

LOICZ

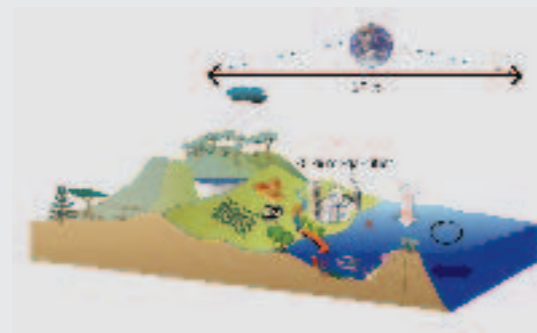
Outputs and Dissemination

LOICZ research is being communicated and taught through workshops which result in the publication of the reports and studies series. Developments within **LOICZ** are published in a quarterly Newsletter and an Annual Report. Scientists involved in **LOICZ** also publish their results in a wide range of scientific journals, conference proceedings and manuals.

Modelling and Typology

Modelling is an important activity that illustrates the results of **LOICZ** research and identifies the research needs of the future. Natural systems such as ecosystems are usually very complex, and models are tools that help conceptualize, integrate, and generalize knowledge.

LOICZ Outputs and Dissemination

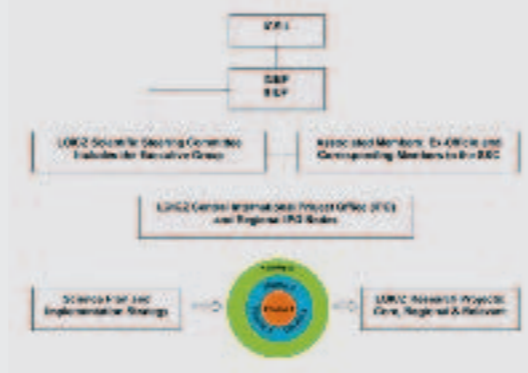


LOICZ

LOICZ works to produce models that explain and forecast how factors, such as water, salt, sediment, carbon, nitrogen and phosphorus, affect the coastal zone and is working to develop scenarios that investigate the implications of these changes on society.

The variety of physical, biological, chemical, social, political and economic factors that influence the coastal zone, and the length of the globe's coastline, does not allow measurement of all of them. **LOICZ** develops typology approaches ("typology" literally means the study of types where things are classified according to their characteristics) of the world's coasts based upon available scientific information. The purpose of this is to visualize the current functioning and predict the future of the coastal zone and how it might interact with society. The typology also helps to identify gaps in our scientific knowledge and geographic areas that require more investigation.

LOICZ Outputs and Dissemination



The **LOICZ** project is managed by an International Project Office (IPO) that is responsible for the administration of the project on a day-to-day basis. Scientific guidance is provided by a Scientific Steering Committee (SSC) that oversees the development, planning and implementation of the **LOICZ** activities.

Regional nodes are being established to facilitate the engagement by scientists, managers and decision makers at a regional level with **LOICZ** research and to ensure that the research carried out by **LOICZ** is relevant to regional needs.

LOICZ

LOICZ Management



IHDP is an international, interdisciplinary and non-governmental science organization, dedicated to promoting, catalyzing and coordinating research, capacity-building, and networking on the human dimensions of global environmental change. It takes a social science perspective on global change and it works at the interface between science and practice.

IHDP's mission is to generate scientific knowledge on coupled socio-environmental systems, and to achieve comprehensive understanding of global environmental change processes and their consequences for sustainable development. It aims at making contributions to explore:

- the anthropogenic drivers of global environmental change,
- the impact of such change on human welfare, and
- societal responses to mitigate and adapt to global environmental change.

IHDP's Seven Core Research Projects

- > Global Environmental Change and Human Security (**GECHS**)
- > Industrial Transformation (**IT**)
- > Institutional Dimensions of Global Environmental Change (**IDGEC**)
- > Land-Use and Land-Cover Change (**LUCC**)*
- > Land-Ocean Interactions in the Coastal Zone (**LOICZ**)*
- > Urbanization (starting 2005)
- > Global Land Project (starting 2005)*

* co-sponsored by IGBP

IHDP

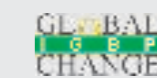
International Human Dimensions Programme on Global Environmental Change



Land Ocean Interactions

in the Coastal Zone

LOICZ



LOICZ is a research project jointly sponsored by the International Human Dimensions Programme on Global Environmental Change (IHDP) and the International Geosphere-Biosphere Programme (IGBP).



LOICZ

What is the Coastal Zone and why is it important?

The coastal zone represents the interface between the land, sea and atmosphere. Almost half the world's population lives within this zone including many of the world's poor. The coastal zone has the following characteristics:

Contains natural systems (such as estuaries, coral reefs, sea grass beds) that provide goods (e.g., fish, oil, minerals) and services (e.g., natural protection from storms and tidal waves, recreation).

Various user groups compete for land and sea resources. This often results in conflict eventually causing deterioration of the coastal zone.

It serves as the source of the national economy of coastal states.

It is a preferred site for urbanization.

A large proportion of the world's population lives at or near the coast and relies on the health and maintenance of coastal environments. The coastal zone is diverse with productive habitats important for human welfare.

The demands placed on the coastal environment for space to live and natural resources to exploit is increasing as populations grow. Protecting coastal zones for all their natural, economic, social and aesthetic values becomes even more important as these demands become increasingly unsustainable in the future.



LOICZ

What is LOICZ?

Land-Ocean Interactions in the Coastal Zone (LOICZ) is an international research project involving scientists from across the globe who have been investigating changes in the biology, chemistry and physics, of the coastal zone since 1993. Since 2003, LOICZ has expanded its areas of research to include social, political and economic sciences so that its research incorporates the human dimensions of the coastal zone.

The results from the research are used to explore the role humans play in the coastal zone, their vulnerability to changing environments and options to protect coasts for future generations.

The goal of LOICZ is "to provide the knowledge, understanding and prediction needed to allow coastal communities to assess, anticipate and respond to the interaction of global change and local pressures which determine coastal change."

LOICZ is a research project jointly sponsored by the International Human Dimensions Programme on Global Environmental Change (IHDP) and the International Geosphere-Biosphere Programme (IGBP).



LOICZ

LOICZ Research

LOICZ has developed a Science Plan and Implementation Strategy around five themes in order to better understand:

Why coasts are sensitive to natural and human-made changes and how the changes bring risk to environmental health and human welfare.

How natural and human-made changes affect the surroundings and "ingredients" available at the coast for societies to use.

How human activity around rivers can change and influence the coast.

The transport and changes in sediments and nutrients in coastal waters.

How managing activities can support future generations in the coastal zone.



LOICZ

LOICZ Research

LOICZ research is being carried out by a global, interdisciplinary network of scientists whose contributions can be divided into three categories:

Core projects represent large scale integrative research that is international in scope and directly addresses goals of the LOICZ Science Plan.

Regional projects are closely tied to one or more themes in the Science Plan. They provide a link between global-scale research of the core projects and smaller scale projects, as well as addressing global environmental change concerns of individual countries and regions.

Relevant projects make a scientific contribution to LOICZ, often at local or thematic levels.



LOICZ

LOICZ International Project Office

Contact details

LOICZ International Project Office
P.O. Box 59
1790 AB, Den Burg-Texel
The Netherlands
P: +31(0)-222-369404
F: +31-(0)-222-369430
loicz@nioz.nl
www.loicz.org

Scientific Steering Committee

Liana Talaue-McManus, USA Chair
Felino P. Lansigan, The Philippines Vice-Chair

Themes and Theme coordinators

- Theme 1: Vulnerability of coastal systems and hazards to human society
William C. Dennison, USA
- Theme 2: Implications of coastal change for coastal ecosystems and sustainable development
A.T. "Ticky" Forbes, South Africa
- Theme 3: Anthropogenic influences on the river basin and coastal zone interactions
Juan D. Restrepo, Colombia
- Theme 4: Biogeochemical cycles in coastal and shelf waters
John Parslow, Australia
- Theme 5: Towards coastal system sustainability by managing land-ocean interactions
Eva Roth, Denmark

Cross cutting activities:
Alice Newton, Portugal