

INFORMATION NOTE

United Nations/Germany International Conference

Earth Observation: Global solutions for the challenges of sustainable development in societies at risk

Organized by
The United Nations Office for Outer Space Affairs / UN-SPIDER
and the
German Aerospace Center DLR

In cooperation with
The German Federal Ministry for Economic Affairs and Energy BMWi

26 to 28 May 2015, Bonn, Germany

1. Introduction and background

In its resolution 61/110 of 14 December 2006 the United Nations General Assembly established the “**United Nations Platform for Space-based Information for Disaster Management and Emergency Response – UN-SPIDER**”, as a programme of the United Nations Office for Outer Space Affairs, to provide universal access to all countries and all relevant international and regional organizations to all types of space-based information and services relevant to disaster management to support the full disaster management cycle.

In the last decade, through the implementation of the Hyogo Framework for Action (HFA), we have witnessed the emergence of a new coordinated effort to enhance policies and programs to reduce the risk of disasters, also as part of Member States' efforts targeting sustainable development. These efforts must also be made ensuring coherence and mutual reinforcement between a post-2015 framework for disaster risk reduction, Sustainable Development Goals, the Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC) and to be considered in the post-2015 agenda process on sustainable development.¹

¹ The need to ensure mutual coherence and mutual reinforcement between the Post-2015 frameworks for disaster-risk reduction and Sustainable Development Goals; and the need to address climate change is reflected already in the draft version of the Post-2015 framework for Disaster-Risk Reduction (UNISDR); in the draft version of the proposed Sustainable Development Goals (goals 2, 11 and 13; Open Working Group on

The outcome of the Rio+20 Conference called for disaster risk reduction to be addressed with a renewed sense of urgency in the context of the sustainable development and poverty eradication. In “The Future We Want”, Member States have also recognized the importance of space-based data, in situ monitoring, and reliable geospatial information for sustainable development policy-making, programming and project operations. Many countries have demonstrated that having the right risk information was critical to priorities, localities and strategies, and that lives and assets can be spared.

During the same decade, the quality of satellite sensors and access to and use of satellite imagery and services has greatly improved. More and more space agencies have embraced data-sharing policies that facilitate access to archived and up-to-date imagery. Tremendous progress has been achieved through the continuous development of powerful algorithms and software packages to manage and process geospatial data and to disseminate imagery and geospatial datasets in near-real time, which can be used in disaster-risk management and emergency response efforts. Satellite Earth Observation now offers consistent coverage and scope to provide a synoptic overview of large areas, repeated regularly. These can be used to compare risk across different countries, day and night, in all weather conditions, and in trans-boundary areas.

In developing strategies to promote coherence and mutual reinforcement, Earth Observation, in conjunction with other space-based tools and in-situ data, can provide essential information to align targets and indicators in these post-2015 agreements; contributing to the systematic use of Earth observations and other space-based technologies in the indicator systems to monitor progress in the implementation of the agreements; support better and harmonized national reporting systems; and ensure that space-based information is accessible to all relevant stakeholders.

The momentum of the post-2015 summits on sustainable development, climate change and disaster-risk reduction should be leveraged to enhance the use of space-based technologies as a way to reduce the effects of extreme events. To this end, UNOOSA and the German Aerospace Center DLR will be conducting the **United Nations/Germany International Conference - Earth Observation: Global solutions for the challenges of sustainable development in societies at risk**. This International Conference will bring together experts and decision-makers to discuss and agree on ways to steer the use of Earth Observation to enhance the resilience of nations taking into consideration the challenges of climate change as a way to continue building foundation for sustainable development worldwide.

2. Objectives and Expected Outcomes

The **United Nations/Germany International Conference - Earth Observation: Global solutions for the challenges of sustainable development in societies at risk** aims to facilitate synergies among those experts involved in the use of Earth Observation in disaster-risk reduction, sustainable development and climate change; and to provide the setting for decision makers and experts to agree on the type of geo-spatial information to be used in tracking progresses made as a way to reach the goals to be agreed in the Post-2015 frameworks.

The Conference will facilitate the coordination of global efforts carried out by the space community to contribute to the implementation of the new framework for disaster-risk reduction and will provide guidance to decision-makers from the disaster management community on ways to use such Earth Observation, in combination with local, in-situ data and information, to visualize disaster-risks and to track progress in reaching the targets

Sustainable Development Goals); and in the Cancun agreement regarding Adaptation and in the Warsaw International Mechanism for Loss and Damage associated with the adverse effects of Climate Change.

established in the new framework.

Furthermore, the conference also aims to promote the use of Earth Observation to track and to identify ways to manage climate-related extreme events affecting sustainable development efforts worldwide, including hydro meteorological events such as floods, storms, storm surges and droughts. In this context of climate change, it is expected to provide a forum for experts to discuss novel methods to use Earth Observation to assess potential losses and damages contributing to the mechanism launched in 2013 during the COP in Warsaw; to contribute to adaptation efforts which were launched during the COP in Cancun in 2010;

In addition, the conference will allow experts and decision makers focusing efforts on sustainable development to explore how best to take advantage of the opportunities offered by the Space community to contribute to their efforts. In this context, the conference will be used to identify ways in which Earth Observation can be used explicitly to contribute to the implementation of the new framework for sustainable development and to track progress in the various targets that the framework includes.

Expected outcomes include:

- A compilation of current and future capabilities of Earth observation to support the implementation of the Post 2015 Framework on Disaster Risk Reduction (March 2015), the Sustainable Development Goals (September 2015), and the climate change Agreements;
- Agreements on the development of specific applications to make use of satellite imagery, particularly regarding satellites recently launched into space; and ways to encourage developing countries to use such imagery ;
- Recommendations for improved management of extreme climate-related events through the use of space-based information (prevention, early warning, preparedness and response) through:
 - Demonstrating how specific space-based applications fulfil identified needs and gaps, especially in developing countries; and
 - Facilitating synergies among stakeholders;
- Agreements on the development of specific remote sensing methodologies to track progress in risk reduction efforts at the national and local levels in line with the indicators and reporting mechanisms developed for the Post 2015 Framework on Disaster Risk Reduction, the Sustainable Development Goals, and in efforts related to loss and damage, adaptation and mitigation related to climate change;
- Identification of strategies to enhance synergies between the space community and relevant members of the disaster-risk management, sustainable development and climate change communities;
- To contribute to the activities of the *Earth observation and Space-based applications* working group launched by different agencies from the Space and the Earth observation community which will focus on ways to contribute to these post-2015 development processes and to attract support for its work.

3. Working Modality for the International Conference

The working language of the International Conference will be English.

The International Conference will include High-Level Panels bringing together decision-makers and experts; presentations by key experts and discussion groups and will include

specific side sessions to simulate the use of specific applications to identify their strengths and weaknesses when applied in activities in all phases of the disaster management cycle.

The presentations will include contributions from experts from the space and remote sensing community and experts from the disaster-risk reduction and emergency response communities on the use of space-based information in the context of climate-related extreme events. These presentations will provide an overview on existing space-based services and products as well as on lessons learned regarding their application in disaster-risk management and emergency response.

Discussion sessions in the format of break-out sessions will target specific topics and yield concrete recommendations. Issues to be discussed in these break-out sessions include:

- How Earth observation and geo-information can support the implementation of the Post 2015 Framework on Disaster Risk Reduction (HFA), the Sustainable Development Goals (September 2015), and the climate change Agreements (Adaptation 2010, Loss and Damage 2013, and the new agreement of December 2015);
- Which future capabilities will arise from the use of Earth Observation and other space-based applications;
- Best practices and lessons learned on the use of Earth Observation and other space-based applications for climate-related extreme events both for disaster-risk assessment, early warning, and response to such events;
- Needs and gaps in the access to and use of space-based information;
- Step-by-step procedures to use archived and up-to-date satellite imagery to assess changes in the level of risk over time;
- Strategies to create and leverage synergies and continuous knowledge sharing to jointly tackle global challenges.

4. Participants

The International Conference is expected to bring together around 120 participants from national, regional, and international public and private organizations and institutions including:

- Decision-makers from government agencies (Space agencies, remote sensing centres, civil protection / civil defence agencies, ministries of environment, etc.);
- High-ranking officers from regional and international agencies involved;
- Representatives and experts from UN agencies;
- Experts from the space and remote sensing community who focus their efforts on environmental monitoring, disaster risk management or emergency response activities, particularly in the context of climate-related extreme events;
- Experts and policy makers who are involved in climate change-related issues and particularly in disaster risk management or disaster response in the context of climate-related extreme events;
- UNOOSA/UN-SPIDER National Focal Points;
- Experts from the UNOOSA/UN-SPIDER Network of Regional Support Offices;
- Experts from the UN-affiliated Regional Centres for Space Science and Technology Education, and other national, regional, and international Centres of Excellence;
- Researchers involved in the use of Earth Observation in areas related to climate change, environmental management, sustainable development, disaster-risk reduction and emergency response efforts;
- Representatives of the private sector (Space and Earth Observation, Disaster Management, Environment, etc).

5. Financial Support to Selected Participants

Taking into consideration the limited financial resources available for this conference, a number of qualified applicants from developing countries, who have expressed the need for financial support, will be offered financial support to attend the international conference. This may include the provision of a round-trip air ticket between Bonn and the applicant's international airport of departure or daily subsistence allowances to cover board and lodging for the duration of the International conference. Any changes made to the air tickets must be the responsibility of the participants.

Due to this limited availability of financial resources, applicants and their nominating organizations are strongly encouraged to find additional sources of sponsorship to allow them to attend the International conference. Qualified participants whose nominating agency/organization agrees to fund round-trip travel and/or living expenses will be considered on a priority basis.

6. Language of the International conference and Presentations by Participants

The working language of the International conference will be English.

7. Dates and Location of the International conference

The International conference will be held in Bonn, Germany, from 26 to 28 May 2015. All selected and invited participants will receive information with details on board, lodging and other local options.

8. Deadline for Submission of Applications

The detailed information for applications will be made available in a timely manner via the UN-SPIDER Knowledge Portal. Deadline for applications for those requesting financial assistance is 13 March 2015. Only complete applications, with all requested information and signatures, will be considered.

Information on the application process will be made available at: <http://www.un-spider.org/post2015>

9. Life and Health Insurance

Life and major health insurance is the responsibility of each selected participant or his/her nominating institution or government. UNOOSA and the co-sponsors will not assume any responsibility for life and major health insurance nor for any other expenses related to medical treatment or accidental events.

10. Visas

Participants are responsible for making their own arrangements to secure the visas which may be required when making stop-overs in countries other than Germany due to flight connections and to enter Germany.

11. Point of Contact

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Please check <http://www.un-spider.org/post2015> for the latest information about the International conference.