



# **NORDRESS**

Nordic Center of Excellence  
on Resilience and Societal Security

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Rannís and NordForsk 27.08.2014

# Nordic Societal Security Programme

## Objectives

- Societal Security comprises the ability of a society to sustain vital societal functions and secure populations' life, health, needs and basic values under extraordinary stresses, known as crises. This programme addresses questions of vulnerabilities, resilience and capabilities for crisis management related to prevention, preparedness, response and recovery.

# The NCoE call

- A call for preparatory proposals to establish NCoE on Societal Security was issued in April 2013 with an application deadline in June 2013.
- 5 preparatory projects/networks were funded.
- The NCoE call (opened November 2013, deadline January 2014) was open to all relevant Nordic research environments, regardless of participation preparatory proposal.

# 23 participating institutes

<b>Participants</b>	<b>Country</b>
University of Iceland	Iceland
Icelandic Meteorological Institution	Iceland
Iceland Civil Protection and Emergency Management	Iceland
Center for Crisis Psychology	Norway
National Center for Psychotraumatology	Denmark
Norwegian University of Science and Technology	Norway
Geological Survey of Denmark and Greenland	Denmark
Norwegian Geotechnical Institute	Norway
Swedish Geotechnical Institute	Sweden
Copenhagen Center for Disaster research	Denmark
Copenhagen Business School	Denmark
Finnish Meteorological Institute	Finland
The National University Hospital of Iceland	Iceland
Icelandic Coast Guard	Iceland
SAReye — Search and Rescue	Iceland
Danish Emergency Management Agency	Denmark
Iceland Construction Authority	Iceland
Ministry of Social Affairs and Health	Finland
Oslo and Akershus Univ. Coll. of Appl. Sciences (NOVA)	Norway
Malmö University	Sweden
Aalborg University	Denmark
University of Kuopio	Finland
University of Copenhagen	Denmark

# **NORDRESS (June 2014)**

One of two new NCoE funded under  
the Societal Security Programme



# NORDRESS will focus on

- **Societal security and resilience under the impact of natural hazards** i.e. extreme weather, floods, landslides, avalanches, volcanic eruptions, etc. as opposed to intentional (terrorism, war etc.) and manmade hazards (technological, industrial etc.)
- The study will be **interdisciplinary**, adopting methods and viewpoints of both natural and social sciences.

# Fundamental societal values in the Nordic Countries

Strong emergency management and shared responsibility during crisis protect core values important to citizens.

These are to protect human life, health, economy, environment, and the functioning of society.



# Resilience

## **State:**

condition  
of a system

## **Process:**

adaptation to an  
altered environment



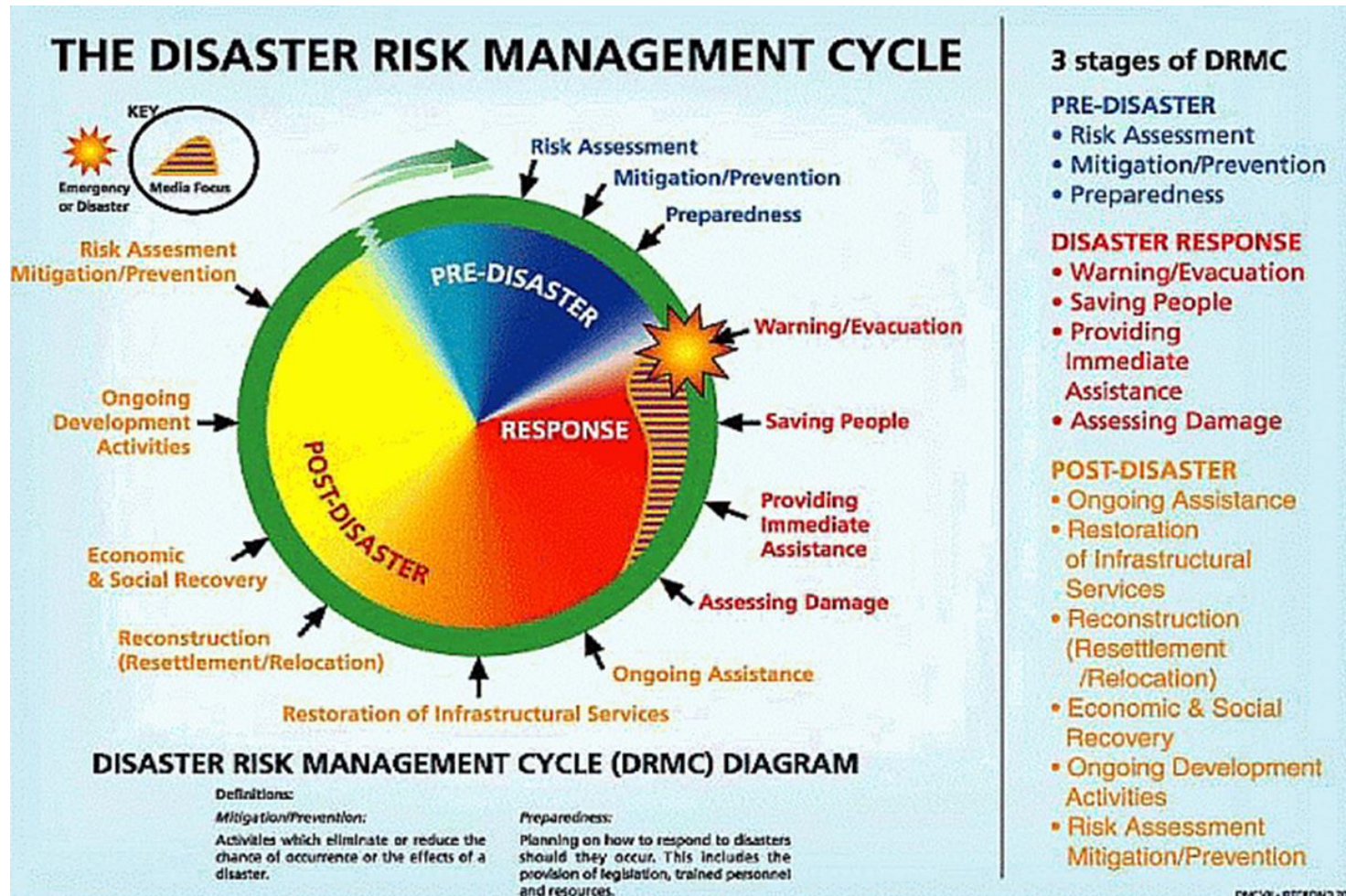
# Resilience

Resilience is the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely efficient manner, including through the preservation and restoration of its essential basic structure and function.

*The UN International Strategy for Disaster reduction UNISDR (2009)*

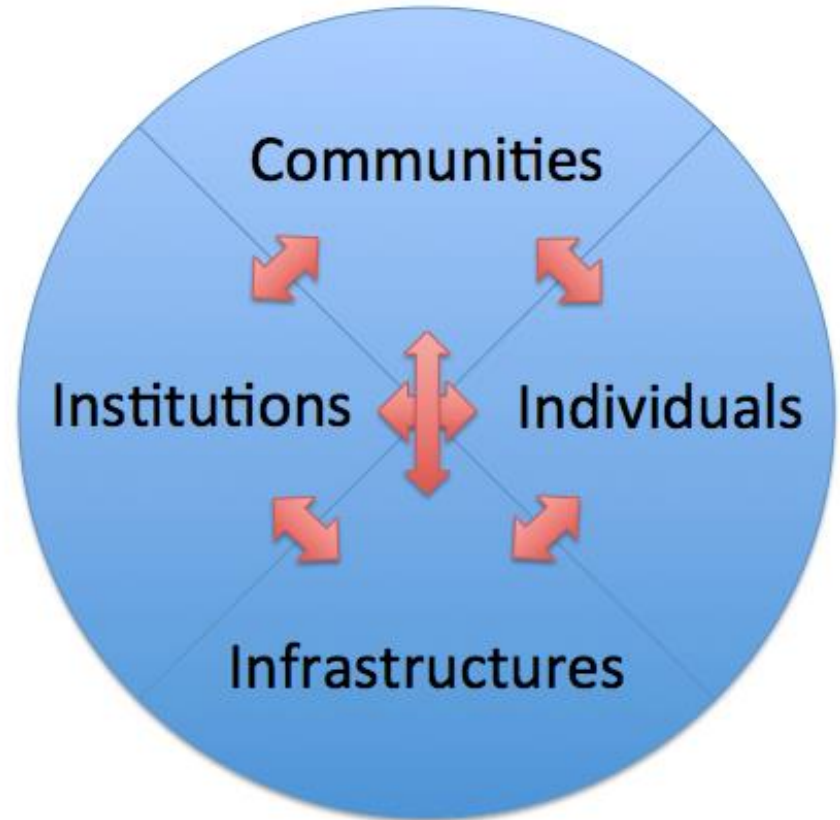
# Resilience

in NORDRESS resilience must infiltrate the entire cycle of emergency management: prevention, preparedness, response and recovery.



# Resilience

Resilience is not merely be built into technological or socio-economic systems, but derives from the ***intricate interplay between individuals, communities, institutions and infrastructures***



# NORDRESS four dimensions of resilience

- **Individuals** contribute to society's robustness with strong physical and mental health and personal preparedness,
- while active **communities** reveal the potential of people working together informally to cope with the impacts of natural hazards on everyday life.
- **Society** is bound together by infrastructures that strengthen the overall societal resilience through communication, critical lifelines, energy, and logistics.
- In return, these infrastructures support the workings of **institutions** that create formal frameworks for legal and political responsibility.

# NORDRESS aims to:

- ❑ Increase **individual resilience** through improved understanding of the mental and physical health effects of natural hazards and general individual preparedness;
- ❑ Increase **community resilience** by understanding risk perception and community coping as well as strengthening public participation in hazard monitoring and early warning;

# NORDRESS aims to

- ❑ Increase **infrastructure resilience** by studying the effects of extreme weather, floods and avalanches on land-, sea- and air transport;
- ❑ Increase **institutional resilience** by gaining an overview of emergency management in the Nordic countries, analyze laws and regulations regarding insurance and land use planning, and investigate how the Nordic welfare system can support increased resilience before, during and after crises caused by extreme natural events.

# Nordic Social Security Academy (NSSA)

- ❑ Furthermore, NORDRESS will strengthen **training, education, and mobility** through the Nordic Social Security Academy which will provide *mobility grants* and *fund courses* for graduate students, policy makers, rescue workers, media, and others that Nordic academics, emergency management experts and other relevant agents are prepared to offer.
- ❑ The NSSA will be open to courses on societal security on a broad level, not only pertaining to natural hazards

# 6 Work Packages further subdivided

- ❑ WP1. Management
  
- ❑ WP2. Nordic Social Security Academy NSSA
  
- ❑ WP3 Individual Resilience - Health Related Outcomes of Disasters
  - Task 3.1 Long-term health following natural disasters
  - Task 3.2 Children in natural disasters – health and risk management
  - Task 3.3 Psychosocial support and intervention following natural disasters



# WPs continued

## ❑ WP4 Community Resilience –

- Task 4.1 Unpacking and measuring community resilience
- Task 4.2 Risk perception
- Task 4.3 Participatory early warning and monitoring systems for natural hazards

## ❑ WP5 Infrastructure resilience

- Task 5.1 Mitigation of risk posed by slope failures on transport infrastructure
- Task 5.2 Mitigation of risk posed by snow avalanches on transport infrastructure
- Task 5.3 Risk assessment and prevention for flooding and coastal erosion in extreme weather
- Task 5.4 Arctic offshore challenges
- Task 5.5 The vulnerability of air traffic to volcanic eruptions

# WPs continued

## ❑ WP6 Institutional resilience

- Task 6.1 Review and enhancement of the institutional framework for natural hazard management
- Task 6.2 The Nordic Welfare system

# WP4 Community Resilience

The generic problem dealt with:

How can community resilience be increased by understanding its nature, and improving stakeholder awareness, communication and participation?



## Task 4.2 Risk perception

- Understanding how to warn the public and communicate effectively is relevant for disaster **prevention**.
- Improved understanding of the public's reaction plus proactive work feeds into **capacity building** of the relevant authorities.
- By analyzing past and ongoing experiences we aim to improve **communication** between scientists, authorities, rescue teams, media, and the general public.
- The integrated approach will contribute to improved risk management and effective communication of hazard warnings.



A photograph of a volcanic eruption. A massive, billowing plume of dark ash and smoke rises from the volcano, filling the upper two-thirds of the frame. In the foreground, a rocky, snow-covered slope leads down to a glowing orange-red lava flow. The lava is bright and intense, contrasting with the dark ash and the white snow. The overall scene is dramatic and powerful.

**NORDRESS will improve  
resilience  
in the Nordic countries.**

**Thank you!**