5. September 2019

Results of the UN/OECD Project on Natech Risk Management

1.3 Interactive, Multiple Hazards Maps (Switzerland)

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<th>OECD GP Activity</th>
<th>UN SF Activity</th>
<th>UN SD Goals / Targets</th>
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<td>1. Natural hazards identification and communication, NH (early) warning systems</td>
<td>1. Understanding disaster risk</td>
<td>16.10 Ensure public access to information ...</td>
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Classification according to OECD Guiding Principles, UN Sendai Framework Priorities/Activities, and UN SDGs and Targets

Figure 1: Location of sites and risks of snow avalanches

Source: Federal Office for the Environment (FOEN), Switzerland, geodata © swisstopo

Short Facts:

- **Governance approach:** Hazard communication
- **Source:** Federal Office for the Environment (FOEN)
- **Entry into force:**
- **Targeted Stakeholders:** Operators, authorities, assessors / safety experts, the public
- **Scope of applicability:** National, regional

Natural Hazard(s) Considered:

- Floods
- Earthquakes
- Avalanches
- Landslides
- Wind gusts
- Wind pressure
- Permafrost

**Climate change:** Not included
Description

The Swiss Federal Office for the Environment (FOEN) provides interactive hazard maps on the Internet. The system offers a wide range of natural hazard maps, e.g. for floods, earthquakes, avalanches, landslides, wind, rock falls etc. The flood maps, for example, illustrate flood-prone areas for an event that occurs statistically once in 50, 100, 250 and 500 years. The site also differentiates between windstorm gusts, windstorm dynamic pressure, and earthquakes. Users can also access information about damage from past events like the destructive storms Lothar and Vivian.

The interactive hazard maps also include locations where chemicals are stored or used. This makes it possible to overlay various hazards in one map. For example, risk maps show chemical storage or usage points as well as avalanche-prone areas. The maps can be magnified to detect local threats and 3D representations are also an option.

The layers for the different natural hazards are useful to Natech risk analysis – particularly multi-hazard analysis. The maps can be used by authorities and private industry, but also by residents who live near facilities that store chemicals or use them for production. The fact that the system is available to the public greatly simplifies the procurement of hazard maps.

This is a system for (natural) hazard maps. An information system for natural hazard warning is available at https://www.naturgefahren.ch

Link/Contact:

https://map.geo.admin.ch/?lang=en&topic=bafu&X=190000.00&Y=660000.00&zoom=1&bgLayer=ch.swisstopo.pixelkarte-farbe

Comments by the UN/OECD Natech-Steering Group:

The integration of several natural hazard maps in one system may help users. The addition of data on the location of hazardous installations gives authorities and the public the chance to learn about possible Natech risks at locations they are interested in – but does not present areas with risks due to Natechs.