The Dream of the Haringvliet

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The Haringvliet used to be the most important river mouth of the rivers Meuse and Rhine. This estuary, with a gradual transition between fresh and salt water, sediment transport and strong tidal dynamics, used to be a highly productive ecosystem, with unique species. It was the entrance and exit for migratory fish. When in 1971 the rivers were closed from the sea by the Haringvliet dam, the rich estuarine ecosystem heavily deteriorated. The area became a stagnant freshwater lake, with algae seasonal blooming problems and ample migration possibilities for migratory fish, like salmon and eel.

In 2018, the Haringvlietdam will be opened (a little) by the Dutch government. Six large Dutch nature organizations (ARK, Natuurmonumenten, Sportvisserij Nederland, Staatsbosbeheer, Vogelbescherming and WWF-NL) have joint forces to optimally use this development and think beyond 2018. They aim to bring back dynamics for real estuarine nature, migratory fish and birds. The organisations started the project 'Dream of the Haringvliet' which is among others funded by the Postcode Lottery of the Netherlands. The project consist of six large activities:

- 1. Nature restoration: the project focuses on improving the natural quality in and around the Haringvliet. Step by step the banks of the river will be restored. This includes tidal nature and brackish water zones. It requires purchase of land that is currently used as agricultural land.
- 2. Shellfish banks: a natural estuary contains shellfish banks, hotspots of aquatic life. With the opening of the Haringvlietdam there are good opportunities to restore these shellfish banks on the marine side of the dam. This will not happen spontaneously though and requires artificial interventions. In six pilot plots mussel and oyster banks will be restored and monitored.
- 3. Atlantic sturgeon: the European Atlantic Sturgeon used to be an important habitant of the Rhine system. It spawned in the mainstem and grew up in the Dutch estuary. After more than a decade at sea, it returned to the Rhine again. This cycle stopped in the 1950's because of loss of habitat, pollution and overfishing. We are currently working on the research to return this threatened species, which only lives in the Gironde delta, to the Rhine. Monitored reintroductions will tell us the chances of success of full scale reintroduction. Also we will work on a breeding centre for the Rhine.
- 4. Fishery: when in 2018 the migratory fish can return to the Rhine and Meuse through the Haringvliet, it should be avoided that these species are caught as bycatch of the fishery sector. In close coordination with the Ministry of Economic Affairs and the fishery sector, we will work on a protection and management plan for the Haringvliet and the Voordelta.
- 5. Recreation: the newly developed nature will be enjoyed / enjoyable by a large audience. The nature deprived environment of Rotterdam is in dear need of areas where people can relax and appreciate the estuarine nature. The project will facilitate this through the development of infrastructure (electronic boats departing from Rotterdam, board walks etc) and innovative structures like an underground glass viewing spot for birdwatching.
- 6. Monitoring: in close cooperation with the nature lovers, there will be an intense monitoring programme, mainly focused on migratory birds and fish. This will set the baseline and show the impact of our activities and other developments in the area.