

Q&A: Flood Risk Management and new Risk Communication Tools in The Netherlands

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Ms. Vera Konings from Rijkswaterstaat, Ministry of Infrastructure and the Environment, the Netherlands presented on Flood Risk Management and the new Risk Communication Tool in the Netherlands. Ms. Konings is working with the USACE Risk Management Center as part of a partnership between USACE and the Netherlands. She explained the Dutch water system, provided information on the three circles of flood risk management activities including operations and maintenance, periodic assessments and long-term strategies. Ms. Konings also demonstrated the Netherlands risk communication website <http://www.overstroomik.nl/> (and translated the site from Dutch).



Flood Risk Communication Tool

Is there a separate website for industries? How do you communicate risk to industry?

There's no separate website for industries. Industries also have a zip code, and if they enter their zip code in the website, they get the same information, so they can check with the website also.

Project Design and Execution

Do you require a positive benefit to cost ratio to execute new projects or maintenance projects?

The cost/benefit has already been accounted for in determining the performance of the standard.

For that whole flood protection program, there is a fund in Holland, the Delta Fund, which is mostly used to improve the levees.

In the river bypass channel project (at Nijmegen), what existed on the lands prior to excavation? Were homes and businesses relocated?

That is in the area where it is now a bypass and yes there used to be houses and/or small industries. In the area they checked which houses could stay and which have to be removed, and the people who had to move were all relocated. They get money to buy a new house or they can get help finding a new house. There were not that many businesses, it was not a very urban area. It was a small village. I think about 40 or 50 houses were moved to make this project. It also takes a lot of time to arrange this because it's not easy to ask people to sell their house to the government. That takes a while.

Does the Dutch government have the authority to take homes for levee projects? What is the public's attitude towards this?

Yes. If no other option works and the person living in that house does not want to sell, then there is a law in the government if they really need the house for the benefit of a lot of people, the government can do that. But the process takes years so it's not easy.

the person living in that house won't be happy that he has to move or leave his house for the benefit other people, so he gets well compensated generally.

In that area of the Noordwaard, that floodplain which I was talking about first, people were really against it because their houses had been in the mud for 10 years and were raised. But when the project is almost realized and they see the end result, they think it's pretty nice. So it's also a fear of something new or change and then later on, they find it was not that bad.

Where is the supply or source material for the levees dredged or mined from?

That depends a bit. Some levee boards have some storage of good clay which they store until they are going to need it, like your borrow pits. Sometimes they come from other areas. We have one project in one of the recreational islands in the sea in the north. The clay from that area is mixed with a lot of sand. Clay with sand is more vulnerable for piping so the reinforcement project brings clay from the river run area all the way to those islands to use for reinforcement projects. They first check is the clay in the area suitable or not? Or do we need better clay with less sand or other qualities? And then they can ship it from one spot to another spot.

Flood Risk Policy in the Netherlands

Are people that live behind a levee or flood protection structure required to buy flood insurance like in the US?

There is no private insurance company who dares to protect our whole country, besides the government would not agree because the insurance company will be bankrupt after a bigger flood and would not be able to compensate the people. The responsibility is with the government and the water boards itself. If a flood occurs or levee breaches then there will be a big discussion about who is responsible. Is it the government making the guidelines? Is it the water board which didn't use the latest technology or knowledge to maintain the levee? We do not have a lot of floods, those discussions become case specific about who's finally responsible.

How much is the tax been for flood protection?

I pay about 300 euros per year for my water board; the water boards together pay 50% of the flood protection program. But this 300 euro/year is also for wastewater treatment and water management in my area. Some areas are cheaper. If I lived somewhere without polders, it's probably less. But generally it's between 200 and 350 euros a year across the country per person.

In addition to the waterboard tax, there is the Delta Fund of the government. This fund pays the second 50% of the flood protection program. This Delta Fund is paid by general national taxes. The average costs for re-enforcement of primary and secondary levees is about 500 million euros per year.