

Nature-based Solutions, a new perspective for coastal risk management? When the articulation of grey and green infrastructures becomes the solution in Ault

Les Solutions fondées sur la Nature, nouvelle perspective pour la gestion du risque littoral ? Quand l'articulation d'infrastructures vertes et grises devient la solution à Ault

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Our proposal analyses the politicisation of water infrastructures in Ault (Baie de Somme), in particular the articulation of dikes, water drainage and soft hydraulics aimed at preventing coastal erosion. For decades, local authorities in Ault tried to resist against coastal erosion of the limestone cliffs. Several streets have disappeared over the last two centuries. Erosion has been countered by defensive infrastructures (dikes, groins), contributing to a shared collective image of resistance to the sea. In 2013, the municipality changed strategy and planned retreat, questioning the maintenance of the defensive infrastructures and suggesting the relocation of 80 houses, which led to a major mobilisation of the inhabitants. The timing of the withdrawal is now being postponed, in front of the conflict, and a second strategy is brought to the fore. In order to fight against erosion, Ault municipality plans to rely on *NbS* and (re)design wet meadows, hedges and ditches on agricultural land to slow down pluvial floods and run-off on the cliffs.

This recent articulation of traditional grey infrastructures (dikes against the sea) with *NbS* aimed at preventing erosion from the top of the cliffs reveals a better understanding of natural hazards locally and leads to an enlargement of coastal risk governance. While both technical (grey and green) measures do not project the same future or the same values, their articulation enacts the ambivalent way of inhabiting this coastline in the present and future.

More specifically, we want to point out 2 main elements in this presentation.

First, the politicisation of water infrastructure is achieved through a dual positioning of local stakeholders (residents and municipality), who consider different spatial and temporal scales (that of erosion and public action, and that of a human life). Local actors want to develop soft hydraulics and *NbS* on agricultural land in the hinterland to slow down run-off and limit erosion, but maintain grey infrastructures, with the so-called "83" dike built by the municipality on the public domain in the beginning of the 1980s. With this position, they keep resisting against erosion for now and rely on *NbS* to slow the process but also acknowledge the necessity, in a longer term, to relocate.

Second, this new articulation of grey and green infrastructures leads to the enlargement of local governance. For decades, local State services and the municipality of Ault were the main stakeholders for protection and management of coastal erosion. Today, a better understanding of natural processes and the focus on *NbS* implies for the municipality to involve new stakeholders in flood and natural hazard governance, such as farmers and landowners.