



## Press Release



### **INDRA WILL HELP NEPAL WITH THE PLANNING OF EARTHQUAKE-CAUSED EMERGENCIES**

- **Copernicus, the European Earth observation program, granted Indra this activation of its emergency service**
- **Indra has delivered more than 700 cartographic products that will help to evaluate risks and draw up an action plan for earthquakes**
- **The company has already provided similar services with success in Sudan, Portugal, Germany and Kenya**

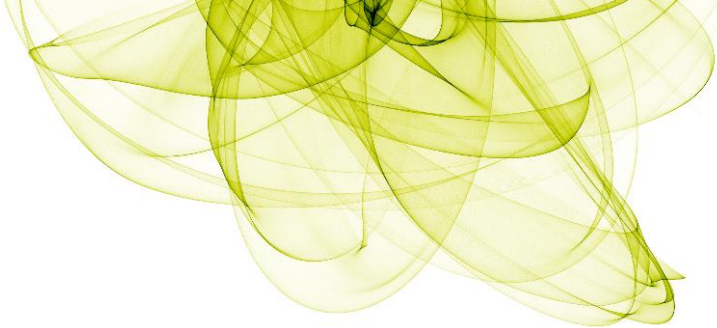
Indra has created maps containing georeferencing information that will help Nepalese authorities to evaluate the risks the country would face in case of a high-magnitude earthquake, and to prepare action plans.

These maps are based on satellite images overlaid with relevant information from different sources, which provides intelligence to the decision-making processes.

Nepal's project is part of the Emergency Management Service offered by Copernicus, the European Earth observation program. Operational since April 2012, this service ensures immediate availability of maps to respond to humanitarian crises or disasters, and creates maps containing more information to evaluate risks and plan the area's recovery.

Working toward the activation for Nepal, Indra has produced maps that will help the country to determine possible measures to minimize damage and plan potential responses to strong earthquakes.

The products have encompassed five districts (Kathmandu, Bhaktapur, Dhanusa, Siraha and Mahottari) and provided information about exposure to hazards, vulnerabilities, risks and contingency and evacuation scenarios.



They have also analyzed the expansion of the main cities in these districts (metropolitan areas of Kathmandu and Bhaktapur, Lahan, Jaleswor and Janakpur). Local authorities will thus have precise information to plan their emergency response. This activation has been especially complex, as it has involved the delivery of more than 700 maps.

### **Safety from space**

Indra's Space division has already been responsible for other activations of this Copernicus service. For example, it supported a water treatment project in Darfur, organized by the International Committee of the Red Cross (ICRC).

In this case, Indra's maps provided information about population distribution in the city of Nyala and showed any improvised settlements. The goal was to accurately calculate population distribution to correctly plan the implementation of the water supply and sewage network.

The maps also showed the location of non-residential buildings (hospitals, commercial areas, government buildings, etc.) as well as the location of the main transport, water and energy supply infrastructures, etc.

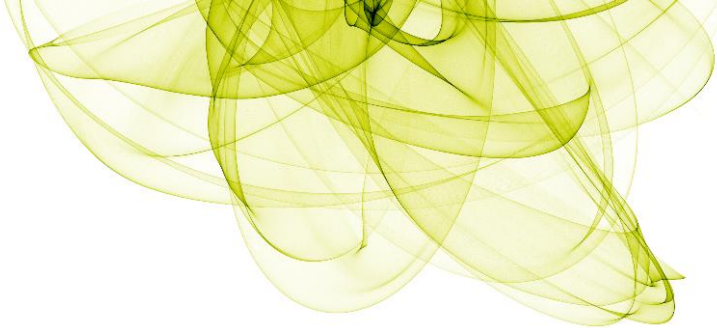
Indra has also headed activations for Portugal's and Germany's public safety departments. In Portugal, the maps provided useful information for the authorities to recover burned-down areas in the Caramulo mountains; it was possible to detect the most affected areas as well as the areas where there was greater risk of erosion-caused landslides. In Germany, Indra delivered maps that helped the German authorities to design training exercises and prepare an effective response to flooding.

Lastly, in another activation of the emergency service, the company studied the environmental degradation caused by refugee camps in Dadaab (Kenya) over time. The presence of vegetation near these settlements is extremely important for the survival of the camps. Its exploitation has some environmental impact around inhabited areas. Some specific recovery programs try to correct this impact. This job was requested by the European Commission's Directorate-General for Humanitarian Aid and Civil Protection (DG ECHO).

The Copernicus Emergency Management Service can be activated by any European agent involved in crisis management as well as international humanitarian aid organizations that submit a request to the European Commission. Indra has signed a framework agreement as a provider of this service, the first to be fully operational in the Earth observation program.

### **Experience in Europe**

Besides supplying cartographic products, Indra participates in a wide range of areas of the Copernicus program. It has recently signed an agreement to take over the main image



processing and archiving center of the Copernicus Sentinel-2 mission in its facilities in San Fernando de Henares (Madrid).

Additionally, Indra has worked on over 10 projects for this program, aimed at developing products and information layers, e.g. GMES Urban Services, GSE BOSS4GMES, SAFER, G-MOSAIC, G-NEXT, Initial GMES Service for Geospatial Reference Data Access, GIO-Land and GIO-Emergency.

## **Indra**

Indra, chaired by Javier Monzón, is one of the world's largest consultancy and technology multinationals, a leader in Europe and Latin America and is expanding in other emerging economies. Innovation is the cornerstone of its business, which is highly focussed on the customer and on sustainability. The multinational is one of the leaders in its sector in Europe in terms of investment in R&D and innovation, having invested more than €570M in the last three years. With sales approaching €3,000 million, it employs 43,000 professional and has customers in 138 countries.