

Item 9: Disaster management support

Madam Chair, Distinguished Delegates,

Climate change and disaster risk are fundamental threats to sustainable development and the eradication of poverty. Building resilient and sustainable societies means addressing both climate and disaster risks, if development is to be sustainable in the future.

To address this kind of phenomena and extend the benefits of space, Germany conducts a range of scientific and operational activities in the field of Earth observation that serve the purposes of disaster management and humanitarian relief support. Let me highlight some of the most recent developments in this field:

On a national level, the Federal Institute for Geosciences and Natural Resources manages a national ground motion service based on European Sentinel-1 radar images. This service, which is now online available, monitors subsidence processes and other ground movements, which create a risk to buildings and infrastructure. A European Copernicus ground motion service is planned to be implemented.

Moreover, DLR has contributed to the work of the International Charter 'Space and Major Disasters' in all areas and made internal arrangements for the next five years as an active member.

In the course of 2019 DLR provided more than 150 TerraSAR-X and TanDEM-X radar satellite images as well as numerous RapidEye image tiles to the operations of the International Charter Space and Major Disasters. DLR's Center for Satellite Based Crisis Information (ZKI) supported satellite image analysis during several Charter activations, e.g. after the dam

collapse in Brazil in January 2019 and the devastating floods in Mozambique following the landfall of Cyclone "Idai".

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We have learned from experience that space-based emergency mapping can be achieved more effectively with the help of international collaboration. That is why Germany clearly commits itself to a multilateral approach in disaster and climate change management.

In the same spirit, the UN-SPIDER Bonn International Conference on "Space-based Solutions for Disaster Management: Challenges, Applications, Partnerships" in November 2019, brought together the space and disaster management communities to encourage an exchange between providers and users in Africa. In addition DLR and ESA organized a one-day Charter Project Manager Training which was kindly hosted by UN-SPIDER. The intention of such trainings is to more strongly involve regional and national capacities in all parts of the world in Charter activations.

In the more scientific domain, DLR also supports with TerraSAR-X data the "Geohazard Supersites and Natural Laboratories" initiative of GEO as well as some demonstrator projects under the Working Group Disasters of the international Committee on Earth Observation Satellites (CEOS).

Furthermore, numerous new projects have started, one of which looks at satellite-based indicators for the monitoring of floods risks in Ecuador under the Sendai framework, and another one studies how to use GRACE Follow-On, a joint US/German mission, to derive flood risks from gravitational data.

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thank you for your kind attention.