Commissie voor de milieueffectrapportage

‘Room for the River’
SEA case

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Neusiedler See, Burgenland

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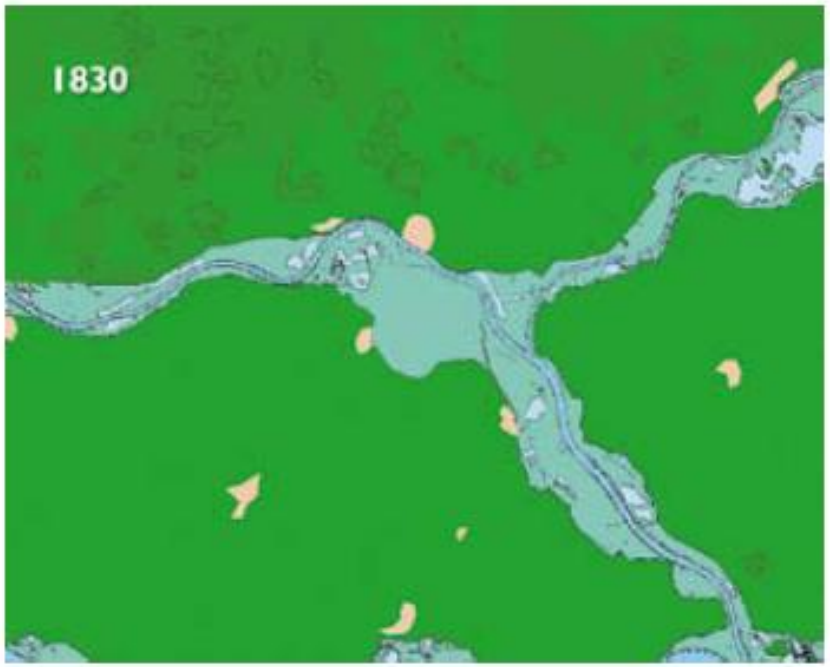
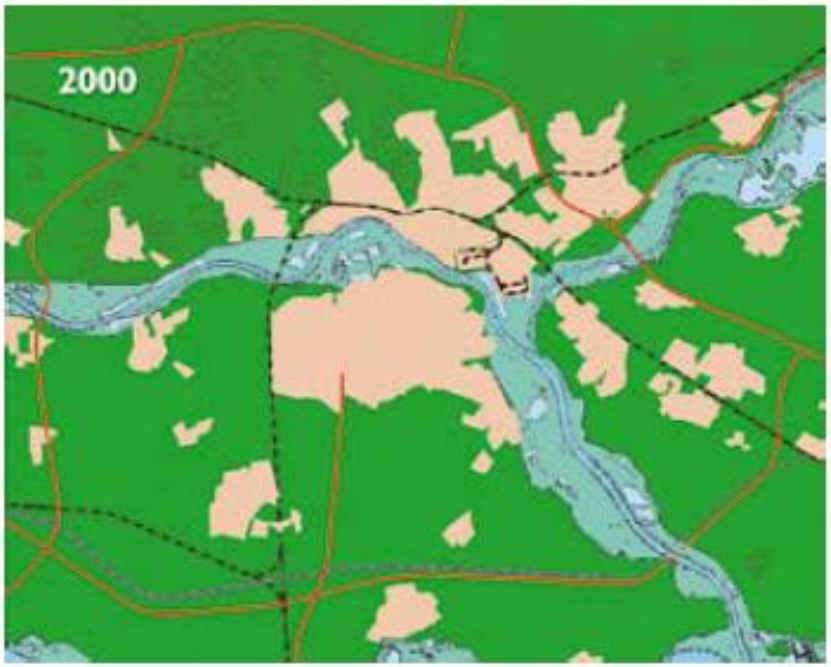
Focus of this presentation

- The cause and aim of the plan
- Methodology applied in the SEA
- Impact of SEA on decision making
- Lessons learned


Kampen
Zwolle
Hattem
Wijhe
Olst
Deventer
IJssel
Apeldoorn
Voorst
Zutphen
Doesburg
Arnhem
Velp
Nijmegen
Lobith
Tiel
Waal
Lek
Culemborg
Schoonhoven
Utrecht
Nieuwegein
Amsterdam
Haarlem
Leiden
Den Haag
Gouda
Hoek van Holland
Rotterdam
Nieuwe Maas
Oude Maas
Spui
Dordrecht
Gorinchem
Haringvliet
Hollandsch Diep
Amer
Bergsche Maas
Heusden
's-Hertogenbosch
Waalwijk
Breda
Tilburg
Roosendaal
Bergen op Zoom
Tholen
Middelharnis
Emmerich
Kleve
Schaal 1:635.000





Urban development in the Arnhem area

The immediate cause

- Near-flooding events 1995 / 1996;
- Potential high impact on lives and goods
- Predicted higher water discharge due to climate change

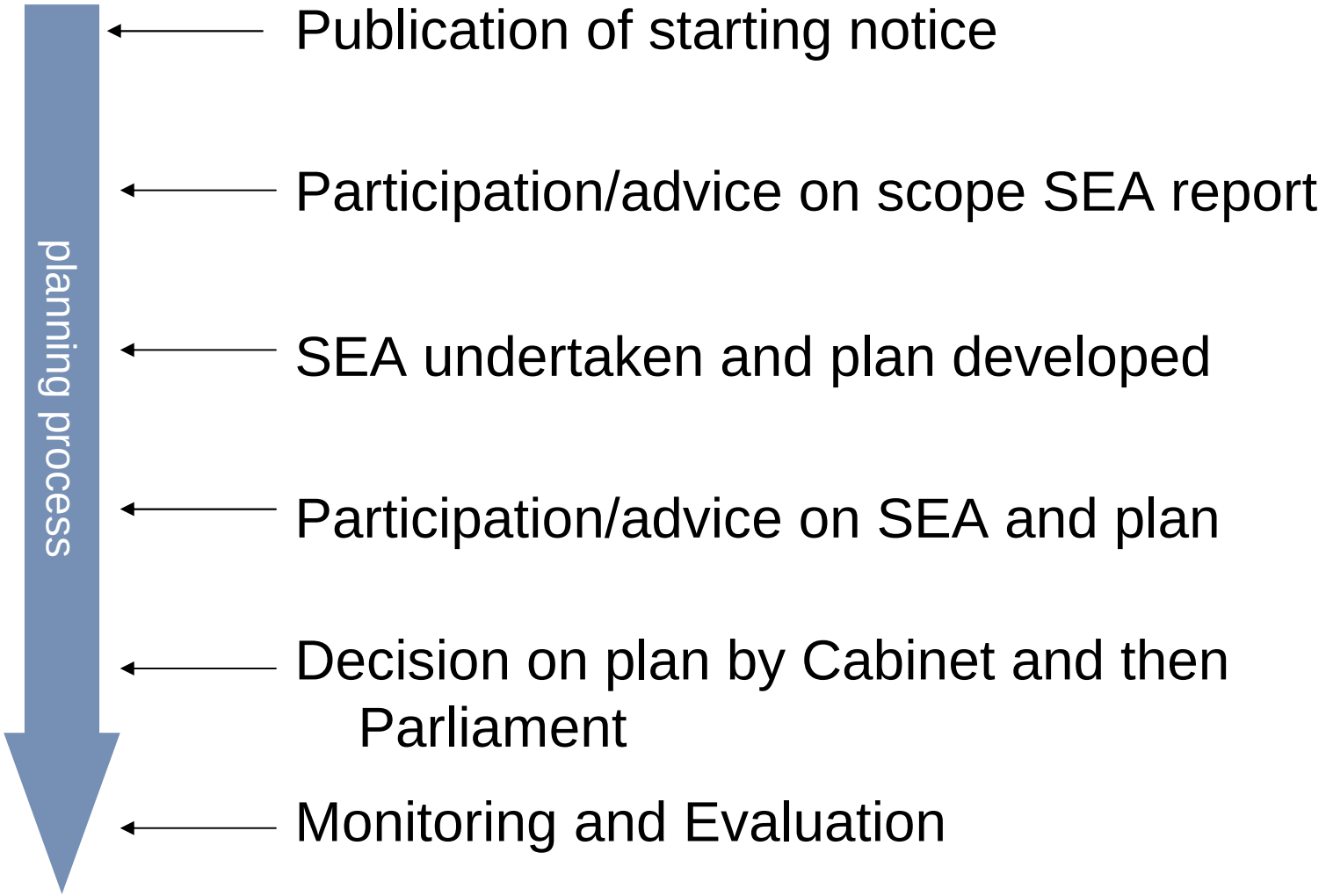
Aim of the plan

- Protection against flooding of the river Rhine, now and in the future, by:
  - dike improvement or heightening (*traditional approach*)
  - creating more space for water discharge or retention in the river foreland or river bed (*new approach*)
    - removal of obstacles
    - deepening of the river bed
    - creation of retention ponds
    - relocation of dikes
- Enhancing spatial quality by:
  - creation of new nature
  - improvement of landscapes
  - creation of recreation facilities

Why SEA?

- To enable planners and decision makers to find the best possible compromise between:
  - safety / flood protection
  - environmental benefits
  - costs
- To provide an integral view of the entire river system
  - the three river branches are interconnected
  - upstream and downstream measures may affect each other.
- Based on Dutch EA legislation, the type of plan (‘spatial planning key decision’) required an SEA.

SEA integrated in planning an decision making process



SEA management

- Specific project-agency responsible for both SEA and plan development
  - main responsible ministries worked together
  - SEA was written by the agency itself
- Private consultancies were contracted to compile:
  - background documents
  - specific sections of the assessment

Scoping

- Starting notice was published
- Participation by public
- Advice by the Commission
- ToR for SEA established
  - Which alternatives?
  - Which issues?

Participation by public

- During:
  - early stage (on the information the SEA should contain)
  - later stage (on the quality of the SEA and the draft plan)
- Full day meetings were organized at 15 locations
  - ‘information market’,
  - ‘hearing session’,
- Continuous participation through 2 regional steering groups with representatives from
  - most involved (local) governments;
  - agencies
  - organized NGOs (e.g. agriculture, environment)

Ruimte voor de Rivier - Windows Internet Explorer

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Uw zoekopdracht hier Zoek

Projecten

Bescherming door rivierverruiming

Het creëren van meer ruimte voor het water om het rivierengebied beter te beschermen tegen overstromingen, dat is waar het om draait bij het programma Ruimte voor de Rivier. Dat is nodig, want het klimaat verandert, en we moeten rekening houden met nattere winters. Een gevolg is dat rivieren meer water te verwerken krijgen, waardoor de kans op overstromingen toeneemt. Het alleen verhogen van dijken biedt geen duurzame oplossing. Er is een nieuw soort maatregelen nodig: de rivier moet meer ruimte krijgen, bijvoorbeeld door het verleggen van dijken, of het verlagen van uiterwaarden.

Download brochure

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- Download ins Deutsch

Laatste Nieuws

KNMI: 'Klimaat verandert in Nederland'

Project uitgelicht

Nijmegen sluit overeenkomst

Over deze website

Op deze website vindt u nieuws en achtergrondinformatie over het programma Ruimte voor de Rivier. U

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Advice by the NCEA

- Review of SEA's by NCEA is legally mandatory
- NCEA is a private foundation
  - expert committee (500 experts)
  - no ties to government or other stakeholders
- Advices compentent authorities on:
  - the information the SEA should contain
  - the quality of the SEA and the draft plan

NCEA working group

- Site-visit, together with the plan initiator and the competent authority
- + additional meetings during review process

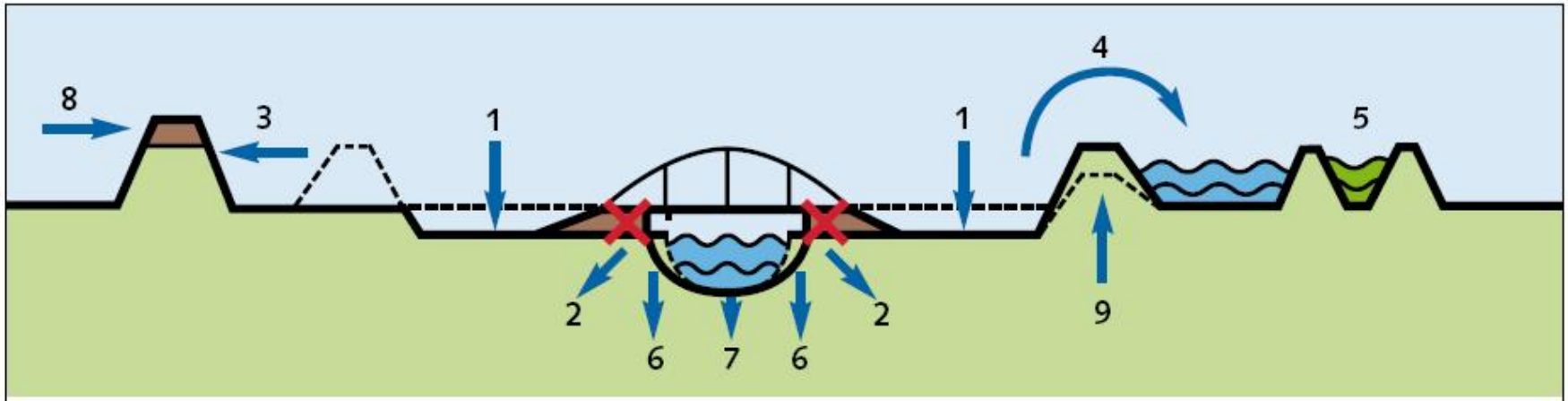
Developing alternatives

- First step: overarching strategies for flood protection (inside/outside dikes)
- Second step: focus on one strategy for each branch
- Did not work because segments of branches very specific
- Changed to: alternative sets of measures for homogeneous stretches of the river (building blocks)

Alternatives - preconditions

- each alternative should fulfill safety requirements
- current distribution of water between three branches should not change
- no effect on the current maritime functions on the river
- sufficient local support

Alternatives – type of measures



1	Washland excavation	4	Waterretention and storage	7	Deepening of summer bed
2	Removal of obstacles	5	High-water channel	8	Excess height of dykes
3	Dyke relocation	6	Height reduction of groynes	9	Dyke improvement

Main alternatives

- **Reference**:
  - Meeting safety objective, solely through strengthening and improving the existing dikes
- **Alternative 1**:
  - Meeting safety objective, through removal of obstacles in the river foreland, deepening of river bed and dike improvement
  - No trying to combine safety with better spatial and environmental quality
- **Alternative 2**:
  - Meeting safety objective, through broadening river forelands by relocating dikes, creation of extra river beds and creation of river ponds
  - Focus on combination safety and better spatial and environmental quality
- **Preferred alternative**:
  - added on the basis of a first assessment, combination of best scoring measures. Spatial quality measures less spread out

Map showing location of measures and alternatives

Issues considered

- Safety
- Spatial quality
- Soil pollution
- Nature
- Lanscape and cultural history
- Functions

Indicators - 1

- Safety mnanagement and maintenance
  - Impact of measures on lowering of expected high water levels
  - Need for dredging operations
- Spatial quality
  - Utility value of the area
  - Perceived quality of the area
  - Robustness to change / flexibility

Indicators - 2

Issue	Indicators
Soil	Cleaning of contaminated soil
	Amount of soil matter to be disposed of or re-used
Cultural history	Damage to valuable cultural or historical elements or areas
	Damage to the coherence of the cultural/historical structure of an area
Functions	Housing
	Industry
	Size of agricultural areas
	Influence on agriculture potential, opportunities and risks
	Recreation
	Maritime functions (depth of the river)
Nature	Increase surface area for natural ecosystems
	Impact on protected species
	Contribution to existing policies for nature
Landscape	Spatial structure
	Landscape quality

Assessment methods

- Mostly using existing information and model tools
- Expert judgement an important factor
- Impacts predicted per river segment (building block)

Valuation of impacts

- Is the effect positive or negative? And what is its magnitude?
- How sensitive is the area to this impact?
- Impact prediction valued on 5-point scale:

  ++ , + , o , - , --
- Allocation of scores explained

Cost benefit analysis

- For each segment of the river estimated:
  - costs of flooding
  - costs of the expected measures to prevent this
  - cost effectiveness

Methods used to compare alternatives

- Per indicator for each river segment using the 5-point scale
- Qualitatively: main strong and weak points compared to reference
- Quantitatively: main quantitative figures given in separate boxes.
- Separate table with scores on issues related to the environment.

An example of the comparison

Tabel 23.1 Bepaling MMA

Aspect	Basisalternatief 1	Basisalternatief 2	Basis-Voorkeursalternatief
Bijdrage aan ruimtelijke kwaliteit (kwalitatief)	0	+	+
Natuur			
~ Effecten op VHR-gebieden	0/-	0/-	0/+
~ Toename areaal natuurlijke ecotopen (in hectares)	600	1.800	1.800
Landschap (kwalitatief)	0	+	+
Cultuurhistorie (kwalitatief)	0/+	+	0/+
Grond			
~ Totale hoeveelheid grondverzet (in m^3)	35-40	60-70	25
~ Verbetering bodemkwaliteit (kwalitatief)	0	++	+
~ Aantal nieuw te realiseren depots (inclusief omputlocaties)	2	7 of 8	2
Aansluiting bij de langetermijnvisie	-	0	+

Contribution SEA to decision-making

- Alternative 2 proved to be the best combination of providing security and improving spatial quality.
- Cost-effectiveness could be further improved by incorporating certain elements of Alternative 1.
  - dike strengthening
  - removal of obstacles
- Preferred alternative was developed on basis of:
  - comparison of Alternative 1 and 2
  - results of cost benefit analysis
  - comments of stake holders and NCEA
- Formal decision was to implement almost 100% of this preferred alternative

Implementation

- In the final plan approximately 40 individual projects are proposed.
  - For all these EIAs are underway, some already completed – covering more detailed design and implementation.
  - Monitoring and evaluation linked to EIAs and project level implementation

Lessons learned

- It is possible to organise an integrated SEA/planning process to develop a highly controversial plan, that takes environmental issues fully into consideration
- It is important to develop the SEA/plan interactively and in parallel with the negotiations between stakeholders
- Project-directorate, with different ministeries working together on both SEA and plan, worked well.
- Open and positive attitude of project-directorate towards participation and environmental integration contributed significantly to the final outcome