



収集資料

1. フィリピン大学ディリマン校プロジェクト提案に係る発表資料
2. Lopez Jaena 及び Misamis Occidental 沿岸地域概要
3. ミンダナオ国立大学ナーワン校概要及び研究内容

The Integrated Japan-Philippines Project



"Integrated Coastal Ecosystem Conservation & Adaptive Management in Response to Local & Global Environmental Change"





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Main Points

1. We are facing an intensified global & national coastal environmental challenge;
2. To effectively address this challenge, coastal oceanography & marine science need to be integrated with community affairs & with governance to meet common objectives;
3. We should promote the sustainable use of coastal resources through 'ecosystem' & 'adaptive' management approaches including capacity building through an Integrated Decision Support System (IDSS) to manage the resources in the face of environmental & global climate change;
4. We need to establish a functional network of science institutions which could assume two roles: knowledge source & 'environmental watchdogs'.

Main Issues & Concerns

1. **Climate change** (adapting to climate change, rising sea levels, seawater temperatures, increasing water acidification, & of intensity of storms);
2. Natural & environmental **disasters & climate variability** (which requires improving preparedness & recovery efforts);
3. **Overexploitation** of coastal & marine resources (protecting coastal ecosystems from siltation, pollution, & over-fishing);
4. **Tourism** (managing tourism growth & activities to protect the environment & cultural integrity).

Expected Outputs (Philippines)

1. An environmental **monitoring system** at each site;
2. At least 15 well-equipped & **trained personnel**;
3. **Enhanced local MPAs**;
4. Spatially & temporarily mapped (GIS) large-scale **biogeographic distribution & biodiversity gradients**;
5. A **forum** established on data standards, indexing, transfer & storage;
6. **International collaboration** in Marine Science & Operational Oceanography in the country;
7. A functional **forum** of marine scientists, policy makers, & the communities; &
8. The Integrated Decision Support System (**IDSS**) in the form of issue-specific 'packaged' policy options

Beneficiaries

The target beneficiaries are primarily natural & physical oceanographers & ecologists, social scientists, protected area managers, educators, students (secondary, tertiary & graduate), tourism entrepreneurs & development planners, resort operators, government officials concerned, NGOs, culture experts, & local communities, including local cultural minorities.

Site Selection Criteria

1. Existing substantial amount of data & information useful as a baseline for project activities;
2. Coastal ecosystems & their connectivities, with varying degrees of impacts from environmental & climate change;
3. Existing or planned coastal & marine management plans with great potential to use project data & information;
4. Representativity (major regions of the Philippines represented);
5. Institutional presence of government agencies receptive & willing to support the project in order to build their own capacities for Integrated Coastal Resources Management;
6. Existing NGOs & other agencies with projects & programs relevant to the thrusts of the project.
7. Security & safety

Habitat interconnectivities

1. Nutrients
2. Physical
3. Animal migration/Plant dispersal
4. Human impact

The diagram illustrates the interconnectedness of four habitats: Coral reef, Seagrass bed, Mangroves, and Watershed. Blue arrows indicate the flow of nutrients, physical elements, animal migration, and plant dispersal between these habitats. A central image of mangrove trees is connected to all four surrounding habitat images.

Bolinao

This collage provides a visual overview of Bolinao. It includes:

- A map of Bolinao with a legend for Coral (red), Seagrass (green), and Mangrove (blue).
- An underwater photograph of giant clams and seagrass from 1995.
- A photograph of fish cages in 2009, labeled as 'Eutrophication'.
- A photograph of houses and fish cages after a typhoon in 2009.
- A small inset map of the Philippines showing the location of Bolinao.

