



Marine Protected Area (MPA) Networking

Strengthening the Illana Bay Regional Alliance
9 MPA Network Clusters and Integrating
Fisheries Management Initiatives



Funded by USAID-DAI-EcoGov2 through the MSU-Naawan Foundation

An Investigation on the Potentials for Aquaculture Development in Illana Bay, Zamboanga del Sur



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R&D Programs

- I. Generation and Refinement of Aquaculture technologies;
- II. Verification Technologies for Fishery Product Processing;
- III. Resource and Ecological Assessment of Northern Mindanao and Adjacent Waters;
- IV. Coastal Resource Management of Northern Mindanao and Adjacent Waters;
- V. Ecology and Biotechnology; and
- VI. Socio-Political -Cultural-Economic Programs.

Technical Services Division



Technical Assistance and Services

- Quantitative and qualitative meiofauna and plankton analysis
- Bacterial analysis on water, soil, and fry
- Feed, soil, and water quality analysis
- Development of culture techniques on high-value aquaculture species
- Resource and ecological assessment
- Coastal resource management
- Socio-economic assessment
- Institutional arrangements and policy analysis
- Photomicrography

Products

- Hatchery Products:
 - Food organism starters
 - Sugpo, Kitong, Tilapia and *pajè*
- Farm Products:
 - Bangus, Kitong, Tilapia, Shrimps, Prawns
- Processed products:
 - Tilanggit, seaweed stick

MSUN-CARES
Center for Aquaculture Research,
Enterprise and Services



IFRD Multi-species hatchery Complex



National Awards for 2009

Research Paper Category (1st Prize)

A Fisheries in Crisis: Threatened Biodiversity and Production of Lake Mainit, Philippines and Prospects for Sustainable Fisheries Management

Asuncion B. De Guzman, Wilfredo H. Uy, Jessie G. Gorospe, Alita E. Openiano, Rodrigo E. Acuña, Rey L. Aoa, Jerry P. Garcia, Marilou M. Oloquin and Jayrald R. Santamina

Development Paper Category (2nd Prize)

Seaweed Farming in Dimataling, Zamboanga del Sur: Status, Problems and Prospects

Elvira Y. Adan

Aquatic Technology Commercialization & Marketplace (ATCOM) 2009 Entry (3rd Prize)

Tilapia Farming For Tilanggit Production

Dan M. Arnesgado

R&D Projects for 2009

- **AFNR Project 3.1 Human Capital Formation in Northern Mindanao thru S&T (DOST-PCARRD/PCAMRD 5.3M)**
 - Seaweed processing and farming
 - Siganiid fry production
 - Tilanggit (Tilapia) production
 - AquaSilviculture
- **Integrated Coastal Enhancement: Coastal Research, Evaluation and Adaptive Management (ICE-CREAM) Program: Coastal Fisheries (COASTFISH) DOST-PCAMRD, 4.07M**

R&D projects for 2009 (contn)

- Freshwater prawn hatchery and grow-out (DOST-10, 50T)
- Isolation and Biochemical Characterization of the Astaxanthin-producing Thraustochytrids (CHED)
- CAPE for Seaweed production in Lanao del Norte (DOST-10, 445T)

Upcoming Projects

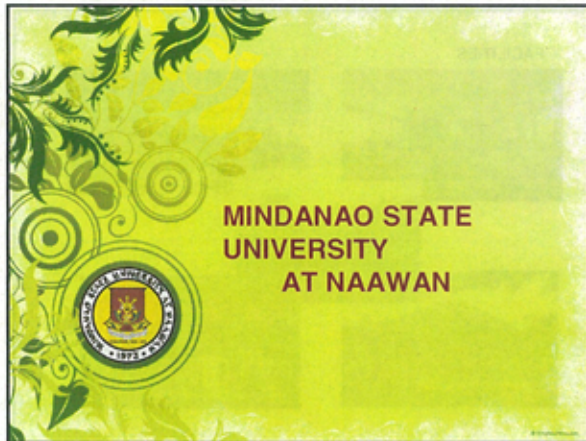
- Seaweed seedbank production for sustainable farming in Mindanao (DOST-PCAMRD)
- Integrated Coastal Ecosystem Conservation and Adaptive Management under Local and Global Environmental Impacts (JST-JICA)

Program proposals being developed...

- MPA networking and monitoring as adaptive management strategy for climate change
- Piloting green aquaculture at MSU-Naawan
- Upscaling the multi-species hatchery and laboratory services to support alternative aquaculture species.
- Agusan Marsh R&D project

Magandang Salamat!





**MINDANAO STATE
UNIVERSITY
AT NAAWAN**

ACADEMIC PROGRAMS

1. Bachelor of Science in Agriculture major in Animal Science
2. Bachelor of Science in Agriculture major in Agronomy
3. Bachelor of Science in Accountancy
4. Bachelor of Science in Hotel and Restaurant Management
5. Bachelor of Science in Business Administration major in Entrepreneurial Marketing
6. Bachelor in Secondary Education
 - major in General Science
 - major in Biology
 - major in Mathematics
 - major in Chemistry
7. Bachelor in Elementary Education
 - major in Science and Health
8. Bachelor of Science in Information Technology
9. Bachelor of Science in Marine Biology
10. Bachelor of Science in Fisheries major in Aquaculture
11. Bachelor of Science in Environmental Science
12. Bachelor of Science in Fisheries Extension

NON-DEGREE PROGRAMS

1. Fisheries Technology Program
2. Diploma in Fisheries Technology Major in:
 1. Aquaculture
 2. Fish Processing
3. Diploma in Electronics Technology (Computer Technology)

OTHER PROGRAMS

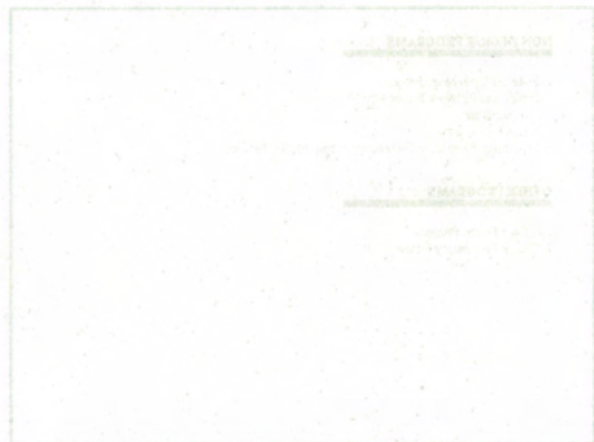
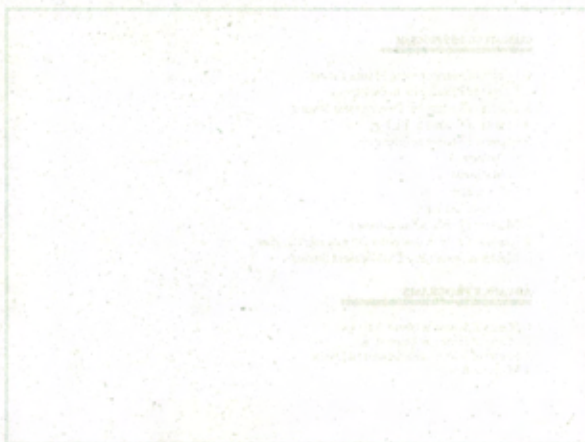
1. College Board Program
2. College Preparatory Course

GRADUATE STUDIES PROGRAM

1. Doctor of Philosophy in Marine Biology
2. Doctor of Philosophy in Biology
3. Doctor in Sustainable Development Studies
4. Master of Science in Biology
 - Biology
 - Mathematics
 - Chemistry
 - General Science
6. Master of Public Administration
7. Master of Arts in Peace and Development Studies
8. Master in Sustainable Development Studies


ADVANCE PROGRAMS

1. Master of Science in Marine Biology
2. Master of Science in Aquaculture
3. Master of Science in Environmental Science
4. Master in Biology



Human Impacts & Mgt. Issues

- Much evidence of cutting
- Conversion to fishpond (e.g. Katipa, Biasong, Molatuhan Bajo)
- Need to evaluate reforestation efforts; more ecologically sound rehab efforts



State of Coastal Fisheries

- * 712 municipal fishers (9 coastal barangays)
- * 362 fishing boats & 25 kinds of fishing gears
- * 20-30 fishing days/month; 6-8 hours/day



Most Common Fishing Gears and mean catch rates

More Recent Initiatives

Training in mangrove nursery establishment in Lopez Jaena



Pilot community multi-species mangrove nursery project in Lopez Jaena

- Updated its Coastal Resource Management Plan (April 29-30, 2009)
- Now under final revision

