# SEA GRANT INTERNATIONAL: EXTENDING THE MODEL OF APPLIED RESEARCH, EXTENSION/OUTREACH AND EDUCATION TO OTHER COUNTRIES



December 31, 2005 — NOAA Research's Office of International Activities and the National Sea Grant Office are extending the Sea Grant model to other countries. The National Sea Grant College Program is a proven, effective model to engage universities and government agencies acting in partnership to promote research, education and outreach/extension related to marine issues. Through network contacts at 30 universities and research institutes and the NOAA National Sea Grant Office, individual Sea Grant programs stay connected to issues at a

national level while being responsive to local level needs. Because the Sea Grant model is inherently flexible — both culturally and administratively — there is substantial potential for other countries to adapt the model to their needs while developing cooperative programs with international partners. (Click on NOAA image for larger view of map showing location of Sea Grant International Programs. Please credit "NOAA.")

"The vision of Sea Grant International is to establish a global network of committed nations which apply the Sea Grant model to build and sustain global coastal and marine resources," said Ron Baird, director, National Sea Grant College Program. "A connected global network whereby information and technical knowledge flow freely among national programs, could contribute enormously to our capacity to address management issues at global and regional scales." This vision involves working at three different levels: 1) developing national institutions, 2) building applied research, extension, and education capacity and 3) locallevel learning through peer exchanges. (Click on NOAA image for larger view of boats on



a beach in Indonesia. Photos courtesy of Indonesia's Sea Partnership Program. Please credit "NOAA.")

Since Sea Grant was founded in 1966, there have been — and continue to be — many international activities involving collaboration on scientific research and cooperative agreements between individual Sea Grant colleges and foreign institutions. The efforts of NOAA Research IA and NSGO in supporting the development of Sea Grant programs (which include elements of institutional development, capacity building and peer exchanges) are highlighted below.

#### **International Sea Grant Network Benefits**

Promoting Sea Grant models in other countries helps NOAA with global marine research and coastal management, but more importantly, it benefits the country or region implementing Sea Grant. An international Sea Grant provides a platform that promotes international research, educational activities and technology transfer related to coastal issues; encourages information exchange; and fosters international collaboration in activities that improve understanding of the marine and coastal environment. There are also long-term benefits to better management, including improving food security and economic growth.

### **International Sea Grant Efforts Today**

Programs based on the Sea Grant concept are in various stages of development in Latin America and Asia. NOAA Research IA works with the NSGO, as well as government, university and private partners in these regions to provide technical expertise, coordinating capacity and program development functions. All of the countries pursuing Sea Grant models are highly dependent upon coastal and marine resources.



# Sea Grant Programs in other Countries

#### Latin America and the Caribbean

NOAA Research IA and the NSGO, in partnership with the <u>University of Rhode Island Coastal</u>

<u>Resources Center</u> and various partners

throughout Latin America and the Caribbean are implementing the U.S. Sea Grant model in Latin America and the Caribbean. Sea Grant

International efforts in this region first emerged out of the devastation left by Hurricane Mitch in 1998, especially major destruction of the shrimp aquaculture industry following the hurricane.

Local governments and university officials in Honduras, Nicaragua, El Salvador and Ecuador expressed interest in establishing a program similar to Sea Grant, so NOAA Research IA and CRC conducted a study to determine the



adaptability of Sea Grant to LAC. The study showed that Sea Grant would indeed be an appropriate model for coastal management in this region, especially with regard to needs for increased extension, outreach and communications capacities. LAC universities already had strong research programs, but the knowledge gained from that research was not being applied. Two pilot studies were established — one on mainland Ecuador and the other in the Gulf of Fonseca region of Honduras, El Salvador and Nicaragua (focusing on shrimp farming). LAC partners involved include University of Central American in Nicaragua, the University of Zamorano in Honduras, the University of El Salvador and, the Coastal Polytechnic University

(Escuela Superior Politécnica del Litoral, ESPOL) in Ecuador. (Click on image for larger view of image of Sea Grant staff visiting a site with re-planted mangroves in Honduras. Click here for high resolution version. Please credit "NOAA.").

Efforts are focused on implementing Sea Grant-like activities (such as assisting small-scale shrimp aquaculture farmers in areas of aquaculture technology, development and extension) and identifying sources of future funding. NOAA Research IA, NSGO and their partners are working to support the initial member institutions of the LAC network in defining their structure, leveraging resources and operating procedures, and securing short-term bridge funding that promotes collaboration among the members of the LAC network and collaborating Sea Grant institutions in the United States. (Click on image for larger view of



image showing the University of Zamorano in Honduras. Click <a href="here">here</a> for high resolution version. Please credit "NOAA.").

As the Sea Grant model for LAC becomes better defined, it will spread throughout the region by way of peer exchanges and papers jointly supported by the <u>Fulbright Senior Specialist</u> <u>Program</u>. Sea Grant International efforts in LAC have included supporting the <u>White Water to Blue Water</u> campaign and collaborating with the <u>Rhode Island Sea Grant Program</u>, Coastal Resources Center, Fulbright Senior Specialist Program Partnership, <u>Swiss AVINA Foundation</u> and <u>SUCCESS</u>. Specific activities have included in-country consultations, national workshops, background papers, expert meetings and development of a strategy for a LAC Sea Grant program.

#### South Korea

The Korea Sea Grant Program was established in 2000 by the Ministry of Maritime Affairs and Fisheries as a part of "Ocean Korea 21," Korea's comprehensive plan to improve management of coastal resources. Like the U.S. Sea Grant Program, the KSGP promotes the involvement of universities in marine research, through granting programs. (Click on image for larger view of ceremony celebrating the opening of Busan Sea Grant Consortium in South Korea. Click here for high resolution version. Photos courtesy of the Korean Sea Grant Program. Please credit "NOAA.").



MOMAF has been implementing the KSGP in stages. The initial phase began in 2000 and focused on the institutional organization of KSGP, as well as tested research and development granting programs. Granting programs have two tracks — government defined themes, which address national research and development concerns and independently-defined themes, which may address more locally driven interests. The second phase, 2004-2005, established a Sea

Grant consortium based at the <u>Korea Maritime University</u>. The final phase will continue until 2010 and includes plans to expand Sea Grant program to additional schools in other regions of Korea. In January 2006, KSGP will designate a second college consortium in Southwest Korea.

NOAA Research IA and NSGO has assisted the KSGP with program development, provided onthe-ground training for newly hired Korean Sea Grant extension agents and invited KSGP managers and extension specialists to National Sea Grant Week in the United States. There have been several exchanges between the two countries, and there is a representative from Korea's MOMAF at NOAA looking at the U.S. Sea Grant program to better identify and address KSGP's needs. In January 2006, a Korean broadcasting company will film a documentary of the U.S. Sea Grant Program to demonstrate the U.S. Sea Grant successes and potential impacts of the KSGP.

#### Indonesia

The Indonesian Sea Grant Program was established by Widi Praktiko, director general of Coasts and Small Islands within the Indonesian Ministry of Marine Affairs and Fisheries. Praktiko became familiar with the NSGCP while working on his Ph.D. at North Carolina State University. Upon returning to Indonesia after graduating, he brought with him the idea of developing a program modeled after Sea Grant principles and soon started what has become the Sea Partnership Program in Indonesia.



Over the past few years, SPP has grown from a network of five regional centers to a network of 19 centers. SPP is currently funded through the Indonesian government and has established granting programs through SPP's regional centers.

NOAA Research IA and NSGO have been working with SPP as it develops. In May 2005, SPP and NOAA Research IA hosted a regional workshop (which brought together representatives from Malaysia, Thailand, two regional Asian resource management organizations and Indonesian NGOs and government officials) to learn more about Indonesia's experience with SPP and the Sea Grant model.

Since the Dec. 26, 2004, tsunami, there has been increased interest in coastal hazards and how to apply this expertise to hazard response, recovery, planning and preparedness in Southeast Asia. In 2005, SPP expanded into tsunami-impacted regions, to better address fisheries and coastal resource management as tsunami damaged regions rebuild.

SPP also increased its focus on extension, and NOAA Research IA will host a training workshop to provide extension expertise to SPP extension officers in 2006.



#### **Moving Forward**

Each of the highlighted Sea Grant International Programs has unique challenges, but there are four areas common to all:

- Identifying sustainable funding sources;
- Acquiring mandates through legislation;
- Developing institutional designs that enhance their existing coastal management and research; and
- Building the capacity of staff to implement Sea Grant-like activities.

The experience with recent international partnerships demonstrates that the Sea Grant approach of university-based applied research, education and extension is not only transferable to developing nations, but is critically needed. As Sea Grant programs expand into new countries or are further developed in the highlighted countries, NOAA and the NSGO will continue to play an active role in supporting these programs, helping them address the challenges they face. Individual Sea Grant state programs can provide technical advice through cooperative agreements and peer exchanges. The NSGO and NOAA can continue to link Sea Grant International programs with the



appropriate U.S. Sea Grant college programs and other relevant programs. In turn, the U.S. Sea Grant program will benefit from increased global exposure and learning opportunities, and will be better positioned to address global concerns. (Click on NOAA image for larger view of fish nets in Indonesia. Photos courtesy of Indonesia's Sea Partnership Program.

# Please credit "NOAA.")

## **Relevant Web Sites**

**NOAA Research** 

NOAA Research's Office of International Activities

National Sea Grant Office

National Sea Grant College Program

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