## Policy mix for sustainable waste water management - the case of the German Waste Water Charge

Erik Gawel<sup>1</sup>, Harry Schindler<sup>2</sup>

<sup>1</sup>Helmholtz Centre for Environmental Research – UFZ, Germany, <u>erik.gawel@ufz.de</u>, <sup>2</sup>Helmholtz Centre for Environmental Research – UFZ, Germany, <u>harry.schindler@ufz.de</u>

Germany has a long-standing tradition of combining command-and-control approaches and economic incentives for waste water management regulation. Way before the European Water Framework Directive (WFD) implementing the requirement of (full) cost coverage including environmental and resource costs (ERC) the German Waste Water Charge has been introduced 1976 (levied since 1981) additional to the standard approach of command-and-control policies based on best available techniques for wastewater treatment plants. The charge is tied to the amount of pollutants discharged into surface, coastal or groundwater, regardless of whether or not this amount surpasses the existing legal threshold value. The introduction of a market-based instrument in the 80s was particularly motivated by the tremendous financial challenges of modernising the German waste water treatment infrastructure in the past. By leaving polluters the decision to either pay the levy or to invest in more effective treatment technology – a decision that will be made in regard to the polluter's specific abatement costs –, the levy reduces the overall economic modernisation costs in this area (efficiency). Moreover, the Waste Water Charges Act is considered to have contributed substantially to today's largely satisfying chemical quality of surface water bodies in Germany (effectiveness).

However, the concrete design of the policy mix has been widely criticised for being inadequate and not to guarantee the efficiency gains to be expected theoretically. Rather, the levy limited itself to a simple instrument of supporting command-and-control allowances instead of being a powerful allocation means in order to promote static cost-effectiveness as well as incentives for continuous innovation. On the other hand the charge has been animadverted by municipalities and industries being obliged to pay for discharging because of the expected burden and reputedly missing allocative effects.

Theoretically, New Institutional Environmental Economics provide fresh arguments for an intelligent policy mix combining market-based and command-and-control measures in waste water regulation. Structuring investment decisions on the basis of cost criteria only runs the risk of creating pollution hot spots and fails in hazard control; traditional threshold approaches using BAT provide a useful complement as they might guarantee an ecological minimum subsistence level.

While the environmental success of this two-track waste water regulation in Germany is widely acknowledged nowadays for the past, the concrete design of the interplay and its efficiency performance as well as the charge's future perspectives are, up to now, a matter of intense and controversial debate. However, with the adoption of EU WFD in 2000, the framework conditions for this debate have significantly changed. As Art. 9 WFD takes up the notion of efficiency in the context of water resources management and requires the consideration of the polluter pays principle as well as the principle of recovering the costs of water services including ERC any resistance against an efficiency-oriented reform of the German waste water charge faces an increasing necessity for justification. Nevertheless, in the discussion on an upcoming revision of the German Waste Water

Charges Act the implications of Art. 9 WFD have only gained very little attention. Against this background the paper reconsiders the theoretical case for a policy mix using charges for waste water regulation, outlines the lessons learnt from the German case and analyses the implications of Art. 9 WFD for choosing or reframing an existing policy mix in the field of waste water regulation compassing future perspectives for waste water charges interacting with standards.