

Foreword

Increasing evidence suggests that water risks threaten future agriculture production in many regions. Factors, such as the multiplication of extreme water events, sea level rise—both projected to accelerate with climate change—water quality deterioration, groundwater depletion, and intensifying cross-sector competition for water supplies, combine to create “a perfect storm” for agriculture in many regions, which are often poorly prepared to respond. If these water risks are particularly intense in specific agricultural regions, their impacts can expand to national and international levels, with consequences on markets and food security.

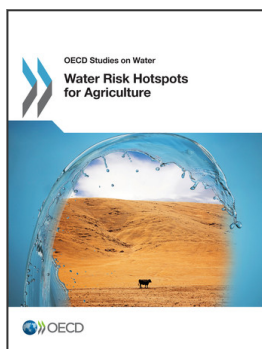
This report recommends using a hotspot approach to respond to these future water risks. Targeted actions in identified regions at risk can help increase efficiency and effectiveness of the sector’s response. Farmers, agro-food companies and governments all have a role to play in risk mitigation efforts. Governments should reinforce their water management actions in the regions facing water risks, but they should also strengthen markets and trade, and encourage international collaboration to limit the diffusion of impacts from these risks.

The study builds on past OECD work on water and agriculture; especially recent reports on climate change, water and agriculture, managing groundwater use in agriculture, and mitigating drought and floods in agriculture. It also relies on three new analyses: a global assessment of water risk hotspots for agriculture production, a “water stress test” simulation of production and market impacts in three hotspot regions and a micro-economic model outlining how farmers and agro-food may respond to different water risks.

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