

USING SPACE TECHNOLOGIES IN MANAGEMENT OF NATURAL DISASTERS IN ALGERIA

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Earthquakes, floods, forest fires, locust invasions, drought and desertification are dangerous phenomena

which involves a severe damage in our national development. The spatial technologies contribute to know the phenomena, to identify the related various risks and to implement systems of prevention and management of natural disasters. The floods, as an example, have devastating effects and cause important human and material damages. A better knowledge of risked zones and a detailed cartography of the river system, helps concerned authority to prevent these phenomena. As such, the use of the spatial data is necessary to make the follow-up of the flood fields and to supply evaluations. The fight against locust invasion is a good example of using space tool in prevention of natural disaster. A permanent surveillance from earth observation satellites by using Alsat-1 images is necessary to keep watch over these phenomena, which consist in prospecting the susceptible zones "to accommodate" the locust, from the detection of the vegetation and the wet rivers zones, and to treat them. The principles of the international charter "space and major risks" and of the DMC (Disasters Monitoring Constellation) are considered as the driving element of the mechanisms of provision of data in the case of natural or technological disaster. Alsat-1 is a part of this constellation. The satellites images and the other spatial technologies help the management of natural disasters and contribute to the rehabilitation of the damaged zones at national and international level.

So, within the framework of the international seminar on " the use of the space technologies for the prevention and the management of natural disasters " which was held in Algiers in May, 2005, the Algerian Space Agency (ASAL) proposes the implementation of a cell within the Head office of the disaster and emergency services, dedicated to the alert and to the management of natural disasters, by the integration of the space tool and geographical information systems. This cell acts at the national level in coordination with the specialized institutions, for the preparation and the elaboration of the cartographic products from the space tool. The national institutions specialized in the thematic knowledge of the natural risks (earthquake, floods, forest fire, locust invasion) are a part of the device of alert, through a direct connection with the cell of alert.