

# ADAPTIVE MANAGEMENT AND STAKEHOLDER ENGAGEMENT

## Carood Watershed



### Environmental Development Initiatives/Eco-Governance

The various groups involved in Carood Watershed and its outlet, Cogtong Bay, have introduced several environmental development initiatives to varying degrees. In partnership with some non-government organizations and institutions, the local government units and people's organizations in the area have introduced the following initiatives: establishment of 2,279 hectares of forest and fruit tree plantations and nurseries, rehabilitation of 760 hectares of mangrove forest and forest protection efforts.

For individual local government initiatives, Candijay has initiated an inter-LGU dialogue on environmental concerns, is drafting a solid waste management plan and adapted participatory watershed approach in its formulation of its comprehensive land use plan. Alicia on the other hand has implemented a biodiversity conservation program and Mabini has initiated the creation of a municipal environment management office and spearheads regular coastal cleanup.

### Policy Formulation

The formulation of policies and local ordinances in support to environmental management and monitoring is also one of the responses provided by the municipal and provincial government units. Among these are the disallowing future applications for fishpond development by LGU Candijay; implementation of an ordinance on solid waste management by LGU Mabini; the enforcement of the municipal regulation for a 20-meter buffer zone for all the waterways in the municipality by LGU Guindulman; and the passing of a provincial environmental code and the issuance of the executive order creating the Carood Watershed Management Council by the provincial government.

### Collaboration, Networking and Partnership

The creation of the Carood Watershed Management Council has provided key stakeholders in Carood particularly the LGUs to forge a collaborative effort towards the management of the watershed. The six LGUs in the watershed take turns in hosting CWMC meetings. The creation of CWMC also provided the venue for networking and partnership not only among key stakeholders of the watershed but also with the various groups supportive of similar undertakings.

### Coordinative Efforts

Aside from providing the venue for collaboration, networking and partnership among stakeholders of Carood Watershed, the CWMC has also embark on coordinative efforts not only to draw up and discuss the various concerns within the watershed but also in coming up with strategies and options to address these. The CWMC is also deemed as the appropriate forum whereby to present the development municipal plans of the six municipalities in Carood. Then on a broader scale thus lead to the harmonization of these plans hence sets up a unified effort towards better watershed management.

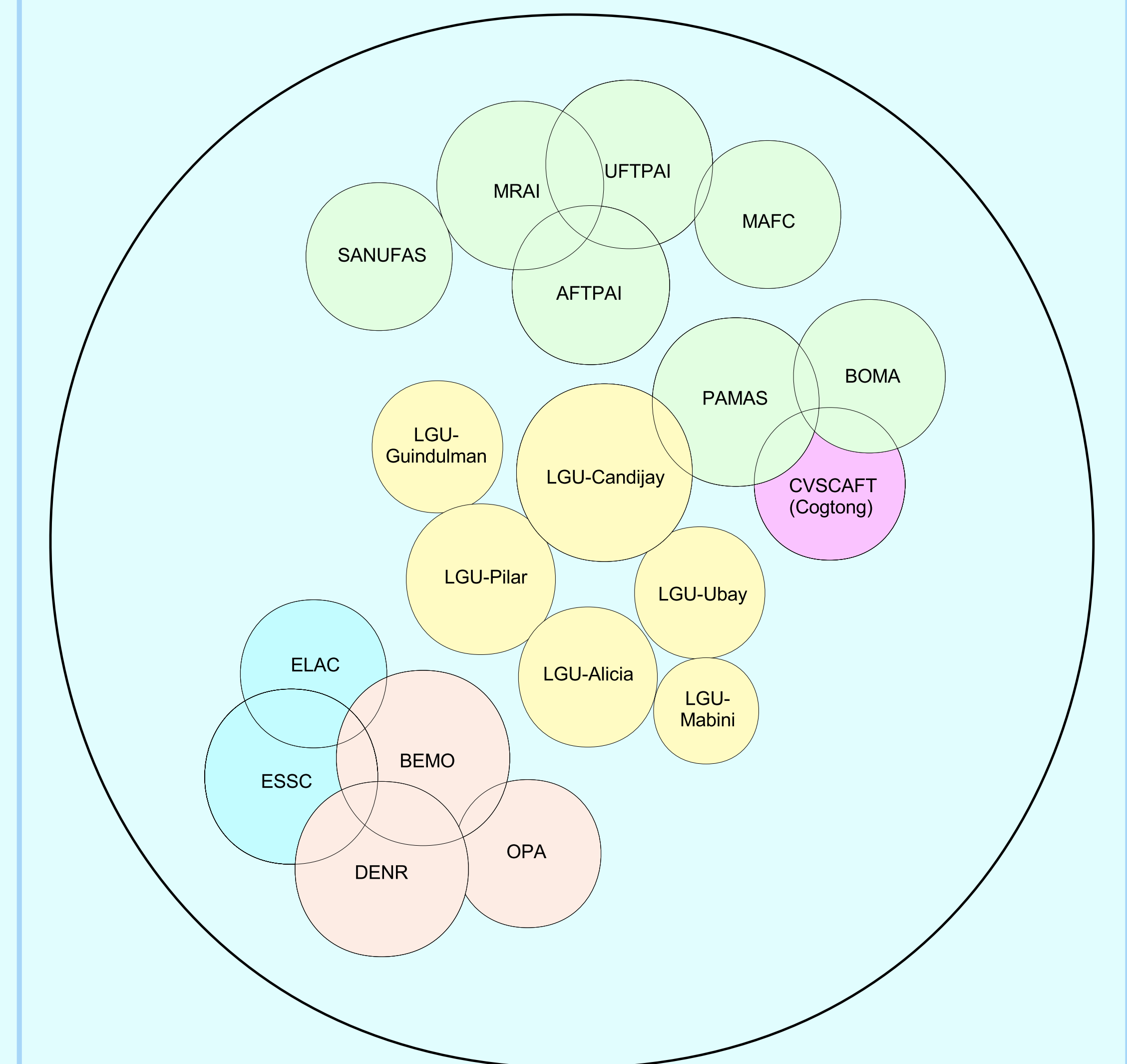
### Research Initiatives and Legal Assistance

The Central Visayas State College of Agriculture, Forestry and Technology (CVSCAFT) is the only CWMC member representing the academe. CVSCAFT has conducted product development research on mangrove fruit as part of mangrove entrepreneurship development to ease the dependence on mangrove timber as source of income. CVSCAFT also conducted impact analysis of sanctuary establishment in Guindulman and is now proposing a study on the uses of the river system in Carood watershed.

The Environmental Legal Assistance Center (ELAC)-Bohol is providing legal services relating to environmental law particularly assistance in prosecution and legal research has conducted researches in relation to environmental law/natural resource management.

### The Carood Watershed Management Council Stakeholders

The Carood Watershed Management Council (CWMC) is a consortium of the six local government units and people's organizations implementing community-based natural resource management (CBNRM) programs/projects within the Carood Watershed, and NGOs with CBNRM projects or support programs in the area to work for an effective and sustainable development and management of the watershed. In carrying out this purpose, Council members are bound by a Memorandum of Understanding duly signed by the stakeholders involved. Gov. Erico B. Aumentado on September 2, 2003 issued an Executive Order creating the CWMC.



#### ABBREVIATIONS:

- AFTPAI - Alicia Federated Tree Planters Association, Inc.
- BEMO - Bohol Environment Management Office
- BOMA - Boyoan Mangrove Association
- CVSCAFT - Central Visayas State College of Agriculture, Forestry and Technology, Cogtong Campus
- DENR - Department of Environment and Natural Resources
- LGU-Guindulman - Local Government Unit of Guindulman
- LGU-Mabini - Local Government Unit of Mabini
- LGU-Pilar - Local Government Unit of Pilar
- LGU-Ubay - Local Government Unit of Ubay
- MAFC-Ubay - Municipal Agriculture and Fishery Council of Ubay
- MRAI - Mabini Reforestation Association

#### LEGEND:

- People's Organization (PO)
- Local Government Unit (LGU)
- Assisting Government Agency
- Non-Government Organization (NGO)
- Academic Institution (Sate College)

### Information Education Campaign (IEC)

The implementation of IEC activities is one of the major and the most common undertakings of Carood Watershed key stakeholders. There have been IEC on environmental conservation and protection for educators and children in Candijay; solid waste management, environmental protection and forestry by SUSIMO-DENR, and watershed concept by BEMO.

### Capability Building and Livelihood Support

Aside from environmental initiatives, key stakeholders of Carood watershed have also been providing capability building support to communities within the watershed. The local governments of Ubay, Alicia and Candijay have implemented demo farms on vegetable using organic fertilizers, provided training on organic farming in upland barangays and introduced appropriate livelihood activities on ube farming, free-range chicken raising, livestock raising and crab culture. The Environmental Legal Assistance Center (ELAC) has also provided paralegal training and the Office of the Provincial Agriculturist (OPA) has likewise provided resource persons and training materials on soil and water conservation measures. In addition, the academe through CVSCAFT has also conducted training of tilapia culture to a number of people's organizations.

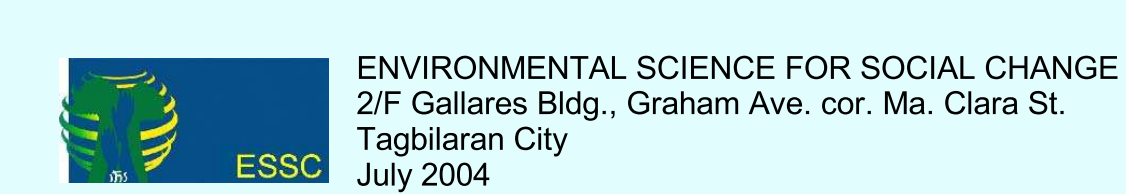
### Monitoring and Facilitation of Environment Related and Resource Management Efforts

As one of the principal environment-related bodies in the province, BEMO is monitoring and coordinating with various environmental groups and watershed management bodies in the province, CWMC included. It has also facilitated the issuance of the provincial executive order creating the CWMC.

#### SUPPORTED BY:



#### PREPARED BY:



#### REFERENCES:

- Highlights of CWMC Meetings December 2003
- Draft Mabini Comprehensive Land Use Plan
- Guindulman Comprehensive Land Use Plan 2001-2011
- Interviews with CVSCAFT, BEMO, ELAC and PO Representatives July 2003 - January 2004
- 30082000 LANSAT +ETM Satellite Image of Bohol
- Provincial Planning and Development Office Province of Bohol
- ESSC National Watershed Database 2003
- NAMRIA 1:50,000 Topo Maps Sheet No. 3849-1 to 4, 3850-2 & 4 Compiled in 1956; reprinted in 1988