LIFE+Scalluvia

A successful combination of safety, nature and recreation

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Flanders, Belgium
Tidal river Scheldt

Vital for
- Economy
  - harbour is 5th of world
- Living
  - 871 inhabitants/km²
- Leisure
- Nature
Floodings 1976
(village of Ruisbroek)
Where?

Scheldt bassin

Area covered by the Sigma Plan
The four principles of the (updated) Sigma Plan

- Flood protection
- Nature
- Economy
- Recreation
Flood protection

Robust embankments

Depoldering

Flood control areas
Flood control area (FCA)
Proven effectiveness

Pilot project 2006
Storm surge in 2016, 2017, 2018
LIFE SPARC (2017-2022)
Nature

One of largest estuaries in NW Europe
160 km tidal
Complete salt-fresh gradient
Several SPA’s of the Bird & Habitat Directive
14.000 ha of
Brackish and freshwater tidal mudflats and marshes
Deep water with natural shores
Wet meadows, Reed land marshes, Alluvial forests
Tidal nature had disappeared. Impacts on estuarine habitat evolution.
Flood control area with controled reduced tide (FCA-CRT)
Flood control area with controlled reduced tide (FCA-CRT)
Mud flats and marshes
the river’s lungs (natural capital)

- Carbon storage
- Habitat for birds
- Protection against flooding
- Spawning place for fishes
- Higher percentage of oxygen
- Exchange and in-take of nutrients and source of silicium
Fish migration

Remove bottlenecks with: fish-friendly locks and fish ladders
Results breeding birds
Polders van Kruibeke

- Largest flood control area in Flanders (600 ha)
- Storage of 27 million m³ water
- Life+Scalluvia (2013-2018): habitat restoration of alluvial forest (91E0) and creeks (3510)
Scheldt Estuary – SIGMAPLAN
At the beginning …

- Poplar plantation, corn fields, willow and alder short rotation coppice, intensive fishing

- many land owners, spatial chaos (cluttering), intensive recreation by only a few users, waste deposit
Challenges

1. Expropriate 600 ha

2. Combine safety against floods + nature + recreation

3. Build local support
Safety
Nature - before
Nature - after
Nature restoration

- Profiling banks
- Fish passage
- Increase water level in alder forests
- Removal of exotic species and waste
- Management fish stock
- Dredging ponds
Target species

- Little bittern
- Common kingfisher
- Spined loach
- European bitterling
- Purple heron
- Bluethroat
This fish passable dam divides the alluvial forests from the polders. Fish can migrate via the secondary channel with its 5 branches through one of the small dams, depending on the water level.
Results

• Target species are doing well

• Beaver and otter have returned

• E.g. Twaite shad (Alosa fallax), Eel and Threespine stickleback (Gasterosteus aculeatus) migrate again between river and creeks

• Habitats need more time
Local support
Nimby at its heights
Inform, involve, experience and participate

Local resistance slowly disappeared:

- Sufficient budget and expertise
- Stakeholder analysis
- Visual communication, focus on end result
- Accompanying measures for farmers
- Monthly guided walks
- Workshops
- Involve and experience nature
- Ambassadors
- Quick realisations
- Interest from abroad, kings visit
- Give alternatives
- Art
Recreation

- Workshops to develop a recreation management plan
- 3 reception zones and a thin network of paths
- Clear rules on site and supervision
- Buffer area: Give (better) alternative nearby but outside the sensitive area (fishermen, dogs, cross, …)
Time capsules
Concluding

- A jigsaw to combine safety, nature & compensation, different types of recreation
- Buffer area is helpful to deviate recreation from sensitive areas
- Create co-ownership: listen, participate, experience nature, create together, show benefits, visit similar areas
- Create a parkship for coordination of volunteers and activities
- Cluster different flood control areas and lift them up to a higher recreational level
- Time and patience
10 keys to co-ownership

1. Invest in communication and focus on the end result
2. Visit similar areas to exchange knowledge and areas of concern
3. Support bottom-up actions and go for quick results
4. Gain external recognition
5. Experience in the field
6. Train ambassadors
7. Invest in children and young people
8. Listen to the expectations of the users of the nature reserve
9. Use clear rules and supervision
10. Give your area an identity
Scalluvia.eu

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