



Switzerland

National progress report on the implementation of the Hyogo Framework for Action (2013-2015)

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Strategic Outcome For Goal 1

Outcomes Statement

The Federal Office for Environment (FOEN) has rearranged its subsidy policy for protection of natural hazards within the New Financial Equalization framework. The federal spending on protection against natural hazards is now based on effect- and risk-oriented principles. Cost effectiveness assessments of protection measures have to be carried out at an early stage. Additional resources are allocated if criteria such as sustainability, integrated risk management or participative planning will be accomplished.

The Federal Office for Civil Protection (FOCP) bases its preparedness plans for nation-wide disasters and other activities on risk considerations and develops methodologies for the Cantons to integrate DRR in their considerations. The FOCP is currently coordinating the development of risk scenarios for major disasters, covering natural, technical and societal risks.

The Swiss Agency for Development and Cooperation (SDC) contributes to the global efforts to reduce disaster losses by systematically integrating DRR in development cooperation and humanitarian aid projects abroad. SDC has supported its partners in implementing the HFA since many years with targeted DRR programmes and with the support of international efforts for strengthening DRR.

In order to implement the national strategy “Protection Against Natural Hazards” – approved by the Federal Council in 2003 – several studies, good practice examples, guidelines, tools and instruments have been developed under the umbrella of the Swiss National Platform for Natural Hazards (PLANAT). Among others, recommendations for the definition of standardised protection goals and a toolbox for risk dialogue are available. Furthermore, a framework for a strategic controlling has been developed. Several projects have been carried out during the reporting period to test the applicability of the developed instruments and tools.

Strategic Outcome For Goal 2

Outcomes Statement

The assignments of tasks and respective responsibility in early warning and response have been undertaken vertically (between Federal and Cantonal entities) and horizontally (between technical entities and intervention bodies). Furthermore, since, 2011, the Federal Office for the Environment together with insurance companies and homeowner associations strive for improved task division and financing of prevention measures.

In order to achieve a broad risk dialogue, an overview of actors and their

responsibilities as well as a toolbox for an improved communication is available. The Federal Office for Civil Protection has launched a national project on 'Disaster Self Protection' to improve the emergency preparedness at the individual level. On the international level, Switzerland is active in various committees to foster integral risk management. The Swiss Agency for Development and Cooperation (SDC), as well as various NGOs support their partner countries in strengthening capacities to deal with natural hazards and climate change.

Strategic Outcome For Goal 3

Outcomes Statement

The legal basis for response activities has been further developed. The Federal Council approved an Act ("ABCN-Einsatzverordnung"), which came into force on January 1st, 2011. The Act regulates responsibilities and procedures regarding the management of nation-wide disasters. For the first time, risks from different sources (nuclear, biological, chemical and natural disasters) are managed in a comprehensive way by an inter-agency task force.

A further Act ("Alarmierungsverordnung") empowers the responsible national institutions to warn the population about major disasters in a coordinated manner (single official voice). Interdepartmental cooperation at Federal level has been improved through the "Steering Committee Intervention against Natural Hazards". In May 2010, as part of the implementation of the project "Optimisation of Early Warning and Alerting", the Federal Council assigned financial resources and personnel to improve the meteorological network, the flood warning system and the information provided to the population. The Federal Office for Civil Protection is implementing a new and redundant siren system to alert the population.

The availability of publicly accessible meteorological data and geodata has been improved.

(Website for publicly accessible geodata: <http://map.geo.admin.ch/?lang=fr&X=190000.00&Y=660000.00&zoom=1&topic=bafu&bgLayer=ch.swisstopo.pixelkarte-grau>)

Strategic goals

Strategic Goal Area 1

The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Strategic Goal Statement 2013-2015

The main strategic goal is a paradigm shift from pure protection against hazards to the management of risks. Disaster risk reduction measures are implemented according to standardised protection goals and by considering sustainability. All levels from municipal to national prioritise land-use planning over technical protection measures.

(Publication: Security level for Natural Hazards (2014): <http://www.planat.ch/en/marketing-materials-detail-view/datum/2013/10/17/sicherheitsniveau-fuer-naturgefahren-1/>)

The dynamic of risks (mainly due to climate change) remains poorly integrated. However, efforts in this direction are undertaken by the new climate change division as well as ongoing pilot projects. (Publication: Adaptation to climate change in Switzerland (2012): http://www.bafu.admin.ch/publikationen/publikation/01673/index.html?lang=en&download=NHZLpZig7t,lnp6l0NTU042l2Z6ln1ad1lZn4Z2qZpnO2Yuq2Z6gpJCGfIJ_gWym162dpYbUzd,Gpd6emK2Oz9aGodetmqaN19XI2ldvoaCVZ,s-.pdf)

Strategic Goal Area 2

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Strategic Goal Statement 2013-2015

A broad risk dialogue takes place, which includes key actors from national, cantonal and municipal level and from the civil society. Responsibilities, roles and tasks are clarified. However the limited space available for construction and partially diverging personal/sectorial interests put pressure on a sound integration of risks. On international level, Switzerland contributes to capacity building, especially by supporting its partner countries.

Strategic Goal Area 3

The systematic incorporation of risk reduction approaches into the design and

implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Strategic Goal Statement 2013-2015

Civil protection and specialist departments of all levels work in a coordinated manner to achieve an appropriate degree of preparedness and early warning. Intervention of national entities in case of nationwide emergency is functioning. Forecasting, alerting and early warning has been improved and a first harmonisation across all hazards has been conducted. Roles and responsibilities between national and Cantonal authorities are clarified and self-responsibility of local actors is strengthened.

Priority for Action 1

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Core indicator 1

National policy and legal framework for disaster risk reduction exists with decentralised responsibilities and capacities at all levels.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Is disaster risk taken into account in public investment and planning decisions? Yes

National development plan	Yes
Sector strategies and plans	Yes
Climate change policy and strategy	Yes
Poverty reduction strategy papers	No
CCA/ UNDAF (Common Country Assessment/ UN Development Assistance Framework)	No
Civil defence policy, strategy and contingency planning	Yes

Have legislative and/or regulatory provisions been made for managing disaster risk?
Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The protection of the population, the promotion of the common welfare and

sustainable development is anchored in the Swiss Constitution. A comprehensive legal framework is in place at national and Cantonal levels in the fields of civil protection, protection from natural hazards, protection of the natural environment, sustainable use and management of natural resources (e.g. Federal Law on River Training, 21.6.1991; Federal Law on Forests, 4.10.1991) and land use planning (Federal Law on Land Use Planning, 22.6.1979). Different actors at all three state levels are implementing the national strategy "Protection Against Natural Hazards". The Federal Council has approved a national strategy regarding climate change adaptation in March 2012, and an action plan is currently being developed. The strategy encompasses 9 sectors (water management, disaster risk reduction, forest management, agriculture, energy, management of biodiversity, health, tourism, land use planning).

As of April 1st 2013, the revised Ordinance on Protection against Major Accidents is effective. As a new feature, high-pressure natural gas and oil pipelines are subject to the ordinance which demands a quantification of the risks of these installations as well as a risk reduction using purposeful measures.

The parliament accepts a motion in which gravitational mass movements and subsequent risks regarding major infrastructures should be analysed both at national as well as cantonal level. Further, the Federal Council has approved a national strategy for the Protection of Critical Infrastructures. The strategy defines several measures to improve the protection of critical infrastructures in a comprehensive manner. The implementation of the measures is in progress.

The legal framework harmonization process is still in progress.

The extra-parliamentary commission PLANAT published a vade mecum on the safety level for natural hazards in order to harmonize its assessment at all levels.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

A specific constitutional reference for dealing with natural hazards could provide additional guidance. Legal frameworks at Cantonal level that respond to the respective Federal laws are currently being implemented.

Additional related documents and links

- [Security Level for Natural Hazards](#)
- [Adaptation to climate change in Switzerland](#)

Core indicator 2

Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

What is the ratio of the budget allocation to risk reduction versus disaster relief and reconstruction?

	Risk reduction / prevention (%)	Relief and reconstruction (%)
National budget	100	0
Decentralised / sub-national budget	100	0

USD allocated to hazard proofing sectoral development investments (e.g transport, agriculture, infrastructure)

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The specialist authorities at Federal and Cantonal level, distribute dedicated resources for prevention. In particular, the Federal Office of Environment as the leading authority for natural hazards prevention, has enjoyed a substantial increase of the annual budget for protection measures (WS). However, there are still shortfalls at the municipal level. Additionally, remaining differences in approaching issues between the involved parties may hamper developments.

There are no specific funds in the national and regional budget allocated for relief and reconstruction. However, in case of an event, public budget lines are opened rapidly and financial resources reserved for prevention are then used for risk-oriented reconstruction.

Federal and regional authorities sign agreements securing the financing of new protection works according to the legal framework.

Remaining costs may be covered by charities.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be

overcome in the future.

Policies in expenditure cuts usually strike all sectors equally, potentially affecting disaster risk reduction activities.

Core indicator 3

Community Participation and decentralisation is ensured through the delegation of authority and resources to local levels

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Do local governments have legal responsibility and regular / systematic budget allocations for DRR? Yes

Legislation (Is there a specific legislation for local governments with a mandate for DRR?)	Yes
Regular budget allocations for DRR to local government	Yes
Estimated % of local budget allocation assigned to DRR	0-30%

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

As a result of the decentralised system in Switzerland, operational responsibility for dealing with natural hazards and for civil protection lies, by law, first and foremost with the Cantons and municipalities. The Federal authorities define the strategy and principles, advise the Cantons on sustainable protection measures, provide subsidies and adopt an overall control function. In case of major events with an impact on national level, the Federal authorities are responsible for the coordination of the intervention and for the management of the situation according to the subsidiarity principle.

Protection measures are financed by national authorities (ca. 1/3), cantonal

authorities (ca. 1/3) and municipalities (ca. 1/3). Intervention staff and material (e.g. fire brigades) are financed by the municipalities and state-owned building insurance companies.

Recurrent uncertainties in how to include the prevention of major accidents in the planning process have prompted federal offices of territorial development, environment, energy and transport to compile a guide on the planning, the coordination of planning and the prevention of major accidents. This planning aid provides a practical foundation to promote, at an early stage of planning, coordination between the planning and the prevention of major accidents under the law in force.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

No need, or significant potential, for improvement can be identified.

Additional related documents and links
- [Planning aid "Koordination Raumplanung und Vorsorge"](#)

Core indicator 4

A national multi sectoral platform for disaster risk reduction is functioning.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Are civil society organizations, national finance and planning institutions, key economic and development sector organizations represented in the national platform? Yes

civil society members (specify absolute number)	0
national finance and planning institutions (specify absolute number)	4
sectoral organisations (specify absolute number)	7
private sector (specify absolute number)	2

science and academic institutions (specify absolute number)	3
women's organisations participating in national platform (specify absolute number)	0
other (please specify)	2

Where is the coordinating lead institution for disaster risk reduction located?

In the Prime Minister's/President's Office	No
In a central planning and/or coordinating unit	No
In a civil protection department	No
In an environmental planning ministry	Yes
In the Ministry of Finance	No
Other (Please specify)	

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The Swiss National Platform for Natural Hazards (PLANAT) was created in 1997 by the Swiss Federal Council. This extra-parliamentary commission is mainly responsible for coordinating concepts in the field of prevention against natural hazards. The PLANAT includes eighteen members showing complementary expertise within the field of natural hazards and disaster risk reduction. They are chosen from all regions of Switzerland to represent the Confederation, the Cantons, research, professional associations, the private sector and insurances. The Federal Council appoints them for four year periods, which may be repeated. The platform is fully operational and can be considered an example for the implementation of national platforms.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

The platform emphasizes the importance of coordination and fosters the co-operation between different actors, the bridging of gaps, the use of synergies and addresses strategic questions.

Priority for Action 2

Identify, assess and monitor disaster risks and enhance early warning

Core indicator 1

National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is there a national multi-hazard risk assessment with a common methodology available to inform planning and development decisions? Yes

Multi-hazard risk assessment	Yes
% of schools and hospitals assessed	
schools not safe from disasters (specify absolute number)	
Gender disaggregated vulnerability and capacity assessments	No
Agreed national standards for multi hazard risk assessments	Yes
Risk assessment held by a central repository (lead institution)	Yes
Common format for risk assessment	Yes
Risk assessment format customised by user	Yes
Is future/probable risk assessed?	Yes
Please list the sectors that have already used disaster risk assessment as a precondition for sectoral development planning and programming.	Transport, Infrastructure, Buildings, Industry

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Cantons and municipalities are legally obliged to prepare and use hazard maps that include hazards such as floods, avalanches, rock falls and mass movements. As of January 2014, hazard maps are available on 90% of the national territory for all hazard types. Avalanche maps reach the highest coverage of 97%. The development of the hazard maps follows state of the art methodologies. Furthermore, comprehensive hazard index maps and a nationwide overview available for potential floods as well as for mass movements, help to determine cumulative risks and relevant damage potentials. Risk analyses for transport infrastructure (e.g. railways, motorways) are being carried out. Zonation of earthquake-prone areas is also available.

The Federal Office for the Environment (FOEN), in collaboration with the Federal Office of Energy (FOE), the Federal Nuclear Safety Inspectorate (ENSI), the Federal Office for Protection (FOCP) and federal Office of Meteorology and Climatology (MeteoSwiss), will develop a common basis for assessing the risk of extreme floods of the Aare and Rhine River.

The Ordinance on Major Accidents (OMA) is adapted, additionally covering industry using microorganisms. The affected branch is thus obliged to produce a brief report about their risks and the related intervention plan.

A project on a uniform risk assessment in the Swiss road network is currently running at ETH Zürich.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Specialised companies carry out risk assessments according to national principles and standards. The Federal Office for the Environment, the responsible authority at national level, claimed the elaboration of hazard maps for whole Switzerland until the end of 2013. In the future, hazards such as heavy precipitation and rising of groundwater levels, mainly relevant in urban areas, need more attention. Major challenges are the application of hazard maps in land use planning at communal level and in-depth analyses of vulnerabilities. Risk maps are not yet widely used.

Additional related documents and links

- [Concept Earthquake Preparedness COCPITT](#)

Core indicator 2

Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Are disaster losses and hazards systematically reported, monitored and analyzed?
Yes

Disaster loss databases exist and are regularly updated

Yes

Reports generated and used in planning by finance, planning and sectoral line ministries (from the disaster databases/ information systems)

Yes

Hazards are consistently monitored across localities and territorial boundaries

Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Cantons are legally obliged to maintain event cadastres, i.e. records of past disasters. These databases, established by the Federal and Cantonal authorities, provide important information for the development of hazard maps. Hazard and risk assessments are carried out according to systematic procedures, technical guidelines and methods.

A Swiss flood and landslide damage database exists since 1972, which is updated with annual publications of the latest statistics. Earthquakes are systematically monitored since 1975. An earthquake archive exists, which dates back several centuries. Furthermore, insurance companies record disaster losses for many decades. The Federal authorities usually carry out in-depth event analysis after major disasters, which are publicly available.

The extension of the accelerometer network is underway in order to enhance the protection against earthquakes. In the most exposed towns, an assessment of the seismic resistance of buildings and the vulnerability of critical infrastructures has

been started.

The Federal Office of Environment (FOEN) produces hydrological forecasts at national level.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Most Cantons provide internet-based access to the hazard maps in their territory. At Federal level, a system is being established that allows a nation-wide and comprehensive overview on hazard maps as well as on protection measures.

Additional related documents and links

- [Flood alert map for rivers and lakes of national interest](#)

Core indicator 3

Early warning systems are in place for all major hazards, with outreach to communities.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Do risk prone communities receive timely and understandable warnings of impending hazard events? Yes

Early warnings acted on effectively	Yes
Local level preparedness	Yes
Communication systems and protocols used and applied	Yes
Active involvement of media in early warning dissemination	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Weather forecasting and warning systems for avalanches are well established and functional. An extensive monitoring system of the seismic activity in Switzerland and neighbouring areas also exists. Furthermore, a flood warning system for rivers and lakes of national interest is in place.

The Federal Council initiated the project "Optimisation of Early Warning and Alerting" in 2007 and mandated the responsible departments at national level with its implementation. Among others, a Joint Information Platform for Natural Hazards (GIN), which contains data and early warning products for most major hazards at the national scale, has been established. Furthermore, a website has been developed with information on emergency behaviour directed to the general public.

In May 2010, the Federal Council assigned financial resources and personnel to improve the meteorological network and the flood warning system (forecasts for all rivers in Switzerland and around the clock service). In addition, the departments responsible at Federal level developed an emergency task force, which becomes active in a national disaster situation.

Since 1.1.2011, the Federal authorities are able to inform and warn the population about potential major disasters via radio and TV in a coordinated manner ("single official voice"). The Federal Office for Civil Protection will renew the siren alerting system in the next few years.

The ordinance on the alarm is revised, mainly taking into consideration the new transmission system.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Efforts are still to be made at local level. Information and warnings provided on national level have to be interpreted on local scale as well as translated into concrete action to reduce losses, which has been proved to be a challenging task. Formation and education of so called "natural hazards advisors", who will act as decision support for the responsible authorities in local and regional emergency task forces is underway. Currently, a web portal is being developed that is directed to the general public.

Core indicator 4

National and local risk assessments take account of regional / trans boundary risks, with a view to regional cooperation on risk reduction.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Does your country participate in regional or sub-regional actions to reduce disaster risk? Yes

Establishing and maintaining regional hazard monitoring	Yes
Regional or sub-regional risk assessment	Yes
Regional or sub-regional early warning	Yes
Establishing and implementing protocols for transboundary information sharing	Yes
Establishing and resourcing regional and sub-regional strategies and frameworks	Yes

· [Alpine Strategy for Adaptation to Climate Change in the Field of Natural Hazards](#)

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Regional and trans-boundary risks are especially taken into account at the regional scale, e.g. for river basins, where the problems of upstream vs. downstream and left and right bank interests have to be addressed. For example, an early warning and alert chain exists along the Rhine river up to the Netherlands, coordinated by the International Commission for the Protection of the Rhine (www.iksr.org). Other regional and trans-boundary cooperation involves the upper Rhine, common to Austria, Liechtenstein and Switzerland or the Alpine region. Flood prone areas along the Rhine are mapped with the same methodology in the framework of the EU floods directive.

Furthermore, Switzerland is member of the Platform on Natural Hazards of the Alpine Convention PLANALP. This platform was set up to develop common strategies designed to prevent natural hazards in the alpine environment as well as to deliberate on adaptation strategies.

There are treaties with all neighbouring countries on mutual assistance in emergencies.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Because of its cultural diversity and adverse environment, regional and trans boundary cooperation has always been important to Switzerland. Smaller trans-boundary rivers are not well integrated in a unique risk view. Efforts to integrate cross-border weather data, whose impact the reaction of smaller tributaries on a wide scale need still to be supported.

Additional related documents and links

- [International Commission for the Protection of the Rhine](#)
- [Platform on Natural Hazards of the Alpine Convention](#)

Priority for Action 3

Use knowledge, innovation and education to build a culture of safety and resilience at all levels

Core indicator 1

Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is there a national disaster information system publicly available? Yes

Information is proactively disseminated	Yes
Established mechanisms for access / dissemination (internet, public information broadcasts - radio, TV,)	Yes
Information is provided with proactive guidance to manage disaster risk	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Specialist departments at Federal level (e.g. MeteoSwiss, Federal Office for the Environment, Institute for Snow and Avalanche Research SLF, Swiss Seismological Service SED) as well as at Cantonal level provide a large amount of information on natural hazards and risks that is publicly available through websites and publications. The hazard maps, which are available for the majority of Swiss municipalities, are open to the public. The next step comprises its implementation in land use plans. Major disaster events are usually analysed and the findings published and disseminated broadly. Private companies, specialised in meteorological forecasting, insurance and reinsurance companies or Cantons have developed websites, flyers,

handbooks or electronic tools.

The information provided extends from professional know-how to practical advice for the population. Since early 2012, PLANAT provides a comprehensive online database that compiles information material and good practice examples.

MeteoSwiss replaces and extends its meteorological RADAR network, allowing better precipitation estimates by providing downscaled climate data to (all) stakeholders.

Latest measured data can also be used for DRR long term planning and the computation of new precipitation statistics (used to design rainfall).

The project "Climate Change and Hydrology in Switzerland" (CCHydro) by the FOEN, assesses the effects of climate change on the water balance in Switzerland by the year 2100.

The Commission for flood protection (KOHS) of SWV has prepared a recommendation as to how the required freeboard in river engineering projects and risk assessments can be determined to ensure the drainage capacity in streams and rivers.

Protection works against avalanches or floods are of vital importance. However, outdated or damaged facilities may even increase the danger. Therefore, some cantons have already organized a regular monitoring and maintenance of their infrastructure (PROTECTME).

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Although many efforts have been made in connection with information dissemination, the information provided is disperse and sometimes too technical for the broad public. At present, a web platform is being developed by the Federal authorities that combines the relevant information on hazards and disasters in a simple manner.

Additional related documents and links

- [Hazards in Switzerland](#)
- [meteoSwiss radar network](#)
- [ProtectMe](#)
- [Praxiskoffer Risikodialog - Good practice examples](#)
- [Project CCHydro](#)

Core indicator 2

School curricula , education material and relevant trainings include disaster risk reduction and recovery concepts and practices.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is DRR included in the national educational curriculum? Yes

primary school curriculum	Yes
secondary school curriculum	Yes
university curriculum	Yes
professional DRR education programmes	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

In the primary and secondary curriculum, the theme of natural hazard is addressed. However, some examples used are inadequate in the Swiss hazard context. At university and university of applied science level, there is a broad offer of professional education related to natural hazards and DRR (bachelor, master and postgraduate studies). However, there is no widespread dissemination of information about risks situation. Despite being available, the integration of DRR into various subjects (e.g. engineering, architecture, agriculture etc.) is not systematically done. Training courses and events for the exchange of know-how between professionals take place regularly. These events are advertised by the PLANAT on their website. Regarding civil protection and response to disasters, there are various offers for continuing vocational education and training courses directed to fire brigades, the protection and support service, the local and Cantonal emergency management authority. Training for intervention on a large geographical scale is still required. The Federal administration, especially the Federal Office for Civil Protection (FOCP), offers training units, which can be attended by Cantonal or local representatives. The intervention forces include specific training in their curricula. In several Cantons, DRR is part of the primary school curricula; in other Cantons, the curricula are being revised in order to introduce basics on natural hazards.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

A more effective and consistent promotion of DRR related themes is still necessary at the school education level. PLANAT has started a project, which aims at the integration of DRR into school curricula of all levels. Furthermore, efforts have to be made to incorporate social science theories and approaches in university curricula and research.

Core indicator 3

Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Is DRR included in the national scientific applied-research agenda/budget? Yes

Research programmes and projects	Yes
Research outputs, products or studies are applied / used by public and private institutions	Yes
Studies on the economic costs and benefits of DRR	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

DRR strategies adopted by the Federal and Cantonal authorities in Switzerland are strongly based upon scientific findings. Therefore, the Federal Office for the Environment, funds research focusing on the understanding of hazardous processes, as well as integral risk management. The current National Research Programme "Sustainable Water Management" deals partly with natural risks. The major part of DRR research is carried out by universities and universities of applied science. Risk assessment and cost efficiency are important research topics and several tools have been developed for practical application. The guideline "RIKO" provides a documentation of the theoretical background and a manual for the practical

application of the risk concept. “EconoMe” is a tool provided by the Federal Office for the Environment to assess the cost-efficiency of protection measures. It supports the Federal administration to prioritise among mitigation projects given limited financial resources.

The Federal Office for Civil Protection and the Federal Office for the Environment developed an e-learning platform and a calculation tool that allows for a multi-risk analysis and cost-benefit analyses (LearnRisk and RiskPlan).

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Existing tools may still be improved and a broader application can be fostered.

Additional related documents and links

- [EconoMe](#)
- <http://www.riskplan.admin.ch/>
- [Risk Concept Natural Hazards](#)

Core indicator 4

Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Do public education campaigns for risk-prone communities and local authorities include disaster risk? Yes

Public education campaigns for enhanced awareness of risk.	Yes
Training of local government	Yes
Disaster management (preparedness and emergency response)	Yes
Preventative risk management (risk and vulnerability)	Yes

Availability of information on DRR practices at the community level Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

In the last 40 years, 2/3rds of the Swiss municipalities have suffered damage from flood events. Notwithstanding some tragic consequences, severe flood, storm and avalanche events of the recent years served as “windows of opportunity” for the specialist departments to inform the public about natural hazards. The media coverage of such events is normally high. Therefore, a fair public awareness has been achieved regarding hydro-meteorological hazards. This is not true for earthquakes although information (mainly on internet) is provided.

Several efforts have been made to raise the public awareness on natural risks: a “hazards portal” has been established in all national languages and English. It is directed to the population and covers information on natural hazards in Switzerland, gives advice on how to prevent damage and how to respond in emergencies. To support municipal authorities, PLANAT has developed a “risk dialogue tool box” that provides manuals and checklist to help them to plan and carry out various communication measures. The PLANAT website compiles information material on natural hazards. Furthermore, local hazard advisors are trained as part of local/ regional task force where they will provide official information connected to on-site observations and local experience in emergencies.

An intense dialog is still on going with farmers. Two ideas are to be balanced: the surface runoff management and river banks protection confronting with the food production. If in Switzerland food security is not an issue (today), it may be a problem at individual/local level.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Several specialist departments at national and Cantonal level provide information about natural hazards, thus there is not just one countrywide public awareness strategy. However, public awareness is recognised as an important task. In the framework of the programme “optimisation of early warning and alerting of natural hazards”, the information of the general public before and during emergencies is considered as a priority. Currently, a web platform is being developed to meet these

needs (naturgefahren.ch).

Additional related documents and links

- naturgefahren.ch
- [PLANAT website](#)
- [Risk Dialogue Toolbox](#)

Priority for Action 4

Reduce the underlying risk factors

Core indicator 1

Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Is there a mechanism in place to protect and restore regulatory ecosystem services? (associated with wet lands, mangroves, forests etc) Yes

Protected areas legislation	Yes
Payment for ecosystem services (PES)	Yes
Integrated planning (for example coastal zone management)	Yes
Environmental impacts assessments (EIAs)	Yes
Climate change adaptation projects and programmes	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The Swiss Federal Office for the Environment (FOEN) is responsible for the sustainable use of natural resources, including soil, water, air and forests, as well as for the protection from natural hazards. Furthermore, disaster risk reduction and environmental protection are both anchored in Swiss Federal Laws (e.g. Federal Law on River Training, 21.6.1991; Federal Law on Forests, 4.10.1991). Cantons are obligated to implement environmentally compatible maintenance of watercourses, as

well as restoration (protection) of forests and protection measures. The Swiss Law on Land Use (22.6.1979) asks the Cantons to indicate areas endangered by natural hazards.

The Federal Council approved a national strategy on climate change adaptation in March 2012. This strategy includes 9 sectoral strategies (water management, agriculture, forest management, energy production, tourism, dealing with natural hazards, biodiversity, health and land use), the most relevant risks are identified and goals are set. An action plan is currently being elaborated.

The Federal Office of Environment (FOEN) promotes a pilot program highlighting the necessary adaptation strategies from the impact of climate change on the natural hazard.

By the end of 2018, the cantons must delineate spaces along watercourses reserved for the protection against floods and water use.

SilvaProtect-CH project implements harmonized criteria providing a national overview of the boundaries of protective forests.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

The sustainable management of natural resources is mandated by the constitution, which means that any protection measure must also take into account the protection of the natural resources and their social and economic benefit. Still, a major challenge is to prioritise land use planning over technical protection measures.

Additional related documents and links

- [SilvaProtect CH](#)
- [Adaptation to Climate Change \(Pilot\)](#)

Core indicator 2

Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Do social safety nets exist to increase the resilience of risk prone households and communities? Yes

Crop and property insurance	Yes
Temporary employment guarantee schemes	Yes
Conditional and unconditional cash transfers	Yes
Micro finance (savings, loans, etc.)	Yes
Micro insurance	No

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

This indicator is of secondary importance for Switzerland as there is no need for additional social development policies and plans that would specifically target the reduction of vulnerability.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

As a highly developed industrial nation, Switzerland has achieved high levels of social development. Additionally, the insurance system in place functions very well. It is based on the principle of solidarity between both the insurers, as well as the insured, which is particularly important in the case of large-scale disasters. Apart from insurance coverage, risk reduction is another key aspect increasingly emphasized, promoted and encouraged by insurance companies. Together, these factors contribute to a reduced vulnerability of the population at risk.

Core indicator 3

Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification



Are the costs and benefits of DRR incorporated into the planning of public investment? Yes

National and sectoral public investment systems incorporating DRR.	Yes
Please provide specific examples: e.g. public infrastructure, transport and communication, economic and productive assets	
Investments in retrofitting infrastructures including schools and hospitals	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

This indicator is of secondary importance for Switzerland as there is no need for additional economic and productive sector policies and plans that would specifically target the reduction of vulnerability of economic activities.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

As a highly developed industrial nation, Switzerland has achieved high levels of economic development.

Core indicator 4

Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is there investment to reduce the risk of vulnerable urban settlements? Yes

Investment in drainage infrastructure in flood prone areas	Yes
Slope stabilisation in landslide prone areas	Yes
Training of masons on safe construction technology	Yes
Provision of safe land and housing for low income households and communities	No
Risk sensitive regulation in land zoning and private real estate development	Yes
Regulated provision of land titling	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The Federal Law on Land Use Planning (22.6.1979) asks for the identification of hazard-prone areas. The Federal Law on Forests (4.10.1991) and the Federal Law on River Training (21.6.1991) oblige the Cantons and municipalities to develop hazard maps and to use them in land-use planning. Hazard mapping and respective application in land-use planning is still in process. Building codes exist and are applied. However, due consideration has only been given recently to the seismic hazard, and therefore there are gaps in seismic resilience for buildings built before modern construction standards came into effect (in 1989). Recommendations to protect buildings by homeowners are available and are partly financed by insurance companies; however, they could be applied more broadly.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

The completion of the hazard mapping and their full consideration in municipal land-use planning is of foremost priority. Remedying the poor earthquake resistance of many existing buildings will be a major challenge over the next years especially for

Switzerland’s historic buildings that are important to the cultural heritage of the country. A further challenge is to control the increasing of assets in hazard prone areas.

Core indicator 5

Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Do post-disaster programmes explicitly incorporate and budget for DRR for resilient recovery? Yes

% of recovery and reconstruction funds assigned to DRR	
DRR capacities of local authorities for response and recovery strengthened	Yes
Risk assessment undertaken in pre- and post-disaster recovery and reconstruction planning	Yes
Measures taken to address gender based issues in recovery	No

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Early recovery measures of lifelines such as roads, telecommunication, water supply, sewage system, and electricity supply consider DRR principles and are carried out with state-of-the-art methods. Subsequent to flood events, a widening of the commonly occurring channelled riverbed is intended. Regarding earthquakes, engineers are being trained in order to facilitate post-event recovery. Until recently, destroyed buildings were often reconstructed at the same place, as insurers would not accept paying for the higher cost of relocation. Additionally, the

insurance is restricted to the building,, excluding the terrain. However, public aid mechanisms and regulations have been put in place to facilitate relocations. Reconstructions of buildings furthermore follow specific building codes. The complete revision of the Law on Protection of Cultural Property will adapt the legal basis to current challenges. In view of the existing dangers and threats, the scope of the law needs to be extended in connection with disasters and emergencies.

Switzerland is the first country in the world to create the foundation for the establishment of a "safe haven" for temporary storage of seriously threatened cultural property.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

The cost of the purchase of safe land and the resistance of landowners are often limiting factors when regulation of existing settlements is considered. Private property rights are guaranteed by the Swiss Constitution.

Core indicator 6

Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Are the impacts of disaster risk that are created by major development projects assessed? Yes

Are cost/benefits of disaster risk taken into account in the design and operation of major development projects? Yes

Impacts of disaster risk taken account in Environment Impact Assessment (EIA)	Yes
By national and sub-national authorities and institutions	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Procedures of approval, authorisation and granting concession for planning and building of facilities, which take disaster risk reduction into account, are in place. They foresee the participation of various actors (including the civil society and non-governmental organisations), authorities and special departments of all political levels. Major projects such as dams, highways, urban and alpine infrastructure in connection with the development of tourism or production of energy etc. receive thorough assessments. An Environment Impact Assessment has to be carried out for all major facilities. Among other measures, this assessment includes the planning and communication of the emergency management.

House owner in disaster prone areas are obliged to apply protection measures to their building in case of reconstruction or new construction. Furthermore, they have to prove that the measures do not harm others.

Maintaining the proper level of protection of critical infrastructures is of primary importance. A new strategy proposes 16 measures, including the creation of a national inventory of critical infrastructure, the creation of platforms to encourage collaboration or the guarantee of a subsidiary assistance to infrastructure operators when managing a major event. Implementation of protection concepts should also help to strengthen the resilience of critical infrastructure. These concepts of protection will be realized in collaboration with key players in the field (especially the governing authorities of the Confederation, the cantons and operators).

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Disaster risk reduction and environment impact assessments are overseen at the Federal level by the Federal Office for the Environment. This allows an easy integration of environmental and disaster risk related verifications.

Priority for Action 5

Strengthen disaster preparedness for effective response at all levels

Core indicator 1

Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Are there national programmes or policies for disaster preparedness, contingency planning and response? Yes

DRR incorporated in these programmes and policies	Yes
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The institutional mechanisms exist for the rapid mobilisation of resources in a disaster, utilising civil society and the private sector; in addition to public sector support.	Yes
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Are there national programmes or policies to make schools and health facilities safe in emergencies? No

Policies and programmes for school and hospital safety	No
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Training and mock drills in school and hospitals for emergency preparedness	Yes
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Are future disaster risks anticipated through scenario development and aligned preparedness planning? Yes

Potential risk scenarios are developed taking into account climate change projections	Yes
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Preparedness plans are regularly updated based on future risk scenarios	Yes
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Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

An integrated system for management, protection, rescue and assistance is in place, which is coordinated by the Federal Office for Civil Protection (FOCP). It integrates the five partner organisations, police, fire brigade, public health, municipality technical service and civil defence as well as intervention units at the national level, e.g. the National Emergency Operations Centre or armed forces. The partner organisations are in charge of their respective areas of responsibility and provide mutual support. The institutions are well equipped, stocked, highly qualified and trained. The National Emergency Operations Centre (NEOC) operated by the FOCP is the Federal centre of expertise for exceptional events. It can be contacted around the clock, 365 days of the year, and can be mobilised within hours. One of its tasks is the management of technological incidents and natural disasters. It also serves as a contact point for the Cantons on all civil protection issues. A recently established emergency task force will advise the government (Federal Council) in the event of a disaster relevant to the whole of Switzerland. The NEOC is the permanent body of this inter-agency task force. At national level, the Federal Office for Civil Protection coordinates and periodically updates a nation-wide overview on risks and hazards relevant to the general population and its livelihood. Scenarios for specific risk situations are being developed.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

There is no specific national programme, but cantonal initiatives improve the safety of schools and health facilities. The Swiss system includes all infrastructure and social groups without differentiations in emergency plans of the municipalities/ Cantons. The militia system used in Switzerland (civil protection, fire brigade) and the cooperation with technical services allow a wide dissemination of recovery knowledge.

Core indicator 2

Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Are the contingency plans, procedures and resources in place to deal with a major disaster? Yes

Plans and programmes are developed with gender sensitivities	No
Risk management/contingency plans for continued basic service delivery	Yes
Operations and communications centre	Yes
Search and rescue teams	Yes
Stockpiles of relief supplies	Yes
Shelters	Yes
Secure medical facilities	Yes
Dedicated provision for disabled and elderly in relief, shelter and emergency medical facilities	No
Businesses are a proactive partner in planning and delivery of response	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

At national level, a variety of contingency plans are available. Contingency plans are required for all shelters and protective facilities for which financial aid is granted by the Federal Government. Furthermore, specific contingency plans for the case of natural disasters have to be established at Cantonal and municipal level. Every institution participating in the Civil Protection system has a training programme. Common rehearsals are performed at the local, cantonal and federal level. Every year, the Federal Office for Civil Protection organises and supports exercises at regional, cantonal and local level to improve and foster the response of the intervention forces to disasters and trains task forces at the national level.

The international exercise SEISMO 12 (Switzerland, Germany and France), based on a scenario earthquake, took place from 8 to 10 May 2012 under the direction of the Federal Office for Protection (FOCP).

Biennially, nuclear power plants exercise the procedures required in case of a large scale emergency.

The inhabitants of the areas 1 and 2 around nuclear power plants will be mailed new information material about protective measures to take in case of an emergency. This package includes a leaflet containing checklists on how to behave in case of an event.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

There are no particular contextual challenges to mention.

Core indicator 3

Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Are financial arrangements in place to deal with major disaster? Yes

National contingency and calamity funds	No
The reduction of future risk is considered in the use of calamity funds	Yes
Insurance and reinsurance facilities	Yes
Catastrophe bonds and other capital market mechanisms	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

There are no specific, permanently available state funds for response to major disasters. However, special governmental funding lines are opened rapidly in case of emergencies. Private fund raising (e.g. Swiss Solidarity) is also a major source of funding in case of major disasters. Private losses are covered by insurances to a large extent. The Swiss Solidarity (in coordination with Caritas and Swiss Red Cross) operate a permanently available fund.

The Swiss Humanitarian Aid (SDC) contributes cash, emergency and food supplies, staff and knowledge transfer to communities affected by large disasters abroad.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

There are no particular contextual challenges to mention.

Core indicator 4

Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Has an agreed method and procedure been adopted to assess damage, loss and needs when disasters occur? Yes

Damage and loss assessment methodologies and capacities available	Yes
Post-disaster need assessment methodologies	Yes
Post-disaster needs assessment methodologies include guidance on gender aspects	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Two expert platforms, which are accessible to federal, cantonal and communal task forces and specialists, provide information during disasters: the Joint Information Platform for Natural Hazards (GIN) and the Electronic Situation Display' (ESD) of the National Emergency Operation Center. The Federal Office of Meteorology and Climatology MeteoSwiss, the Federal Office for the Environment FOEN, the WSL Institute for Snow and Avalanche Research SLF and the Seismological Service provide current measurement and monitoring data, forecasts, models and bulletins regarding storms, floods, avalanches and earthquakes to the GIN, whereas local and regional authorities can report the situation and potential damages to the ELD. Damage appraisers from insurance companies as well as private engineering companies are quickly on the spot to assess the damages and losses and to document the natural processes. In case of major events, surveying flights are organised to record the extent of the damage at various timeframes. The Federal authorities usually carry out in-depth event analysis after major disasters.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

There are no particular contextual challenges to mention.

Drivers of Progress

a) Multi-hazard integrated approach to disaster risk reduction and development

Levels of Reliance

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Do studies/ reports/ atlases on multi-hazard analyses exist in the country/ for the sub region?: Yes

If yes, are these being applied to development planning/ informing policy?: Yes

Description (Please provide evidence of where, how and who)

The leading intervention authorities at the cantonal level are carrying out multi-hazard analyses and develop hazard atlases. These analyses are supported by the Federal Office for Civil Protection in form of methodological consulting, coordination activities and software. At the national level, the FOCP carries out a multi-hazard analysis including natural, technical and societal hazards, i.e. hazards such as flooding, pandemic and blackout etc. are equally analysed regarding impact and likelihood. An integrated approach is vital for a country like Switzerland where there is a considerable potential for mountainous hazards (avalanches, rockfalls, debris flows) and a moderate potential for severe earthquakes as well as a tight available space. Integrated hazard mapping is being performed at the municipal level considering floods, avalanches, rock falls and mass movements. The application of these hazard maps in land use planning all over the country is still a major challenge.

The effectiveness of investments will be further improved through a set of criteria that will allow high, unacceptable risks to receive a clear priority, whatever the hazard that produces the risk.

The nuclear accident of Fukushima showed the importance of the interactions between natural and technical hazards. Subsequently, Swiss nuclear power plants have undergone a thorough re-assessment of the impacts of floods and earthquakes given advances in process knowledge, methodologies and design procedures since the original investigations were carried out.

b) Gender perspectives on risk reduction and recovery adopted and institutionalized

Levels of Reliance

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Is gender disaggregated data available and being applied to decision-making for risk reduction and recovery activities?: Yes

Do gender concerns inform policy and programme conceptualisation and implementation in a meaningful and appropriate way?: Yes

Description (Please provide evidence of where, how and who)

Gender mainstreaming has been actively promoted in Switzerland over the past decades. Progress has been made in empowering women, but a lot has still to be done. This general situation also applies to disaster risk reduction. The need for specific action in order to improve the consideration of gender in disaster risk reduction has so far not been evidenced in recently experienced disasters, but more thorough investigations and/or future disasters may well show that gender specific preparedness has to be improved, in particular in the face of the possibility of major disasters.

c) Capacities for risk reduction and recovery identified and strengthened

Levels of Reliance

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Do responsible designated agencies, institutions and offices at the local level have capacities for the enforcement of risk reduction regulations?: Yes

Are local institutions, village committees, communities, volunteers or urban resident welfare associations properly trained for response?: Yes

Description (Please provide evidence of where, how and who)

Capacities for prevention of and response to natural disasters are constantly strengthened through academic research, professional training, analysis of events and lessons learned. This is especially true for the Federal and Cantonal level and for

the professionals from academia and specialised companies. Capacity building of actors at the local level and strengthening of self-responsibility still requires special emphasis. It is being fostered, for instance, by the formation of natural hazard advisors for each municipality.

d) Human security and social equity approaches integrated into disaster risk reduction and recovery activities

Levels of Reliance

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Do programmes take account of socio-environmental risks to the most vulnerable and marginalised groups?: Yes

Are appropriate social protection measures / safety nets that safeguard against their specific socioeconomic and political vulnerabilities being adequately implemented?: Yes

Description (Please provide evidence of where, how and who)

In Switzerland, the protection of human life has highest priority. This applies to the whole population regardless their socio-economic, geographic or ethnic status. Furthermore, planning and implementation of protection measures primarily focus on areas with highest risks. The subsidies system functions well and also allows financially weak municipalities to meet the challenges in disaster risk reduction.

e) Engagement and partnerships with non-governmental actors; civil society, private sector, amongst others, have been fostered at all levels

Levels of Reliance

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Are there identified means and sources to convey local and community experience or traditional knowledge in disaster risk reduction?: Yes

If so, are they being integrated within local, sub-national and national disaster risk reduction plans and activities in a meaningful way?: Yes

Description (Please provide evidence of where, how and who)

Non-governmental actors from research, private companies and insurances are represented in PLANAT, the national platform for natural hazards. This composition is also true for many public-private partnerships. The Federal Office for the Environment together with insurance companies and homeowner associations, since 2011, has sought to achieve for an improved task division and financing in prevention.

The civil society, for instance landowners or residents, are also involved at various stages, mostly through formal procedures, but also through participatory processes. However, participatory approaches and knowledge exchange that consider local actors still can be fostered.

Contextual Drivers of Progress

Levels of Reliance

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Description (Please provide evidence of where, how and who)

Public funding for disaster risk reduction has substantially increased in recent years. It is now based on effect- and risk-oriented principles. Corresponding tools and instruments have been developed. The assignments of tasks and the respective responsibilities have led to a better coordination and collaboration both between Federal and Cantonal entities as well as between technical entities and intervention bodies.

Future Outlook

Future Outlook Area 1

The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Overall Challenges

Although laws for disaster risk reduction exist, the legal basis is fragmented and does not integrate risk principles fully. A harmonisation for all relevant hazards as well as the anchorage in the Swiss Constitution could improve the implementation of the natural hazards strategy. Historical habits should be levelled and integrated in a unified view.

The Swiss parliament approved the Message on International Cooperation 2013-16 that includes the prevention of crisis, conflicts and catastrophes as one of the five strategic goals. Hence, the efforts in DRR abroad will be intensified.

Future Outlook Statement

The coordination between sector policies but also between disaster risk reduction and climate adaptation policies will need greater attention. Further challenges will be the application of standardised protection goals, the strategic controlling as well as preventing construction of assets in hazard-prone areas. The funding for hazards reevaluation (e.g. due to climate change) should be established.

Future Outlook Area 2

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Overall Challenges

Several initiatives are underway for strengthening the capacities across state levels and between different actors. However, the strengthening of local actors and their individual responsibilities remains a challenge.

Future Outlook Statement

There is no need for a re-assessment of the current priorities in the context of the challenges outlined throughout the previous sections, as the main challenges have already been taken or will be taken into account in the near future.

Future Outlook Area 3

The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Overall Challenges

The preparedness for earthquakes is still insufficient. In spring 2012, the parliament urged the Federal Council to take the necessary steps for the nationwide introduction of mandatory insurance against damage caused by earthquakes.

Operational research is still the "poorest parent" of the research. underrepresented.

The importance of the possible superposition of technical risks of natural hazards has been recognised and will be looked at more carefully.

Future Outlook Statement

The preparedness for very rare and extreme events has to be improved. Adapted to Swiss hazards, this issue needs to be taught at school.

Stakeholders

Organizations, departments, and institutions that have contributed to the report

Organization	Organization type	Focal Point
National Platform for Natural Hazards PLANAT	Governments	Helen Gosteli