



Global Ocean Ecosystem Dynamics

GLOBEC (Global Ocean Ecosystem Dynamics) was initiated by SCOR and the IOC of UNESCO in 1991, to understand how global change will affect the abundance, diversity and productivity of marine populations comprising a major component of oceanic ecosystems. In 1995 GLOBEC was adopted by IGBP.

The aim of GLOBEC is to advance our understanding of the structure and functioning of the global ocean ecosystem, its major subsystems, and its response to physical forcing so that a capability can be developed to forecast the responses of the marine ecosystem to global change.

GLOBEC considers global change in the broad sense, encompassing the gradual processes of climate change and its impacts on marine systems, as well as those shorter-term changes resulting from anthropogenic pressures, such as population growth in coastal areas, increased pollution, overfishing, changing fishing practices and changing human use of the seas.

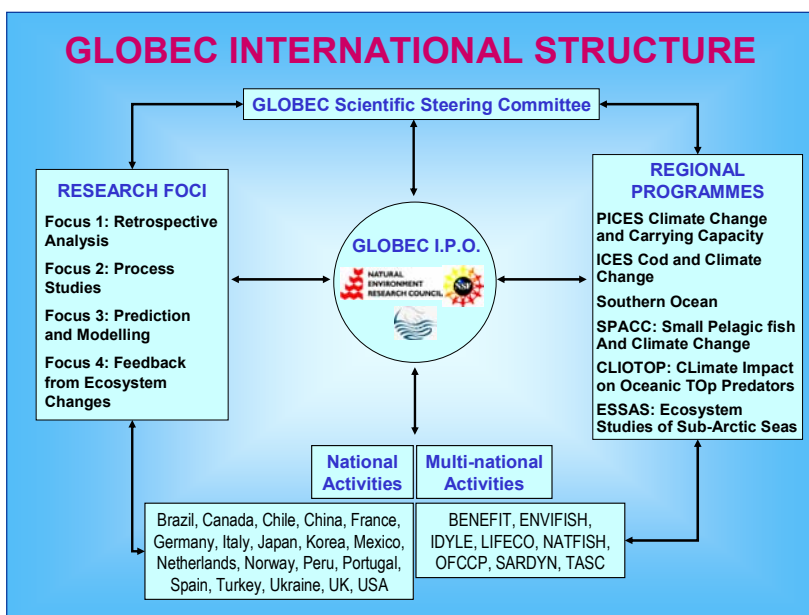
GLOBEC has four primary objectives:

Objective 1: To better understand how multiscale physical environmental processes force large-scale changes in marine ecosystems

Objective 2: To determine the relationships between structure and dynamics in a variety of oceanic systems which typify significant components of the global ocean ecosystem, with emphasis on trophodynamic pathways, their variability and the role of nutrition quality in the food web.

Objective 3: To determine the impacts of global change on stock dynamics using coupled physical, biological and chemical models linked to appropriate observation systems and to develop the capability to predict future impacts.

Objective 4: To determine how changing marine ecosystems will affect the global earth system by identifying and quantifying feedback mechanisms.



GLOBEC encompasses an integrated suite of research activities consisting of Regional Programmes, National Activities and cross-cutting research foci activities. The GLOBEC programme was developed by the Scientific Steering Committee (SSC) and is co-ordinated through the GLOBEC International Project Office (IPO).

GLOBEC has a very broad scope from small scale National Activities to Regional Programmes covering ocean basins. Multinational programmes consist of several countries working together on a specific aim or area but do not cover sufficient geographical area to

be considered Regional Programmes. There are 8 GLOBEC multi-national Activities, 2 of which have already been completed. The 6 Regional Programmes address research that could not be carried out by a single country. These Regional GLOBEC programmes are the mechanism for the practical implementation of many of the activities within the 4 research foci. The cross-cutting research foci are organised through Focus Working Groups that report to the Scientific Steering Committee.

More details can be found on the GLOBEC website: www.globec.org