



Round-table #3

Towards integrated land and water management to mitigate the effects of climate change and promote sustainable agricultural and urban development

Rationale

Water and climate change are regularly cited as one of the most serious crises that humanity will face in the coming decades. In fact, the links between the two issues are so close that perhaps they should be seen as one and the same issue.

Indeed, the impacts of climate change will mainly be felt (by humans) through water: droughts, floods, sea-level rise and coastal erosion.

However, the land issue is at the heart of the approach to protecting water resources. Many initiatives carried out throughout the last ten years or so bear witness to this. They underline the collective dimension of the preservation of the resource throughout the water cycle, but also the multiplicity of related challenges, due to competition between uses (urban development projects, preservation of agricultural production potential, etc.).

However, climate change, through increased risks of maritime and river flooding and prolonged periods of drought, complicates this management task, which is moving public action towards a new "governance" of all natural resources.

Land management, an effective tool for water protection?

In rural areas, new challenges related to controlling water use and reducing pollution sources are interfering with the agricultural land market. In urban areas, water management has long focused on the quantitative aspect only, whether it is the supply of potable water or the disposal of runoff and wastewater.

In recent decades, we have seen the development of "integrated management" approaches to land and water, in both urban and rural areas.

These approaches all have the same objective: quantitative and qualitative water management through land management.

There are many applications:

- improvement of the urban landscape and living environment by proposing developments that offer multiple benefits;
- acquisition by local authorities of plots of land within catchment feeding areas in order to impose land uses that preserve their agricultural vocation but are in conformity with the preservation of water quality
- preservation of water resources by considering rainwater as a resource and no longer as a nuisance;
- protection of the receiving environment and in particular the treatment of waste water and industrial water;

- maintaining the hydraulic regime of the receiving environment as close as possible to the natural regime;
- protection and restoration of water quality from surface runoff and underground networks;
- consideration of surface and groundwater, as well as flooding and the impact on river erosion.

However, land management of agricultural and urban areas is part of a necessary articulation of decision-making scales, from national to local, and everywhere decentralization is being implemented, giving local authorities powers in urban planning or territorial development. At their side, multiple actors, private (professionals, associations, civil society) and public are also stakeholders to associate the use and preservation of natural resources with land governance.

At the territorial level, it is therefore based on coordination processes between actors of various statuses, and refers to games of negotiation, compromise and various alliances, formalized or informal.

If the idea of generalizing the urgency of water conservation is now widely spread, how does it change the lines of land governance and land use planning or at least re-examine them? Unorthodox measures are needed. How are we now moving towards new forms of governance, or even innovations in this area?