AGRICULTURE POLICY NOTE

OECD BETTER POLICIES FOR BETTER LIVES

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

August 2018

Managing Weather-Related Disasters in ASEAN Agriculture

- The agricultural sector in Southeast Asia is increasingly exposed to weather-related disasters such as droughts, floods or typhoons. Climate change is likely to exacerbate the frequency and severity of such disasters, with potentially catastrophic impacts on agriculture in several countries of the Association of Southeast Asian Nations (ASEAN). Myanmar, the Philippines, Thailand, and Viet Nam are among the world's economies most affected by weather-related disasters.
- As many ASEAN countries strive to increase agricultural productivity, strengthening resilience to water risks will be key. The devastating effects of recent disasters on agriculture in the region underline the need for – for example – agricultural policies that do not incentivise over-investment in vulnerable crops or lock farmers into production of particular crops; for risk management instruments that maximise incentives to adopt good practices; and for implementation of water use restrictions to encourage more efficient water use.

What's the issue?

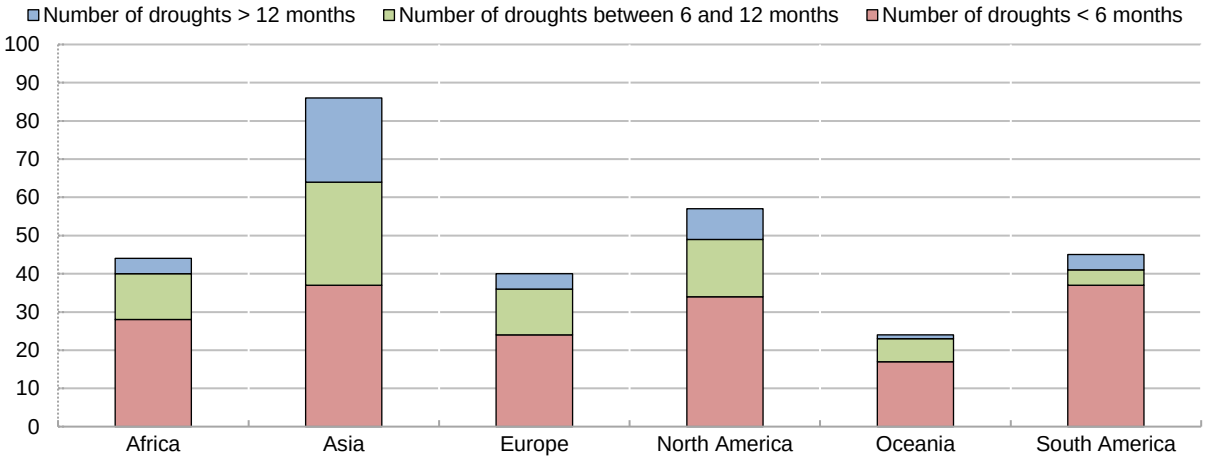
Southeast Asia's agriculture is exposed to increasingly frequent and intense weather-related disasters, a trend that is likely to be exacerbated by climate change. Four members of the Association of Southeast Asian Nations (ASEAN) – Myanmar, the Philippines, Viet Nam and Thailand – currently rank among the most affected countries in terms of weather-related disasters worldwide. Recent OECD analysis has focused on these four countries with a view to identifying good practices for managing weather-related disasters in Southeast Asian agriculture.

Evidence suggests that existing policies in these four ASEAN countries are not yet sufficiently well-aligned towards strengthening resilience to water risks. All have legal and regulatory frameworks for disaster risk management based on international guidelines and good practices, and the agricultural sector is well-integrated into government disaster risk management activities. However, co-ordination of the activities of governmental institutions at national and local levels to implement these frameworks remains a major challenge, risking delays in the provision of emergency supplies to affected areas.

In the four countries studied, governments are prioritising large water infrastructure projects in order to reach agricultural – in particular, rice – production objectives. However, these investments need careful consideration: for example, irrigation that encourages cultivation of water-thirsty crops in areas not naturally suited for such cultivation can work against efforts to reduce vulnerability to – and mitigate the impact of – extreme-weather events.

The Asian region has been significantly exposed to droughts in recent decades

Number and duration of major drought events, 1950-2000



Source: OECD (2016), *Mitigating Droughts and Floods in Agriculture: Policy Lessons and Approaches*, http://dx.doi.org/10.1787/9789264246744-en

Indeed, while some economic incentives encourage farmer resilience, agricultural support measures that distort farmer incentives – such as market price support measures, preferential insurance subsidies, and concessional loans for rice farmers – can counter these policies by locking farmers into particular crop production, thus increasing their vulnerability to weather-related disasters. This is the case with support that encourages production of specific crops, particularly water-thirsty crops, at the expense of those better able to withstand weather variations.

Information dissemination and training can also play a key role in improving the resilience of farmers. However, farmers in the countries analysed lack the necessary information and encouragement to adapt their farming practices to reduce their risk exposure, due in part to variations in the quality of extension services. Moreover, while the countries studied have developed efficient weather and hydrological information systems to enable farmers to prepare for weather-related disasters, ensuring that farmers access timely information remains a challenge. Although relatively well-developed at the watershed level, there remains scope to improve both the geographical coverage of data collection and the timely provision of relevant information on weather and water levels.

The use of financial tools to respond and recover from weather-related disasters has had mixed results. Most low-income households in the countries studied do not have precautionary savings to fall back on if struck by a weather-related disaster. Some countries have set up disaster-linked cash transfers providing cash compensation to affected farmers; however, if untargeted, these may increase risk-taking among wealthier farmers. Finally, the four countries studied also frequently resort to debt rescheduling, which can aid recovery, but the practice of writing-off interest for certain loans may encourage high-risk investments and thus increase the vulnerability of farmers to adverse weather events.

What should governments do?

- **Strengthen the prevention and mitigation components of disaster risk management** by aligning policy incentives and by integrating environmental resilience into infrastructure planning and extension systems.
- **Seek to reduce economic incentives that increase vulnerability**, such as market price support measures (e.g. import restrictions and minimum prices) and preferential insurance subsidies.
- **Implement and enforce water allocation and water-use restriction instruments,** and co-finance investments in tools to measure water use, to help steer farmers towards more efficient use of water resources. Improved water meters would also contribute better evidence for policy design.
- **Improve the co-ordination of government and partner institutions' (e.g. local administration) activities** to enable a more timely response to disasters.
- **Improve the timely distribution of inputs, equipment and social protection measures** like disaster-linked cash transfers to strengthen farmers' capacity to recover from disasters.
- **Make complementary use of a national reserve of equipment and farm inputs, and local and international markets** to source inputs and equipment for recovery after a disaster.
- **Encourage resilience against future disasters by designing debt-rescheduling measures** with clear conditions and limited scope.

Further reading

» OECD (2018), *Managing weather-related disasters in Southeast Asian agriculture*, OECD Studies on Water, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264123533-en

» OECD (2016), *Mitigating Droughts and Floods in Agriculture: Policy Lessons and Approaches*, OECD Studies on Water, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264246744-en