

23rd Asia Pacific Agricultural Policy Forum
Enabling Agrifood Systems Research and Policies towards the Sustainable Food System Transformation in the Asia Pacific Region
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The 23rd Asia Pacific Agricultural Policy Forum

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November 18, 2024, Bangkok, Thailand

Context

As food systems in the Asia-Pacific region evolve, they face the dual burdens of ensuring sustainable agricultural practices while improving livelihoods and nutrition outcomes for their populations. These challenges are compounded by the widespread implications of climate change, which profoundly affect agrifood systems across the region. The Asia-Pacific region's diverse economies, agrifood systems, and political landscapes underscore the importance of collaboration and knowledge-sharing among stakeholders. Scientific research and evidence-based policymaking are increasingly critical for addressing issues such as climate resilience, environmental sustainability, and food security. Partnerships between the public and private sectors are particularly vital in driving effective solutions.



The 23rd Asia Pacific Agricultural Policy (APAP) Forum, held on November 18, 2024, in Bangkok, marked a significant milestone in the collective effort to transform the region's agrifood systems. Under the theme, “Enabling Agrifood Systems Research and Policies Towards Sustainable Food System Transformation in the Asia-Pacific Region,” the forum addressed critical challenges at the intersection of agriculture, environment, and societal well-being.

The forum featured research and discussions that emphasized the region's growing momentum in tackling the integrated challenges of climate change, environmental degradation, inequality, and food and nutrition security. Asia-Pacific's agrifood systems underpin global food security but face significant challenges, particularly among marginalized populations such as smallholder farmers, women, and children. These groups are disproportionately impacted by limited access to labor-saving technologies, inadequate policy engagement, and climate vulnerabilities. Innovations in sustainable agrifood systems were shared alongside efforts to foster gender inclusivity and rural resilience. Despite these strides, gaps persist in translating research into actionable policy, particularly for vulnerable communities.

By fostering regional solidarity and actionable knowledge-sharing, the APAP Forum continues to advance inclusive growth, resilience, and access to affordable and nutritious food. This year's discussions reinforced the critical role of mobilizing research and policy innovation to address systemic barriers in agrifood systems.

Climate Change and Agriculture

Agriculture in the Asia-Pacific region faces the dual challenges of meeting food security needs while adapting to climate change. Climate change—manifesting as droughts, floods, and saltwater intrusion—has disrupted agricultural productivity and household livelihoods. In regions like the Tonle Sap Lake in Cambodia and the sago-producing Mukah Division in Malaysia, environmental and socio-economic pressures compound vulnerabilities.

Rice is a cornerstone of food security and livelihoods in the Asia-Pacific region and is the staple food for about 4 billion people globally, contributing 16% of global calorie intake. However, climate change poses significant threats to rice production. Projections suggest a median decline of 0.7% in rice yields per decade, exacerbating food insecurity among vulnerable populations.

Yet, the Asia-Pacific region's diverse ecosystems offer unique opportunities to drive sustainable change while addressing greenhouse gas (GHG) emissions associated with food systems. Rice farming also contributes to climate change as 10% of agricultural greenhouse gas emissions globally stem from rice production. Practices such as alternative wetting and drying, residue management, and the adoption of low-emission rice varieties can reduce emissions by up to 65%. Despite these opportunities, investment in mitigation remains disproportionately low compared to potential returns. Efforts to develop rice carbon markets and promote sustainable practices through platforms like the Sustainable Rice Platform (SRP) offer promising pathways for progress.

Technological advancements and precision tools are increasingly being utilized to adapt to climate risks. High-resolution mapping, satellite imagery, and flood assessments help predict yields and guide timely interventions. In Lao PDR, cluster-based adaptation strategies have been piloted, incorporating breeding for drought, flood, and heat tolerance. Such innovations underscore the importance of data-driven approaches to enhance resilience. Regional collaborative efforts to share adaptation strategies and invest in infrastructure are essential to mitigate these impacts and bolster resilience.



Food and Nutrition Security in Food System Transformation

Transforming food systems to ensure healthier diets is a pressing challenge in the Asia-Pacific region, where undernourishment, moderate to severe food insecurity, and diet-related non-communicable diseases (NCDs) persist. The prevalence of child wasting, rising rates of obesity, and the increasing consumption of unhealthy diets contribute significantly to the region's health burden. Notably, 74% of deaths in Thailand are attributed to NCDs, with sugar-sweetened beverages (SSBs) playing a prominent role in dietary risks.

A food systems framework was introduced to address these challenges, focusing on food supply, food environment, and consumer behavior. Four core principles—adequate nutrition, balanced energy consumption, dietary moderation, and food diversity—underpin the development of healthy diets. Features of healthy dietary patterns include limiting harmful components like excessive salt, sugar, and saturated fats while promoting nutrient-rich local foods that meet physiological requirements. The framework also recognizes that achieving these goals hinges on addressing the cost of healthy diets, with affordability remaining a key barrier. In the Asia-Pacific region approximately 232.8 million people unable to afford nutritious meals.

Promising approaches include food-based dietary guidelines (FBDGs) that guide food choices across different age groups and life stages, emphasizing agricultural diversification and innovation. For example, Thailand's linear programming approach has identified local foods to bridge nutrient gaps, while Myanmar has adopted Thai food composition data to develop its FBDGs. Biofortification initiatives, such as vitamin A-rich sweet potatoes and iron-fortified beans, have demonstrated measurable health benefits, including reduced vitamin deficiencies and improved cognitive outcomes.

Policy measures, such as Thailand's tax on SSBs, have successfully reduced consumption among vulnerable groups. However, comprehensive public health policies are needed to address sugar intake from non-taxed sources, such as street foods. Recommendations include combining fiscal measures with broader initiatives to enhance consumer awareness, align food supply chains with nutritional goals, and connect food systems with health, education, and climate agendas. These coordinated efforts are critical for addressing malnutrition, improving public health, and fostering sustainable dietary practices.

Need for Regional Collaboration in Food Systems Transformation

The complexity of agrifood systems in the Asia-Pacific region necessitates coordinated regional action to address shared challenges and achieve sustainable food system transformation. Collaborative efforts are vital to tackling issues such as labor migration, transboundary haze pollution, and climate-driven disruptions, which have wide-reaching socio-economic and environmental consequences.

A particularly urgent issue is crop residue burning, a prevalent practice in countries like Thailand, Laos, Myanmar, Cambodia, and Vietnam. While burning is a cost-effective method for land preparation, it produces significant PM 2.5 emissions, contributing to air pollution, transboundary haze, and severe public health risks. Addressing this issue requires a multi-pronged approach, including policy incentives for alternative land preparation methods, farmer education on residue management, and the development of public-private partnerships to create markets for agricultural residues. However, more research is needed, particularly at the farm-level, to inform evidence-based regional policy and develop scalable solutions.



Labor migration emerged as another critical area requiring regional collaboration. Migration patterns influence agricultural labor availability and agrifood system productivity, particularly in conflict-affected areas such as Myanmar, while remittances are key source of household income in the region. Collaborative research on migration can inform policies that improve labor conditions, support remittances, and integrate migrant workers into resilient agrifood systems.



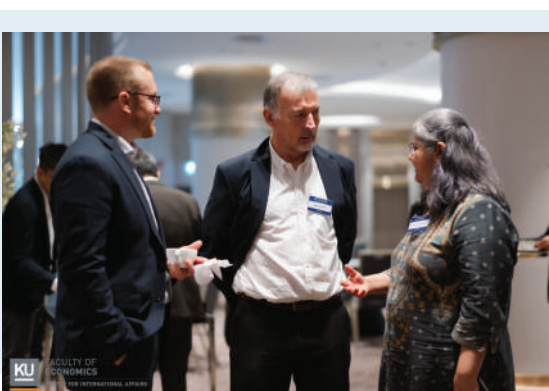
To accelerate progress, the forum provided actionable recommendations for key stakeholders:

Governments: Integrate climate-smart agricultural practices into national and regional frameworks, provide incentives for sustainable farming, and prioritize marginalized communities in policy design and implementation.

Researchers: Generate actionable insights into climate resilience, equity, and technological innovation, ensuring these insights translate effectively into practice.

Development Partners and Private Sector: Invest in capacity building, public-private partnerships, green finance, and technology transfer to foster inclusive and sustainable growth.

Scale investments in regional capacity building, public-private partnerships, green finance, climate change adaptation, and technology transfer to foster inclusive and sustainable growth.



Participants also called for stronger regional institutions to facilitate knowledge-sharing, harmonize regulatory frameworks, and support multi-country initiatives. Enhancing integration between food systems and strategies related to health, education, and climate was emphasized as a key opportunity to align sustainable development goals with food system transformation.

By embedding inclusivity, resilience, and sustainability into policies and practices, regional collaboration can address interconnected challenges such as climate change, food insecurity, and inequality. Strengthened research capacities, multi-sectoral partnerships, and innovative policies are essential to drive transformative progress. These efforts will ensure that food systems not only adapt to emerging challenges but also contribute meaningfully to equitable and sustainable development across the Asia-Pacific region.

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