#### THE AREA



- Specific Areas:
  - Seyðisfjörður
  - Eskifjörður
  - Reyðarfjörður
- Regions already monitored for flood risk, landslides, and hydrological conditions
- Areas prone to overflowing rivers and sea level rise
- A rural/coastal area of approximately 23,000 km²

#### **INVOLVED PARTNERS**







#### **ABOUT NATALIE**

NATALIE is an European Union research project contributing to the objectives of the EU mission "Adaptation to Climate Change", aiming to empower at least 150 regions and local communities to become climate resilient by 2030.

To achieve our technical, financial, legal and social objectives, we are a consortium of 43 partners committed for 5 years to the common goal of accelerating the adoption of Nature-based Solutions (NBS) across Europe.

#### 8 CASE STUDIES

18 NBS are being implemented, monitored and their performance assessed in 8 demonstration sites covering 6 different biogeographical regions of Europe. All these sites have different context and are facing different climatic challenges.

The potential of replication of these solutions will be studied in 4 "follower sites".



Funded by the European Union





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Federal Department of Economic Education and Research EAER State Secretariat for Education, Research and Innovation SERI

#### **GET IN TOUCH**

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# COASTAL MANAGEMENT WITH NBS

#### **ICELAND**





#### **DEALING WITH CLIMATE CHANGE CHALLENGES**



Sea Level Rise

Rising seas threaten coastal infrastructure, habitats, and communities.





Landslides

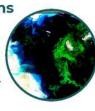
More frequent landslides endanger lives and infrastructure.





Algae Blooms

Harmful blooms disrupt ecosystems and pose health and economic risks.





**River Flooding** 

Overflowing rivers cause property damage, erosion and impact agriculture.





Increasing Production of Fish Manure (Sludge) from Aquaculture

Increased organic material can further stimulate algae blooms and disrupt ecosystems





Integrate **traditional knowledge** in coastal
protection and
aquaculture.





- \* Design NBS for coastal protection,
  - \* Design NBS for aquaculture,
- \* Implement a **digital platform** for visualisation of hazards.
- \* Design a **toolbox** for overcoming barriers,
  - \* Engage stakeholders and communities.



Embracing Nature-Based Solutions for coastal protection paves the way for innovative and sustainable possibilities for our future.

Anna Berg Samúelsdóttir, MATIS

### What are Nature-based Solutions (NBS)?

Ever wondered how nature can help us tackle climate change?

NBS are "Solutions inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience."

European Commission, 2015.

### What is traditional knowledge?

Traditional knowledge refers to the wisdom, insights and experiences developed in communities that have relied on marine resources for generations while also surviving in the harsh Icelandic conditions.

## How can we learn from traditional knowledge to better protect our environment?

By integrating traditional practices, like water conservation techniques and land stewardship, we can develop holistic solutions that respect nature's balance. This knowledge can inspire NBS that enhance biodiversity, mitigate climate impacts, and foster community-led environmental stewardship.

