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**INTERNATIONAL
COUNCIL FOR
SCIENCE**

**Ninth Session of the Global Ocean Observing System
Scientific Steering Committee (GSSC-IX)**
Paris, France, 6 – 8 March 2006

**Discuss links with GTOS and
potential formation of a Joint Coastal Panel**



Steering Committee Meeting

Mexico Room (D211), FAO HQ, Rome, Italy, 25-27 January 2006

Document 24a

Version 2

20-01-2006

Joint Panel for Integrated Coastal Observations Recommended Terms of Reference

(Submitted by Robert Christian, Chairman of C-GTOS, on behalf of the IGOS Coastal Theme Team)

Summary and Purpose of Document

1.1 This document presents the draft Terms of Reference recommended by the Integrated Global Observing Strategy (IGOS) Coastal Theme Team for the Implementation of a Joint Panel for Integrated Coastal Observations (J-PICO). The Coastal Theme of IGOS is critically important to the development of robust and effective policies and management plans to ensure that coastal regions are managed in a sustainable manner with respect to such interfacial phenomena (See document 24b for further information on the Coastal Theme of IGOS). Recognizing that the Steering Committees for GOOS and GTOS are responsible for the provision of science and technical advice for scientifically sound implementation of GOOS and GTOS as a whole, a Joint Panel for Integrated Coastal Observations (J-PICO) is now needed to provide scientific and technical advice for the implementation of integrated coastal observations across the land-sea interface and to promote and enable coordinated development of such a system as part of the implementation of GOOS, GTOS and GEOSS. The development at the GEO User Interface Working Group was approved after the GEO-II plenary in December - called the "Coastal Zone Community of Practice". The proposed panel would give guidance to this effort as well.

ACTION PROPOSED

The meeting is invited to note the information contained in this document for discussion under Agenda Item 16 and 17.

Action 1. *GTOS and GOOS SEC to consider establishing a Joint Panel of Integrated Coastal Observations (J-PICO) between GTOS and GOOS. This will be done in collaboration with the members of the proposed GTOS Coastal Panel, GOOS Scientific Steering Committee (GSSC) and IGOS Coastal Panel Theme Team, and in accordance with inputs and proposed activities by each of these organizations towards improving joint observation capacities (Documents 20-24).*



Joint Panel for Integrated Coastal Observations

Recommended Terms of Reference

The Coastal Theme Team was established by the IGOS Partners to determine requirements for observations needed to assess interactions among coastal marine and terrestrial systems across the land-sea interface. The Team's report¹ builds on and complements design and implementation plans of the coastal modules of GOOS² and GTOS.³ Both plans identify phenomena of interest, such as land-use, land-cover, coastal flooding and erosion, habitat loss, harmful algal blooms, mass mortalities of marine mammals. In so doing, it was recognized that terrestrial and marine phenomena, or changes in them, are often related and that interactions among them must be addressed explicitly.

Implementation of the Coastal Theme is critically important to the development of robust and effective policies and management plans to ensure that coastal regions are managed in a sustainable manner with respect to such interfacial phenomena. Recognizing that the Steering Committees for GOOS and GTOS are responsible for the provision of science and technical advice for scientifically sound implementation of GOOS and GTOS as a whole, a Joint Panel for Integrated Coastal Observations (J-PICO) is now needed to provide scientific and technical advice for the implementation of integrated coastal observations across the land-sea interface and to promote and enable coordinated development of such a system as part of the implementation of GOOS, GTOS and GEOSS. J-PICO will significantly improve the ability of participating nations to achieve their goals and those of GEOSS and international agreements and conventions for environmental protection, sustainable resources and biodiversity, healthy coastal ecosystems, and periodic assessments of the status of coastal ecosystems. To these ends, the terms of reference J-PICO are as follows:

- (1) Provide the IGOS Partners, CEOS and the Steering Committees of GOOS and GTOS with technical advice needed for scientifically sound, coordinated implementation of the Coastal Modules of GOOS and GTOS as related to cross-boundary (land-sea) effects of climate change, natural hazards and human activities on coastal development (urbanization, agriculture, infrastructure development, etc.), public health risks, hydrological and biogeochemical cycles, and ecosystem health and productivity.
- (2) Facilitate and enable implementation of IGOS Coastal Theme in coordination with implementation of GOOS, GTOS and GEOSS as a whole. This should include the identification of users and specification of observing system requirements based on their data and information needs.
- (3) In collaboration with CEOS, promote the development of space-bases platforms and sensors that meet coastal requirements for higher spatial, temporal and spectral resolution.
- (4) As needed, conduct workshops and work with the national and international bodies to plan and implement pilot projects that enable development of integrated observations across the land-sea and air-sea interfaces.
- (5) Establish ties with the scientific and technical organizations (e.g., IGBP and SCOR) to facilitate synergy between advances in science and technology and the development of operational capabilities of the coastal modules of GOOS and GTOS as related to land-sea interactions.
- (6) Provide expertise and advice to JCOMM, FAO and other bodies as appropriate on the development of the operational elements of the GCN including the management and dissemination of non-physical, physical and socio-economic variables regarding:
 - Observations,
 - Data Management and distribution,
 - Modelling, and

- Communication of data and information to user groups.

(7) Advise capacity building programs, including those of the FAO, JCOMM and the IOC, regarding capacity building needs of nations and regions and approaches to addressing such needs.

(8) Using the implementation strategies and plans for coastal GOOS and GTOS as guides, prepare and periodically update an Implementation Action Plan for the Coastal Theme that is coordinated with implementation of the GEOSS in general and GOOS, GCOS and GTOS in particular.

(9) Organize periodic assessments of the status of implementation and performance of cross-boundary elements of the coastal modules of GOOS and GTOS and recommend improvements and enhancements in them.

¹ IGOS. In Press. Coastal Theme Report. For the monitoring of our environment. IGOS. (available at <http://www.igospartners.org/Coastal.htm>).

² UNESCO. 2005. Implementation Strategy for the Coastal Module of GOOS. GOOS Report No. 148, Paris (available at <http://ioc.unesco.org/goos/docs/GOOS-148-COOP-lowres.pdf>).

³ FAO. 2005. Coastal GTOS strategic design and phase 1 implementation plan. By Christian, R.R., Baird, D., Bowen, R.E., Clark, D.M., DiGiacomo, P.M., de Mora, S., Jiménez, J., Kineman, J., Mazzilli, S., Servin G., Talaue-McManus, L., Viaroli, P. & Yap, H. GTOS Report No. 36, Environment and Natural Resources Series No. 9. Rome, FAO. 93 pp (Available at <http://www.fao.org/gtos/gtospub/pub36.html>).