

Climate Change: Global Change and Local Adaption 6-9 June 2010



THE CHALLENGES IN ADOPTING CHANGE IN DISASTER MANAGEMENT

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1. Risk and hazards in Iceland
2. Civil Protection – structure and strategies
3. Involving local communities in risk evaluation
4. Adapting change to disaster management



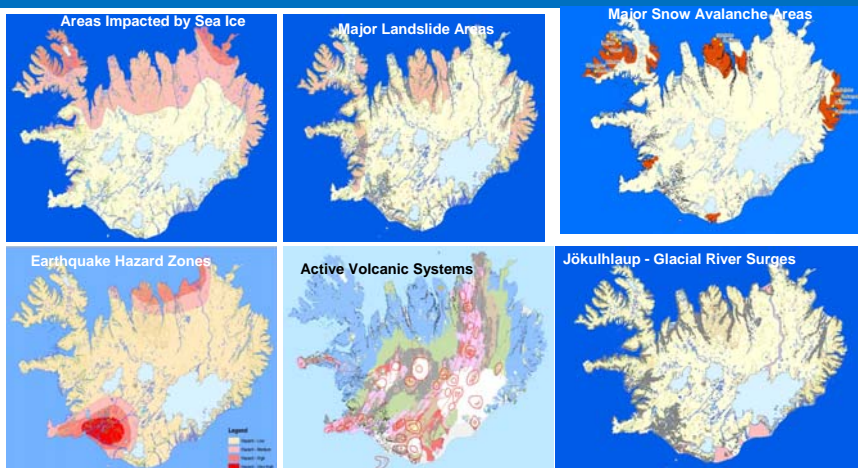
Iceland: Small nation- large country - many hazards

- Volcanic activity – Strong motion earthquakes
- Avalanches and mudslides, floods and drift ice.
- Meteorological hazards –violent storms and surges
- Health disasters: pandemic influenza
- Environmental disasters: pollution, toxic or radioactive spills
- Infrastructures failures: power outage, dam or structural failures
- People in many communities are living with threat



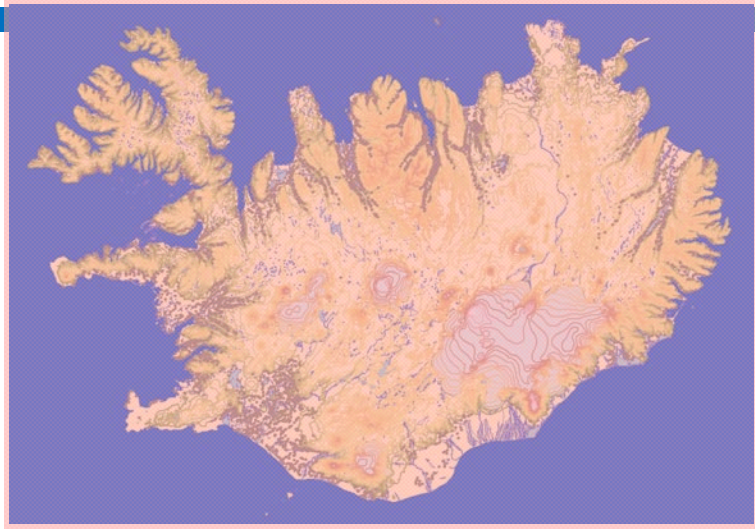
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Hazard and Risk in Iceland



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Hazard and risk can affect many communities in Iceland



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The Civil Protection in Iceland

- A Civil Protection Act has been in force since 1962.
- It was adopted during the cold war.
- The purpose was to protect human life and property from disaster, especially during military attack and a nuclear disaster;
- No military forces in Iceland
- From 1967 natural hazard became the focus of Civil Protection in Iceland
- In 2008 a legislation with more holistic perspective on disaster management.



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Disaster Management and Resilience

Preparedness is the key to resilience



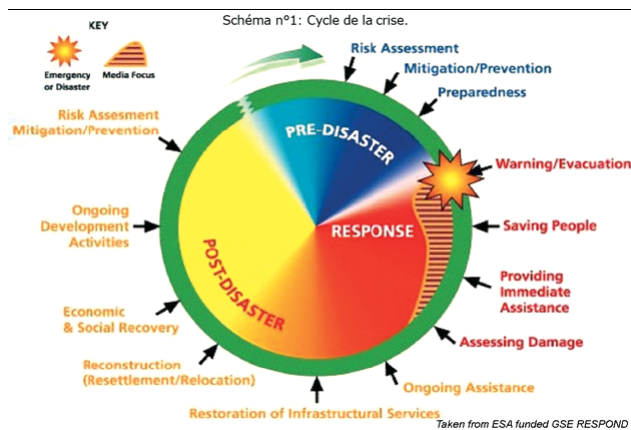
Resilience: the ability of an individual, community or country potentially exposed to hazards to cope with and to 'bounce back' from the effects of adversity.



The Civil Protection Structure



Working within the crisis cycle



Demands great coordination and cooperation

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Prevention and Preparedness

- Planning for disaster is the most effective way to deal with disasters and needs co-operation with all stakeholders
- A risk catalogue and assessment project was recently made by the Department of Civil Protection and Emergency Management in cooperation with local communities, local civil protection and response bodies and other stakeholders to identify hazard and risk in their local community.
- Risk is the chance of something happening that will have an impact upon objectives. It is measured in terms of consequences and likelihood



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Consequences and likelihood

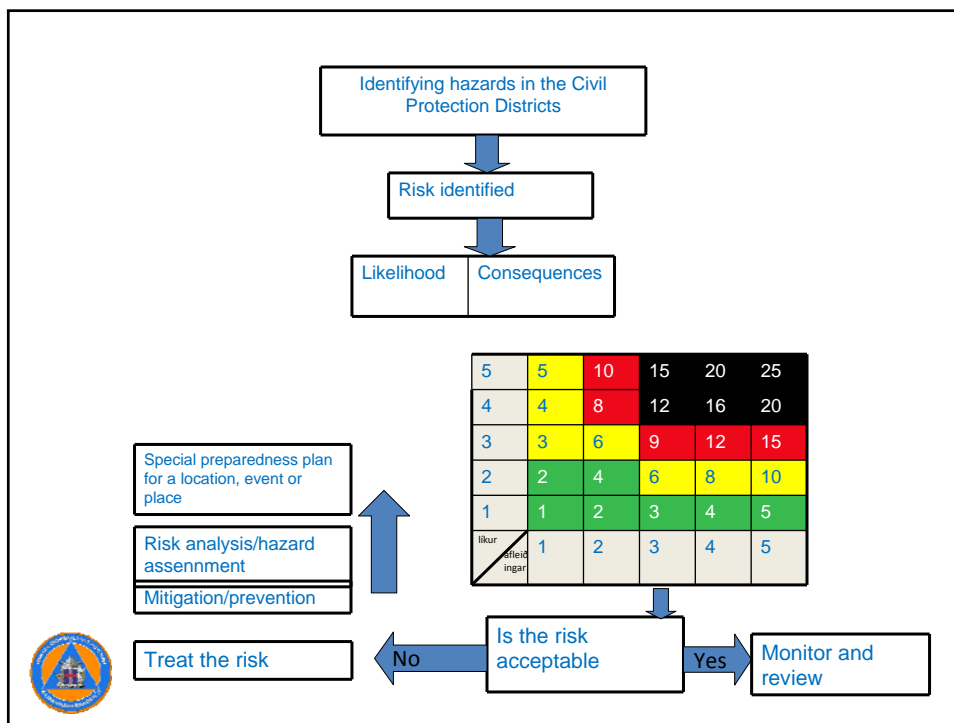
Skelfilegar 5	5	10	15	20	25
Miklar 4	4	8	12	16	20
Nokkrar 3	3	6	9	12	15
Minniháttar 2	2	4	6	8	10
Óverulegar 1	1	2	3	4	5
	Mjög ósennilegt (1)	Frekar ólíklegt (2)	Nokkuð líklegt (3)	Líklegt (4)	Mjög miklar líkur (5)

Möguleg áhætta skoða
nánar - sviðsetja

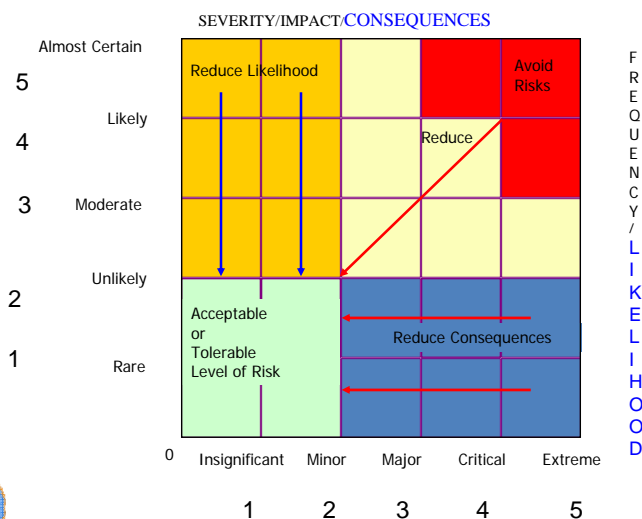
Mikil áhætta og úrlausnir
skoðaðar

Lítill áhætta venjubundið
eftirlit

Gífurleg áhætta aðgerðir
strax



Evaluate and Prioritise Risks Index method



Hazard catalog and risk evaluation project

- This provides overview of hazards and risk in local communities and the stakeholders themselves prioritize needs for further analysis in each community in collaboration with the DCPEM
- Evaluation of ~40 types of risk considering risk from natural hazard, accidents, pollution, infrastructure, community safety were measured against people and their health, on the environment, material goods and property and the society/local community
- Many communities lack capacity and capability to respond to disasters.



Coordination between local and national levels

- Cooperation and coordination of actions and resources is paramount and it is one of the cornerstones of disaster response.
- The Joint Rescue and Coordination Centre is activated during major disasters and assists local communities with the response.

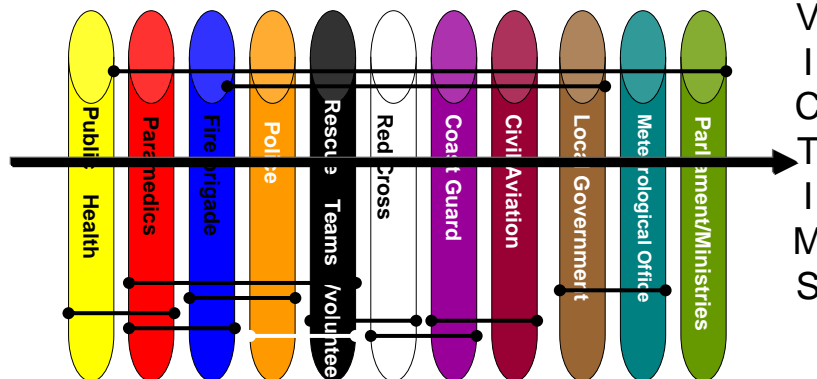


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Civil Protection and Emergency Management

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Co-ordination that brings together agencies to ensure consistent and effective response



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Backbone of the Civil Protection during disasters

- **Red Cross:** They have the role of gathering, processing and registering information on victims during disasters as well as running mass care, shelter and aid centers.
- **ICE-SAR:** There are about 100 rescue teams and there are over 18.000 members who are available when needed for search and rescue operations.
- Emergency volunteers come from every corner of Iceland and from all walks of life.



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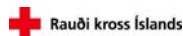
Collaboration

- **Scientists and interagency collaboration:** The DCPEM and scientists from the Earth Science Institute, the Met-Office, Directorate of Health, Chief Epidemiologist and many more – meet regularly to monitor and analyse the situation.
- Collaboration is also frequent with The Icelandic Coast Guards, utility companies, aviation authorities (ISAVIA), Environmental Agency, Icelandic Food and Veterinary Authority, Icelandic Radiation Safety Authority and many more

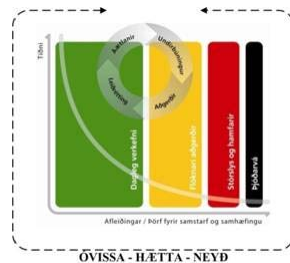


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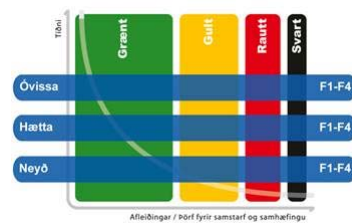
Coordinating on local, national and international level



Frequency and the need for cooperation and coordination



Uncertainty phase
Alert phase
Distress phase



Scope
Speed – F1/F2/F3/F4
Distress/danger



Coordination and collaboration

- **Capability** – training, exercising, advising and equipping – the capabilities to do something
- **Capacity** – logistic, material and technical support and personnel – the capabilities to respond and sustain
- **Compatibility** – interoperability, common learning and information sharing – the compatibilities between interagency and partners

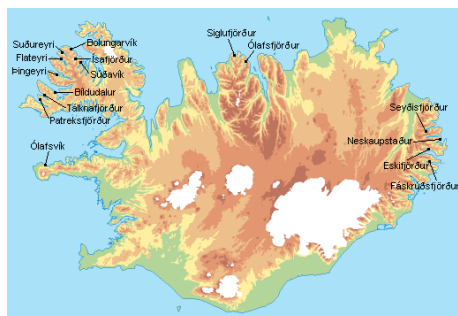


Recent Major Civil Protection Operation

- Snow Avalanches 1995
- Earthquakes 2000
- Earthquakes 2008
- Pandemic Influenza 2009
- Volcanic Eruption 2010



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1974-1983-1995



