

Adding Value: a New Paradigm

In the aftermath of catastrophe an extremely important source of information is provided by map documentation of its effects. Such early-impact maps, usually produced at different scales, are frequently generated from satellite imagery: one of the few primary datasets almost immediately available after the event and suitable for rapid response. Decision-makers and fieldworkers rely heavily on such maps. However, more effective and timely intervention requires more than simple documentation, it requires value-added information, available in a timely fashion and easy to understand for authorities and rescue teams.

The role of map web-portals for automatic data generation and repository is well known. The European Commission's GDACS and the Office for the Coordination of Humanitarian Affairs' (UN OCHA UN) ReliefWeb are the most interesting examples of approaches useful in the 'first assessment and intervention planning' phase. GDACS is the Global Disaster Alert and Coordination System which provides near real-time alerts about natural disasters around the world and tools to facilitate co-ordinated response. Another very effective international programme that aims to provide processed data is the International Charter for Space and Major Disaster. This is an association of the main international space agencies and data providers which aims through 'Authorised Users' to offer a unified system of space-data acquisition and delivery for those affected by natural or manmade disaster. Sentinel ASIA is another very effective international programme, this time a voluntary and best-efforts-basis initiative led by the Asia-Pacific Regional Space Agency Forum (APRSF). It aims to share its regional disaster information on the Digital Asia (Web-GIS) platform and make the best use of earth-observation satellites data for disaster management.

But a new paradigm is emerging that could be summarised as 'from documentation to value-added products'. What kinds of information could really add value to the early-impact maps? According to decision-makers, national and international humanitarian organizations, NGOs and field teams, other types of information should be incorporated in addition to the classical vector layers commonly called 'core database'. Such subsidiary information includes affected population, logistical issues such as accessibility, infrastructure damage, operational aerodromes and ports, and evacuation assembly points and plans; figures concerning, for example, number of casualties, first-aid points, warehouses and economic loss would be useful for better planning the first phase of rescue and assistance.

Will the scientific/technical community be able to tackle all these demands?