



## **Collaborative multi-stakeholder approach to drafting flood risk management plans in Wallonia, Belgium**

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The Flood Directive 2007/60/CE establishes a common framework within the European Union for assessing and reducing risks posed by floods on human health, the environment, economic activity and cultural heritage. For that purpose, Member States had to establish flood areas and flood risk maps, and subsequently, flood risk management plans (due December 2015). According to the Directive, special attention is to be paid to international coordination for transboundary water courses, integrated management approaches at the catchment scale, cost-effectiveness of measures and public involvement. Management measures must focus on reducing the probability of flooding and the potential consequences of flooding. They must cover prevention, protection and preparedness and must take into account relevant aspects, such as water management, soil management, spatial planning, land use and nature conservation.

Floods in Wallonia mostly originate from overflowing of both little sloped rivers and highly reactive rivers but also, from concentrated runoff in the intensely cultivated and erosion-prone region north of the Sambre-Meuse axis. Consequently, wallon flood area maps not only show flood areas based on hydraulic modelling and observations but also runoff concentration axis in agricultural areas. Now released to the public, this information can be used to assess the risk of damage for land planning and erosion control strategies. Incidentally, some 166 km<sup>2</sup> were mapped as flood hazard area with a return period of 25 years, 28.8 of which are urbanized or destined to urbanisation and counting of number of approximately 39.000 people living in those areas. Flood area and flood risk maps should be the starting point of elaborating flood risk management plans.

In order to involve the diversity of water managers and stakeholders in the drafting of a management plan for hydrographic districts in Wallonia, responsible authorities decided to mandate scientists and engineers to organize an extensive participatory process. A series of meetings were organised, first, to raise awareness of local managers on the information provided by flood maps and on the objectives of the Directive towards integrated water management. Second, these successive meetings and the use of decision support tools such as a multicriteria analysis matrix allowed the team to collect local information on risks and opportunities, to foster emergence of integrated solutions, and to reach an agreement on priorities at the catchment scale and then at the regional level.

This case study provides insights on practicability of using hydrological data on flood hazard in a collaborative, bottom-up approach to flood risk management. Lessons learnt from this project are a foundation for a realistic and effective management plan but limitations of the method and time constrains of this project leave a number of questions as to follow-up, exhaustiveness and cost-effectiveness of measures constituting the plan.