Foreword

Water of adequate quality is an increasingly scarce resource. Substantial investments in wastewater treatment plants and progress in controlling point sources of pollution have contributed to significant improvements in water quality in recent decades. But a focus on point source pollution as a means of improving water quality is reaching its limits. Water pollution from unregulated diffuse sources of pollution from both urban and rural areas continues to rise. Unless attention is turned to these sources, further deterioration of water quality and freshwater ecosystems can be expected as human populations grow, industrial and agricultural production intensifies, and climate change causes significant alteration to the hydrological cycle.

Unlike point source pollution, which enters a water body at a specific site such as a pipe discharge, diffuse pollution occurs when pollutants from a variety of activities runoff, leach or deposit into surface and groundwater bodies. The most prevalent water quality challenge globally is eutrophication. This is characterised by oxygen depletion and algal blooms leading to significant loss of aquatic biodiversity. The primary cause can be traced to excess nutrients from agricultural runoff.

Reducing the costs of diffuse pollution requires much greater attention from policymakers. The cost of current water pollution from diffuse sources exceeds billions of dollars each year in OECD countries. Economic costs include: degradation of ecosystem services; health-related costs; impacts on economic activities such as agriculture, industrial production and tourism; increased water treatment costs; and reduced property values, among others. The scale of these costs means that seeking increasingly marginal reductions in point source pollution is no longer the most cost-effective approach to improving water quality in many OECD countries.

The relative lack of progress with reducing diffuse pollution reflects the complexities of controlling multiple pollutants from multiple sources, their high spatial and temporal variability, associated transactions costs, and limited political acceptability of regulatory measures.

This report, "Diffuse Pollution, Degraded Waters: Emerging Policy Solutions" takes a major step forward in providing policy guidance on better managing water quality risks and navigating the challenges of diffuse pollution. It reveals that many current policy responses to address diffuse pollution do not reflect some of the basic principles of water quality policy, such as the Polluter Pays Principle, and largely rely on voluntary participation and compliance measures.

The report highlights emerging policy solutions, such as a natural capital based approach to allocating diffuse pollution limits to individual property owners, water quality trading, pollution charges, collaborative governance, and outcome-oriented contributions to policy design. It provides a risk-based framework for intervening and policy principles to guide policymakers and stakeholders through the myriad decisions required to establish new or alter existing water quality management regimes. The report stresses that economic instruments, such as pollution charges or tradable entitlements, are an under-utilised means of increasing the cost effectiveness of pollution control strategies while simultaneously promoting innovation.

Limiting diffuse water pollution within acceptable boundaries is essential. While water quality goals are obviously at the core of a policy response, many other sectoral policy frameworks need to be aligned if efforts to reduce the costs of diffuse pollution are to be fruitful. I am confident that policymakers can find both inspiration and pragmatic support in this report.

Improving water quality is a critical element of the 2030 Sustainable Development Goals, fulfilling an essential role in reducing poverty and disease and promoting sustainable growth. It is also a key element of the OECD's recently adopted "Council Recommendation on Water". These significant commitments frame the water agenda which, at its core, calls for the integrated, sustainable and equitable management of water.

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