

Future Prototype for Distributed Data Integration System (WTF-CEOP)

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CEOP

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Strategy for a project of projects *by Prof. Koike*

1. Data needs from whom and purpose, e.g. process study, validation, intercomparison, etc.
2. Data infrastructure needs purpose
3. Climate region commonality which can be shared with whom.
4. Needs for up-scaling and down scaling.
5. Needs for pilot demonstrations
6. Clarification of limitations

Contents

JAXA Prototype

- (1) Contribution and Milestones
- (2) Limitation

NASA Prototype

- (1) Contribution and Milestones
- (2) Limitation

JAXA Prototype

(1) Contribution and Milestones

1. FY2007 (Apr.2007-Mar.2008)

- Add more “Data layer” to the prototype
- Demonstration for “Flood in Vietnam”
- Get feedbacks from users

2. FY2008 and beyond

- Improve the prototype, based on the feedbacks from users. => Feedbacks and prioritization needed !

JAXA Prototype

(1) Contribution and Milestones

Integrating a Web Map Client into the prototype system, **multiple data layers** (e.g. roads, rivers, cities, hospitals, etc.) as transparent layers over a base image (e.g. a satellite image) will be shown.

The First Target = Flood in Vietnam

CEOP Layers

- Satellite data
- Model data
- In-situ data

+

“Social Benefit” layers

- Maps
- Rivers and lakes
- Roads, bridges, etc.
- Population density
- Flood scenes

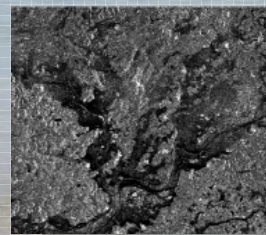


JAXA Prototype

(1) Contribution and Milestones

Web mapping layers could be ;

- Satellite images
- Satellite images with overlaid GIS information
- Maps (Vector Map)
- Layers with “Social benefit” information
 - Rivers and lakes
 - Roads, bridges, hospitals etc.
 - Population density
 - Flood scenes
 - Roads/Rails
 - Land Use
- CEOP Reference Site layers
 - Location of in-situ sensors
 - Location of model data points
 - Soil Types
 - Vegetation types



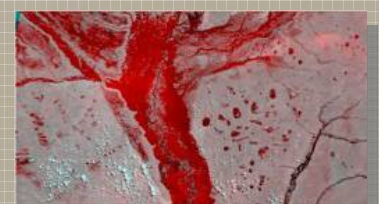
SAR images



Satellite images overlaid with GIS information



IKONOS high resolution images



MODIS image composite (black is normal, red is flood)

JAXA Prototype (2) Limitations

1. “Prototype”, but not “Operational system”
 - No “concrete support structure” in the agency
2. Human Resources
 - No person cannot work full time for this task.
 - Priority of this task is lower than the “main” task.
3. Funding
 - Amount and Continuity

Best Effort Basis !!

NASA Prototype

(1) Milestones & Contributions for GEWEX Roadmap

Focus: facilitate increased and easier interactive online access to satellite data

- Identify satellite data of interest to CEOP-II
- CEOP science community access to NASA prototype for NASA satellite data
- Facilitate improved interactive online access to satellite data from multiple agencies
 - Broaden/facilitate access of additional OPeNDAP enabled clients to satellite data
 - Additional installations of WCS servers at agency sites
- Improve data discovery of CEOP data

NASA Prototype (2) Limitations

- Funding
- Transition from prototype to operational and agency support for operational
- Agreement from multiple agencies to install NASA prototype or other WCS/OPeNDAP Servers to serve satellite data
- Collaboration from the OPeNDAP community of developers to build additional capability into the OPeNDAP enabled clients

System wasn't built in a day

Thank you !