



BUILDING RESILIENCE FOR ADAPTATION TO CLIMATE CHANGE: AN FAO-OECD WORKSHOP

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Key issues (i)

- Two main long-term goals for agriculture: (i) achieve food security; and (ii) adapt to climate change
- Important to build resilience to existing risks and to changes in an evolving context
- Various biophysical risks (weather, animal diseases, plant pests) are going to change – in terms of their nature, frequency and location- and in many cases in an uncertain way



Key issues (ii)

- **Case studies:**
 - **The Finnish case study** on crop production in northern climate found that diversity in land use might even increase efficiency
 - **The Mediterranean case study** showed that the region is a climate-change hot spot area and building a resilience strategy is a priority “no regret” action
- **OECD country presentations:**
 - Informed participants about tools, policies and institutions designed to monitor and manage risks and vulnerabilities in OECD member countries



Risk Management: results of an OECD modelling exercise

- The impact of climate change on the variability of yields is not only subject to location differences, but also to strong uncertainties.
- Public support to measures that protect farmers from production risks affect (most likely crowding out) their risk management and adaptation strategies
- The most reliable scenarios show that climate change only marginally changes the risk environment of farming in Canada, Australia and therefore, only marginally increases the demand for insurance.



Risk Management: results of OECD modelling

- These scenarios of extreme events and misaligned perceptions of risk lead to low adaptation and are very expensive in terms of budgetary costs if the policy mix is wrong.
- If the objective is to target very low income situations, those that are more likely to lead to market failure, individual crop insurance and *ex post* payments are more effective.



Current OECD work

- Modelling Impacts of Climate Change and Adaptation
 - Unequal distribution of climate impacts may result in shifting production patterns – opportunities for some countries
 - CC impacts prices of agricultural commodities in an upward direction
 - Identified adaptation options include: (i) autonomous crop management, (ii) integrated water management, (iii) agricultural R&D, and (iv) transfers of technologies and best practices
- Water and climate change - key issues
 - Water efficiency, water pricing, investments in innovation, and water property/user rights



Main conclusions

- There are uncertainties on the way climate change will directly and indirectly impact agricultural and food systems, and related vulnerabilities
- Building resilience now is central to being prepared for future changes
- The notion of resilience enables examining together various domains -biophysical (ecosystems), economic, social and institutional - and scales of operations

Thank you

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