

## Introduction

*Water serves a range of productive, environmental and social purposes in the agricultural sector and wider economy.* Governments, water managers and consumers/users have a role to ensure that mechanisms and actions are in place to make certain that water is allocated and used to achieve socially and economically beneficial and efficient outcomes in a manner that is environmentally effective and sustainable. But management of water resources in agriculture is being severely tested with rising food and energy prices, growing competition for water resources between different users, an expanding global population, and concerns related to climate change.

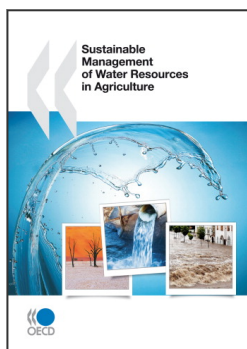
*Agriculture is a primary target for policies that move the sector towards sustainable management of water as it uses about 70% of the world's freshwater withdrawals* and over 40% of total OECD countries water withdrawals. The anticipated growth in world population from 7 billion currently to 9 billion by 2050, will involve a major expansion in demand for food and water, not only for use in agriculture but for drinking, sanitation, industry, the energy sector, as well as to meet demands for environmental improvements of ecosystems and associated recreational and cultural uses.

*These global developments have implications for OECD countries,* given they are major players in world food markets as exporters and importers. But the focus of water resource management in agriculture differs greatly within and across countries, ranging from concerns with water scarcity and stress in some regions, to a focus on water drainage and flood control in others, reflecting varying climatic and agricultural systems. Consideration of climate change further complicates this picture.

*This report explores the economic, environmental and policy dimensions and linkages related to the management of water resources, floods, droughts, and drainage in agriculture.* While the linkages between agriculture and water quality are touched upon in the report, they are the focus of a forthcoming OECD project to be completed by 2011.\* The report examines sustainable management of water resources in agriculture by:

- Setting the scene: Hydrology and economics of water resource management in agriculture (Chapter 1).
- Reviewing recent trends and outlook for water resources in agriculture (Chapter 2).
- Examining OECD countries' policy experiences in managing water resources in agriculture (Chapter 3).

\*Broader considerations of the multi-dimensional aspects of water, in both the OECD member country and non-OECD country context, are provided in OECD (2009), *Managing Water for All: An OECD Perspective on Pricing and Financing* ([www.oecd.org/water](http://www.oecd.org/water)).



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