

Capacity Building in Marine Projects of IGBP/SCOR

Need for a Common Strategy

The Capacity Building Task Team of IMBER has proposed an implementation strategy having the following major objectives:

- To enhance research capabilities in less developed countries especially those geographically close to regions of interesting biogeochemical/ecosystem provinces for optimal implementation of the IMBER science plan.
- To enhance research capabilities globally in those IMBER activities that have few practitioners but are crucial for optimal implementation of the IMBER science plan.
- To strengthen graduate education in ocean sciences

Although the first two objectives might seem IMBER-specific, they also have relevance to other marine projects of IGBP and SCOR, especially SOLAS, GLOBEC and LOICZ. Thus, in order to meet these objectives the Task Team strongly recommended an interdisciplinary approach emphasizing linkages within global climate change sciences and society responses. There are several ongoing capacity building activities related to various marine global change programmes, and a close coordination among them is essential for optimal resource utilization. Both IGBP and SCOR actively promote capacity building efforts aimed at addressing the imbalance between the scientific capabilities of developed and developing countries. These efforts include training workshops, summer schools, post-doctoral networks, etc. Moreover, involvement of scientists from the developing world in planning and steering committees and their active participation in observational campaigns and process studies also ensure development of expertise in various aspects of global change research.

There are a number of organizations, having strong links with IGBP, who promote capacity building in global change science on a regional level. Prominent among them are the Inter-American Institute for Global Change Research (IAI), the Asia-Pacific Network for Global Change Research (APN) and the System for Analysis, Research and Training (START). SCOR also conducts a variety of activities on capacity building. So far, these activities have not been officially connected or coordinated. The SCOR Executive Committee, at its recent meeting held in Concepcion, Chile, resolved to constitute a SCOR Committee on Capacity Building, whose primary purpose will be to oversee all of SCOR's capacity-building activities and to help the SCOR Secretariat manage these activities.

In addition to promoting capacity building efforts at a central level, the various core projects of IGBP/SCOR also have their own capacity building initiatives. For example, capacity building is one of the four crosscutting framework activities of GLOBEC; LOICZ is setting up Regional IPO Nodes in the developing world (two of these are already in place in Asia (Singapore and Colombo), another is planned for Africa) that will help implement its science plan on a regional basis; and SOLAS has an advanced

capacity building programme, one important component of which is the biennial summer school.

In order to better synergize the various efforts mentioned above and to minimize duplication, greater co-ordination is needed both at the central level between major sponsors (particularly SCOR and IGBP, but also involving other agencies like IOC and POGO) and between the various core projects. Two examples of initiatives that could be managed centrally are 1) the proposed establishment of regional graduate schools of oceanography and marine environmental sciences, and 2) the UNESCO Floating University. At the level of the core projects, ongoing and planned training activities could be expanded somewhat in scope to make them applicable to a number of core projects. For example, the SOLAS summer school has been an immensely successful venture, but including more ecology in the curriculum will make it beneficial to young IMBER researchers as well. Similarly, available regional initiatives (and nodes) that include process studies under one core project could be made accessible to others so that the already available infrastructure could be more efficiently utilized. Organizing joint meetings, especially in developing countries, such as the forthcoming IMBER-LOICZ OSM on Continental Margins in China, will also help in the development of interdisciplinary research in these countries.

The above examples address two important aspects of capacity development in global climate change science: the development of sufficient human capacity in different regions, and the availability of adequate infrastructure and resources to carry out research. Different solutions are probably needed in different regions, but sustainability should be an important consideration in developing such initiatives; there should be a legacy of global research enhancement associated with the global science.

Recommendation: The IMBER Capacity Building Task Team strongly recommends formation of a joint capacity building group comprising representatives from all marine projects and sponsors for identifying potential joint ventures between these projects concerning capacity building and availing of the opportunities (fellowships, training workshops, field programmes, etc.) offered/conducted by other agencies involved with capacity building.