The Group on Earth Observations (GEO) Coastal Zone Community of Practice (CZCP)

Presented by
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Decision-Making Support for Coastal Zone Management, Water Resources
& Climate Change in Africa

Cotonou, Republic of Benin 16 February 2010

CZCP Co-Chairs: Dr. Hans-Peter Plag, University of Nevada-Reno & Dr. Paul M. DiGiacomo, NOAA-NESDIS

- Global, regional and local trends in natural processes and human demands on coastal ecosystems jeopardize the ability of these ecosystems to support commerce, living resources, recreation and habitation.
- In this context, improved, integrated and sustained coastal observing capabilities are required to better support user information needs.
- GEOSS provides a valuable framework/mechanism to help implement these capabilities, and under the auspices of GEO, a *Coastal Zone Community of Practice (CZCP)* was initiated in 2006 by the IGOS Coastal Theme.

Figure 1.1. The Coastal Zone: Where inputs from land, sea, air and people converge



Heavily developed coast of Cancun, Mexico mostly for international tourism. Image credit: © Wolcott Henry 2001.

Image source: www.marinephotobank.org.

IGOS-P Coastal Theme Report



2006

An international partnership for cooperation in Earth observations

- Published January 2006, IOC
- http://www.ioc-goos.org/ content/ view/14/28/
- Also see related article:
 Christian et al., Opportunities and Challenges of Establishing Coastal Observing Systems,
 Estuaries and Coasts,
 29(5):871-875. 2006

The GEO Coastal Zone Community of Practice (CZCP) objectives are to:

- Engage coastal users (e.g., managers and decision makers) and data providers to collaborate in the specification of requirements for *in situ* & remote coastal observations and derived Information products (variables to monitor, time-space resolution, accuracy, rate, forms and delivery methods in which data and derived products are needed);
- Evaluate current and projected observational capabilities against these requirements, identifying gaps, redundancies and activities that need to be strengthened;
- Promote the development of workshops and "proof of concept" pilot projects that both address these gaps and enable data integration for the provision of new or improved decision support tools;
- Promote development or strengthening of networks of institutions globally, regionally, and across Communities of Practice (CPs) that contribute to and benefit from GEOSS;
- Advise the GEO User Interface Committee (UIC), other CPs and GEO on matters relating to coastal zone observations and related societal benefits, and identify priority needs as well as areas for linkage, collaboration and support.

CZCP membership/interests:

-CZCP has broad, open membership with many GEO member nations represented as well as various coastal interests and applications (e.g., sea level rise & inundation; water quality; habitat, resource and integrated coastal area management). All are welcome and encouraged to participate!

-CZCP Leadership:

-Co-Chairs: Paul DiGiacomo and Hans-Peter Plag

-CZCP Workshop Series:

-Chaired by Michael Bruno plus regional Co-Chairs for individual workshops, which in this case is Jimmy Adegoke and Justin Ahanhanzo.

Present coordination, developmental & support activities of the CZCP include:

- * Organizing a series of Regional Workshops under the title: "GEOSS Support for Decision-Making in the Coastal Zone: Managing and Mitigating the Impacts of Human Activities and Natural Hazards in the Coastal Zone";
- * Developing a community web page with access to relevant information, data
 & products highlighting and addressing gaps and facilitating/enabling data
- integration for the provision of new or improved decision support tools;
- •* Liaison to other relevant GEO Tasks, Participating Organizations (e.g.,
- •GOOS, GTOS), Committees & activities;
- •* Support and Stimulation of Pilot Projects (e.g., ChloroGIN) and technical
- •activities (e.g., Remote Sensing of Water Quality in Nearshore Coastal &
- Inland Waters);
- * General user outreach and engagement activities meetings, workshops, conferences et al.

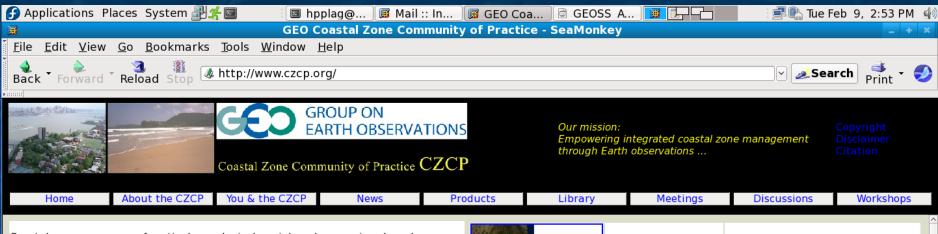
CZCP Regional Workshops

1) Mediterranean: "Observing System Requirements for Managing and Mitigating the Impacts of Human Activities and Coastal Inundation in the Mediterranean Region", June 9-13, 2008, Athens, Greece; Report available at: http://www.czcp.org

Present:

- *2) Africa:* "Decision-Making Support for Coastal Zone Management, Water Resources & Climate Change in Africa"; 15-17 February 2010, Cotonou, Benin
- -Upcoming:
- -3) Americas: Building on GEOSS in the Americas activities, the CZCP is working to develop a CZCP Americas Regional Workshop for later this year, potentially October in Puerto Rico.
- 4) *North Africa*: Follow up recommendation from the Athens Workshop; main goal understanding decision processes and GEOSS decision support in Southern Mediterranean countries; working on overcoming funding challenges; still TBD.
- 5) *Asia*: Potential focus on coastal mega cities; very early planning stages.....

Coastal Zone Community of Practice website: http://czcp.org/



Coastal zones are areas of particular ecological, social, and economic value where many conflicting interests need to be resolved in order to ensure a sustainable development of this highly complex environment. Humanity has always shown a special interest in the coastal zone and a large fraction of the human population traditionally settles in or close to the coastal zone. Recent increases in coastal urban population and changes in land-use practices have led to rapid and large changes in sediment supplies and increases in nutrient, pollutant and pathogen loadings to coastal waters. Climate-induced changes in sea level are likely to increase the risk of inundation in many parts of the coastal zone. The on-going and anticipated changes pose serious risks to human health and the capacity of ecosystems to support products and services critical to the survival and well being of human populations, in developed and developing nations alike.

The Coastal Zone Community of Practice (CZCP) supports the Group on Earth Observations (GEO) in its goal to provide observations required for informed decisions concerning the coastal zone. High and immediate priorities for GEOSS are improved forecasts of sea-level rise and associated increases in coastal inundation that may be exacerbated by increases in the frequency of extreme weather.

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The IGOS-P Coastal Zone Theme Report: The Theme Report the work of the GEO Coastal Zone Community of Practice.

If you are new to the CZCP and are considering to join, start by reading the Theme Report

More about the CZCP, who we are, what we do, and why we do it, is available here.

provides the basis for If you have questions, want to express your interest, become a member/contributor, or have relevant information, please go to "You & the CZCP" or contact the Co-Chairs.

Latest News:

[1 December 2009] 2nd Regional CZCP Workshop in Cotonou, Benin: The 2nd Regional Workshop of the CZCP will take place on February 15-18, 2010 in Cotonou, Benin. The workshop is organized by the CZCP jointly with UNESCO's International Hydrology Programme, and the workshop has two sub-themes: Sub-Theme 1: Strengthening Observing Systems Capacity for Managing and Mitigating the Impacts of Human Activities and Coastal Inundation in the African Region; and Sub-Theme 2: Mitigating the Impacts of Climate Change on Water Resources in Africa. More information on the workshop is available at the Workshop Web Page.

Please visit this site if interested in becoming an active CZCP Contributor.

Future CZCP Plans and Activities

- Continue the series of CZCP Regional Workshops and follow up with GEO et al about user-driven coastal observing needs & requirements, recommendations et al.
- From this workshop, we anticipate a report that summarizes these regional user needs, along with the formation of an African CZCP.
- -- Work with GOOS and GTOS, and contribute to implementation of the
- global and regional (especially in Africa) coastal observing networks.
- Facilitate development of pilot projects & other collaborative efforts.
- Improve user linkages and coordination, communication & outreach efforts, and further develop and populate the CZCP Web Page
- Facilitate data access/sharing; transitions from research to operations