



Salt and Fresh Water in a changing Dutch Delta



Pier Vellinga



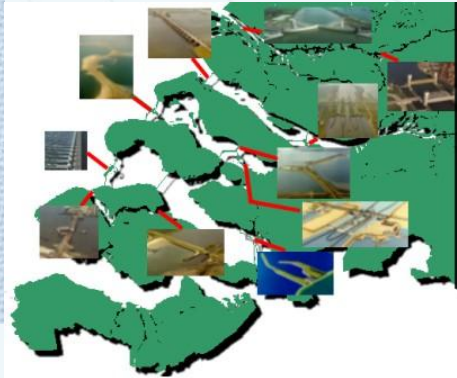
WAGENINGEN UR
For quality of life



Delta's in the world



Delta works



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Drawbacks of the delta works



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Findings of the study about efficiency of resources management:

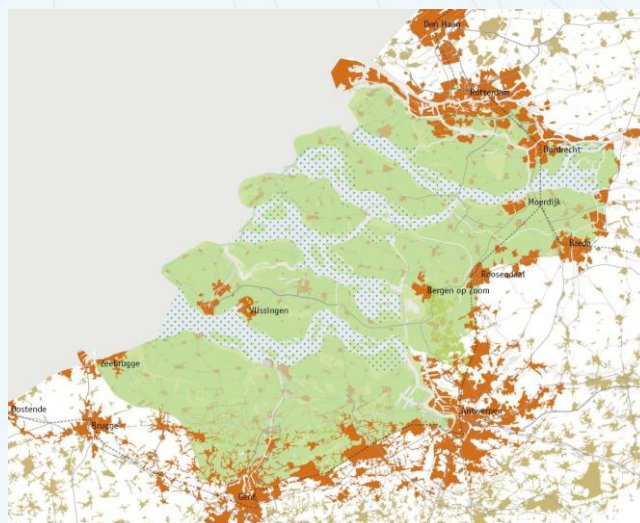


- Preliminary water balances show that a huge volume of water is used to keep the regional system fresh while only a small percentage is used for irrigation



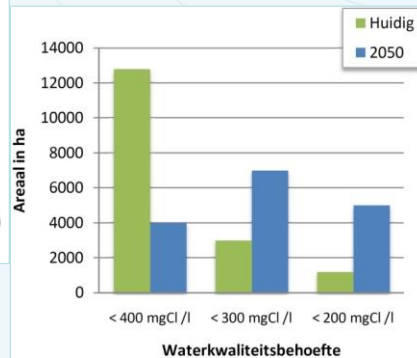
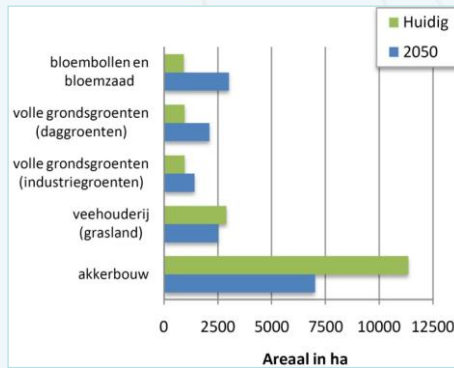
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A rural hearth surrounded by urban development



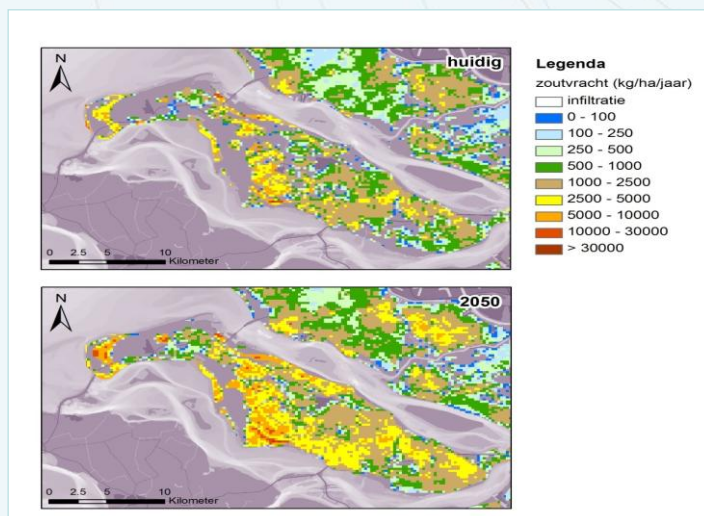
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Trends in freshwater demand



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Impacts of climate change: internal salinisation (KNMI, W+)

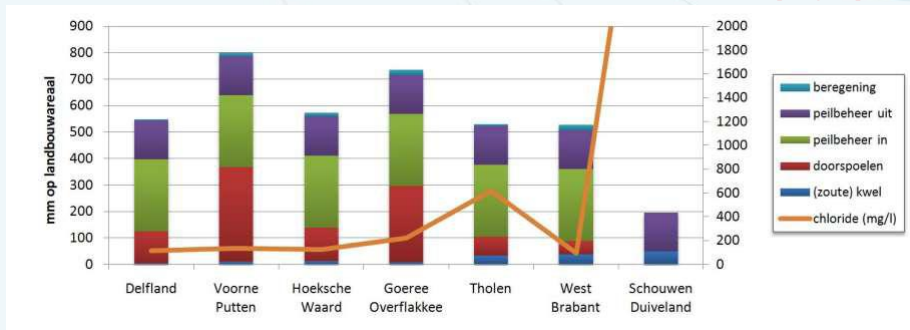


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Water balance summer 2003 (expert judgment)

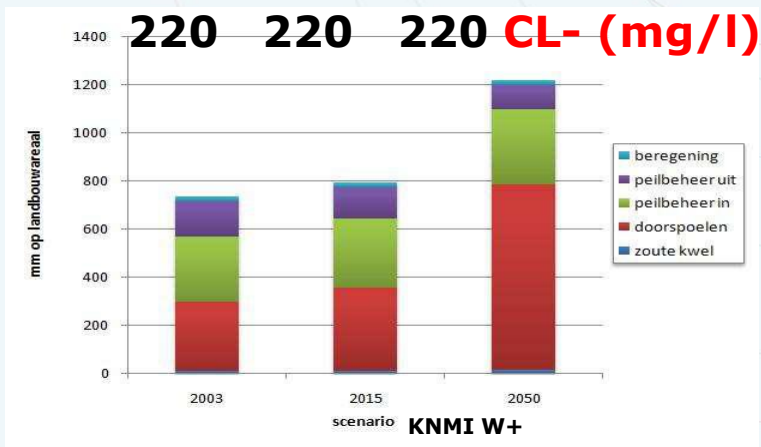


110 135 120 220 620 95 4750 CL- (mg/l)



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Scenario for summer 2003 Goeree Overflakkee



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Key findings about strategies:



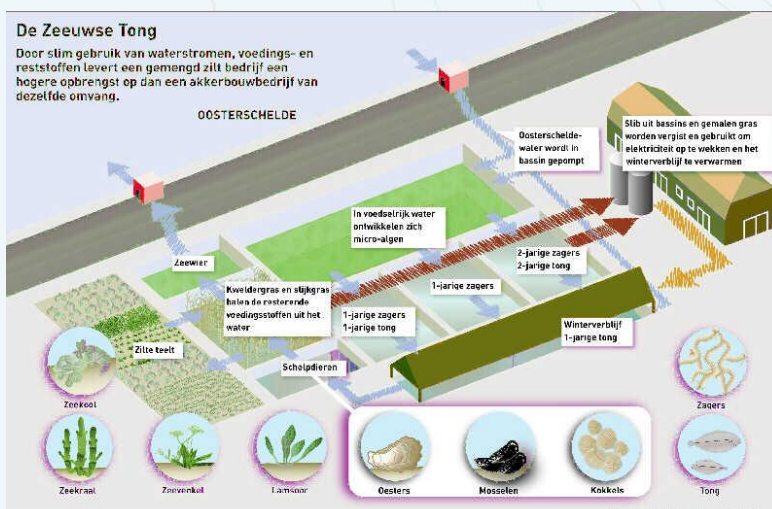
Before designing regional interventions to cope with future water scarcity make a well considered choice of a policy strategy, e.g.:

- **Combat the impacts (resisting strategy)**
- **Cope with the impacts (adaptation)**

Both strategies can be made climate proof!

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Cope with the impacts (adaptation): From agriculture towards aquaculture



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Combat the impacts (adaptation):
Supply freshwater to keep salt sensitive crops in production in a estuarine delta



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Fresh water not always the best
– Sea/salt water not always a
constraint



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Thanks for your attention!

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