

# FLOOD ADAPT



## Integrating Ecosystem-based Approaches into Flood Risk Management for Adaptive and Sustainable Urban Development in Central Vietnam

German Vietnamese Science Day

Workshop: Flood Risk Adaptation/ Regional Cooperation on Flood Risk Adaptation

26.04.2023, Da Nang, Viet Nam



Federal Ministry  
of Education  
and Research



## **FloodAdaptVN Keynote 1:**

**The importance of joint action, direct cooperation and exchange  
for flood risk management**



**Dr. Felix Bachofer, FloodAdaptVN**

## General Objective

The overall aim of FloodAdaptVN is to **reduce current and future flood risks** through the implementation of targeted ecosystem-based adaptation strategies into the flood risk management frameworks.

The project compares potentials of risk transfer, ecosystem-based and hybrid disaster risk reduction and adaptation options, as well as complementary solutions to conventional, mostly structural measures.





## Hue, Central Vietnam, Autumn 2020



**253 dead or missing  
1.6 bn \$ damage**

Pictures provided by Linh Nguyen,  
Source: Oi Huế

28.04.2023

## Ahrtal, Central Europe, July 2021



**220 dead or missing  
44 bn \$ damage**

Source: <https://versicherungswirtschaft-heute.de/>;  
from Provinzial) and Boris Roessler/dpa

FloodAdaptVN

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The diagram illustrates the Integrated Flood Risk Management Framework, centered around six interconnected components arranged in a circular flow:

- Understanding of current Flood Risks and Impacts:** Includes icons for satellite imagery, a flood map, and a group of people.
- Future Flood Risks:** Includes icons for three flood risk maps, a clipboard, a line graph, and a wavy line representing water.
- Flood Risk Management:** Includes icons for a building, a flooded area, a tree, and a stack of books.
- ECA Economics of Climate Adaptation:** Includes an icon for a stack of money.
- FRAME Flood Risk Adaptation Measures & Evaluation:** Includes an information icon, a map, and a bar chart.
- Capacity Development and Knowledge Exchange:** Includes an icon for a classroom setting.

Arrows indicate a clockwise flow between these components, leading to the central goal: **Flood Risk Reduction** through **Ecosystem-based Adaptation**.

## Ecosystem-based Adaptation (EbA)

"The use of biodiversity and **ecosystem services** as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change" (CBD, 2009, p. 41).

"The use of ecosystem management activities to increase the resilience and reduce the vulnerability of people and ecosystems to climate change" (IPCC, 2022).



World Bank (2021)



## Improved Information Sharing

Collaboration allows for better sharing of information, expertise, and resources, which is crucial for identifying and responding to risks. This can help to identify potential vulnerabilities and hazards, and develop comprehensive risk management plans.

## Increased Efficiency

Collaboration can lead to a more coordinated and efficient response to a crisis, which can save lives and reduce the economic impact of disasters. It can also help to reduce duplication of efforts and ensure that resources are used effectively and efficiently.

## Enhanced Resilience

Joint planning and risk assessments can help identify potential risks and vulnerabilities, and build resilience to future crises by strengthening preparedness and response capabilities. Collaboration can also facilitate knowledge transfer and capacity building, which can help organizations build their own risk management capacity and expertise.





## Regional Networking Forum on Climate Change Adaptation, Flood and Disaster Risk Reduction: Aims & Participants



### Aims of the Regional Networking Forum

- Promotion of the networking of stakeholders from Central Vietnamese provinces & Germany to enable joint action:
  - Thừa Thiên Huế Province
  - Quảng Bình Province
  - Quảng Trị Province
  - Đà Nẵng City
  - Emscher-Genossenschaft / Lippeverband
- Exchange of experiences from past flooding events (focus: on existing inter-provincial/regional cooperation activities (flashlights))
- Identification of fields for further cooperation and mutual learning in the region (World Café)





## FloodAdaptVN Keynote 2:

**Results of the Regional Networking Forum in Hue - Approaches to cooperation and exchange to improve flood risk management**



**Mr. Le Dien Minh**, TTH Provincial Commanding Committee of Natural Disaster Prevention and Control, Search and Rescue



# Regional Networking Forum on Climate Change Adaptation, Flood and Disaster Risk Reduction: Results

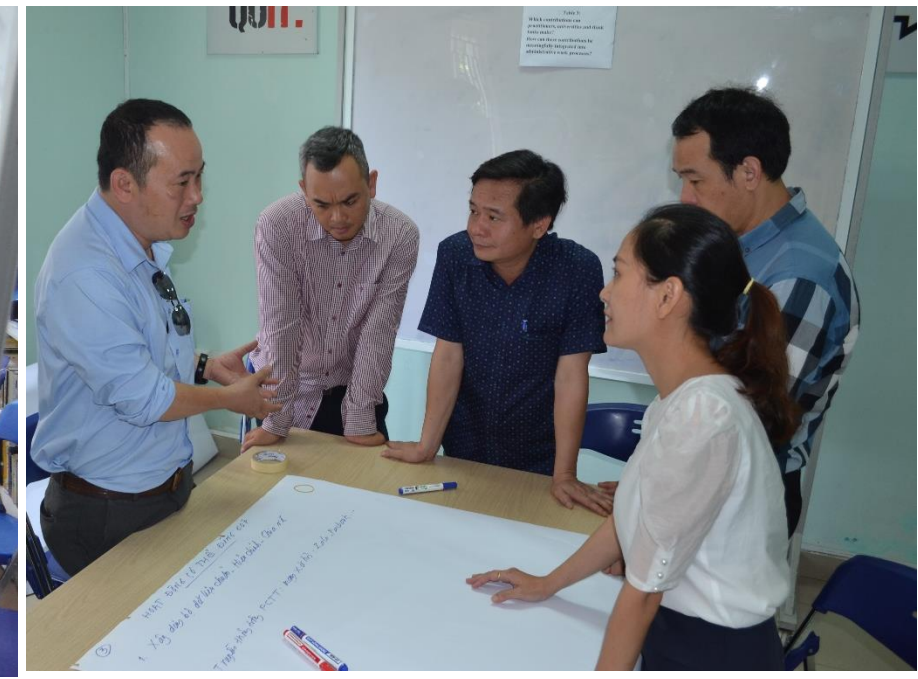
**Direct cooperation of the provinces**



**Mutual learning**



**Contributions of practitioners, universities and think tanks**



## Regional Networking Forum on Climate Change Adaptation, Flood and Disaster Risk Reduction: Results

### Direct cooperation of the provinces

- Management of interprovincial rivers
- Forest and eco-system management
- Cooperation of the political level
- Reservoir management
- Data sharing and warning
- Establishment of a consultation system (involvement of consultants, municipalities...)

### Mutual learning

### Contributions of practitioners, universities and think tanks



# Regional Networking Forum on Climate Change Adaptation, Flood and Disaster Risk Reduction: Results

Direct cooperation of the provinces

## Mutual learning

- Flood management
- Prevention measures
- Operation of reservoirs
- Drainage system
- Information transmission
- Urban and infrastructure development
- River basin management

Contributions of practitioners, universities and think tanks



# Regional Networking Forum on Climate Change Adaptation, Flood and Disaster Risk Reduction: Results

Direct cooperation of the provinces

Mutual learning

Contributions of practitioners, universities and think tanks

- Development of standard data package
- Improvement of communication (expansion of network)
- Capacity building for authorities of all levels
- Training for students

# Regional Networking Forum on Climate Change Adaptation, Flood and Disaster Risk Reduction: Results

## Next steps/ Outlook

- Further networking and exchange promoted by the FloodAdaptVN project
- Development of inter-provincial cooperation activities



# Thank you.

# Cảm ơn.



Visit our Project-Homepage  
[www.floodadapt.eoc.dlr.de](http://www.floodadapt.eoc.dlr.de)

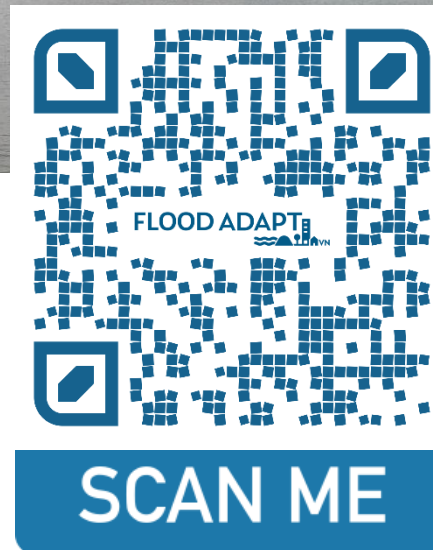
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