HOW CAN GEOSS CONNECT COASTAL ZONE OBSERVATIONS WITH COASTAL ZONE CONCERNS

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The Global Earth Observation System of Systems (GEOSS) is being developed by GEO and its members to connect providers of Earth Observations with a wide range of users in the service of fundamental social benefits. The federated GEOSS 'system of systems' will leverage common technical standards and interoperability practices so that data from thousands of different sensors and processing models can be combined into significant information and support socially beneficial decision-making. The compatibility of different types of data and systems will be accomplished by an emerging GEOSS architecture built from interoperable components.

The GEOSS Core Architecture for exchange and dissemination of observations is one key to knitting together a potentially vast number of GEOSS components contributed from diverse organizations and communities. The Core Architecture consists of the GEOSS Registries, the GEO Web Portal, and the GEOSS Clearinghouse, along with processes to register, discover and utilize a myriad of components and services contributed by participating organizations. Another key is the implementation of GEOSS Interoperability Arrangements and Best Practices, through which users will be able to interchange, combine, compare, and get the most value out of contributed observations.

In this conversation, we propose to drill down through the high-level objectives and architecture of GEOSS to consider the specific ways in which GEOSS can help Coastal Zone communities make better decisions from more complete information. The multitudes of earth observations providers and users are not only diverse in their interests and expertise, but typically fall into distinct knowledge communities. The high-level GEO social benefit areas themselves will map variously at an operational level into specific challenges and issues.

Coastal Zones in many ways epitomize the interoperability issues which GEOSS must overcome to realize its mission. There is the situation of specific scientific disciplines, physical, biological, chemical, whose practitioners know the availability and applicability of their own data but are challenged to discover, access, and use appropriately the products of other disciplines. Coastal Zones add the intimate juxtaposition of distinct media – air, water, and land – within which unique processes operate but which function together as an ecosystem. At a somewhat greater scale, even proximate coastal regions have their unique characteristics and communities which make comparability and common lessons difficult to achieve.

Participants in this conversation will be challenged to pose questions of earth observation interoperability, comparability, discovery, and integration; then consider how these questions can be addressed by developing specific capabilities within the framework provided by GEOSS. It constitutes an opportunity for the Coastal Zone community both to learn more about GEOSS implementation developments and to provide feedback in a critical initial phase of operational deployment.

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