

The Regional El Niño Exchange 2026-2027: Learning Across Countries, Generations and Sectors

SUMMARY

Session 2: Food Systems and Agriculture

30 October 2026 | 10:30 am - 12:00 pm (UTC+7)

Moderator: Mr. Damien Riquet, Anticipatory Action Specialist, Food and Agriculture Organization Regional Office for Asia and the Pacific.

Speakers:

- **Mr. Virasith Phomsouvanh,** Deputy Director, Climate Agrometeorology and Remote Sensing Division, Department of Meteorology and Hydrology, Ministry of Agriculture and Environment, Vientiane Capital of Laos
- **Mr. Chandana Wickramatunga,** Principal Agriculture Scientist, Agro Climatelogy, Natural Resources Management, Center Peradeniya

This session of the **Regional El Niño Exchange 2026-2027: Learning Across Countries, Generations and Sectors- Food Systems and Agriculture** brought together meteorological, climate, disaster risk management, and development experts to discuss the evolving El Niño event, its observed and anticipated impacts across Asia and the Pacific on food systems and agriculture, and the measures being taken to strengthen preparedness and anticipatory action.

The discussion highlighted historical experiences, current concerns, preparedness measures, and anticipatory actions being implemented to reduce food security risks

associated with the ongoing El Niño event. Country experiences from Sri Lanka and Lao PDR showcased how El Niño affects rainfall patterns, crop production, water resources, and agricultural planning. The discussion also emphasized the importance of early warning systems, seasonal forecasting, community preparedness, and integrating climate adaptation with El Niño risk management.

What are the historical impacts of El Niño on food systems and agriculture?

Historical experiences from Sri Lanka show that El Niño can have both flood- and drought-related impacts on agriculture. During the Maha season (October-February), El Niño has often been associated with above-normal rainfall, increasing the risk of floods that damage crops, irrigation infrastructure, and transport networks. These wetter conditions are frequently followed by below-normal rainfall and drought later in the season, affecting paddy cultivation, vegetables, and other field crops. Such disruptions can result in reduced agricultural production and contribute to broader food security challenges through impacts on food availability and supply chains.

In Lao PDR, historical El Niño events have typically been associated with significant rainfall reductions, particularly during the October-June period. These drier conditions have affected rainfed agriculture, reduced crop yields, lowered hydropower generation, and increased pressure on household water supplies. The effects are especially pronounced because many rural communities depend heavily on rainfall-dependent agriculture for their livelihoods and food security.

What are the main concerns for the coming months?

A main concern stemming from the discussion was that reduced rainfall and water shortages could affect several countries in the coming months, placing additional pressure on food systems and agricultural production. Prolonged drought and heat stress may lead to lower crop yields, while growing demands on irrigation systems and water reservoirs could challenge water resource management. These factors may also affect food availability and contribute to higher food prices. Participants noted that these risks could be compounded by broader economic pressures and existing food security challenges.

Country-specific concerns were also highlighted. In Sri Lanka, there is concern about balancing the risks of flooding during the Maha season with the possibility of drought

conditions later in the growing cycle. In Lao PDR, particular attention is being given to irrigation efficiency, water storage measures, and preparedness for potential rainfall deficits and higher temperatures during the dry season.

How are countries preparing for El Niño impacts?

Countries are implementing a range of preparedness measures to reduce potential El Niño impacts on agriculture and food security. These include issuing seasonal forecasts and climate advisories, developing agricultural contingency plans, strengthening water resource management and conservation efforts, and promoting shorter-duration crop varieties that can better withstand climatic variability. Additional measures include establishing nurseries and seed reserves for post-flood replanting, expanding crop insurance and compensation mechanisms, disseminating pest and disease advisories, and improving early warning systems and communication channels with farmers and local communities.

Participants emphasized that preparedness efforts are increasingly shifting from reactive response measures to anticipatory action. Seasonal climate forecasts are being used proactively to inform early interventions and support timely decision-making before significant impacts occur.

How can climate information be translated into action?

Participants highlighted the importance of integrating climate information into practical decision-making processes. This includes combining seasonal forecasts with agricultural calendars and reservoir management information to guide planning and resource allocation. Climate forecasts can also support decisions on planting dates, crop selection, and water management strategies. Effective translation of climate information requires providing actionable advisories that farmers, local authorities, and other stakeholders can easily understand and apply.

The discussion also underscored the need for strong coordination among meteorological agencies, agriculture departments, water managers, and disaster management authorities. Such collaboration helps ensure that forecast information is converted into sector-specific actions that enhance preparedness and reduce risk.

Is there a need for systems thinking rather than sector-specific approaches?

Participants agreed that El Niño affects multiple sectors simultaneously, including agriculture, water resources, food security, energy, health, and livelihoods. As a result, responses that focus on individual sectors in isolation may fail to capture the full range of interconnected risks and consequences. The discussion highlighted the importance of moving beyond linear approaches toward systems thinking that recognizes the complex interactions between sectors and the cascading impacts of climate shocks.

A systems approach can help decision- makers better understand how disruptions in one sector may affect others and can support more coordinated and effective interventions. Participants also emphasized the value of linking El Niño preparedness and adaptation efforts with broader climate adaptation and resilience-building strategies to address both immediate and long-term risks.

Presentation on the New Working Paper: Assessment of El Niño- Associated Risks: The Stepwise Process (2026)

Madhurima Sarkar-Swaisgood, Economic Affairs Officer, Disaster Risk Reduction Section, UN ESCAP shared findings from ESCAP's updated El Niño Risk Assessment Guidance Note, which was developed in collaboration with United Nations Development Programme (UNDP), United Nations Office for Disaster Risk Reduction (UNDRR), Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) and World Food Programme (WFP). She explained that the guidance provides a nine-step framework for assessing El Niño risks and supports the translation of seasonal climate forecasts into practical action. The framework links climate information with biophysical impacts such as changes in soil moisture, vegetation, and water resources, as well as socioeconomic consequences and potential anticipatory actions. The assessment also highlights that drought has historically accounted for a significant share of agricultural losses across Southeast Asia. Ms. Sarkar-Swaisgood emphasized the importance of integrating El Niño preparedness into broader climate adaptation planning to strengthen long-term resilience.

Information Shared by Participants

Marvin Tejada shared a community-level preparedness approach focused on water conservation and local action. He highlighted efforts to encourage communities to use plastic pails and other locally available storage methods to capture and save rainwater before drought conditions intensify. He stressed that preparedness should not depend

solely on government interventions and emphasized the important role that communities, villages, and local organizations can play in developing their own solutions to strengthen water security and preparedness during drought periods.

Jae Hwi Kim shared Cambodia's ongoing work on food security and drought preparedness. He noted that while Cambodia has already established a flood anticipatory action framework, a comparable framework for drought is not yet in place. Current efforts are focusing on the assessment of drought indicators, including precipitation deficits, temperature anomalies, and water levels, to improve preparedness and risk monitoring. He also highlighted the challenge of translating climate forecasts into practical province-level risk categories and actionable guidance that can support decision-making in agriculture and water resource management.