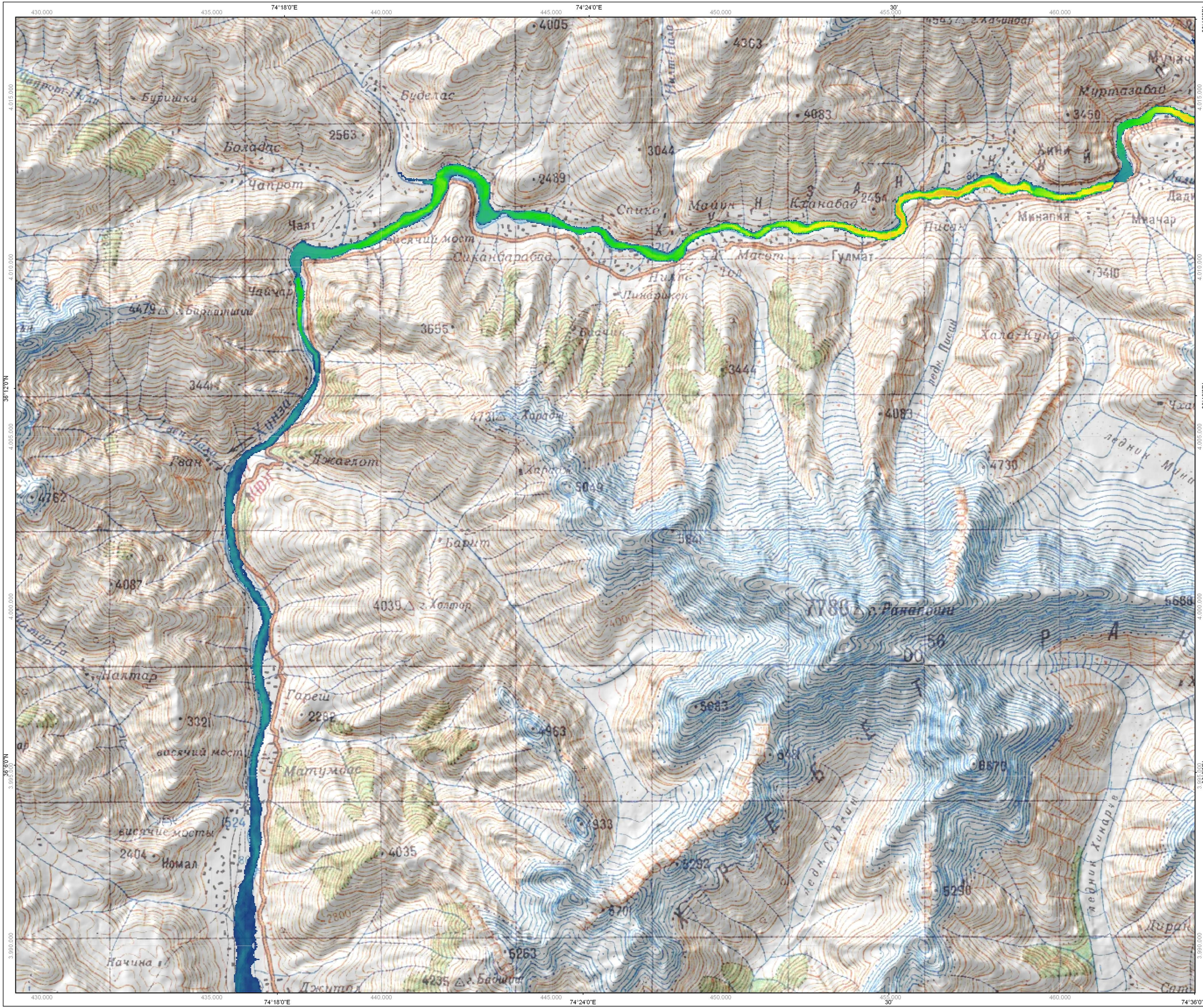

SAFER Map ID No. ID20100401-ITD-geomer_V2

Pakistan - Hunza

Lake Outburst Scenario Map Displaying Flooded Areas Area 2

Scale: 1:50.000

Location Diagrams

Legend

Outburst scenario - Water level

Water level at T0 + 18 h

High: 60 m

Mid: 30 m

Low: 0 m

Physiography and Topographic Features

Topographic Map 1:200.000

Shaded relief of ASTER GDEM
ASTER GDEM is a product of METI and NASA

Interpretation

The map is showing the affected areas and the wave progression due to a lake outburst and the flooded area.
This is expected to follow the landslide that occurred on January 4th and which is blocking the Hunza River. The maps support the evacuation planning process in advance of the upcoming disaster.
The simulation has been performed with the 2D-model FloodArea. The scenario used for the calculation assumes a filling of the lake up to the level of about 110m followed by a sudden failure of about half width of the landslide-dam. The failure is expected to happen end of May within the beginning snow melt season. The simulation is based on a resampled and manually corrected 30m-SRTM-raster as the data base. The simulation fenerated an output of inundation depth for every 15 minutes. As the input data does not allow an detailed simulation, the results should be considered as a rough estimate only.

Cartographic Information

Local projection: UTM Zone 43N, Datum: WGS 84
Geographic projection: Lat/Lon (DMS), Datum: WGS 84

Scale: 1:50.000 for A1 prints

0 0,5 1 1,5 2 2,5 3 3,5 4 Kilometres

N

Data Sources

Imagery layer

- Flood simulation data (water depth in meters), GRID, 30 x 30
- SRTM X-Band 30m DEM (manually corrected and resampled)

Background / Auxilliary layer

- Russian topographic map, 1:200.000, East View Cartographic
- Shaded relief of ASTER GDEM

Framework

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Simulation results by geomer GmbH
Map produced April, 1st 2010 by Infoterra GmbH
User coordination by Alex Irving, Infoterra Limited
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To get more information on this mapping go to
http://www.emergencyresponse.eu or
email Marc.Mueller@Infoterra-Global.com

European Commission
Service and Applications For Emergency Response

SAFER has received Community research funding

Map generation