Collaborative flood management

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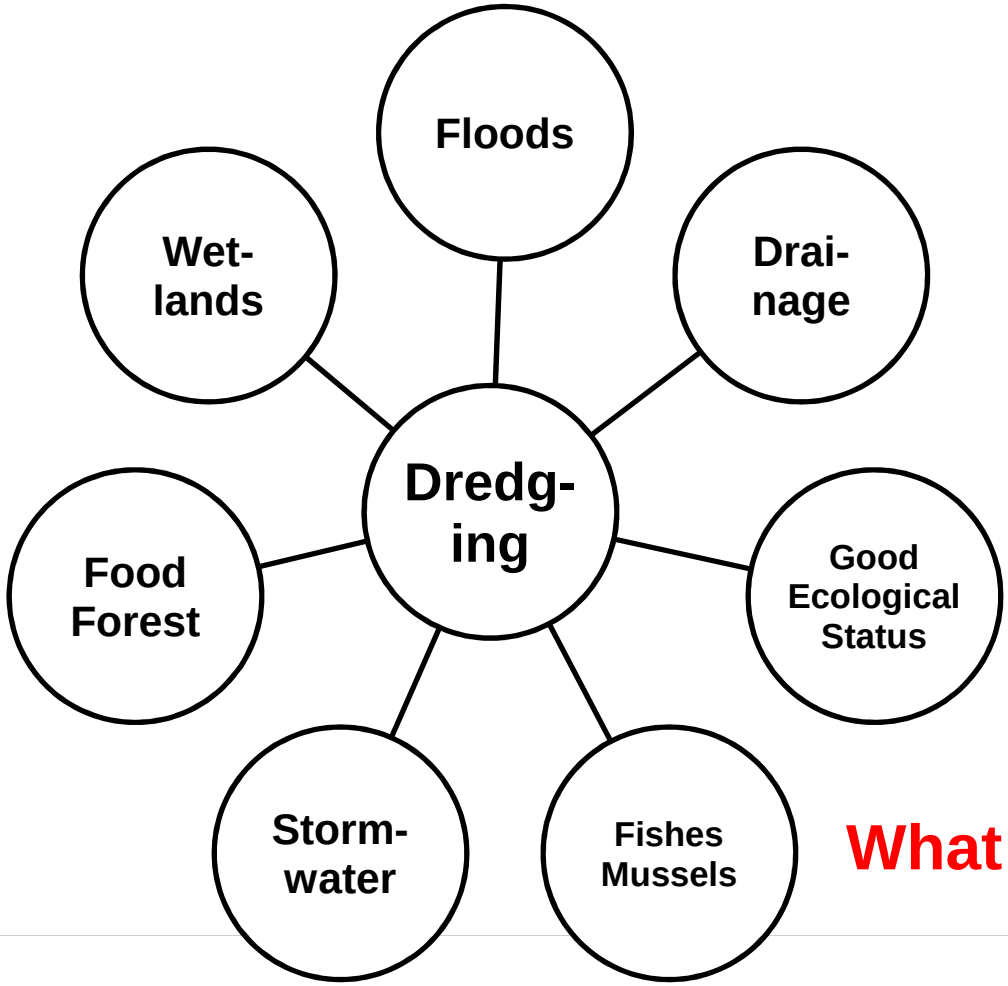
Rune Hallgren The Federation of Swedish Farmers

LANTBRUKARNAS RIKSFÖRBUND

Ditch dredging

Benefits/Problems - Climate ?

Balance between ecological and production objectives

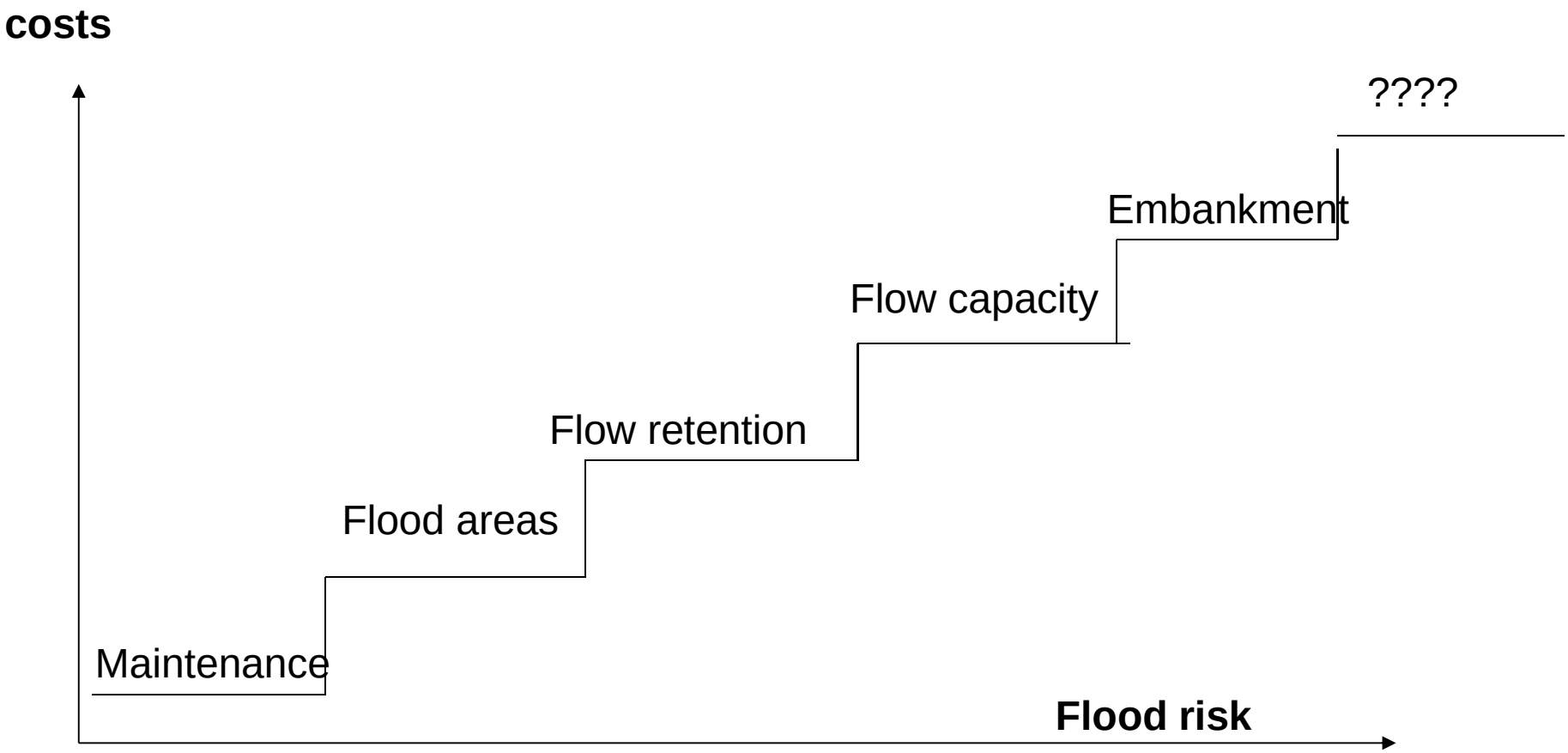


What is most important?

Faced questions

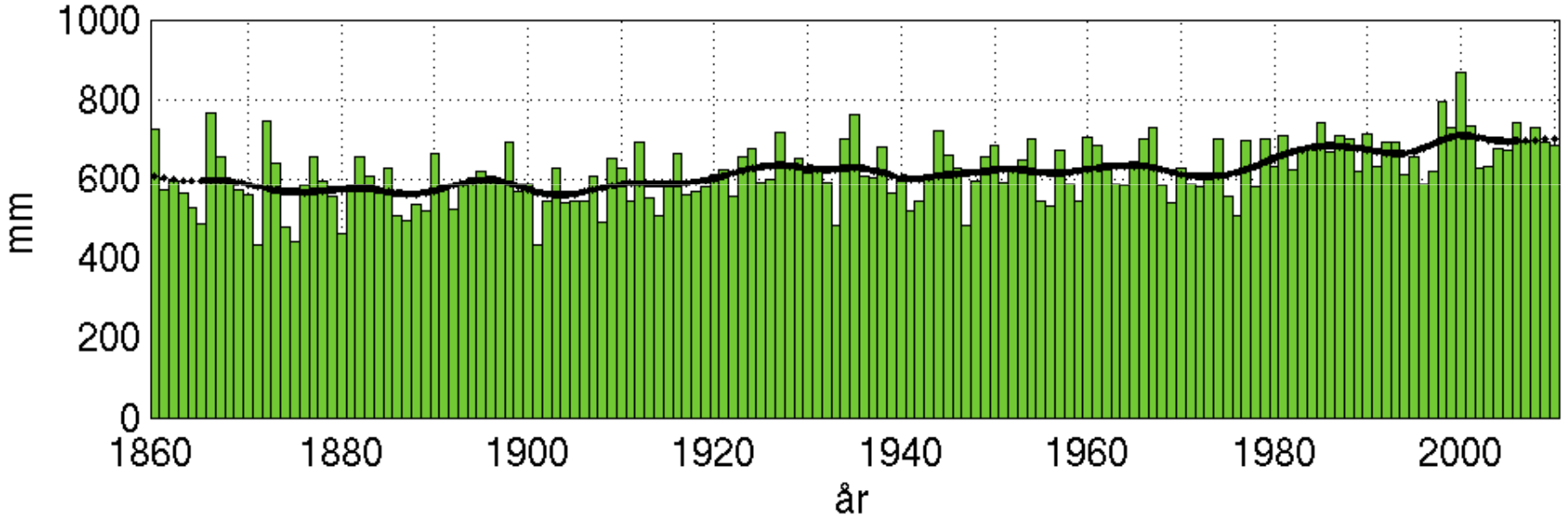
- how much water should flow,
- when,
- where,
- with what distribution
- and who decides

Risk management



Yearly precipitation

The precipitation variations between years are much higher than any uncertain climate scenario trend forecast



Flood areas

- River riparians
- Wetlands
- Earlier natural wetlands
- CAP- compliance: “Ecological focus areas”
- Adapted protection(buffer) zones
- Rural Development Program: Compensatory payments

Flow retention

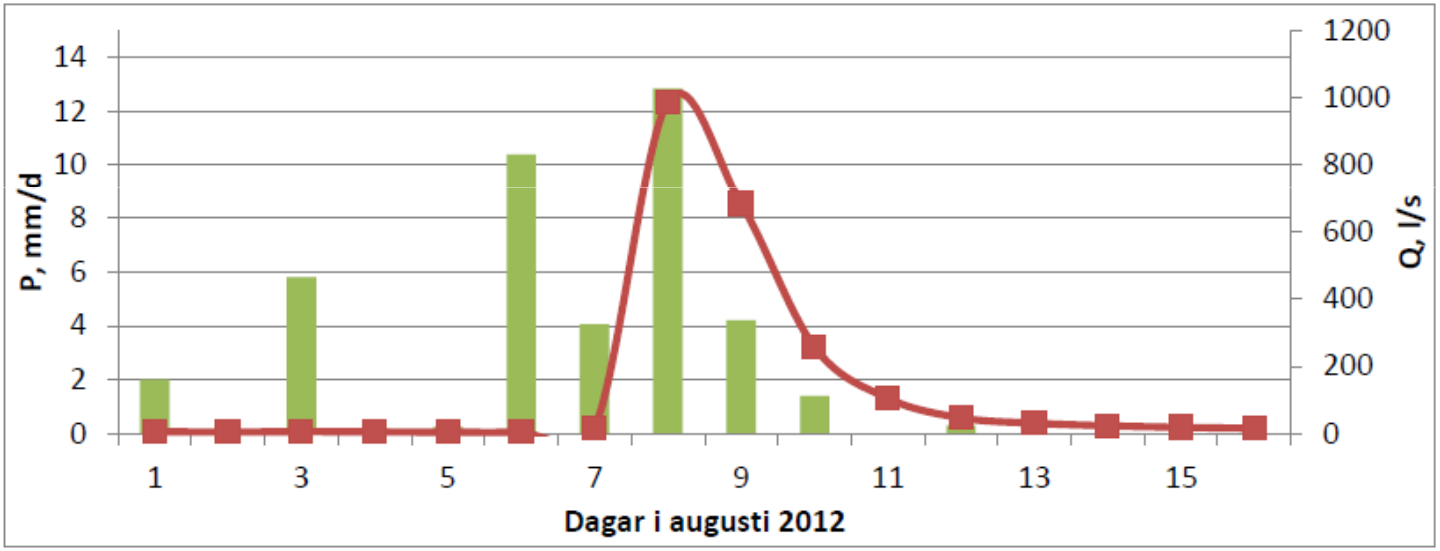
- Land drainage
- Retention basins for storm water
- Dams, weirs in watercourses
- Impoundment of lake water

Increase flow capacity

- Recondition of subsurface drainage system
- Wider and deeper ditches
- Increase culvert dimensions
- Two-stage ditches
- Problems down-stream?
- Consider water quantity during dry seasons

Drainage reduce flow peaks

marken (porerna) först fylldes med vatten. Ytterligare regnmängder på den redan blöta jorden medförde en kraftig flödestopp.



Figur 21. Flödestopp i Hestadbäcken i Östergötland med avrinningsområde 760 ha och ca 53 % åkermark och 37 % skog i augusti 2012. Nederbörd visas med staplar och flöde med heldragen kurva

För större avrinningsområden får magasinering, avdunstning och regnets areella utbred-

Collaborative Water Management

”Learning together to manage together”

Programs and plans

are prepared, considered and accepted by stakeholders and authorities concerning

- water quality and quantity
- measures
- governance

for win-win situations and cost-effective implementations

Experiences

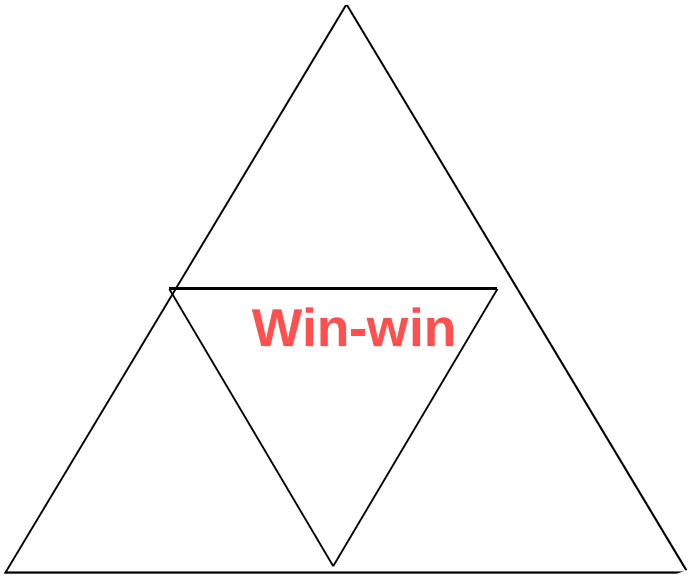
- Define the water catchment area
- Generally, farmers are positive to collaborative activities
- A holistic perspective; water quality, floods, soil structure, irrigation and biodiversity
- Flexible compensatory payments
- A bottom-up approach is advantageous
- Production benefits for the farmers are important
- Win-win solutions are important

Local Water Management Plan

- Ordered(?) and confirmed by the involved farmers
- Identify the water problems
- Measures What? Where? By whom?
- Compensatory payments / Regulations
- Win-win production – environment
- Advisory and facility support
- **Think out of the box: Combinations of means, measures and benefits**
- (Negotiated) acceptance from farmers and authorities

Win-win solutions

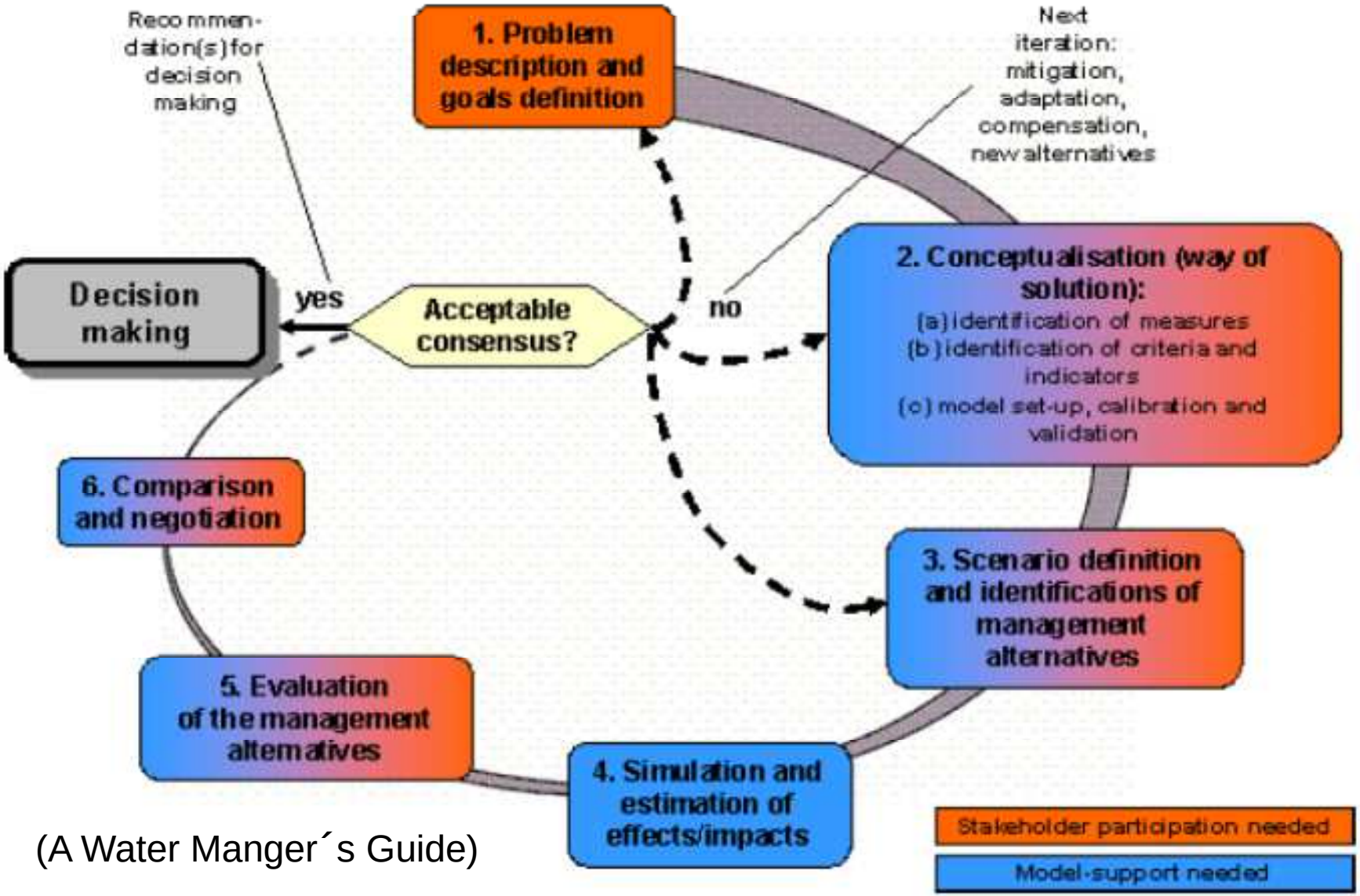
Farmers:
Economy



Authorities
Environ-
ment

Accep-
tance

Model-supported water management



(A Water Manger´s Guide)

Conclusions

- Define a difference between watercourse vs ditch
- Abolish the land drainage prohibition
- Exclude the exact depth and position for ditches
- Speed up and simplify the legal process for permissions
- Create a better dialogue between municipalities and ditch companies
- Focus even on arable production, not just ecological objectives and flood risks
- Try collaborative processes and decisions in integrated/adaptive water management cases
- Supported by the Swedish Civil Contingency Agency?

Social-ecological consideration

:

”Healthy rivers are products of healthy societies.”

”Social science is the poor cousin in water management”

Gary Brierley, New Zeeland, Göteborg 17.09.2013

The Happy End