The Flemish Decree on Integrated Water Policy

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Abstract

Belgium has a complicated government structure and Flanders in particular is characterized by poor surface and ground water quality, excessive water use and increasing flooding risks. The Decree on Integrated Water Policy attempts to tackle these problems in an integrated way and is, despite remaining struggles, a good example of how to attain truly integrated water management from international to local scales. This decree covers the requirements of multiple uses of water resources through the involvement of diverse actors and stakeholders during several steps of the development and implementation process. Although several targets related to European directives are not yet met, the implementation of the Decree has resulted in progress in the improvement of water quality and flood management.

Context

With a high population density (474 inhabitants/km²) and intensive industrial and agricultural activity in a rather small area (13 522 km²), Flanders' water systems are under severe pressure. Only seven out of 195 surface water bodies and seven out of 42 ground water bodies are estimated to attain a "good" water quality rating according to the criteria in the European Water Framework Directive (WFD) by 2015. The main pressure factors on the Flemish water systems are high levels of nutrients and hazardous substances in both surface and ground waters, and the use of large volumes of water for all kinds of applications. In addition, an increase in flooding events is expected in certain areas due to climate change.

Flanders' urgent need for proper water management led to the approval of the Flemish Decree on Integrated Water Policy in 2003, which forms the juridical instrument for the implementation of the WFD and the Floods Directive. The Directive provides a framework for quality and quantity management of all types of water uses (environmental, economic and social). It forms a complex but strong instrument for water regulation on an international, regional and provincial/communal level.

Analysis

Poor ecological water quality and the increasing risk of droughts and flooding due to climate change, as well as pressure from the European Commission stimulated the development of the Decree on Integrated Water Policy. In terms of water quality the juridical foundation was provided by the WFD while the Sigma Plan (1977), developed after a disastrous storm tide in the Scheldt region, has guided the development of flood protection projects in Flanders up to date. The focus is on the multifaceted use of water and thus addresses a wide range of stakeholders involved in industrial, agricultural, recreational, shipping, fishing, drinking water and waste water sectors. Special emphasis is also placed on the participation of civil society and individuals.

To facilitate the planning and coordination of integrated water management at different levels, Flemish water systems are divided into:

border-crossing river basin districts (2), river basins (4) and sub-basins (11). Different consultative bodies are responsible for establishing management plans in each of these three categories. The international Scheldt and Meuse river basin districts are administered by the International Scheldt Commission (ISC) and the International Meuse Commission (IMC). On the level of the Flemish region, the responsible minister and the Coordination Committee on Integrated Water Policy (CIW) regulate the management of the river basins. Coordination of the sub-basins is the task of a tripartite organisational structure, comprised of a basin management organisation which guides political consultations in the Flemish Region; the provinces and the municipalities in the basin; the basin secretary handling technical-official affairs; and the basin council covering social consultations with the stakeholders.

The involvement of several participants makes coordinated administration very difficult, but a number of instruments were implemented to help attain the goals of good integrated water management. An obligatory 'water test' serves to assess whether new human activities will have a negative impact on the water system. In the case of a negative impact being found, approval of the activity can be denied. Several financial tools and an obligation to provide information on properties which are fully or partly located in a possible or actual flood-prone area serve to limit flooding damage and to protect and, if necessary, reimburse owners and buyers of such properties. Demarcating, widening and protecting riparian zones and new flooding areas further promote the development towards the sustainable handling of water resources and the maintenance of a healthy ecological status.

It is the task of the CIW to oversee and evaluate the functioning of the different levels of integrated water management plans and to report to the European Commission on the implementation of the WFD and the Floods Directive.

Lessons Learned

The Flemish government has set strict environmental targets, including maximum threshold values for numerous parameters and chemical substances in water bodies destined for different uses. Water quality has generally improved over the past decade (Figures 1 and 2), but to reach the objectives set by the WFD much more effort still needs to be made in water quality management. Progress is happening, for example, in improving the water quality of the 'Kleine Nete' River, which was declared "good" in 2012 after having been heavily polluted for many years.

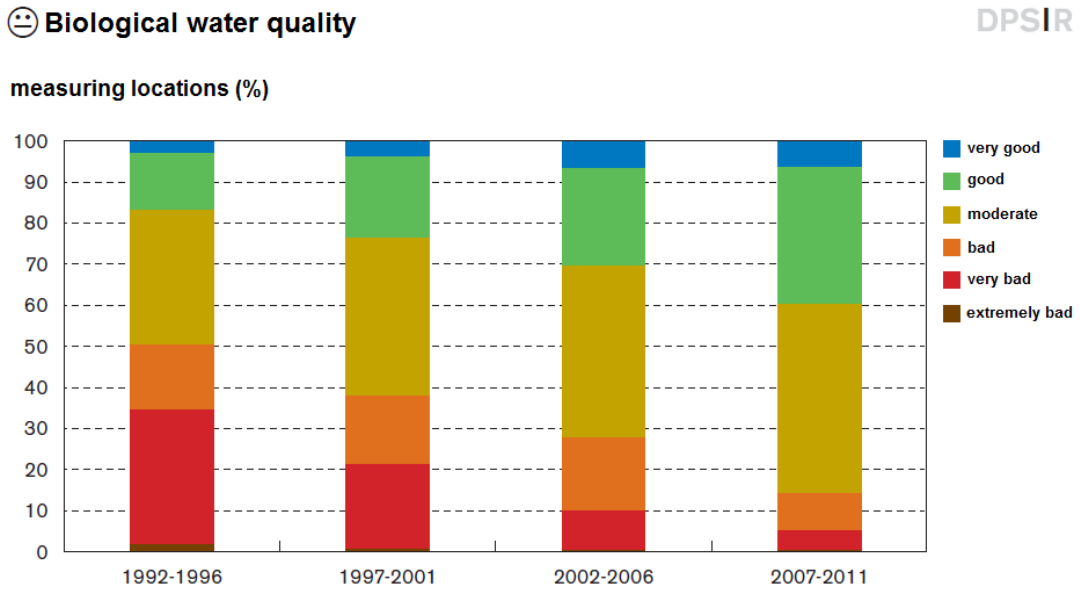

Figure 1. Development of the biological water quality based on the Belgian Biotic Index (BBI). Source: MIRA indicator report (2012).

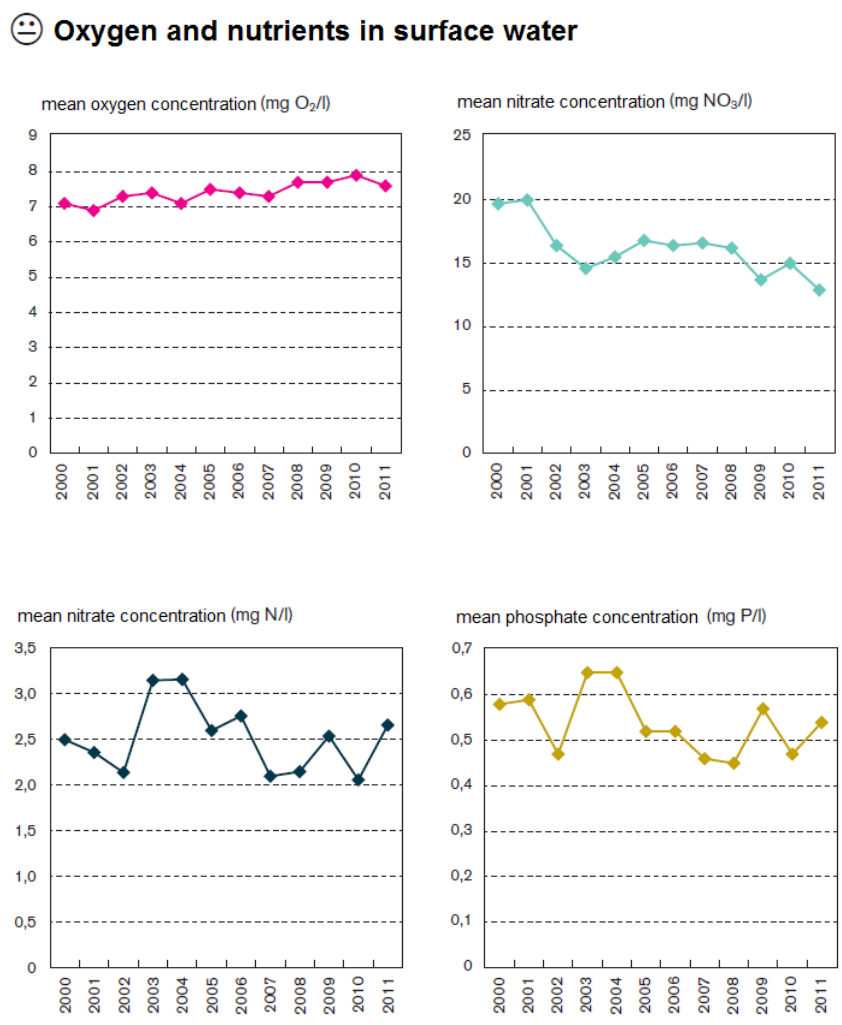

Figure 2. Development of mean concentrations of dissolved oxygen and nutrients in surface water. Source: MIRA indicator report (2012).

Annual water quality monitoring reports and internal evaluations of weak spots in the management structure have proven useful in improving the attempt to meet the set objectives. For example, in 2013, restructuring and simplification of the water policy management structures led to a higher working efficiency thanks to the experiences reported by many collaborators. Also, Flanders' decision to include flood-risk management plans (based on the Flood Directive) directly into the river basin management plans is an example of the efforts being made to achieve truly integrated water management.

Public awareness and the fact that Flemish people (including stakeholders) are generally concerned about the environment have undoubtedly helped in achieving better water quality thus far, but some substantial problems remain and need to be faced. Even though water consumption is decreasing in Flanders, it is still too high, and local and temporal depletion results in illegal water catchment behaviours in some cases. High density development on river banks leave little space for expanding water systems and hamper the development of increased water storage capacity. This issue, however, is tackled by specific instruments targeting the use of river banks and flood land areas.

However determined the Flemish government is about improving water management, insufficient financial resources remain a problem. Yet, the awareness and clear formulation of the existing challenges and priorities is the first step in overcoming the challenges. Long-term financial plans, investment processes concerning the collection and treatment of waste water and the application of the 'polluter pays' principle are some of the measures being taken to address this point.

Another discussion point is the multileveled (inter)national management structure. Belgium's complex government system tends to complicate administrative matters. For example, in the International Meuse Commission (IMC) the regions of Flanders, Brussels and Wallonia, as well as Belgium as a federal state, France, Germany, the Netherlands and Luxemburg need to collaborate on the integrated management of the Meuse. This obviously poses many difficulties on national and regional levels. In terms of the implementation of the Flanders' Decree on Integrated Water Policy continued monitoring, evaluation and improvement where needed is proof that great efforts have to be made to work together and to achieve truly integrated water management on both small and large scales.