

# Delta Programme | Freshwater



Luit-Jan Dijkhuis  
Venice, 14 October 2011





# Flood control







# Agriculture







# Navigation







# Nature







# Headlines on Drought in news papers

**Zwemverbod langs IJmeer na dood honden**

AMSTERDAM Op verschillende plaatsen langs het IJmeer zijn afgelopen weekeinde zwem- en gebiedsverboden afgekondigd.  
Volkskrant 23-05-2011

**Ook dit jaar dreigen de dijken te verdrogen**

Sinds deze week worden zelfs met klei versterkte veendijken besproeid, beducht als men is voor een schuivende dijk a la Wilnis. En het is pas mei.  
Volkskrant, 21-05-2011

**Zoet water naar droge gebieden gepompt**

Het gemaal De Aanvoerder in Utrecht pompt sinds gistermiddag water uit het Amsterdam-Rijnkanaal naar het westen van Nederland om de droogte te bestrijden.  
NRC Handelsblad 20-05-2011

**Zout slootwater bevat lelies en anjers niet**

Kwekers: Waterschappen te traag met actie tegen droogte  
Trouw  
21-05-2011

**Waterteam bekijkt uitzonderlijke droogte**

Het Management Team Watertekorten (MTW) is donderdag voor het eerst sinds 2003 bijeen geweest voor een bespreking vanwege de uitzonderlijke en aanhoudende droogte.  
Binnenlandsbestuur, 30-05-2011

**Tekort aan zoet water dreigt door droogte**

Door de aanhoudende droogte dreigt in Zuid-Holland een tekort aan zoet water te ontstaan. In onze regio gaan daarom vanaf vrijdag de Haringvlietsluizen minder vaak open. RTV 27-05-2011

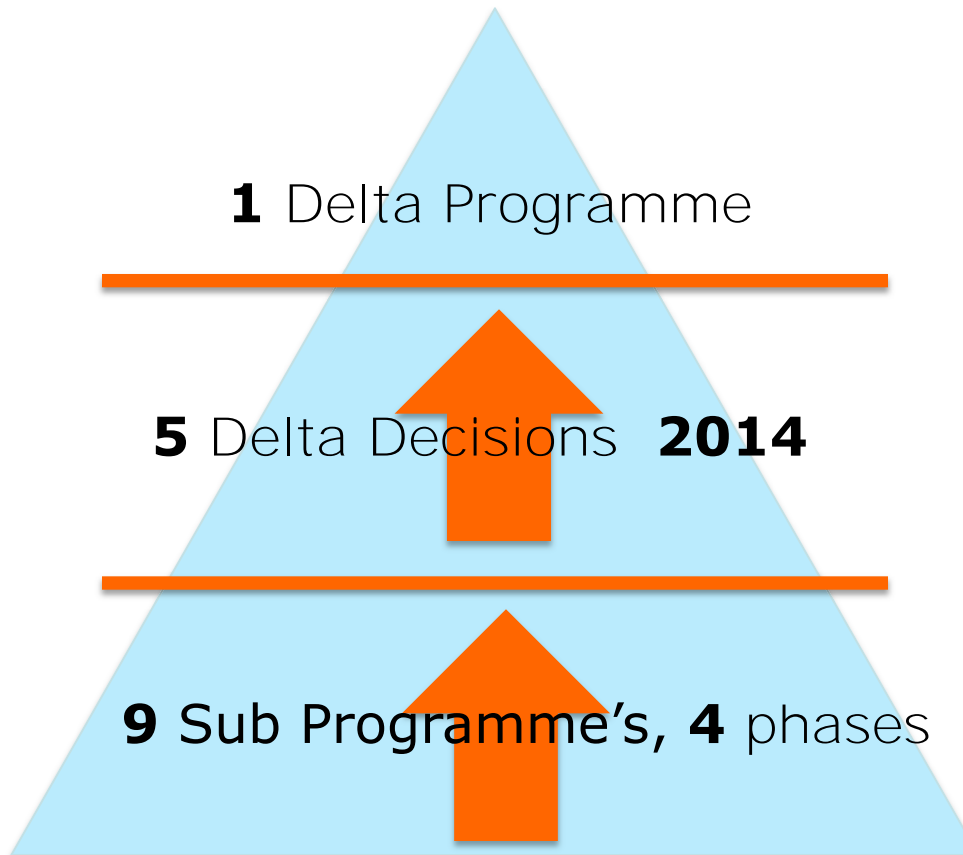


# Content presentation

- Delta Programme
- Goal and task
- Planning and process
- Results
- Developing goals and strategies



# Delta Programme



[http://www.deltacommissaris.nl/english/Images/11%2094%20Deltaprogramma%202012\\_EN\\_def%20internet\\_tcm310-307583.pdf](http://www.deltacommissaris.nl/english/Images/11%2094%20Deltaprogramma%202012_EN_def%20internet_tcm310-307583.pdf)





# Goal and Task

## Goal:

- Sustainable freshwater management, now and in 2050.

## Task:

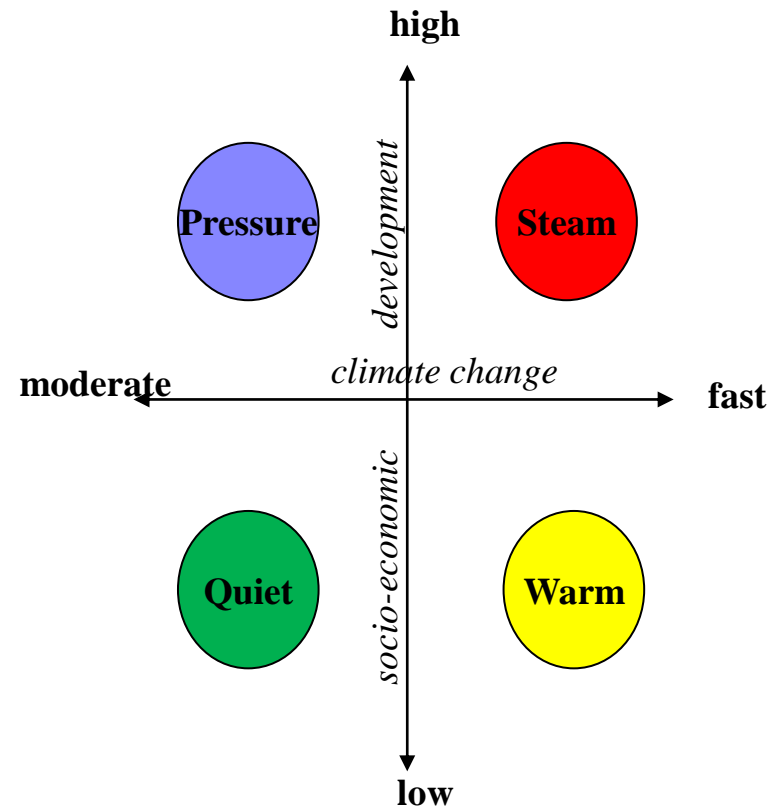
- Develop strategies for Freshwater management in the Netherlands in 2050.
- Identify short term (2015) no-regret measures.





# Starting points

- Carried out for the whole country
- Delta scenario's and Delta model are used
- Three years used: normal, dry and extreme dry
- Definition:  
Bottleneck if water demand > water availability







# Planning Delta programme Freshwater

## **Phase 1, Mid 2011**

- Understanding of development of water demand and water supply
- First assessment of bottlenecks

## **Phase 2, Mid 2012**

- Reassessment of bottlenecks, insight in problems regarding the ambitions
- Explore possible strategies

## **Phase 3, Mid 2013**

- Final assessment of bottlenecks based on latest Delta scenario's and Delta model
- Most likely strategies, including measures, instruments and costs
- Possible Delta Decisions

## **Phase 4, Mid 2014**

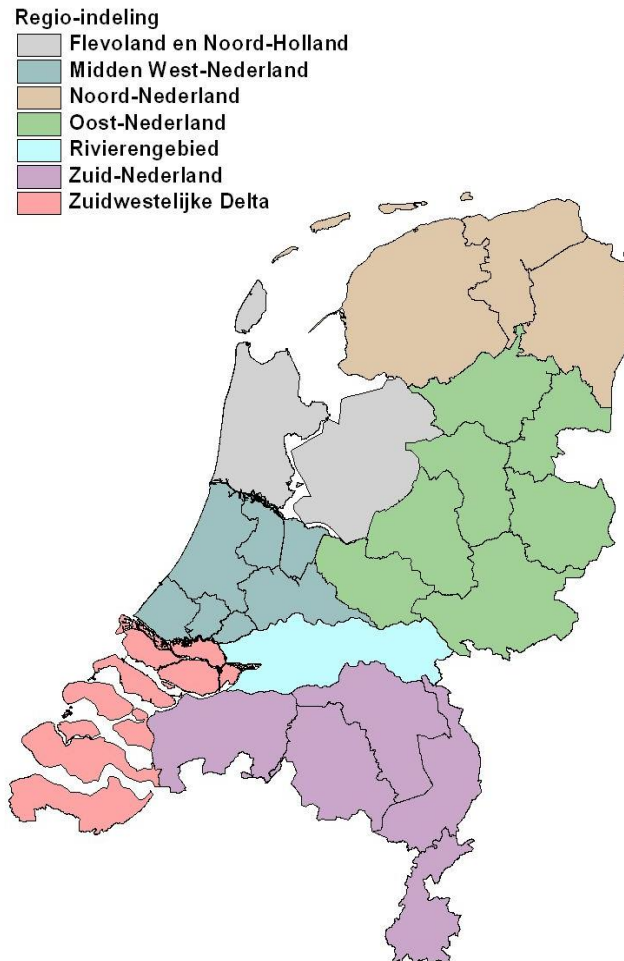
- Preferable strategies Freshwater, including measures, instruments and costs
- Proposal for final Delta Decision





# Seven sub regions

- Main and regional water system
- Joint fact finding
- Full support of regions
- Consensus
- Additional research





Strategy:  
Policy options which guide the use  
of measures and instruments

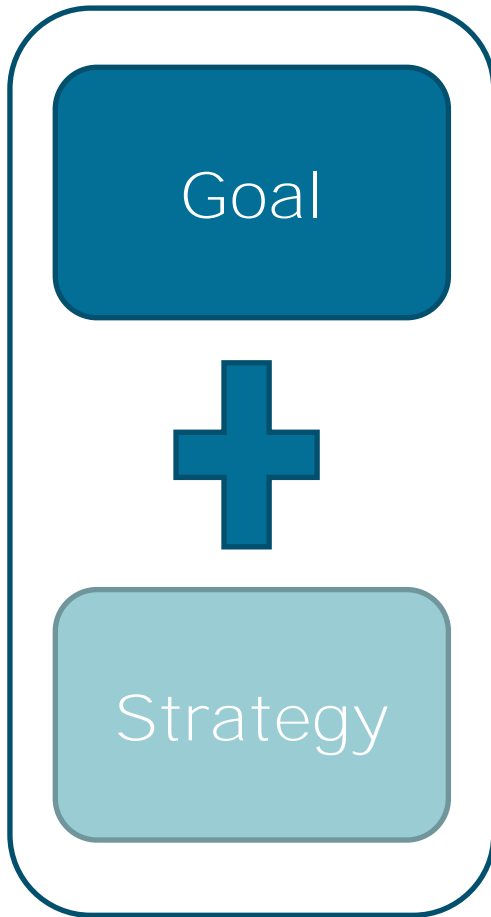
Goal:  
Desired balanced situation  
between water demand  
and water supply in 2050







## Current strategy and goal



### **Current goal**





- Water availability is guaranteed by water authorities
- “ Enough fresh water, of good quality, on the right place, and at the right moment”
- “Enough fresh water for all water users during the year”

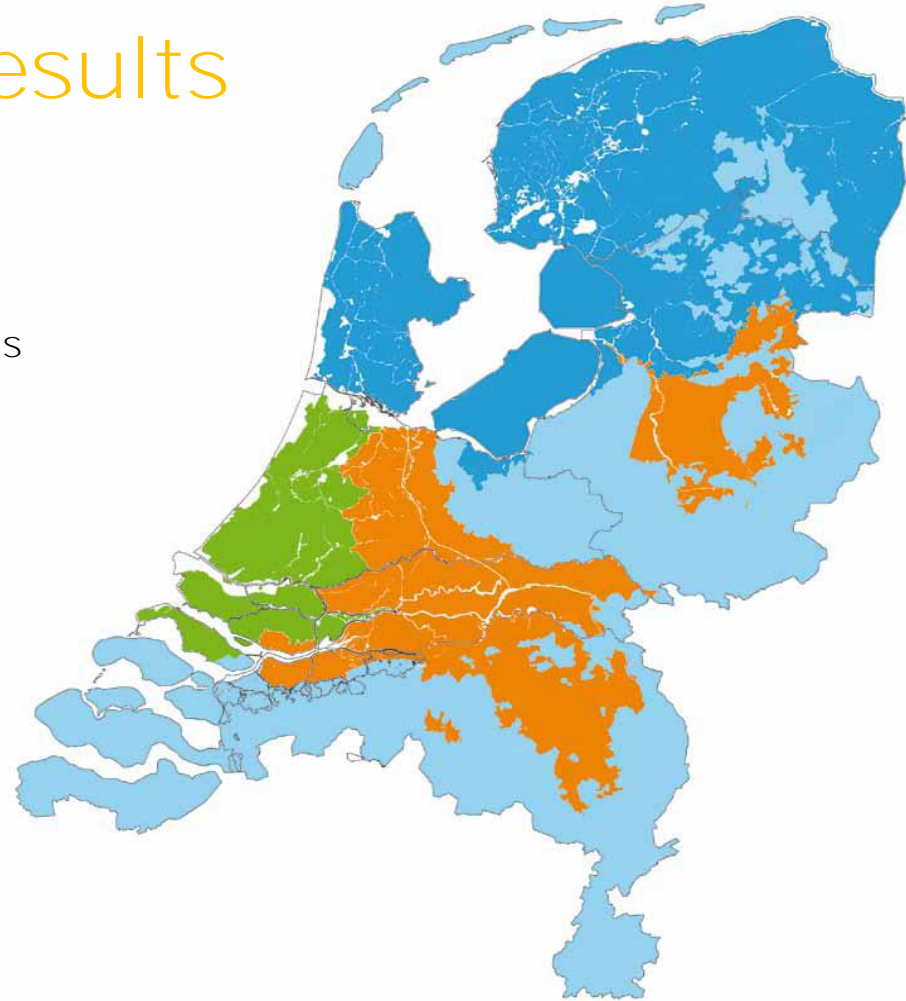
### **Current Strategy**

- Use current infrastructure to provide fresh water
- In case of drought use priority list
- Use of instruments: permits (groundwater and surface water)
- Accept financial losses



# First results

-  No fresh water supply possible
-  Not enough freshwater in the rivers and canals
-  Water demand > water availability
-  Salt water intrusion in fresh water system





Current strategy and goal are not sustainable !!





# Next steps

## Short term:

- Enlarge the **flexibility** of the water system
- Check **feasibility** of measures:
  - Flexible water level management
  - Extra water supply infrastructure
  - Small scale water retention
  - Water demand management
  - ...

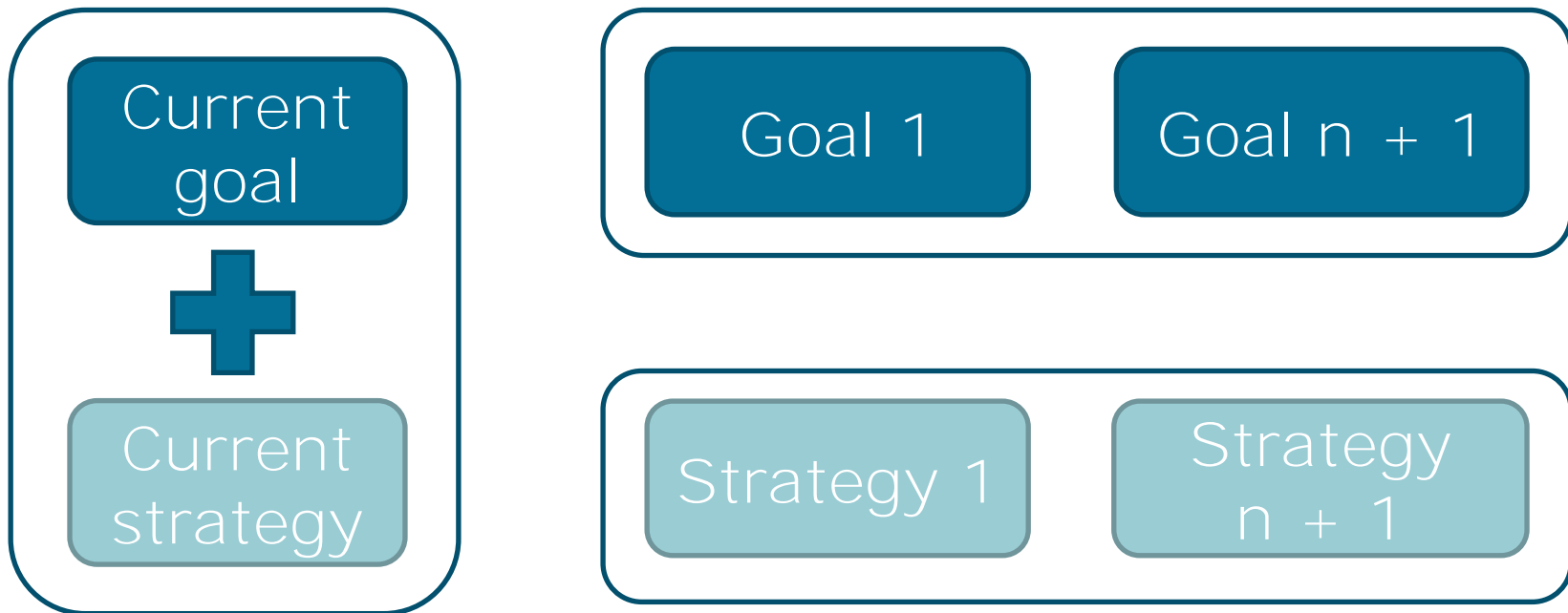
## Long term:

- Develop **goals** focused on sustainable and appropriate freshwater supply
- Develop **strategies** to achieve the formulated goals





# New goals and strategies are needed!

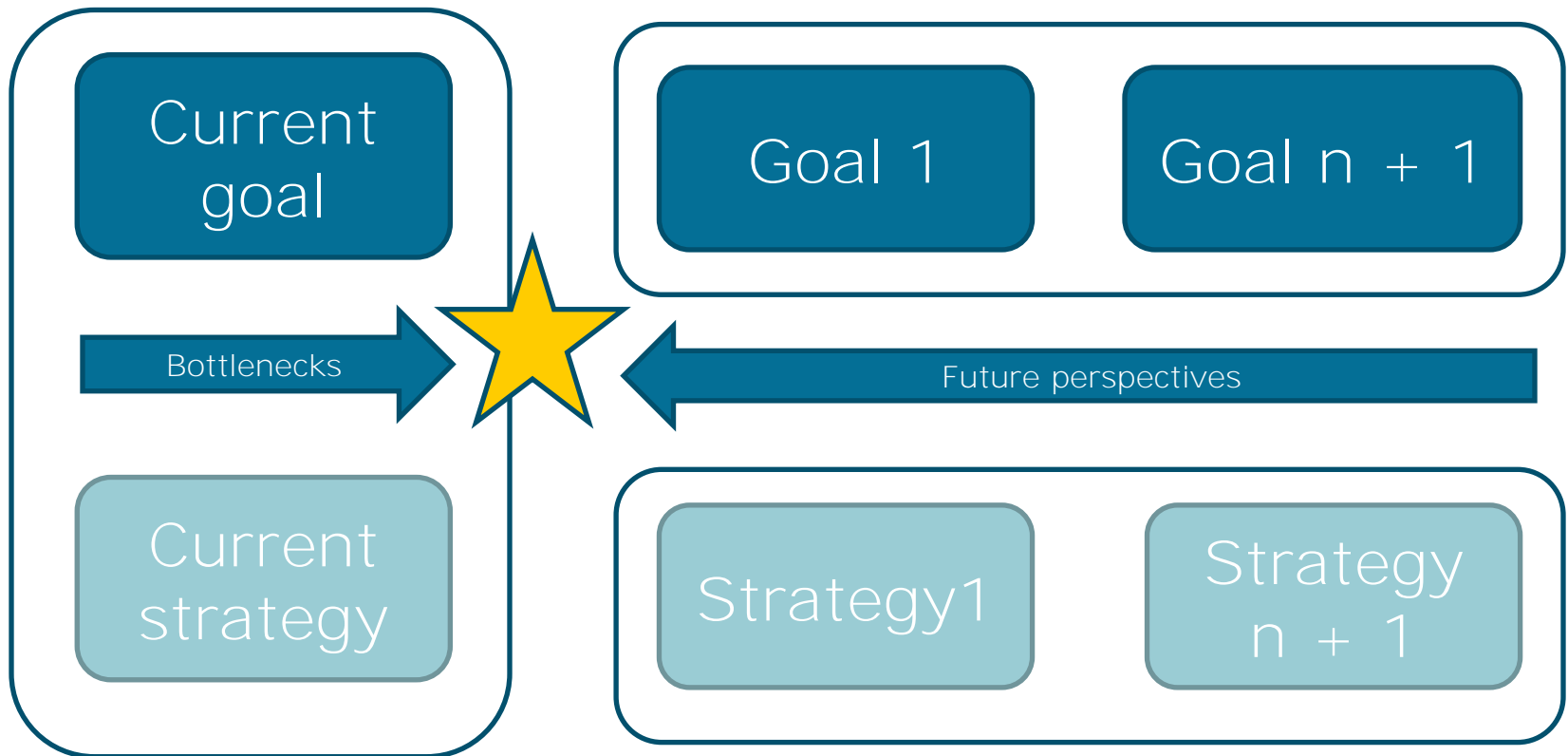


## Split into 3 parts:

1. (Im)possibilities current goal and strategy (2011)
2. Explore new goals
3. Develop new strategies



## How does this work out?

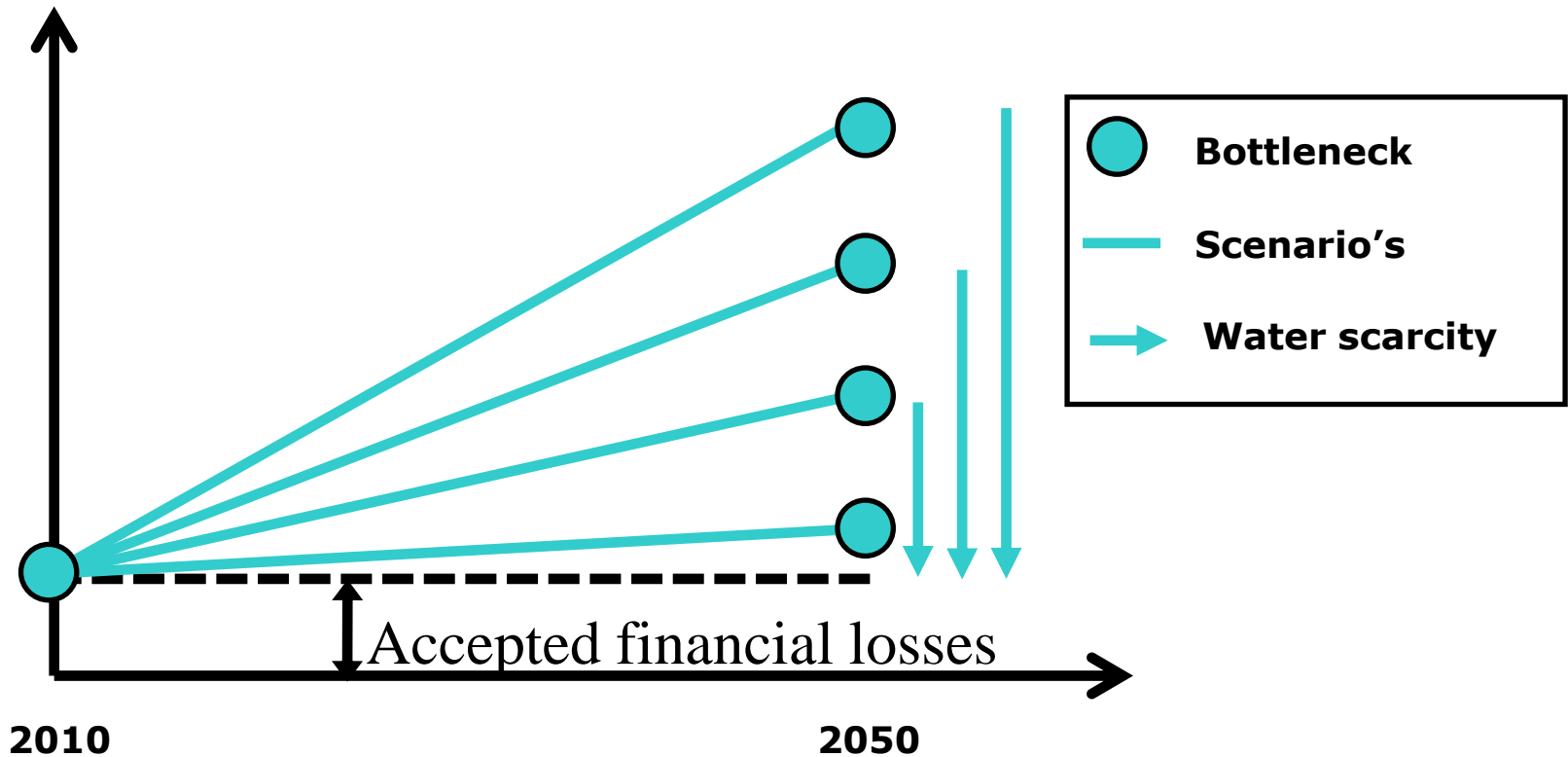






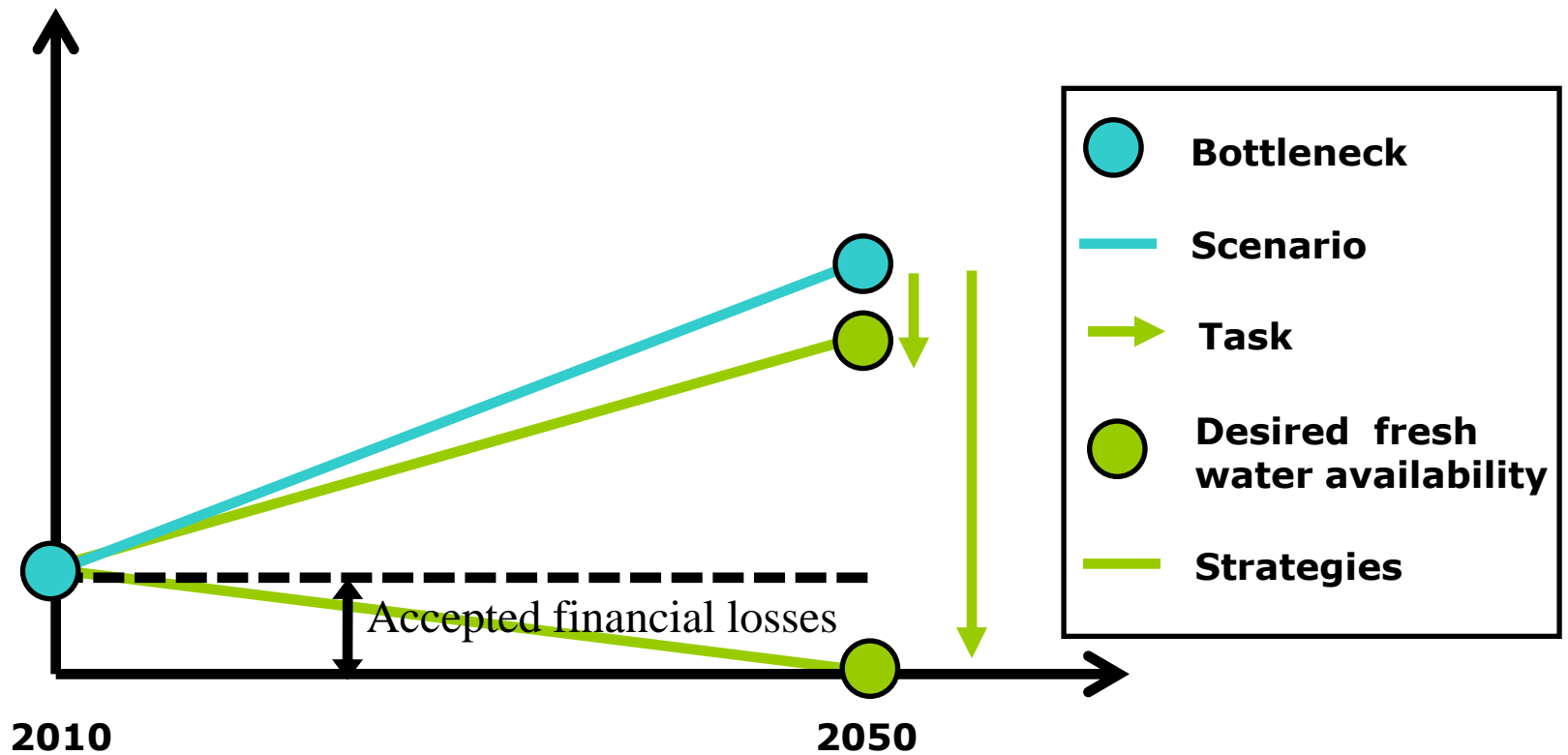
# Possible bottlenecks and scenario's

Based on current goal and strategy





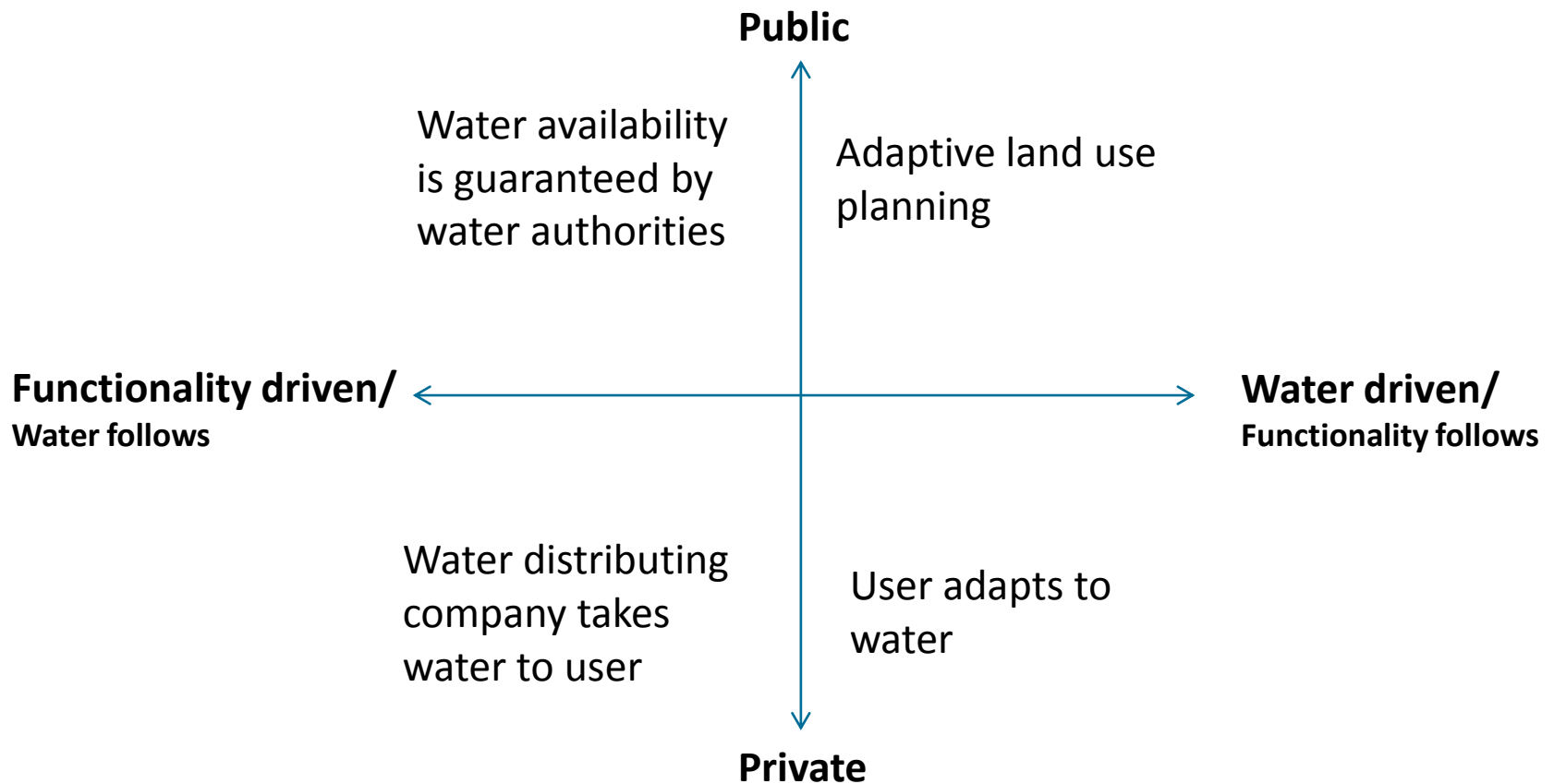
# Possible strategies and tasks





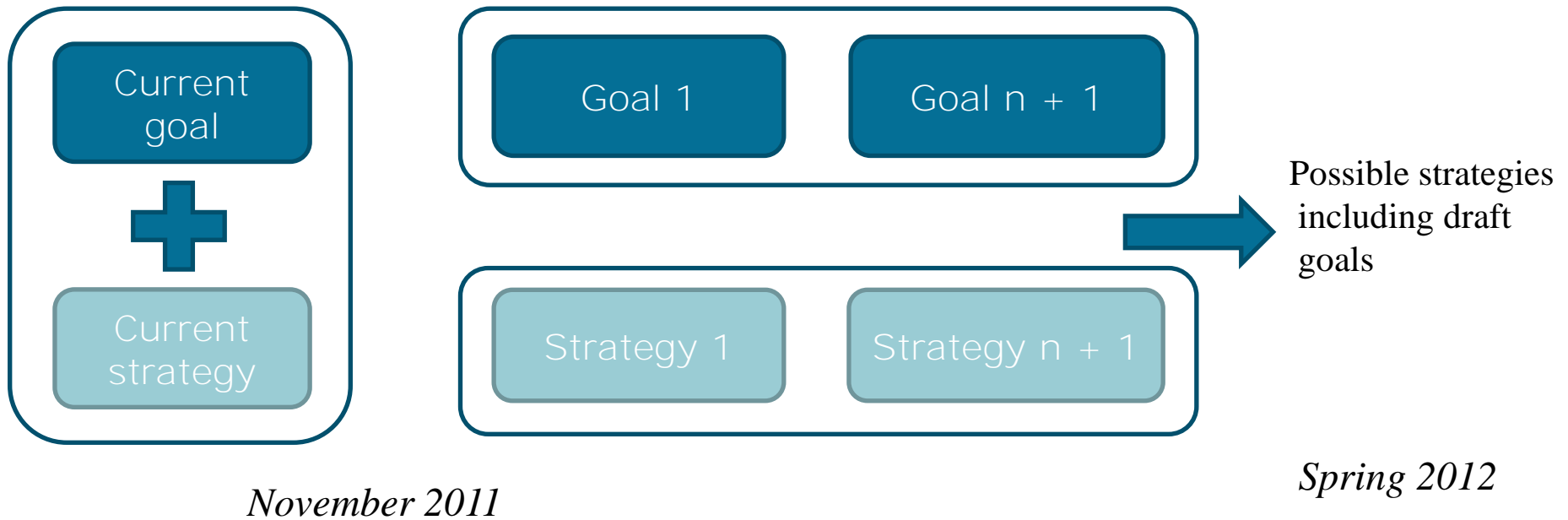


## Possible strategies





## Result



Thank you for your attention

