

Scenarios for Adaptive Flood Management in Horsens Fjord

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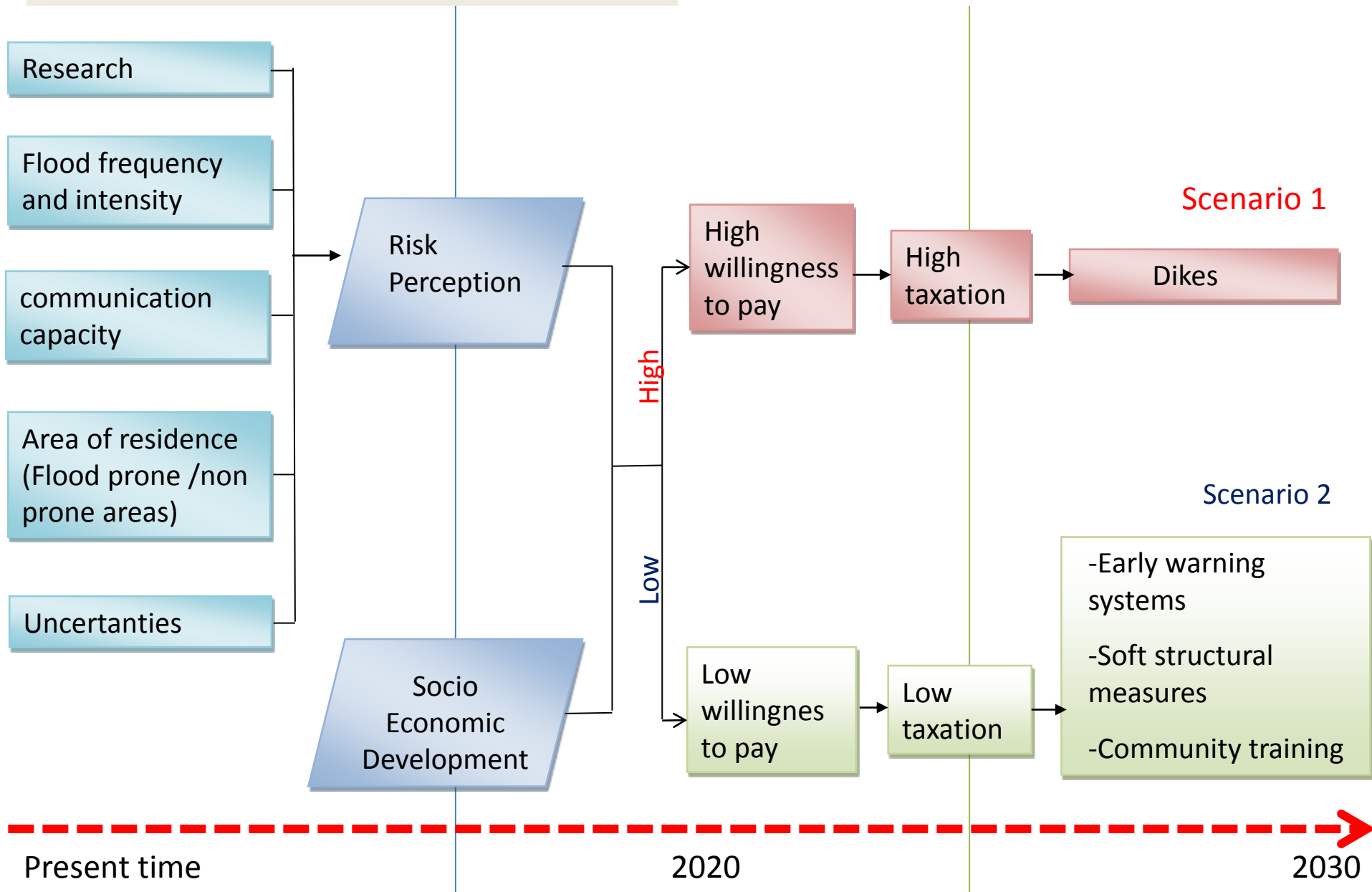
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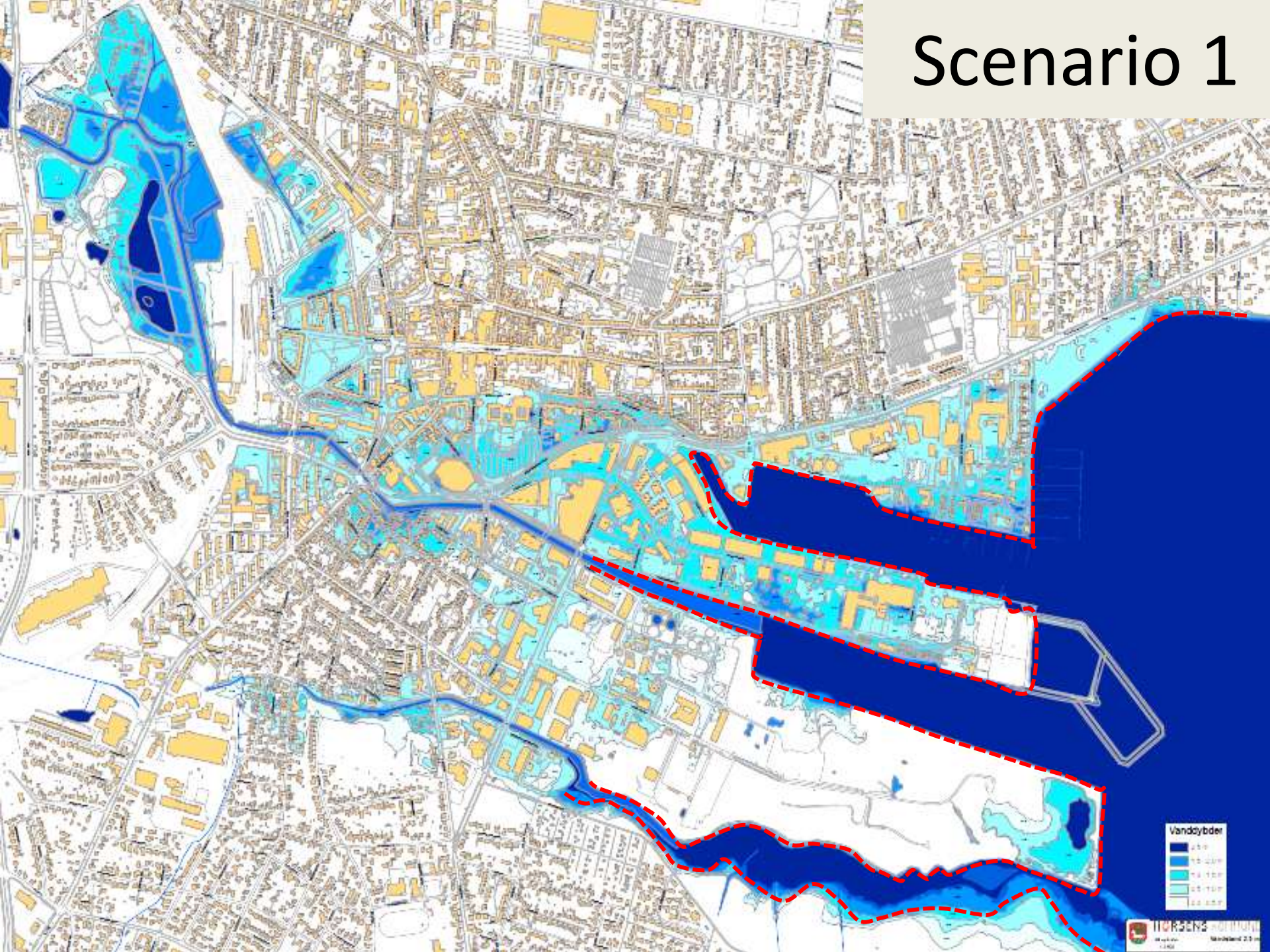
Introduction

- According to the Intergovernmental Panel on Climate Change (IPCC, 2007) an increase in the surface temperature of water, and changes in the hydrological cycle could result in changing extreme weather events. Some areas may experience intense rainfall resulting in heavy floods, while other areas may witness less rainfall due to living in highland.

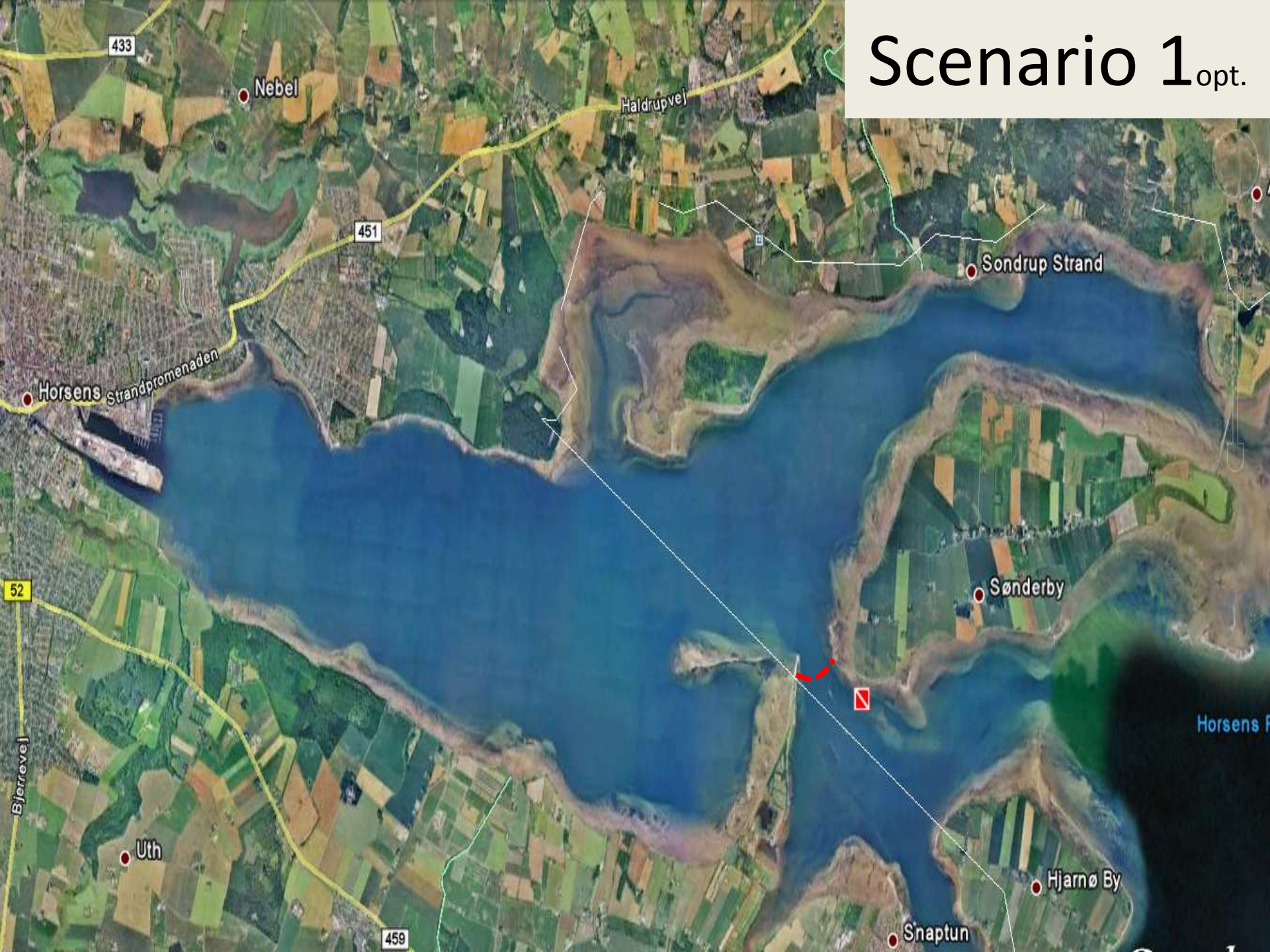
Scenario building



Scenario 1



Scenario 1_{opt.}



Scenario 2

Flood Warning System

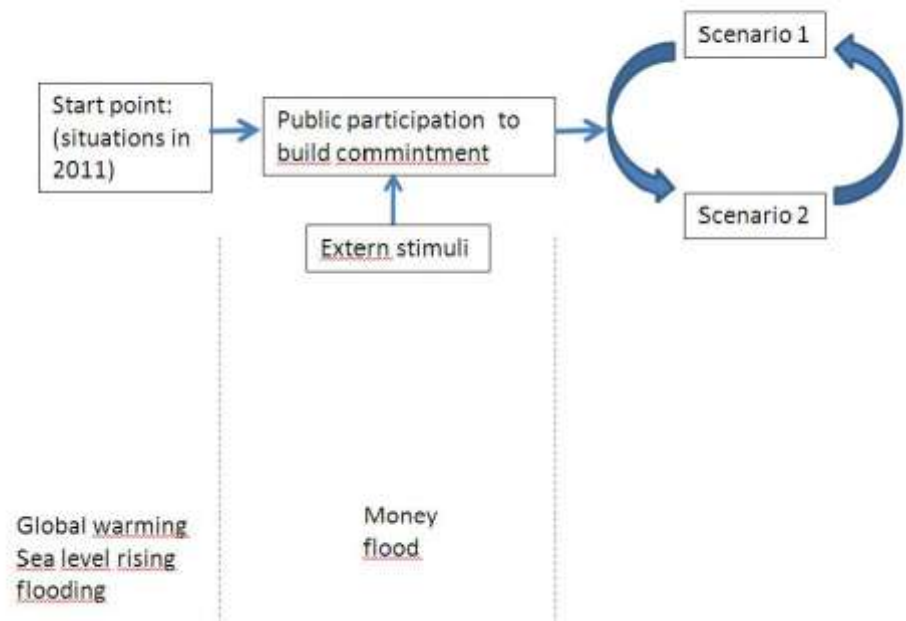
- **The operator, based on analysis of the received weather data and other information from the Internet makes the decision whether to warn inhabitants**
- **A computer program distributes warnings via SMS, based on the addresses collected in the database and send it (SMS) to database**

Combine of S1 and S2

Adaptive Flood Management System

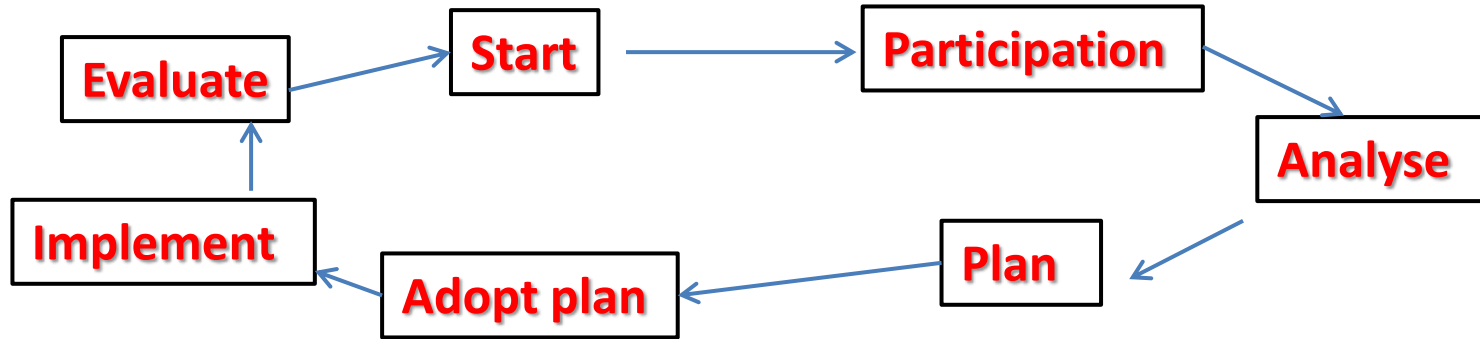
- Based on this project, we suggest three directions of activity:

- Development of an local flood warning system
- Improvement of inhabitant knowledge and awareness
- Preparation of building local dike (2.5m) along the coastal side.



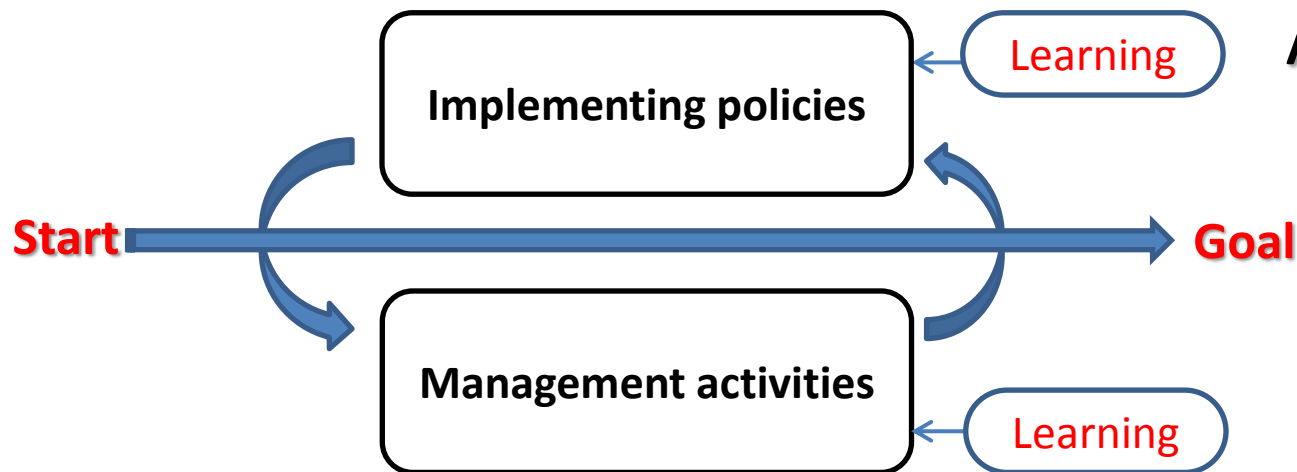
From IWM to AWM

IWM



Integrated

AWM



Adaptive

- High risk and cost arises from AWM in return for fairness and transparency
- Require highly-motivated participators
- Highly-changed policy maybe not feasible in practice

Tak!



Photo: Copenhagen flood in 2010 summer (Lyngbyvej motorway)