



Integrating Product Policy in Water Quality Management

A recent study investigates an unexplored link of product-orientated policy approach to water resources management, especially to reduce diffuse source pollution. It identifies different types of product policies and suggests their beneficial effects on the water quality.

Environmental quality of water resources reflects the effects of all physical, chemical, and biological pressures on the system. The disposal of wastewater has significantly affected the environmental quality of Europe's water resources. These effects represent a growing problem due to the unexpected and harmful impacts they cause to the ecosystem, economy, and human health.

Water quality management addresses the need to improve water quality of our water bodies, though in most of the cases, an end-of-pipe approach is used for reducing target pollution levels. For the reduction of pollution from diffuse sources, this traditional direct regulation approach has not proved to result in the required decrease of pollution. On the other hand, an Integrated Product Policy (IPP) looks at minimising the environmental impacts through the whole life-cycle of the product.

In this context, a group of Dutch researchers has studied the potential advantages and disadvantages of product policies in water quality management. They have also explored the European regulation with respect to this type of policy and analysed the relation between European Integrated Product Policy (IPP) and Water Framework Directive (WFD). While WFD advocates for the "best environmental practices" to control all discharges to water, IPP gives the means to prevent such discharges through a systematic approach to improve environmental performance of a product across its life cycle.

The backbone of IPP is the 'Product Life Cycle' which covers all phases in the existence of the product: starting from the extraction of natural resources, via the production of raw material, through their design, assembly, marketing, distribution, sale, and use to their eventual treatment as waste. This so-called 'integrated chain management' uses techniques of LCA (Life Cycle Analysis, which is an inventory of the environmental impact of a product) in order to assess the environmental impact due to all causes in all phases of the product life cycle.

A case study for Paints and Phosphates industry has been presented to explore the application of the product policy for water quality management and to show the extent to which the overall advantages of product policy can also be beneficial for the water quality. In this case, structural methods are embedded in companies' management processes and principles for controlling and reducing the environmental impacts. The important element of such a policy is that it targets an environmental efficiency from the very first step in the product manufacturing and the preventing measures adopted at the beginning of product chain could result in lower impacts in the end of the chain. Such an approach leads to very concrete improvements, particularly in relation to diffuse pollution sources.

These product-oriented policies provide the instruments to the EU policy, in order to initiate very concrete and directive-based interventions, to improve products from the point of view of their impact on the environment, for example, water quality. This is also in coherence with other relevant EU policies, such as Environmental Product Declarations, guidelines for LCA and for Eco-design, eco-labels, and the introduction of Product Panels.

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