

INTERNATIONAL VIRTUAL CONFERENCE ON

SUSTAINABLE FOOD SYSTEM

IN SOUTHEAST ASIA UNDER AND BEYOND COVID-19:

POLICY EVIDENCE AND CALL FOR ACTION

19 - 20 MAY 2022

A CONFERENCE SYNTHESIS





Southeast Asia is an important region for agriculture and food production globally. The region is home to the world's two largest rice exporters (Thailand and Viet Nam) as well as leading exporters of several key internationally traded agricultural commodities (OECD/FAO, 2017). Agricultural production and supporting sectors such as logistics, processing, and retail form the backbone of many Southeast Asian economies. A high proportion of the rural population, and an even higher proportion of the rural poor, still depend on agriculture for an important part of their livelihoods.

Although the region has sustained strong economic growth in recent decades, many of the region's 600 million people still struggle with food and nutrition insecurity (FAO, 2021). At the same time, as food systems transition with urbanization and rising incomes, changing patterns of food demand are leading to increasing numbers of obese and overweight individuals in several countries (WHO, 2021). The impact of COVID-19 on ASEAN economies has also undermined households' income, food, and nutrition security, stressing the need to implement evidence-based policies that can maintain food system resilience (APFC and ASEAN, 2021; Boughton et al., 2021). Food systems in Asia are highly vul-

nerable to climate change at the same time as being a significant contributor to climate change. Food systems currently account for a third of the greenhouse gases driving anthropogenic climate change globally (Tubiello et al 2021).

In this context, the twin goals of enabling Southeast Asia's food systems to adapt to the threat of climate change while rapidly shrinking the carbon footprint of Asian food systems, and achieving nutritional objectives and poverty reduction, requires policy innovation, local capacity, and updated investment strategies based on climate aware evidence.

The conference focused on the key role of research evidence for the design of policy and institutional innovations that accelerate the transformation to healthier, more sustainable, equitable, and resilient food systems. Research offers many important contributions to achieve the SDGs. It generates the basic inputs for innovations, i.e. policy and institutional innovations (incl. social and business innovations) as well as technology-based innovations to catalyze, support, and accelerate food systems transformation. Second, research assesses targets and actions by understanding the implications of vari-

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ous development pathways (for instance through quantitative analyses and food systems modeling) as well as assessing impacts ex-post to ensure learning and corrective measures. Taking a food systems approach that draws on expertise and evidence from different research disciplines is necessary to understand how investments and choices in food production, distribution, processing, and consumption determine outcomes related to nutrition, food security, socio-economic welfare, and environmental health.

The conference demonstrated that high quality evidence is available even if there are still important gaps that need to be filled. The human and organizational capacity to generate evidence and innovation is also available if we can mobilize the financial resources and regional collaboration to address them. Of course, we must also use evidence to accelerate positive change. This is an important part of the “call to action” of this conference.

The translation of evidence into action requires the participation of multiple stakeholders. Different groups of food system actors have different resources and can make different contributions. All are needed. Government is responsible for public investment in research and extension, water management and transport infrastructure, and for designing and enforcing policies and regulations to ensure public safety and health. The private sector, including farmers, determine the amount and processes used in the manufacture, production and distribution of agricultural inputs and products.

Consumers ultimately choose what to consume and in what quantities subject to their knowledge, income, and location. Civil society organizations represent or provide services to vulnerable groups; and knowledge institutions such as universities and research institutes produce the knowledge resources available for other actors and provide training to raise labor productivity. Different groups of food system actors can also have competing interests such that changes that are beneficial for one group may not be beneficial to another group. Understanding these tradeoffs is clearer and more nuanced with the inclusion of multiple food system actors that interact in consultative platforms, whether of a temporary nature to address a specific problem, or more permanent mechanisms to continuously monitor and evolve more effective food systems.

BOOSTING SUSTAINABLE PRODUCTION

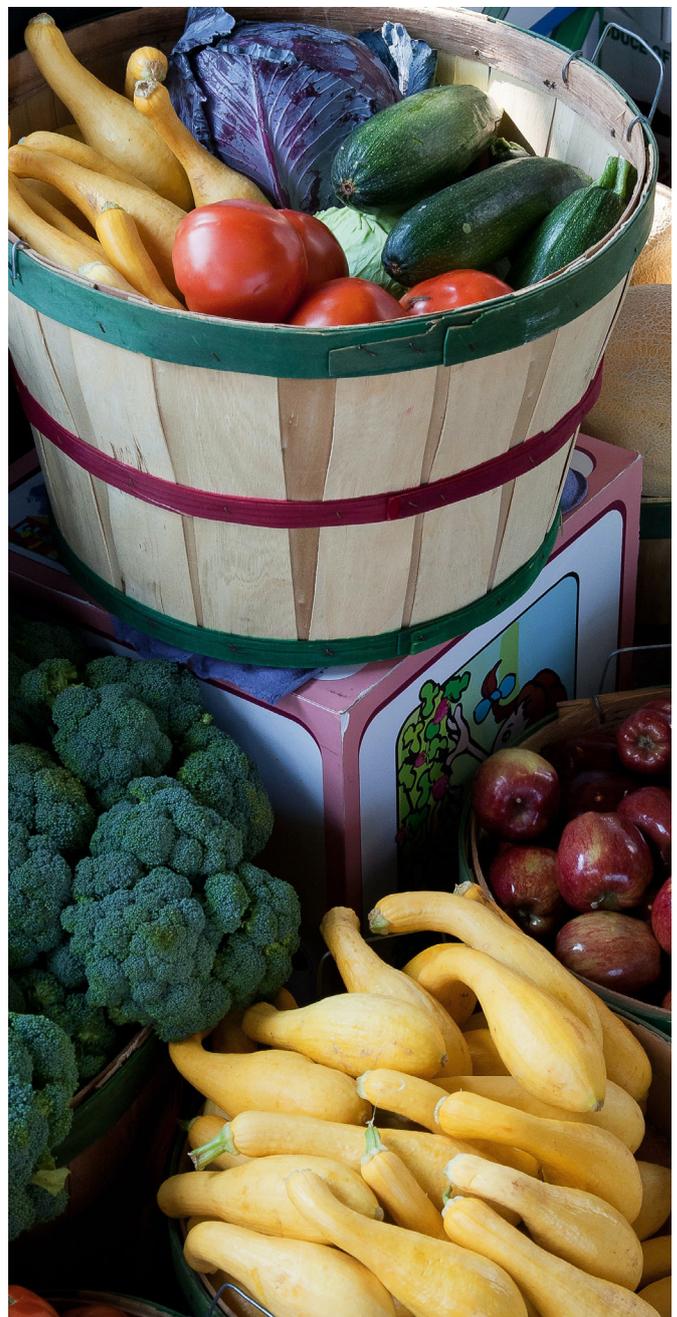
Food production practices in our current food systems have long contributed to a decline in natural resources, created irreversible damage to the environment including degradation of soil and water resources, and negatively impacted human health. Sustainable practices are urgently needed in order to transform our food systems so they can support increases in productivity, optimal use of natural resources, and the health of future generations, economy, and planet.

The emerging global food price crisis is affecting multiple commodities at once such as fuel, fertilizer, oilseeds, and wheat and it is occurring at a time when large groups of consumers are less resilient due to income losses associated with COVID-19. While consumers are clearly facing increased financial stress, farmers also are not benefitting from the situation as input prices are increasing more rapidly than farm gate prices and marketing costs are a larger share of retail value.

The political pressure to reduce food price inflation quickly is very real and we've seen this play out in recent decisions by some countries to ban exports of fertilizer, vegetable oil, and wheat to keep domestic prices lower. But the current food crisis presents also provides opportunities for positive long-term change. The higher costs of agricultural inputs, transport, and food all provide incentives for climate-smart and resilience building innovation. Higher fertilizer prices provide an incentive to use fertilizer much more efficiently by pursuing less fertilizer intensive cropping systems, precision farming practices including applying correct fertilizer dosing and placement, and integrating livestock and crop systems. Higher pesticide prices provide an incentive to reduce pesticide applications through the use of data driven integrated pest management practices. Higher meat prices provide consumers an incentive to switch from meat-based protein to vegetable-based protein sources. Each of these types of adjustment would have valuable long-term environmental and nutritional gains as well as improving short-term food security.

It is therefore very important that government policies try not to preserve the pre-crisis "normal" by subsidizing farm inputs or food prices. Instead, government policies should focus on helping food system actors make adjustments that provide efficiency gains and improve environmental and nutritional outcomes. To do so, govern-

ments should consider supporting farmers by expanding access to resources for soil testing, precision farming methods, and improved water management through increased investment in research and extension systems. Consumers should also be educated on the health benefits of plant-based diets, avoiding sugar and highly processed foods, and using smaller amounts of healthier oils. If we use knowledge, technologies, and policies that facilitate adjustment by farmers, consumers, and other food system actors to the current food price crisis, rather than attempting to insulate them from it, then the efficiency gains will be permanent rather than temporary.



BUILDING RESILIENCE TO VULNERABILITIES, SHOCKS, AND STRESSES

The recent COVID-19 situation has exerted numerous stresses on food systems in Southeast Asia impacting various stakeholders along the food supply chain ranging from seed traders to farmers to retailers forcing each to adapt to modify production and delivery of products to consumers. The conference made clear how different sectors of the agriculture system were impacted by a suite of challenges and identified some of the strategies farmers and producers adopted as a means of conducting business. New types of technologies became essential. Many farmers also adopted digital farm applications which are strongly correlated with higher incomes. These technologies included information about weather, price information, and tools to connect farmers with aggregators and retailers. In adopting new technologies and ways of conducting business, many producers and intermediaries have achieved higher productivity, sustainability, and resilience in the long run.

But the actual use of digital applications, especially at the farm level is still very low. This is unfortunate because smallholder farmers urgently need to improve efficiency because of the small size of their landholdings, and also because youth are more likely to be interested in agriculture if they have access to modern digital farming tools. Given the scale of the challenge, investment and innovation in the research systems of the region needs to increase in partnership with farmers. But to make use of these tools there needs to be greater collaboration between research institutes in different countries and between public and private sectors.



PROMOTING SAFE, NUTRITIOUS, AND SUSTAINABLE CONSUMPTION

The food environment influences food availability, affordability, quality and safety and thus impacts the choice of consumers. The pandemic has reduced consumers' income, changed consumption patterns, and spurred online food purchases. In the Philippines, examples were shared where local public markets decreased in importance and purchases from small, local shops and online retailers increased. Indonesia saw much of the same as consumers switched to buying food from online during the pandemic, especially fruits and vegetables. It is likely that many of these trends will continue with many consumers and retailers stating that they plan to continue to use digital platforms to provide access to groceries and cooked foods.



However, while public markets will continue to remain important channels to access food, a shift to local shops and digital platforms will change the way that people access food and has implications for how food systems will continue to transform. For instance, transitioning to an increasingly online agri-food marketplace was a new challenge for small-scale farmers in Indonesia of which the majority are 50 to 60 years old and graduated from elementary school and lower. At the same time, consumers that access food digitally tend to be younger, have full time jobs with higher incomes, are well educated, and have ready available access to internet. In order to continue to facilitate an online agri-food marketplace, it will be necessary to strengthen relevant online entrepreneurship skills among those that are unfamiliar with new platforms. For those farming households unable to access online marketplaces, government support to link these smallholder farmers with aggregators or retailers will be necessary as traditional marketing may decrease. Shorter supply chains also help to ensure that farmers are better able to respond to consumer preferences and

that fresh, nutritious products that are perishable remain safe and meet consumers expectations. Storage facilities for perishable goods might also help to strengthen localized markets.

Of course the affordability of food during the pandemic also remained a challenge with many households suffering large decreases in incomes though this was largely dependent on countries mitigation policies to contain the spread of the disease. Decreased incomes meant that many households were no longer able to purchase a minimum recommended diet. Social protection policies were essential mitigation tools helping lower income families afford a more balanced and diverse diet. Although promoting a pro-health food policy is very complex, it is essential when addressing shocks. Solid, evidence-based policies, political will, and the cooperation of the private sector could help marginalized groups maintain a healthy diet during the current and future food crisis.

SUPPORTING CONTINUED TRANSFORMATION OF FOOD SYSTEMS

To achieve the SDGs and support the continued agricultural transformation, it will be necessary to address the multi-dimensional challenges that food systems face. We must improve production to feed a growing population but that food must be nutritious and sustainable while preserving biodiversity, natural capital, and reducing green house gas emissions. Agriculture development must also be inclusive, provide opportunities for smallholders, youth, and women while at the same time be resilient to shocks such as conflict and international price fluctuations.

With many challenges, the UN Food Systems Summit proposed a new understanding of food systems focused on the interconnectivity both within food systems and its interactions with health, energy, and ecology requiring a holistic approach. To address multiple objectives, one needs multiple tools:



- Technological innovation through increased investment and re-prioritized agricultural R&D for multiple wins.
- Policy innovations that repurpose subsidies and supports the growth of a dynamic private sector.
- Infrastructure innovation that moves toward more clean energy, transport, and improved water management.
- Institutional innovations that enhance multi-sectoral coordination.
- Open and resilient trade that forges strong relationships with regional partners that build trust.
- An improved understanding of the agrifood system's impact on nature and greater respect paid toward preserving natural resources.
- Behavioral innovation that educates consumers and nudges them toward healthier choices.

These innovations and their related goal-oriented actions do not exist in silos; rather, there are synergies and trade-offs between them that must be considered to maximize the system-wide effectiveness and efficiency while ensuring equity and sustainability. To better understand these tradeoffs, investments in capacity for science and innovation need to expand, with more attention to strengthening local research capacities, developing more inclusive, transparent, and equitable science partnerships, and promoting international research cooperation to enhance food and nutrition security, food safety, and sustainability goals.

To summarize, the challenge of food system change is urgent and complex, but rapid progress can be made if

we can mobilize resources and build the necessary collaboration mechanisms between the public sector, private sector, civil society, and research organizations to design and implement transformative investment programs. The current food price crisis provides additional motivation to put these mechanisms in place sooner rather than later, to ensure that measures to adapt to the food price crisis also align with climate smart and nutrition smart food system change. To respond to these challenges requires cohesive management, institutional transformation that can create new knowledge, and engagement with next generation to bring this knowledge into action.

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ACKNOWLEDGEMENT

The event was jointly organized by the Department of Agricultural and Resource Economics, Kasetsart University; Mekong Institute; Feed the Future Innovation Lab for Food Security Policy Research, Capacity, and Influence (PRCI), Michigan State University; and Regional Strategic Analysis and Knowledge Support System (ReSAKSS-Asia), International Food Policy Research Institute (IFPRI); and the Agricultural Economics Society of Thailand under Royal Patronage (AEST).

The organizers wish to acknowledge the speakers, panelists, sponsors, and rapporteurs whose contributions were indispensable to the success of the conference.

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Office of the Ministry of Higher Education, Science, Research and Innovation
The Thailand Science Research and Innovation through the Kasetsart University
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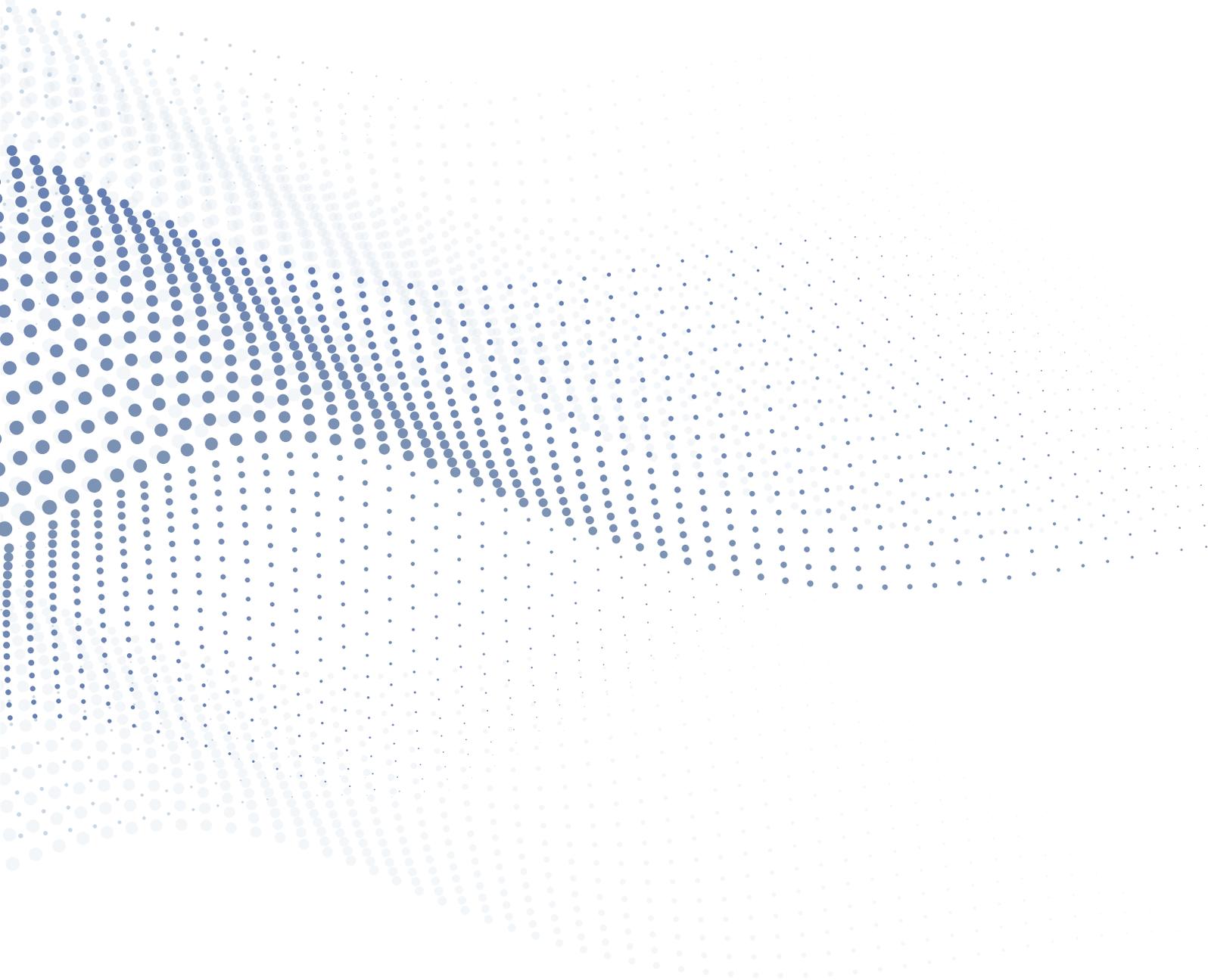
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