FLOOD ADAPT VN

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

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FONA
Research for sustainability

Federal Ministry of Education and Research

General Objective

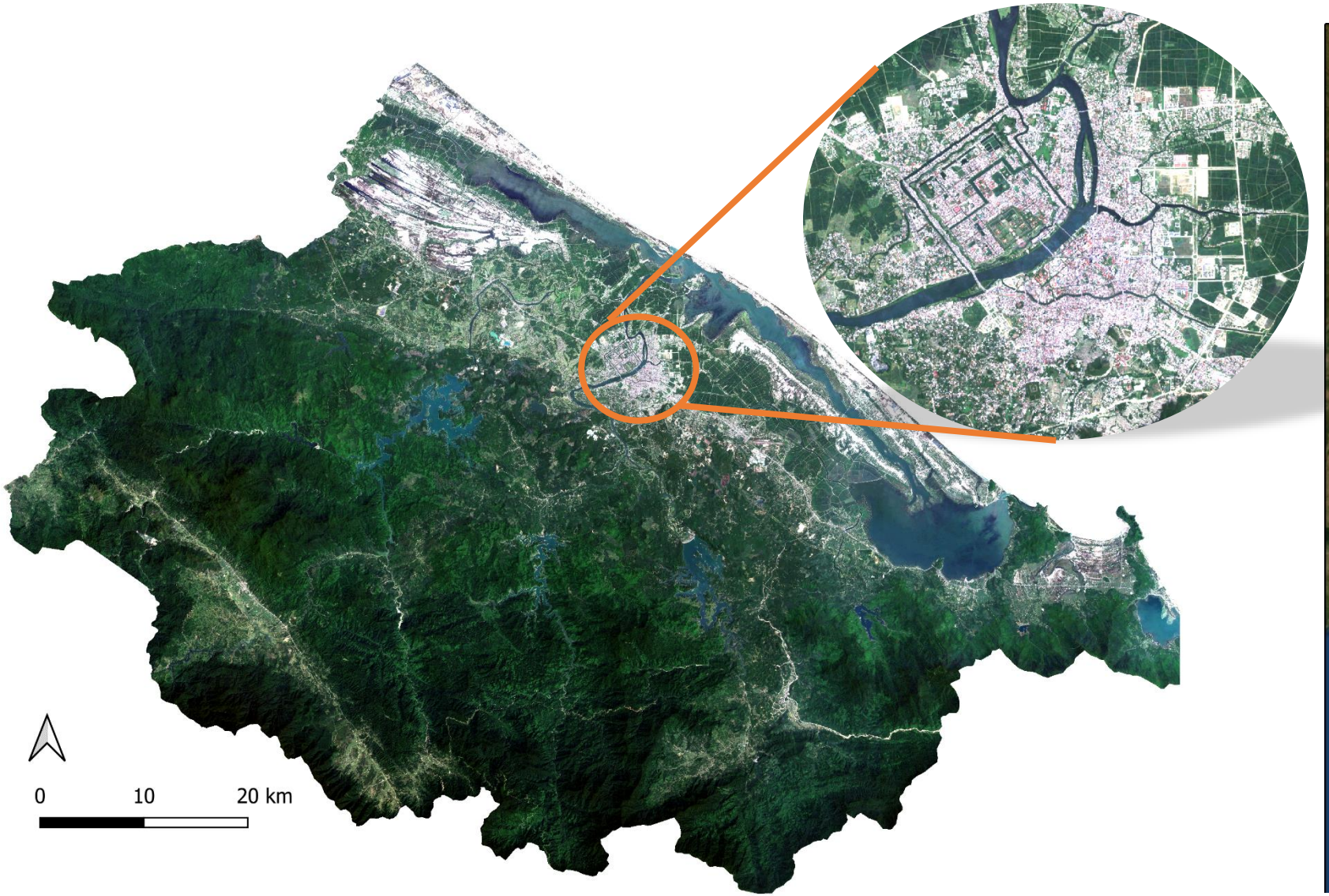
The overall aim of FloodAdaptVN is to **reduce current and future flood risks** through the implementation of targeted ecosystem-based adaptation strategies into the flood risk management frameworks.

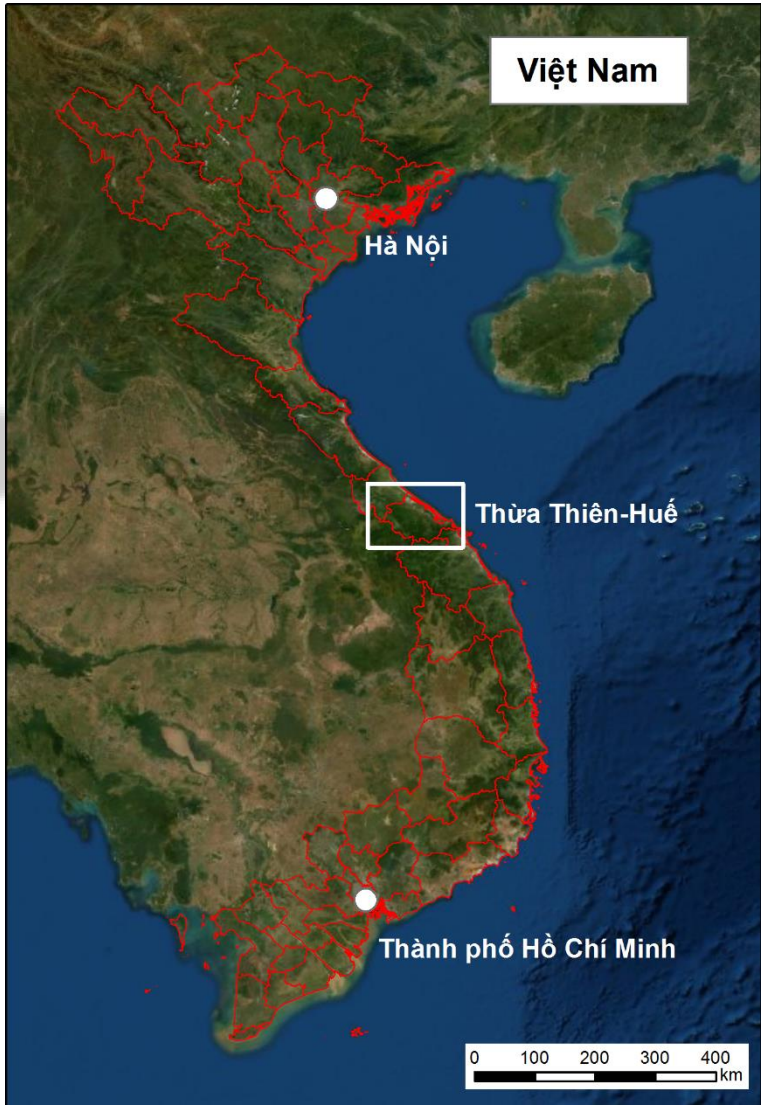
The project compares potentials of risk transfer, ecosystem-based and hybrid disaster risk reduction and adaptation options, as well as complementary solutions to conventional, mostly structural measures.

FloodAdapt aims to ...

- reduce **current and future flood risks** through the implementation of targeted ecosystem-based adaptation strategies into the flood risk management frameworks.
- understand and assess the **drivers, spatial patterns** (incl. hotspots), **and dynamics** of present-day and future **flood risks** (2030, 2050, 2100)
- investigate **entry points** for and **barriers** towards the implementation of disaster risk reduction (DRR), risk transfer (i.e. insurance) and adaptation solutions (with a strong focus on **ecosystem-based** approaches)
- co-develop a **decision support tool** for risk-informed (spatial) planning and prioritizing among different DRR, risk transfer and adaptation measures

Study Area


0
10
20 km


Việt Nam
Hà Nội
Thừa Thiên-Huế
Thành phố Hồ Chí Minh
0
100
200
300
400
km

Floods 2020

243
Dead or missing

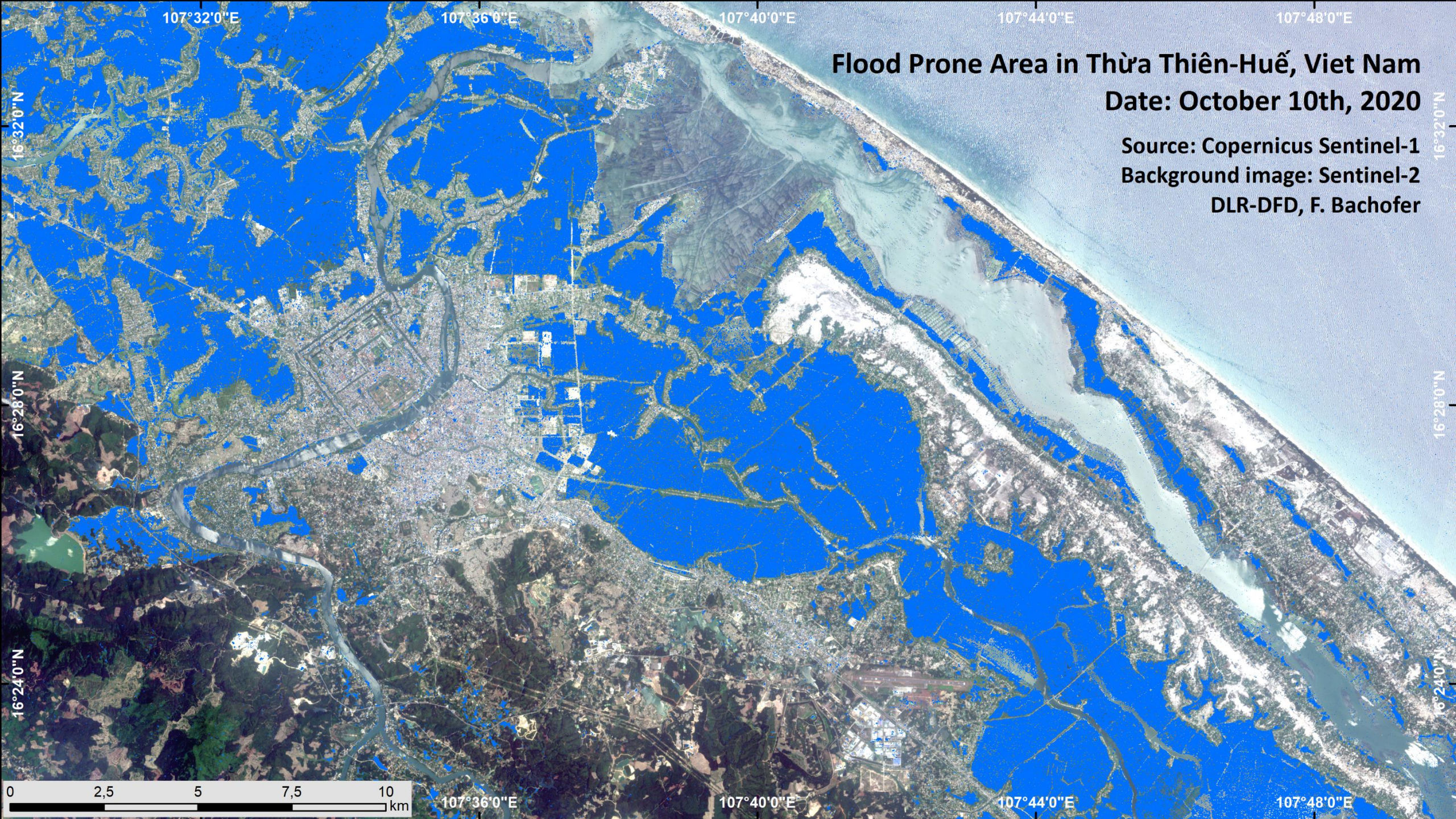
7.7M
People living in the affected areas

1.5M
People directly affected

177K
People with pre-existing vulnerabilities

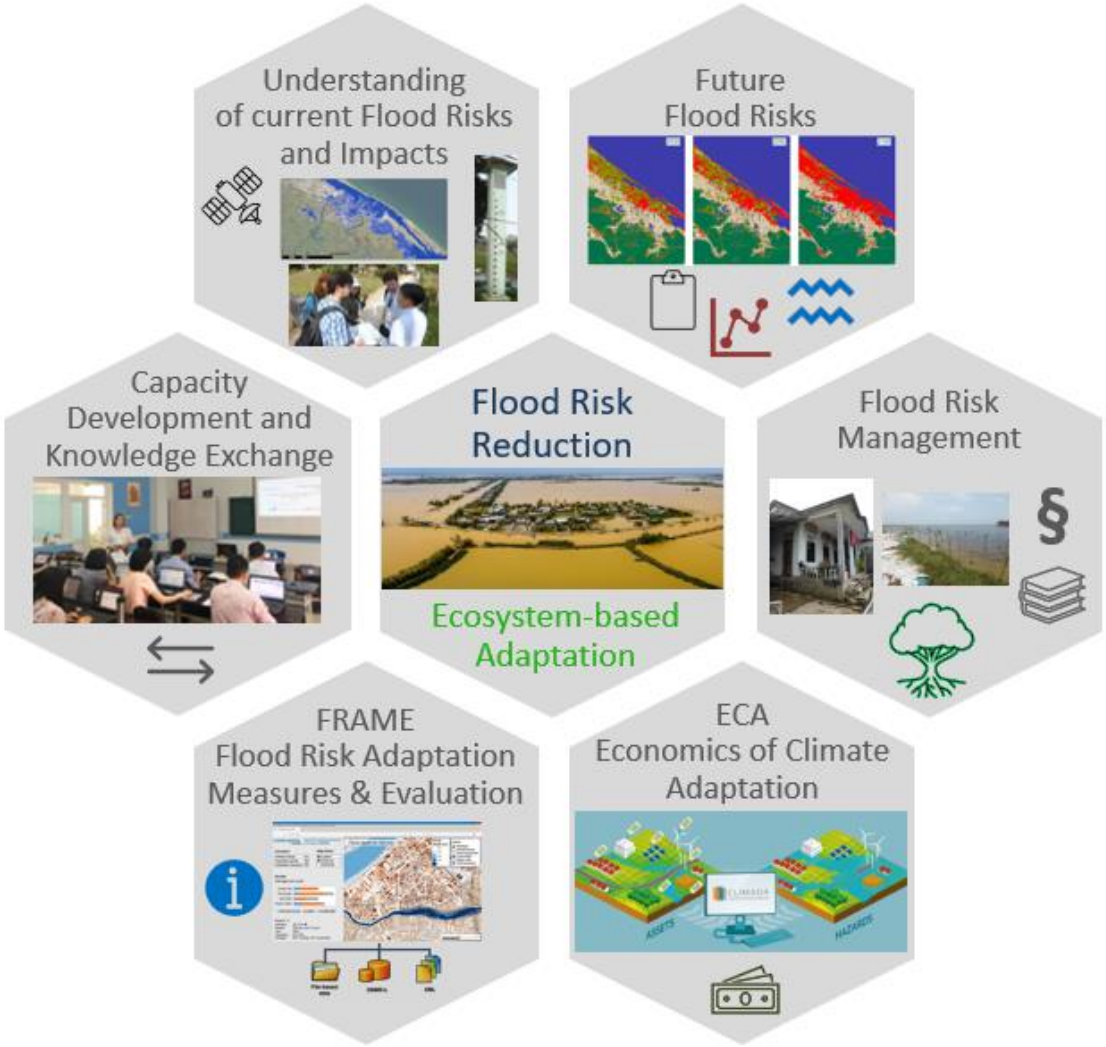
Source: https://vietnam.un.org/; 26.11.2020

Pictures provided by Linh Nguyen, Source: Ơi Huế


Flood Prone Area in Thừa Thiên-Huế, Viet Nam
Date: October 10th, 2020
Source: Copernicus Sentinel-1
Background image: Sentinel-2
DLR-DFD, F. Bachofer
107°32'0"E
107°36'0"E
107°40'0"E
107°44'0"E
107°48'0"E
16°32'0"N
16°28'0"N
16°24'0"N
0
2,5
5
7,5
10
km

Approach

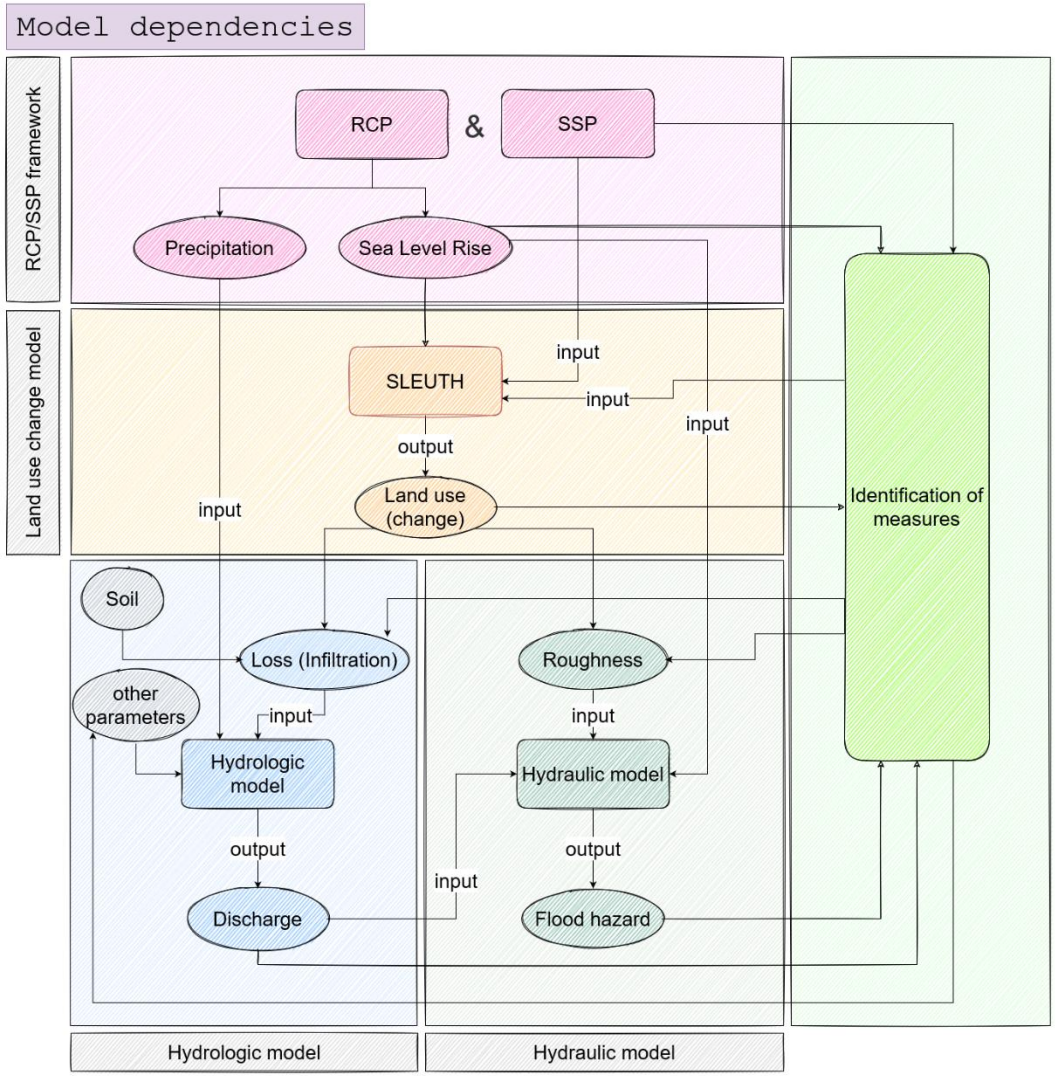
Project Components



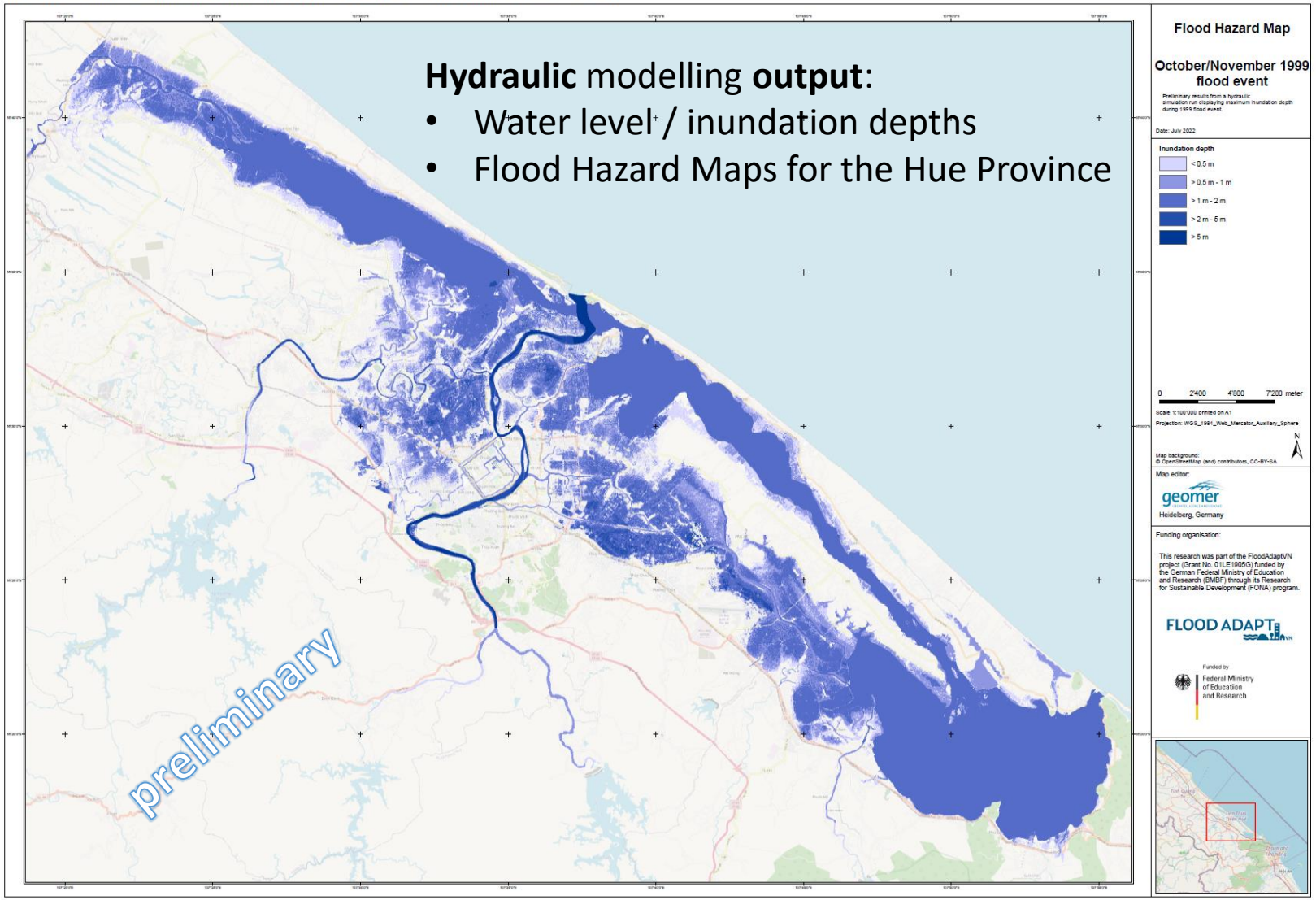
World Bank (2021)

Current and Future Flood Risks and Impacts

Assessment of the drivers and spatial patterns of present-day and future flood risk in all dimensions of flood hazard, exposure and vulnerability, as well as (historical) damages and impacts

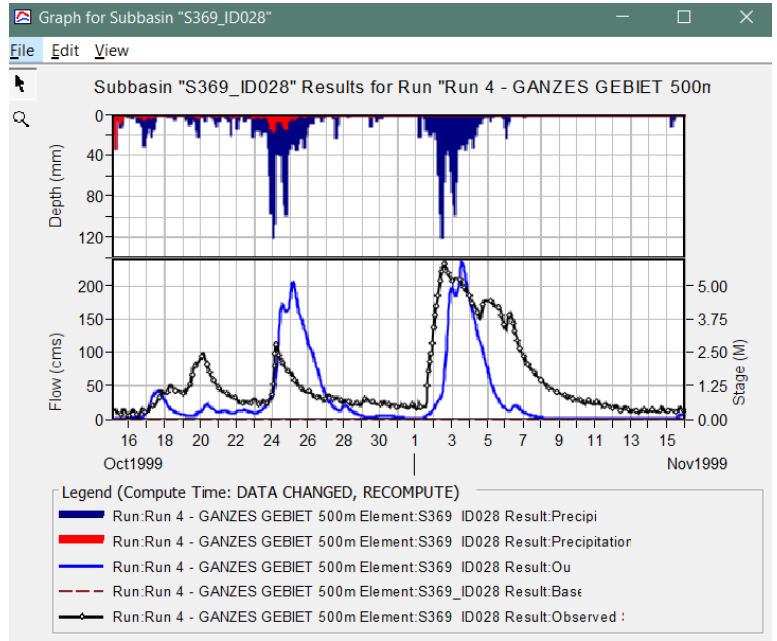


Flood Hazard Map - Estimation of inundation depths during October/November 1999 flood event



Hydrologic modelling **output**:

- Time series of discharge

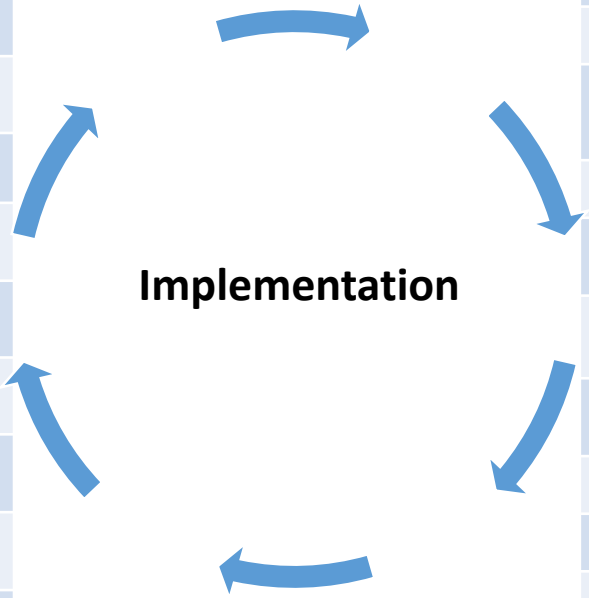


Cooperation and Implementation

Stakeholder Integration

FloodAdaptVN – stakeholder collaboration / Stakeholder – Stakeholder collaboration

Collaboration type
Formal “vertical” collaboration/ “leadership”
Formal “decision-making – administration” collaboration
Formal “administrative, horizontal” collaboration
Formal “administrative, vertical” collaboration
Formal “interprovincial” collaboration
Informal collaboration/ “research, capacity development & exchange”
Formal collaboration “support & assistance”
Informal cooperation “community engagement”
Informal cooperation “private-sector engagement”
….



Stakeholder categories
National-level policy and decision makers
National-level public-sector agencies (administrations)
Local-level decision-makers (province level, local leaders), bodies and committees
Local-level administrations (departments)
State-owned companies/ private sector enterprises
Academic partners/ research organisations
Global organisations
Donors
Partner governments
Mass organisations / civil society organisations
Communities

Protection targets in the policy framework

Ecology Môi trường	Economy Kinh tế	Society Xã hội	Process Quá trình

National level:

Resilience of the economy, of the society and of the environment to natural disasters

05/2016/TT-BKHĐT (06/06/2016) Circular guiding the integration of content on natural disaster prevention and control and sectoral, socio-economic development planning and plans/ Thông tư hướng dẫn lồng ghép nội dung phòng, chống thiên tai và quy hoạch, kế hoạch phát triển ngành

Thừa Thiên Huế Province:

By 2025, complete capacity building for offices of Commanding Committees for Natural Disaster Prevention and Control and Search and Rescue at all levels to proactively prevent and combat natural disasters (…), to reduce loss of life and property of the people and the state; to create conditions for sustainable development, (…), to build communities and a society safe from natural disasters.

204/KH-UBND (09/09/2020) Plan to improve disaster prevention and control capacity for localities in Thua Thien Hue province in 2020-2025/ Kế hoạch nâng cao năng lực phòng, chống thiên tai cho các địa phương tỉnh Thừa Thiên Huế năm 2020-2025

	Ecology Môi trường	Economy Kinh tế	Society Xã hội	Process Quá trình
Environment & natural resources				
Agri-/ aquaculture, forestry & fishery				
Structural adaptation/ FRR/ DRR				
Technical infrastructure				
Built environment				
Traffic & mobility				
Socio-economy				
Social infrastructure & quality of life				
Human health & safety				
Security & public order				
Planning & strategy development				

Stakeholder categories
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Communities

Thank you.

Cảm ơn.

SCAN ME

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