



The Manila Observatory and SOSE:

Taking Science Down to the Community

Participants in a consultative workshop last October 4-5, 2006: seated: Bishop Warlito Cajandig of the Apostolic Vicariate of Calapan, Gov. Arnan Panaligan of the Provincial Government, and Fr. Daniel McNamara of the Manila Observatory and SOSE

“Science is of the people, by the people and for the people—that means it’s community-based,” so says Fr. Daniel McNamara, Executive Director of the Manila Observatory (MO) and professor of the Ateneo de Manila University Physics Department. Under his leadership, the Manila Observatory has taken concrete and comprehensive steps towards community-based applications of science and technology for sustainable development.

The Climate Change Adaptation-Disaster Risk Management (CCA-DRM) project, begun in May 2006, is the MO’s pilot project for community-based, interdisciplinary work which aims to integrate present disaster risk management concerns with long-term climate change response and overall sustainable development through capacity-building and technical assistance.

The community of the pilot project is the Mag-asawang Tubig Watershed of Oriental Mindoro,

which is composed of Calapan City and the municipalities of Naujan, Victoria, Baco, San Teodoro, and Puerto Galera. This area, which depends on agriculture and fisheries as the major livelihoods, is particularly vulnerable to flooding, landslides and heavy siltation brought about by

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the frequent episodes of extreme rainfall, as well as to earthquakes and tsunamis. Disasters endanger the very sources of income and food requirements of the people of Oriental Mindoro, which, in turn, hinders development efforts in the same way that poverty hinders the capacity to cope with climate variability. Considering that climate change may cause an increase in the frequency and se-

verity of extreme weather events, it becomes imperative to strengthen adaptation to present climate variability and to potentially worse conditions in the future.

Fr. Dan elaborates, “science is basically to provide information

to people so that they can make wise judgments that are important for themselves... in this particular instance, we are concerned with vulnerability of people, with getting information on that to them, listening to their concerns and how they see issues, and helping them see things from the point of view of science... to foster dialogue... so that science can help fill in the gaps.”

The Mag-asawang Tubig watershed of Oriental Mindoro presents a case in which sustainable climate change adaptation and mitigation can be linked to overall watershed management, disaster risk reduction and livelihood concerns. Here, science and technology can play a crucial role in providing the stakeholders with the knowledge, skills and tools to formulate informed and effective plans of action.

The CCA-DRM project involves four of the Manila Observatory’s major programs, all of which are headed by faculty of the School for Science and Engineering: (1) the Geomatics for Environment and Development program led by Dr. Celine Vicente, lecturer of the Master of Environmental Management course of the ES Department; (2) the Regional Climate Systems modeling groups led by Dr. Emmanuel Anglo of the ES and Physics department; (3) the Instrumentation and Technology Development program headed by Dr. James Simpas

of the Physics department; and (4) the *klima* Climate Change Assistance Center under Atty. Angela Ibay, also a lecturer of the MEM program. Kendra Castillo, BS Physics graduate and MEM student, serves as one of the coordinators.

Stakeholder consultations were held last October 2006 by the Human Resources and Project Development offices in order to establish the social, economic, political and environmental contexts in which the issues of coping with disasters and adapting to climate change are embroiled, and to determine available resources and assess community needs and priorities.

Fr. Dan hopes that with partnerships now formally established, the initiatives in Oriental Mindoro will continue into a long-term comprehensive project for the members of the Manila Observatory and SOSE, which can be replicated in other communities. *ckcastillo*