



The forest ecosystem group led by Dr. Mariliza V. Ticsay of SEARCA, during one of the workshop sessions.



A participant explains the outputs expected from the freshwater/marine/coastal ecosystems group.

Photos by ????????????

NBRU Philippines and ERDB Take the Lead

Formulating the National R & D Agenda on Biodiversity Conservation

► By **AIDA B. LAPIS** and **MYRA E. DAVID**

The Protected Areas and Wildlife Bureau (PAWB) and the Ecosystems Research and Development Bureau (ERDB) of the Department of Environment and Natural Resources (DENR) led the other participating institutions in redirecting biodiversity conservation research in the Philippines during a workshop that aimed to formulate the Philippine Research and Development (R & D) Agenda for Biodiversity Conservation. PAWB is the focal agency of the ASEAN Regional Centre for Biodiversity Conservation (ARCBC) in the Philippines while ERDB is the research arm of the DENR.

More than 100 researchers and experts from concerned government and non-government institutions and the academe participated in the event that was held last March 20-21, 2002 at the ERDB Auditorium, Forestry Campus, College, Laguna.

DENR Undersecretary Demetrio

L. Ignacio who represented DENR Secretary Heherson T. Alvarez as keynote speaker, mentioned, "no matter how much effort we devote to biodiversity conservation and no matter how well-crafted our framework is, it would be futile for our biodiversity if we could not effectively address several critical challenges." The challenges he enumerated were poverty reduction; making biodiversity a part of our lives; educating people on biodiversity; and meaningful participation of the stakeholders.

The formulation of the R & D Agenda for Biodiversity Conservation was initially realized in 2000 through the joint undertakings by the DENR's PAWB and ERDB. The intention then was to formulate an R & D Agenda for the DENR's sector in an attempt to answer the major national and international problems and issues on conservation and management of biological resources (Philippine National Biodiversity Strategies and Action Plan and Convention of Biological Diversity 1998).

Lectures and group workshops were clustered according to ecosystem i.e, agroecosystem, forestry, and freshwater/marine/coastal and emphasized the status, issues/problems and priority researchable areas, including wildlife biodiversity conservation and social concerns. Participants joined the group of their interest and specialization. A preliminary review of the draft proceedings confirms the major researchable areas against the R & D framework of DENR. **Table 1 (see next page)** provides the ecosystem-based researchable areas, one of the major outputs of the workshop groups during the R & D national event.

The results will be reviewed further by PAWB, ERDB and ARCBC during a workshop on 9 May 2002 that aims to discuss future activities and action plans on the adoption of the national framework on R & D agenda. ■

Dr. Aida Lapis heads ARCBC's Research Branch while Forester Myra David is a Technical Staff of the same branch.

Table 1. Ecosystem-based priority researchable areas

Agroecosystem

- Modern tools utilization to enhance genetic resources conservation
- Genetic resources database updating and completion
- Breed standards/catalogues
- Genetic resources activities on major/priority species
- Gaps identification in strengthening institutional capabilities
- Genetic erosion (mapping/monitoring systems)
- Proper management and improvement of production and utilization (including marketing) systems
- Non-traditional species utilization
- Product quality/toxicity profiles
- Impact assessment on wildlife pest & toxins
- Diversity analysis
- Comparative evaluation of local and introduced genetic resources
- Policy review relating to genetic biodiversity
- Contribution of wildlife to agroecosystem
- Public awareness programmes

Forest Ecosystem

- Biodiversity assessment of existing methodologies per conservation unit
- Assessment of DENR policies in determining appropriateness of methodology used
- Cultural studies
- Standardization
- Appropriate methodology for carrying capacity
- Selection of appropriate technology for biodiversity assessment (e.g. Shannon, BMS)
- Biodiversity valuation and monitoring
- Case studies of biodiversity rich areas to gather information (for unproclaimed protected areas)
- Inventory of resources and conservation/protection strategies to include flagship species
- Appropriate management conservation and protection strategies for protected areas and biodiversity rich areas
- Screening of exotic species to determine impact on indigenous species (eg. Invasiveness)
- Indigenous Knowledge System (IKS)
- Control and access of resources
- Gender roles
- Gene banking
- Ethics and control
- Genetic erosion and alteration
- Exotic species introduction
- Understanding on the role of indigenous peoples in protected areas
- Socio-cultural erosion
- Utilization and technology development
- Standard methodology for biodiversity assessment
- Wildlife resource utilization (i.e identify quota system for trade, sustainable use method identification, economic)
- Wildlife trade monitoring
- Policy review focused on the benefits of Indigenous Peoples
- Policy harmonisation for material use
- Review and assessment of quarantine policies (importation, introduction of exotic species)

Freshwater/Marine/Coastal Ecosystem

- Gathering of benchmark information/literature on marine species
- Assessment and mapping of resources at the species/ecosystem level
- Bio-ecology
- IKSP & formal science interface R & D
- Inventory of freshwater habitats

- Resource assessment of freshwater body/valuation of resources
- Standardization of methods
- Rehabilitation measures
- Socio-cultural demographic studies on biodiversity
- Culture responsive information, education and communication activities, livelihood projects
- Development of forecasting methodologies and devices for disaster preparedness
- Impact of climate change
- Improvement/verification of available technologies on the rehabilitation of critical coastal and marine habitats
- Development and adoption of standard methods for biodiversity assessment
- Interhabitat connectivity studies in the ecosystem
- Development of ecosystem health indices
- Development of preventive and control technologies
- Carrying capacity assessment of critical coastal and marine ecosystems
- Socio-economics and anthropological studies
- Valuation studies
- Development of an effective and standard evaluation and monitoring system
- Development of alternative/supplemental livelihood option
- Development of appropriate IEC
- Resource assessment
- Strengthening of monitoring, control and surveillance, harvesting, market and trade
- Impact assessment of introduced or exotic species
- Monitoring and control of alien pest/invasive species
- Establishment of protocols
- Benchmark information on the introduction of exotic species
- Determination of bio-indicators for water quality assessment
- Formulation of rehabilitation/decontamination technologies
- Development of control technologies
- Development of biological and physical remediation technology
- Impact assessment of domestic, industrial and agricultural wastes on coastal and marine ecosystems
- Capability building of multi-stakeholders
- Strengthening of inter-agency collaboration
- Policy and institutional research studies
- Establishment of information systems on coastal and marine ecosystems
- Studies on local community protocols and resource sharing
- Development of appropriate biotechnology
- Impact studies on the use of biotechnology
- Development of appropriate tools/methodologies for carrying capacity determination
- Study on the impact of existing ecotourism activities on natural ecosystems
- Development of community-based ecotourism enterprise
- Development of criteria for establishing ecotourism zones
- Studies on local community protocols and resource sharing
- Assessment and evaluation of the effect of mechanism strategies to strengthen the monitoring of EO 247 and protection of IPR
- Development of appropriate domestication strategies for selected species in coastal and marine ecosystems
- Development of in-situ and ex-situ conservation techniques for selected species
- Integrated management of wetlands
- Habitat interconnectivity/ecosystems relationship
- Hydrobiological studies
- Socio-economic and anthropological studies
- Policy review, formulation, implementation and advocacy
- Development of an integrated culture responsive IEC program