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Assess the flood resilience tools integration in the landuse projects

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Despite a severe regulation concerning the building in flooding areas, 80% of these areas are already built in the Greater Paris (Paris, Val-de-Marne, Hauts-de-Seine and Seine-Saint-Denis). The land use in flooding area is presented as one of the main solutions to solve the ongoing real estate pressure. For instance some of the industrial wastelands located along the river are currently in redevelopment and residential buildings are planned. So the landuse in the flooding areas is currently a key issue in the development of the Greater Paris area.

To deal with floods there are some resilience tools, whether structural (such as perimeter barriers or building aperture barriers, etc) or non structural (such as warning systems, etc.). The technical solutions are available and most of the time efficient[1]. Still, we notice that these tools are not much implemented. The people; stakeholders and inhabitants, literally seems to be not interested.

This papers focus on the integration of resilience tools in urban projects. Indeed one of the blockages in the implementation of an efficient flood risk prevention policy is the lack of concern of the landuse stakeholders and the inhabitants for the risk[2].

We conducted an important number of interviews with stakeholders involved in various urban projects and we assess, in this communication, to what extent the improvement of the resilience to floods is considered as a main issue in the execution of an urban project? How this concern is maintained or could be maintained throughout the project. Is there a dilution of this concern?

In order to develop this topic we rely on a case study. The “Ardoines” is a project aiming at redeveloping an industrial site (South-East Paris), into a project including residential and office buildings and other amenities. In order to elaborate the master plan, the urban planning authority brought together some flood risk experts. According to the comments of the experts, the architect in charge of the landuse elaborated the master plan taking into account the flood risk; reducing vulnerability of the area and improving the resilience in case of floods, towards a threshold plan. We set this case-study back in the French policy context of prevention and protection against floods and in the context of the Greater Paris development.

There are two levels of problems:

- In the case of the Ardoines project, the reduction of vulnerability isn’t linked with the improvement of the resilience.

Indeed, the stakeholders do not envisage an event worst than the 100-years flood return period, the one taken into account in a flood prevention plan. The regulation is the guide for construction rules but there is no consideration for the crisis management.

- Moreover, the reduction of vulnerability appears less important than the economical issues in the management of a project.

This case study illustrates how the lack of awareness for territorial resilience issues and the lack of interest for flood resilience tools are embedded in the “governance” of the risk in the greater Paris area.

[1] CEPRI, Rapport, « un logement zéro dommage face au risque inondation est-il possible”, 2009, 56p.

[2] This abstract results from analyses conduced in the SMARTeST (smart resilience technology system and tools), a European project included in the Seventh Framework Programme.