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FEDERAL DEPARTMENT OF HOME AFFAIRS
FEDERAL DEPARTMENT OF FOREIGN AFFAIRS

Final Conclusions and Recommendations

CONFERENCE

Benefits from Space for Sectorial Policies for High Mountain Security
Geneva, Switzerland, 8 – 9 September 2005

The fragile environment of mountains has become increasingly vulnerable, due to global warming and intensified human interactions. Steep topography, glacial shaping and/or high altitude define mountainous terrain, henceforth these effects concern very large regions, from coastal hills to high mountain chains. Mountains cover about 25% of the world land surface and about 12% of the world population live in mountains, while over 50% of the world population are directly or indirectly dependent on mountain resources (up to 80% of the planet's fresh surface water comes from mountains). The impact of global warming is higher in mountain areas in comparison to the global average, causing a change in their climate/weather regime with a significant rise of the average temperature and frequency of severe events. These have impact on biodiversity, population and infrastructures of mountain regions, but also downstream effects on valleys and low lands across borders, influencing both water resources and the security of millions of people.

The conference concluded that space-borne applications are an indispensable tool for the long-term monitoring of environmental changes, risk assessment and prevention, early warning, event mapping, search and rescue, and recovery operations. These, space techniques need to be better combined with spatial models and in situ measurements. Multi-sensor observations, with improved periodicity and spatial resolution, are needed. Integrated information systems, combining Earth Observation, positioning and communication, as well as user services, must be further developed. The conference stressed the need for continuous Earth Observation data.

With a view to protecting the lives and property of populations in mountain regions and those living downstream, while supporting sustainable development, the conference recommends:

1. To respond to the need of improved image periodicity and spatial resolution together with combined approaches, the conference recommends to the European Commission and the European Space Agency that mountain regions be integrated as an element within the GMES service portfolio, taking into account the concerns and commitments at all community levels.

2. Services based on satellite data systems can be operational only if access to satellite data is ensured. Earth Observation stakeholders are encouraged to guarantee the availability of continuous Earth Observation data by implementing a long term observation plan, similar to the one realised for the meteorological services.
3. Service providers are invited to reach towards the user communities in order to respond to their requirements according to their operational procedures, and to demonstrate to the users the reliability and efficiency of their information systems.
4. Organisations concerned with disaster reduction and management, and space agencies, are invited to work together to develop the fast and easy integration of Earth Observations with navigation information and telecommunication means, to support disaster prevention, mitigation, relief and recovery. In particular, the conference encourages the development of mobile, user-friendly, robust terminals for integrated information systems.
5. National governments, in coordination with the European Commission, the Group on Earth Observations (GEO), and the Committee on the Peaceful Uses of Outer Space (COPUOS), are invited to harmonise civil protection operational procedures, taking into account specific local situations. The conference recommends to these bodies, in coordination with the International Charter on Space and Major Disasters operators, to develop curricula for education and training of civil protection communities, in order to fully exploit the potential of space data.
6. The community represented in the conference agreed that it has opportunities, and obligations, to expand exchange of skills and knowledge with other mountain regions of the world that have similar characteristics, to improve services everywhere and especially to support capacity building in the developing world.

Geneva, 9 September 2005