

DI-01-C1: Disaster Management Systems [V 01.01d - Last updated on: 2013-03-25 08:37:37]

Introduction

DI-01-C1 is a Component of Task DI-01: Informing Risk Management and Disaster Reduction

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Related Communities of Practice: Geohazards Community of Practice and Coastal Zone Community of Practice

Expected Achievements by 2015

(expected outcomes by 2015 including main characteristics, and if possible quantification)

The Component is aimed to achieve the following objectives by 2015:

- Develop a multi-hazard approach, to meet the needs for disaster risk reduction, preparedness and response in relevant hazard environments;
- Coordinating efforts towards a more timely dissemination of information from globally-coordinated systems for monitoring, predicting, risk assessment, early warning, mitigating, and responding to hazards at local, national, regional, and global levels;
- Improved national response to natural and man-made disasters through delivery of space-based data, resulting from better coordination and streamlined operations of International response mechanisms (e.g., Charter Space and Major Disasters, GIO-Ems);
- Improved use of Earth observations and related information and services to inform policies, decisions and actions associated with disaster preparedness and mitigation;
- Support to the successful implementation of the Hyogo Framework for Action 2005-2015.

Outputs and Activities

INFRASTRUCTURE

(e.g. observing systems, communication networks, data management, web-site/portals, interoperability frameworks)

Key Outputs

(e.g. products and services which result from the activities of the Component; outlined in the form of deliverables with timelines)

Short Description	Start Date	End Date	Status	Related Task
International Charter Space and Major Disasters metadata catalog	2011	2011	Delivered	
PREVIEW Global Risk Data Platform	2000	2015	In Progress	
South African Risk and Vulnerability Atlas (SARVA)	Jan 2010	Jan 2010	Delivered	

AFIS, a regional fire danger system for southern Africa	2004	2015	In Progress	
European Forest Fire Information System (EFFIS)	2000	2010	Delivered	
Global Early Warning System for Wildland Fire (Global EWS)	2011	2015	In Progress	
Global Fire Information Management System (GFIMS)	2009	2011	Delivered	
SERVIR-Mesoamerica	2005	2005	Delivered	
SERVIR-Africa	Nov 2008	2013	In Progress	
SERVIR - Himalaya	Oct 2010	Oct 2010	Delivered	
SERVIR global Platform	Mar 2012	Mar 2012	Delivered	

Key Activities

(e.g. operations or work processes through which resources are mobilized to produce specific outputs; outlined in the form of milestones including timelines)

Short Description	Start Date	End Date	Status	Related Task

Items registered in the GEOSS Common Infrastructure

(e.g. datasets, systems, portals, services, standards, interoperability arrangements)

INSTITUTIONS AND DEVELOPMENT

Data Sharing

(e.g. documented datasets made available on the basis of full and open access; efforts to develop flexible national and international policy frameworks to ensure a more open data environment)

Key Outputs

(e.g. products and services which result from the activities of the Component; outlined in the form of deliverables with timelines)

Short Description	Start Date	End Date	Status	Related Task
PREVIEW Global Risk Data Platform allows users to browse the dataset by	2012	2012	Delivered	

type of hazards, access the metadata, preview maps and download data in different formats				
New satellite EO data sets made available for international disaster management community	2012	2015	Planned	

Key Activities

(e.g. operations or work processes through which resources are mobilized to produce specific outputs; outlined in the form of milestones including timelines)

Short Description	Start Date	End Date	Status	Related Task
Examine gap analysis results and make recommendations on new EO data sets	2012	2013	In Progress	

Datasets contributed to the GEOSS Data CORE

Please see at

<http://www.geoportal.org>

and browse resources by Disasters Societal benefit Area (SBA)

Datasets outside the immediate scope of the Component needed for implementation

Capacity Building

Key Outputs

(e.g. products and services which result from the activities of the Component; outlined in the form of deliverables with timelines)

Short Description	Start Date	End Date	Status	Related Task
Enhance the use of satellite data for disaster management, based on lessons-learned and experience from countries and organizations, and develop best practice guidelines for technical	2012	2015	In Progress	
Short Project Manager training of the International Charter Space & Major Disasters organized by the European Space Agency (ESA)	Jun 2013	Jun 2013	Planned	
SERVIR Capacity Building in the Use of GIS and Remote Sensing for Disaster Management	2005	2015	In Progress	

Key Activities

(e.g. operations or work processes through which resources are mobilized to produce specific outputs; outlined in the form of milestones including timelines)

Short Description	Start Date	End Date	Status	Related Task
• Enhance the use of satellite data for disaster management, based on lessons-learned and experience from countries and organizations, and develop best practice and guidelines	2012	2015	In Progress	

Science & Technology

Key Outputs

(e.g. products and services which result from the activities of the Component; outlined in the form of deliverables with timelines)

Short Description	Start Date	End Date	Status	Related Task

Key Activities

(e.g. operations or work processes through which resources are mobilized to produce specific outputs; outlined in the form of milestones including timelines)

Short Description	Start Date	End Date	Status	Related Task

User Engagement

Key Outputs

(e.g. products and services which result from the activities of the Component; outlined in the form of deliverables with timelines)

Short Description	Start Date	End Date	Status	Related Task
REPORT: Use of Satellites for Risk Management, Volume I. Establishing Global Requirements for Earth Observation Satellite Data to Support Multi-hazard Disaster Management throughout the Disaster Cycle	Nov 2008	Nov 2008	Delivered	
Best practices document detailing integration of EO data into full cycle of disaster management activities, to promote increased user engagement	2012	2015	Planned	DI-01-C3

Key Activities

(e.g. operations or work processes through which resources are mobilized to produce specific outputs; outlined in the form of milestones including timelines)

Short Description	Start Date	End Date	Status	Related Task
CEOS Action C1_2 Enhance the use of satellite data from lessons learned and best practices in the use of satellites for disasters. Use case studies and disaster enterprise architecture work to docume	2012	2015	In Progress	DI-01-C3
Charter Board reviewed Charter access on a region-by-region basis and initiated actions to ensure that non-Charter countries have a ready means to access satellite data for disaster response	2009	2011	Delivered	

Who are the main end users?

The main end users for disaster-related information are disaster managers on a global basis.

These include civil protection agencies, emergency responders and policy makers. Depending on the part of the cycle considered (mitigation, warning, response, recovery) and the level of the activity (local, national, regional, international), the users and their needs vary widely.

Gap Analysis

Key Outputs

(e.g. products and services which result from the activities of the Component; outlined in the form of deliverables with timelines)

Short Description	Start Date	End Date	Status	Related Task
CEOS Disasters SBA floods gap analysis.	2011	2011	Delivered	

Key Activities

(e.g. operations or work processes through which resources are mobilized to produce specific outputs; outlined in the form of milestones including timelines)

Short Description	Start Date	End Date	Status	Related Task
The CEOS Disasters Societal Benefit Area (SBA) is conducting a gap analysis for satellite observations.	2009	2013	In Progress	

SOCIETAL BENEFITS

Key Outputs

(e.g. products and services which result from the activities of the Component; outlined in the form of deliverables with timelines)

Short Description	Start Date	End Date	Status	Related Task
Implementation of Universal Access to the International Charter Space Major Disasters	Sep 2012	Sep 2012	Delivered	
International Working Group on Satellite based Emergency Mapping (IWG-SEM) Operational Guidelines	Apr 2012	2013	In Progress	

Key Activities

(e.g. operations or work processes through which resources are mobilized to produce specific outputs; outlined in the form of milestones including timelines)

Short Description	Start Date	End Date	Status	Related Task
Support to the International Charter Space and Major Disasters in the implementation of the Universal Access policy	2007	2015	In Progress	
SERVIR Support in Extreme Events	2005	2015	In Progress	
International Working Group on Satellite based Emergency Mapping (IWG-SEM)	Sep 2011	2015	In Progress	
Building a Global Early Warning System for Wildland Fires	Jan 2007	2015	In Progress	
Developing The South African Risk and Vulnerability Atlas	Jan 2010	2015	In Progress	

Resources Available for Implementation

Project

ESA-funded review for improving access to the International Charter Space and Major Disasters in Africa

CEOS support for satellite data and related systems gap analysis

Related activities of the Chinese Academy of Disaster Reduction and Emergency Management (<http://www.adrem.org.cn/>). GIS-based disaster assessment system covering earthquake, flood, landslide, debris flow, forest fire, and tsunami

SERVIR regional visualization and monitoring system (<http://www.servir.net>) supported by USA (NASA, USAID)

EC(GMES) Emergency Management Service (<http://www.emergencyresponse.eu/gmes/en/ref/home.html>)

Sentinel Asia Geographic Information System catalogue maintained by Japan (JAXA) (<https://sentinel.tksc.jaxa.jp/sentinel2/topControl.action>)

Satellite constellations committed to provide data through the International Charter in case of major disasters

International Charter Space metadata catalogue maintained by France (CNES) (<http://www.disasterschartercatalog.org>)

South African Risk and Vulnerability Atlas (SARVA) (<http://www.rvatlas.org>)

Global Fire Danger Forecast Web Portal (http://www.fire.uni-freiburg.de/qfwews/forecast_ews.html)

Global Fire Information Management System (GFIMS, <http://www.fao.org/nr/gfims/gf-home/en/>)

In-kind (human resources)

In-kind contributions from Italy (University of Pavia), ESA, UNAVCO, USA (University of Miami)

Financial

Other

Issues and Gaps

Supporting Documents and Links

Participation

Role	Member or PO	Implementing Entity	Contact Name	Email Address
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