investment plan which include agricultural infrastructure
- Retrofitting based from the vulnerability assessment

Community
- Create a zoning office to review and approved the application of all kinds of infrastructure including agricultural facilities
- Classification of the site for the construction of facilities for agriculture support
- Include in the tasks of the Municipal Planning officer to design and prepare the cost estimates for the repair and construction of the damaged agricultural infrastructures.
- LGU Engineering group must supervise the reconstruction of agricultural facilities
- Retrofitting building designs both for new and rehabilitated infrastructure.
Exercise 2. **SWOT Analysis on the Role of Agriculture in Bicol**

**Group 1: On Promotion of hazard-proof technologies**

**Strengths**
- Technical support given to line ministries and technical departments at district level to have appropriate hazard-proof measures in place
- Mechanism in place in support of hazard proof technology transfer and dissemination at community level

**Weakness**
- Code of practice for earthquake resistant design and construction of building, including animal shelter in places and applied

**Opportunities**
- Regulations enforced at district level to control the design, construction materials and construction made of physical structures to ensure human safety and welfare

**Threats**
- Code of conduct for safety at sea in place and applied
- Stocks of hazard-resistant seed varieties available
- Code of practice for fire management in place and applied

*Level 4- coherent and integrated DRM system*

**Group 2: Buhi Area**

**Hazard: Fish Kill**

**Strengths**
- DRR Planning and monitoring –level 4
- Disaster management information system and awareness raising on DRR – level 4
- Preparedness for response – level 3
- Multi-hazard early warning system – level 3

**Weaknesses**
- Lack of vulnerability assessment
- Weak coordination among stakeholders in policy implementation in lake resolution utilization
- Lack of political will to implement policies

**Opportunities**
- NGOs, Academe and CSOs are willing to extend assistance / expertise
• Marketing for lake products
• International recognition of smallest commercial fish in the world
• Potential destination because of Sinarapan

Threats
• Division of Camarines Sur
• Climate change
• Sulfur pollution
• Eruption of Mt. Asog

Group 3: Albay

Hazard: Flood / storm

DRR Planning and Monitoring

Strengths
• DRR/DRM incorporated in district development plan
• District – level resource mobilization mechanisms for DRR/DRM exist

Weaknesses
• Mechanisms and responsibilities for monitoring and updating disaster risk information defined at district level
• Indicators defined for monitoring the implementation of DRR Plan and assessing the effectiveness of the different components
• Mechanism in place for scaling-up good practices and lessons learned

Opportunities
• Involvement of NGOs/CSOs, local leaders and at-risk group in the DRR planning and monitoring process
• DRR/DRM projects and programs implemented at district level

Level 5 – A culture of safety among all stakeholders

Group 4: Baao

Hazard: Storm/Flood/Pest and Diseases (agriculture)

Promotion of Hazard Proof Technology
• Community has knowledge
• Hazard proof technology
- Code of practice
- Level 4

**Multi-Hazard Early Warning System (EWS)**
- Early warning message
- Mechanism exist
- System to ensure
- Indigenous knowledge
- Community member know
- Level 5

**SWOT Analysis**

**Strength**
- Supportive local officials
- Presence of large area for agriculture
- Organic agriculture being practiced
- Strong municipal and barangay leaders/officials partnership
- Presence of ordinance, resolution and executive order related to DRM
- Defined roles and responsibilities of functional teams and task units
- Funds available (5% MDRRMF/20% EDF)
- Large stocks of agriculture/ livestock biologics
- Livestock/animal shelter

**Weaknesses**
- Denuded watershed/forest
- Highly silted drainage system
- Untrained farmers to agricultural waste disposal
- Unregulated quarrying

**Opportunities**
- Available hazard – proof agricultural technologies
- Strong support from DA programs
- Abundant raw materials (water hyacinth) for alternative livelihood
- Presence of lake Baao-Bula for fishery Development
- Existing crop insurance program

**Threats**
- Presence of Bicol River and Large tributaries
- Large quantity of water hyacinth in the river system
Group 5

DRR Planning and Monitoring

Strengths
- Involve NGO’s, CSO’s, PO’s and at risk groups
- DRR-DRM project and programs implemented at district level
- DRR-DRM are included in district development plan
- District level resource mobilization mechanism for DRR/DRM exist

Weaknesses
- Mechanisms and responsibilities for monitoring and updating disaster risk information defined at district level
- Indicators defined for monitoring
- The implementation of the DRR plan and assessing effectiveness of the following components
- Mechanism in place for scaling up good practice and lessons learned.

Day 3 morning session was utilized for the field work which was utilized by the participants in gathering data from the focus group discussion participants in Baao and Bula. Various data gathering techniques were utilized by the training participants.

In the afternoon, the presentation of workshop outputs started at 2 o’clock in the afternoon. Activities include presentation of reports of the FGDs conducted by the workshop groups in the morning of Day 3. Four groups presented their workshop outputs.

The reports are presented below:

Municipality Covered: Baao, Camarines Sur

- First group headed by Mr. Pete Muñez (Baao Officials)
  - Flooding was the main problem
  - They said that the municipal officials has no direct link to the farmers
  - Mr. Marinette Brinas reacted because she’s from the place, she said that they have direct link to the farmers, she also informed participants that they have also monthly report.

- Second group was headed by Dr. Carmelita Cervantes (Baao- Lowland – flood prone areas)
  - Flooding-main problem
  - Strength: they have existing BDRRMC
  - Weakness: no early warning system
- Lake Baao is flooded during rainy season
- On their cropping calendar, they only plant once a year.

- Third group was headed by Engr. Lorvi Pagorogon (Brgy. Agdangan, Bao – drought prone area)
  - Upper part of the Barangay is drought prone
  - Farmers plant their crops & during dry months, households find livelihood by practicing buy and sell. Men are employed as construction workers or they work on the farms of other Barangays.

Overall findings:
- Lacks DRRM awareness
- DRRMC is organized but not yet functional
- Lack hazard-proof technologies
- They prefer response or rehab over preventive measures
- Rodent infestation adds risk to the community
- DRRM is still infant

Municipality Covered: Bula, Camarines Sur

- Fourth group was headed by Engr. Tria (Bula Officials)
  - Hazards include flooding and landslides
  - Barangay has formal DRRM organization, international organization but they have limited knowledge on DRM
  - Lack of funds and equipments
  - Non-existing quick response teams
  - BDRRMC not fully operational
  - They have plans but with minimal DRM aspects

- Fifth group headed by Mr. Manolo Carbonell (Brgy. Lanipga, Bula – drought prone area)
  - Strengths: farmers are organized and registered with DA
    ✓ Varieties are drought tolerant
    ✓ They have large livestock
    ✓ They have cooperative building
    ✓ They have local DRRMC
  - Weakness: other farmers are non-members & unregistered farmers
  - General findings: it shows that the Barangay is ready because of their varieties, alternative livelihood

Dr. Baas asked the group about what the community learned from them because the group did not conduct FGD.

Mr. Carbonell said that due to time constraint they did not conduct FGD but he said that they will divide the group and go back to the Barangay.
Sixth group headed by Mr. Arnold Velarde (Brgy. San Roque – flood prone area)
  ● Flooding affected areas: Zone 2, 3, 4, 5 & 6
  ● Affected population - 1571
  ● Source of income: farming
  ● Laws/Policies on DRRM
    - No approved plan
    - No utilization of budget
  ● Coping Mechanism:
    - Sariling sikap (self help)
    - Request assistance from LGU, NGO & other agencies

Dr. Baas said that we have to take these opportunities to discuss DRM with communities. We should replicate this training in a similar setting.

Before the close of the training, the following feedbacks about the training:

*Feedback on DRM System’s Training from the Academe (Engr. Lorvi Pagorogon)
  ● The training gave us ideas on how to approach problems systematically
  ● We can use our learning’s in teaching DRM
  ● Great tool to enter into research and extension
  ● We can do research using the tool

*Feedback on the Training from the DRRM Practitioners (Engr. Catalino Tria Jr)
  ● The training was a very rich source of information to develop skills and information
  ● Can be implemented in respective municipalities
  ● Make use of DRM framework
  ● Challenge institutions to replicate this training to others
  ● Develop other municipalities in responding to calamities
  ● Oblige to organize MDRRM council at different levels of local government

*Feedback on the Training from the Department of Agriculture (Ms. Maribel Bitao)
  ● The training gave us useful tool to assess programs/plans
  ● This training is just in time because the region is on consolidation stage of its programs
  ● Internalize and share to others
  ● Put into plans/programs since it is a pro-active approach
  ● Implementation of DRM system
Training Summary

The training was carried out to achieve the following objectives: 1) to generate understanding of the institutional demand for shifting from response-oriented disaster risk reduction (DRR) to pro-active DRR in agriculture and fisheries sectors; 2) to discuss the future roles/ responsibilities of the M/BDRRMC and the PDRRMC in the whole continuum of disaster risk management; and 3) to expose participants to field situations where they can apply their learning’s from the training.

As expected, the Expert trainers, Dr. Stephan Baas and Ms. Tamara Van’t Wout shared inputs on pro-active DRR giving particular focus on DRM in agriculture and fisheries. They emphasized the need for paradigm shift from response oriented DRR to pro-active DRR. They also lead the participants in identifying the roles and responsibilities of the Disaster Risk Reduction and Management Council at the national, regional, municipal and barangay levels through as workshop. To put into context the DRM systems, a lecture on Philippines DRM system was given by Prof. Petronilo Munex, Jr. After providing all the necessary inputs, the participants were engaged in DRM systems analysis by giving them situations to analyze. With the guide from the expert facilitators, participants were engaged in data gathering process where they themselves designed. They used various facilitation tools like Focus Group Discussion, Venn Diagramming, Hazard Mapping, Vulnerability and Capacity assessment, and Key Informant Interview. Thru the exercise, the participants were able to generate desired information/data which they used in analyzing current DRM systems in the communities. They were also able to generate recommendations for instituting effective DRM systems at various decision-making levels. Participants from the academe also realized the value of integrating DRM studies in their respective subjects and to use the various data gathering tools in analyzing DRM systems in their respective localities. They also recommend replicating the training in their respective spheres of operation, at the Department of Agriculture, Provincial and Municipal Local Government Units, line agencies, and among the State Colleges and Universities.

The table below shows the overall rating of the training, provided by the 28 participants who filled in the evaluation forms. The training was mainly rated very satisfactory to excellent.

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Closing Program

Before the closing program, evaluation of the workshop was done using the post test form given out by Dr. Baas and Ms. Tamara.

Part of the closing program was the awarding of certificates to participants, to the facilitators and to the Resource Persons.

Closing remarks was given by Dr. Cely S. Binoya. She expressed thanks to FAO, especially to Dr. Stephan Baas, and Ms. Tamara Van’t Wout who took time to go to the Philippines from FAO Headquarters in Rome to serve as Trainers of the policy makers and DRR leaders in Bicol in DRM systems analysis and in generating and analyzing data for making decisions towards disaster risk management, to Mr. Genaro Castro and Mr. Kasuyuki Tsurumi of FAO Philippines for facilitating the release of the funding support for the training, to DA – RFU V most especially to Dr. Jose Dayao, Regional Executive Director of DA-RFU V, Dr. Salvador Gavino, Mr. Lorenzo Alvina for the support given to the training team; and the TCP/PHI/3203 (D) team under the leadership of Dr. Arnulfo Mascarinas; to the CBSUA especially to Atty. Marito Bernales for hosting the training, Prof. Petronilo Munez Jr. for sharing information on the DRM system in the Philippines, the training committees steered by Dr. Stephan Baas, Dr. Cely Binoya and Ms. Tamara Van’t Wout, Ms. Analyn Olano, Dr. Asuncion Orbeso, Dr. Carmelita Cervantes and all the training staff of the CBSUA Extension Division for the great help extended to the training Coordinator. Great appreciation is also being forwarded to the host LGUs and communities of the training field work, most especially to Mayor Melquiades Gaite of LGU Baao and Mayor Ben Decena of Bula, Mr. Ramon Bitao, the Municipal Agriculturist of Baao and Engr. Catalino Tria, Jr., the MDRRMO of Bula and their staff who served as community coordinators in preparation for the field work; and to all participants who actively participated in all the activities relative to training. They all contributed to the very successful conduct of the training.
Bula Area

Group 1 - MDRRMO/ MAO/ MAFC/ MFARMC

Group Leader: Eleanor Daep

Members: Jose Lopez, Merie Carbonel, Catalino Taclan, Jr., Faustino Taclan

Observer: Ms. Tamara Van't Wout

Area: LGU Bula (Focus Group Discussion)

Basic Information:
- 33 BRGY (8 Low lying, 15 upland (2 Coastal)
- 2 Major rivers
- Rice granary of Rinconada (5400 Has, 3200 Farmers)
- POP= 62,040 (2007)

HAZARDS:
- FLOOD (major), Landslides (Upland)

FORMAL DRM ORGANIZATION and INFORMAL ORGANIZATIONS
- ONE MDRRMC- PROV’L GOV’T
- IRRIG.ORG
- LIONS/ROTARY DAUGHETR OF CHAR.
- 33 BDRRMC -R.O.S
- CORN ANG VEG.GROWER
- PARTY UST
- MDRRMO -O.V.P
- IOM
- MEDIA

RESULTS OF FGDs:
1. Limited knowledge on DRM of the brgy constituents, sufficient knowledge of DRRMC members.

2. Policies present:
   - Municipal Ordinance on MDRM
   - E.O. of created MDRRMO
   - S.B. resolution on D.M
   - CLUP (To be updated to incorporate DRM)
   - ELA (W/ DRM)
   - MDRRM PLAN (2010, 2011, PROP. 2012)

3. Services provided
   - Relief
   - Medical
- Agricultural
- Evacuation
- Capacity Development./ training of the BDRRM

4. Coping Mechanism
- Evacuate, Ask for Relief
- Rely on Gov’t Assistance
- Psycho-Social Counseling
- Indigenous Knowledge (Buyo Production)

5. Existing Practices
- Early Warning System- Bandillo, Whistle, Flood Color Coding, Alert Level
- Communication-Celphone, Word of Mouth
- Relief (Traditional)
- Rehab (Seedling Distribution) Infrastructure

   Best Practices
   - Agricultural Id System/ Database for Agricultural Farmers

6. Expectations on Services of Organizations

   - Formal
     ✓ Pre, During and After Calamity Service (Lacking)
     ✓ Perform Function, Duties and Responsibilities as Mandated
   - Informal
     ✓ Cooperate in DRM Activities
     ✓ Share Knowledge (Applicable)
     ✓ Risk Transfer (Seedling Production)
   - Outside/ Intl.
     ✓ Assistance
     ✓ Training/ Capability Devt.
     ✓ Rehab/ Recovery

7. Perception on DRRM and CCA
   - DRRM: Increasing Perception
   - CCA- Minimal (Education Sector Only)

FINDINGS AND RECOMMENDATIONS:

<table>
<thead>
<tr>
<th>Findings</th>
<th>Recommendations</th>
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<tr>
<td>Ample policies but lack of dissemination</td>
<td>Continuous information and awareness campaign, production and distribution of IEC materials</td>
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<td>DRM organizations exist, lack of knowledge of their roles, functions, responsibilities-</td>
<td>Training / capacity development, re-organize the MDRRMO</td>
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<td>Issue</td>
<td>Recommendation</td>
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<tr>
<td>Non-existing / non-functional response teams</td>
<td>Organize and train quick response teams, provides funds and equipment</td>
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<tr>
<td>BDRRMC not fully operational</td>
<td>Capacity development on DRM and contingency planning</td>
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<td>Practicing Early warning system</td>
<td>Needs to improve EWS</td>
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<td>Communication protocol not yet systematic, lack equipment</td>
<td>Provide communication equipment, tap media outlets</td>
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<td>Plans with minimal DRM aspects</td>
<td>Amend/update the Comprehensive Land Use Plan (CLUP)/ Community Development Plan (CDP) to incorporate DRM</td>
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</table>
Group 2 - Brgy. San Roque, Poblacion, Bula, Cam. Sur – Flood Prone Community

Group Leader: Arnold Velarde

Members: Sylvia Oaferina, Ligaya Tango, Carmelita Marquez, Augusto Calabines

HAZARD MAP

Focus Group Discussion Result
Hazard: Flood
Total Land Area: 388.9 has.
Affected zones: zone 4-6 and part of zone 2 and 3
Affected Population: 1,571
   Female: 691
   Children (0-17 yrs. Old): 542
   Senior Citizen: 77

Source of Income: Farming
Type of houses: Light Materials
**Supported services:**
- a. Relief/rehabilitation (palay seeds)
- b. Food commodities

**DRR Laws/Polices**
- a. 70/30 % budget for DRR/Calamity fund
  
  Note: No approved Plan
  
  No utilization of 70% budget

**Coping Mechanism**
- a. “Sariling Sikap” (Self help)
- b. Request assistance from LGU, NGO and other agencies

**Organizations Involved**
- a. Department of Social Welfare and Development (DSWD)
- b. Local Government Unit (LGU)
- c. Congressional Representatives
- d. ABS-CBN/GMA TV stations

**Preparedness**
- a. Acquisition of: M/B, VHF Radio, Mega phone, life jacket, bell, flashlight, rope, first aid kit and medicine
- b. Skills training in Disaster response
**Group 3 – Lanipga, Pecuaria, Bula, Camarines Sur – Drought Prone Community**

Group Leader: Rita Talay

Members: Celestina Esteve, Flordeliza Valenzuel, Manalo Carbonell, Roberto Dagñalan

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**SWOT ANALYSIS**

Farmers Group (Upland) Lanipga, Bula, Camarines Sur

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<tbody>
<tr>
<td>A. Farmers</td>
<td>Organized (PDCI) registered (DA) beneficiaries 1.72 has +600sm homelot</td>
<td>Non-members unregistered Some beneficiaries are not actual farmers</td>
<td>Become members and registered Source of labor from non-members</td>
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<tr>
<td>B. Crops</td>
<td>Non-traditional Rice – traditional varieties Corn Taro Cassava drought tolerant Banana varieties Sugarcane</td>
<td>Rainy season Infestation Rats Sept. Army worms 2011 Decreased quality when burned during harvest</td>
<td>Utilize the vast land for other crops</td>
<td>Improper use of synthetic chem. for infestation control</td>
</tr>
<tr>
<td>C. Livestock</td>
<td>Large cattle/carabao Sheep/goat Native chicken Broilers</td>
<td>Vast grazing land</td>
<td>Unidentified isolated cases death of Carabao, cattle during prolong rains</td>
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<tr>
<td>D. Land area</td>
<td>817 – coop (PDCI) 135 – residents / upland rice</td>
<td>Less utilization of the area during dry season</td>
<td>Can be used for diversification</td>
<td>non-existent of a precise land-use plan</td>
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<tr>
<td>E. Barangay Council</td>
<td>• Organized and active • Report damages during</td>
<td>• Lack of information on DRR and CCA • Unused</td>
<td>• Participation to the LGU initiated BDRRM Planning and</td>
<td>• Party affiliation of the BRGY. COUNCIL</td>
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<tr>
<td>F. Infrastructures</td>
<td>Cooperative Building Warehouse Ricemill Solar Dryer Flat Bed dryer Irrigation System COOP NIA Private owners Brgy. Hall 2 – Gov’t Seat Day Care Center Training Center Farm to Market Roads Elementary School</td>
<td>Depreciation value Added expenditure on the farmer</td>
<td>• Unpredicted natural hazards • Other building are not typhoon proof (elem. school, day care center)</td>
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<tr>
<td>G. Financing Institutions</td>
<td>Landbank CARD/ KSPI, TSPI, Arche</td>
<td>Access for financing crop insurance</td>
<td>Repayment scheme on non-member farmers</td>
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# Seasonal Calendar

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<tr>
<th>CROPS/LIVESTOCK</th>
<th>AREA PLANTED (ha)</th>
<th>Ave. Yield / No. HDS</th>
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<th>F</th>
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<th>REMARKS</th>
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<tr>
<td>Rice</td>
<td>120</td>
<td>80 cavans</td>
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<td>Sugar cane</td>
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<td>Vegetables (Pakbet)</td>
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<td>Upland Rice</td>
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<td>60 cavans</td>
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<td>Carabao</td>
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<td>Poultry</td>
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<td>Swine</td>
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**Baa Area**

**Group 1 - MDRRMO & MAO STAFF, MAFC-MFARMC**

Group Leader: Petronilo Muñez, Jr.

Members: Francia Pajares, Rodel Tornilla, Carlos Bruca, Rhalen Endeno

Observer: Dr. Stephan Baas

**ASSESSMENT OF DISASTER RISK MANAGEMENT SYSTEMS OF THE MUNICIPALITY OF BAAO**

Team Composition: Group 1 – Baa Area
1. Rodel Tornilla (DA RFU-5)
2. Rhalen Endeno (MDRRMO, Gubat, Sorsogon)
3. France Pajares (OPAG, Daet, Cam Norte)
4. Caloy Bruca (MDRRMO, Bao, Cam Sur)
5. Pete Muñez (CBSUA)

**FOCUS: ISSUES IN THE MUNICIPAL LEVEL**

1. Understanding the municipal hazard and vulnerability profile.
2. Analyzing the institutional set-up, its effectiveness and the horizontal/vertical coordination mechanisms for DRM.
3. Assessing the mechanisms for reaching vulnerable communities and households and the linkages to the community and the national levels.
1. Understanding the municipal hazard and vulnerability profile.

**FLOODING**

Normal: 45 cm - Knee High
Severe: 4 m (Rooftop Level)
One month to subside
2. Analyzing the institutional set-up, its effectiveness and the horizontal/vertical coordination mechanisms for DRM.
ISSUES TO ADDRESS AT THE DISTRICT LEVEL

3. Assessing the mechanisms for reaching vulnerable communities and households and the linkages to the community and the national levels.
Group 2 - Brgy. Agdangan – Flood prone Community
Group Leader: Dr. Carmelita Cervantes
Members: Arnel Ferrer, Maribel Bitao, Marlon Medes, Yolanda Agawa
STUDY SITE: Brgy. Agdangan, Baao, Camarines Sur
HAZARD: Flooding
Participants: 2 Brgy. Councilors
Chair Committee on Agriculture
Chair Committee on Infrastructure
2 Technicians Assigned
10 officers/ members of Irrigators Association & Cooperative

OBJECTIVES:
1. To determine the level of understanding of the community on DRRM and affected areas
2. To identify the initiatives of the barangay on DRRM
3. To identify the existing local hazard and affected areas & risk coping mechanisms & best practices
4. To identify the actors/players involved in DRRM
5. TO determine the expectations of the community & BDRRM
METHODOLOGY:
- FGD
- PRA
  - Venn Diagram
  - Cropping Calendar
  - Map(barangay)
- SWOT

FINDINGS:
1. There is an existing BDRRMC but not known to the community
   - No BDRRM Plan – waiting for training support from LGU
   - the participants have no idea about DRRM, CCA, & committee functions & roles
2. Equipment/materials needed for DRR are being processed by the council.

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<tbody>
<tr>
<td>Barangay Council</td>
<td>Existing BDRRMC</td>
<td>No BDRRM Plan</td>
<td>Vulnerable to risk</td>
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<tr>
<td>Farmers</td>
<td>Existing active organization</td>
<td>BDRRMC not known to them</td>
<td>Request for support is strong</td>
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<td>Support services</td>
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<tr>
<td>Coping mechanism/best practices</td>
<td>Off farm employment</td>
<td>Alternative livelihood</td>
<td>Lack of low cost production technology</td>
<td>Community seed bank</td>
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<tr>
<td></td>
<td>Alternative livelihood</td>
<td>Backyard gardening</td>
<td>No early warning system</td>
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<td>Early harvesting</td>
<td>Insurance</td>
<td>Seed saving is not practiced</td>
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<td></td>
<td>Planting in the upland</td>
<td>Rationing – during flooding time</td>
<td>Adjustment of planning calendar</td>
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<tr>
<td>Involved organizations</td>
<td>High support of: MAS LGU</td>
<td>Barangay Council</td>
<td>PLGU support is not felt at the barangay level</td>
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<td></td>
<td>Barangay Council</td>
<td>Local organization</td>
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<td>Local organization</td>
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Group 3 - Agdangan – Drought Prone Community

Group Leader: Lorvi Pagorogon

Members: Nestor Nava, Salvador Gavino, Marinette Briñas, Tito Ciruelos

VENN DIAGRAM FOR AGDANGAN DROUGHT-PRONE COMMUNITY

Seasonal Calendar

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<td>Sugar cane</td>
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Dry Months – March – May

OVERALL FINDINGS:
1. Lack of DRM awareness
2. DRRMC is organized but not yet functional
3. Lack of hazard-proof technologies
4. Response/rehabilitation is preferred over the preventive measures.
5. Community experienced severe drought during the late 70’s only.
6. Rodent infestation adds risk to the community
7. DRRM is still infant in the community