

Asia-Pacific Rural Development and Food Security Forum 2022

22–24 March (Virtual)

Battling Climate Change and Transforming Agri-Food Systems

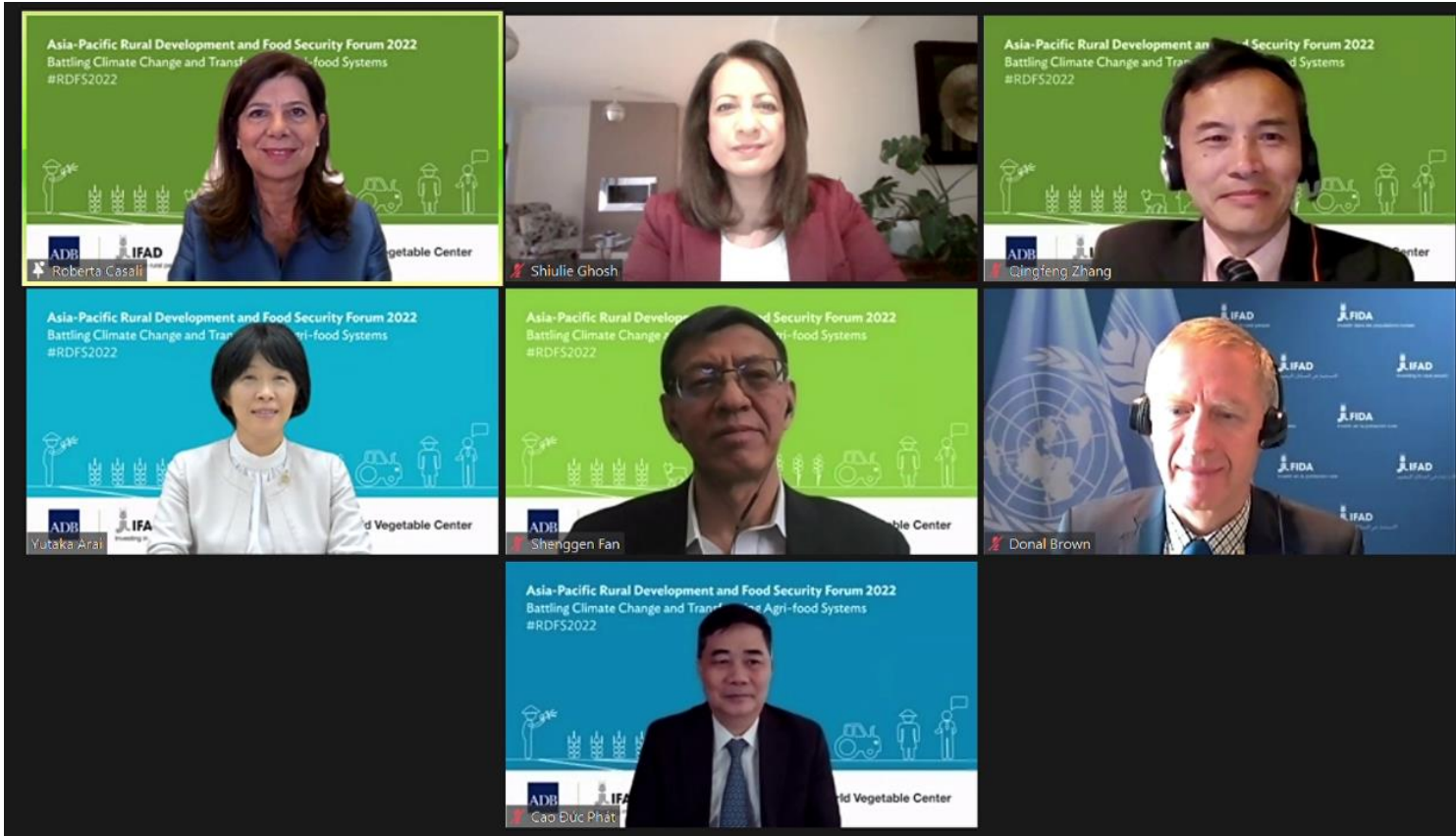


Photo Highlights



World Vegetable Center

The Future of Food and Agriculture



A Leaders' Roundtable on the Future of Food and Agriculture opened the **Asia-Pacific Rural Development and Food Security Forum 2022** on 22 March 2022. Leaders noted that amidst the Russian invasion of Ukraine, COVID-19, and climate change, there is a need to promote open and transparent trade while undertaking measures to have bumper harvests in Asia and Africa which are less affected by the ongoing conflict; remain vigilant on the global markets and local food security situation; and provide inclusive social protection as needed.

(1st row L-R) **Roberta Casali**, Vice-President (Finance and Risk Management), Asian Development Bank; **Shiulie Ghosh**, Director, Aero Productions Ltd.; **Qingfeng Zhang**, Chief, Rural Development and Food Security (Agriculture) Thematic Group, concurrently OIC, Environment Thematic Group, Sustainable Development and Climate Change Department, Asian Development Bank

(2nd row L-R) **Yutaka Arai**, Vice-Minister for International Affairs, Ministry of Agriculture, Forestry and Fisheries, Government of Japan; **Shenggen Fan**, Chair Professor, China Agricultural University; **Donal Brown**, Associate Vice-President, Programme Management Department, International Fund for Agricultural Development

(3rd row) **Cao Đức Phát**, Vice Chair, Board of Trustees, International Rice Research Institute

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The Future of Food and Agriculture



VP **Roberta Casali** emphasized the need to increase strategic and science-based investments in agriculture, with focus on innovative technologies that offer nature-positive solutions. In her opening remarks at the Leaders' Roundtable on 22 March 2022, VP Casali also reiterated ADB's commitment to work with all partners to step up support for climate-smart agriculture across the entire agriculture and food value chains, including blue economy, and policy and technological interventions, using nature-based solutions.



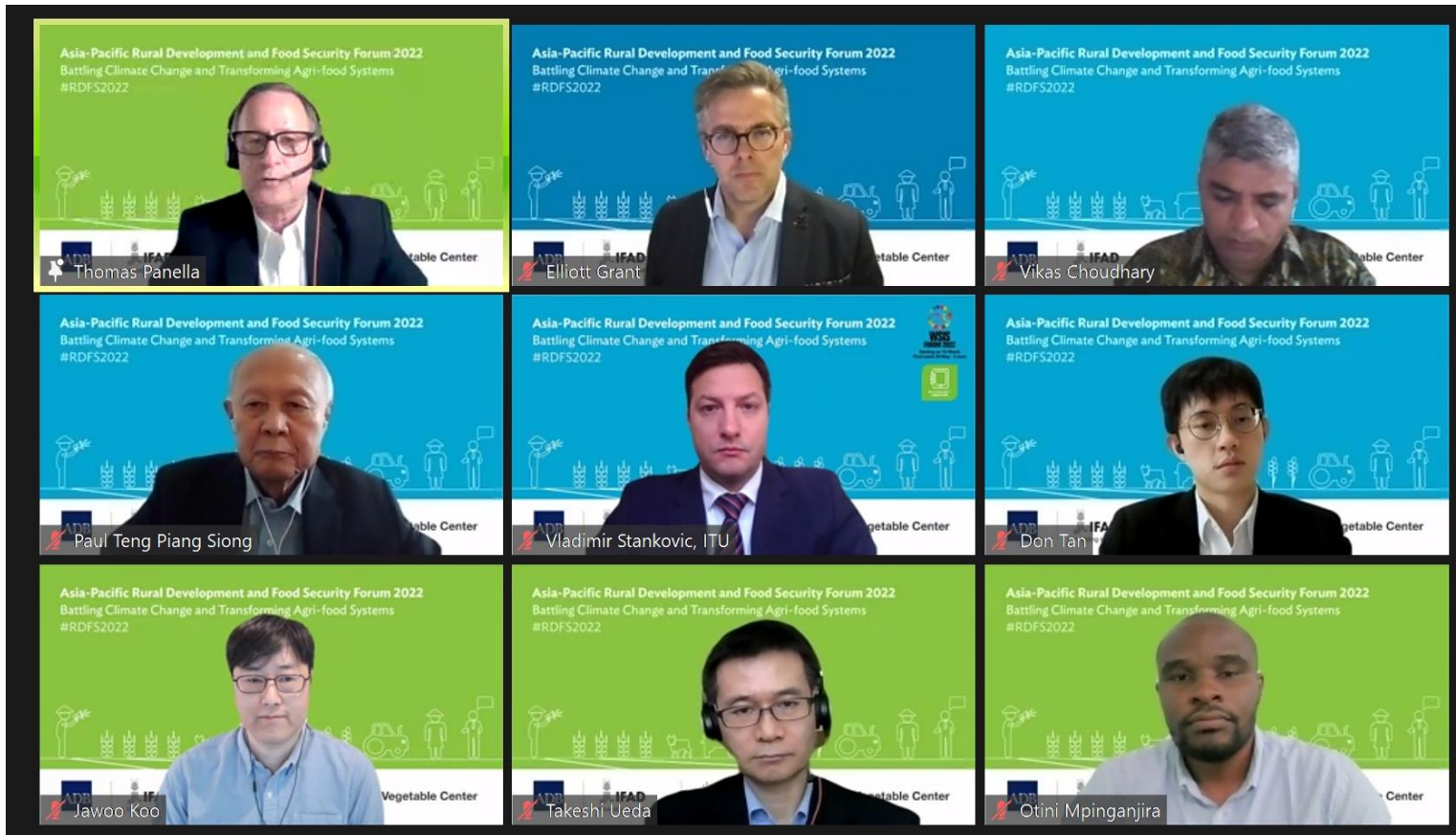
In his opening remarks at the Leaders' Roundtable on 22 March 2022, **IFAD Associate Vice President Donal Brown** cited key promising investment areas to foster a brighter food systems future. These include investments on digital knowledge and skills to enhance farmers' access to information and communication services; increased availability of diverse, affordable, safe, healthy and locally produced foods; improved value to agroecological products; and partnerships with stakeholders to create climate-smart agriculture and other related climate-resilient programs.

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Digital Technology for Agriculture



In **Technical Session 1: Digital Technology for Agriculture**, speakers and panelists on 22 March 2022 called for the promotion of customized and context-specific digital solutions for smallholder farmers, including their digital literacy; increased capacities to take advantage of big data; and creation of enabling environment to promote free movement of data, financial services, and knowledge across the supply chains.

(1st row L-R) **Thomas Panella**, Director, Environment, Natural Resources & Agriculture Division, East Asia Department, Asian Development Bank; **Elliott Grant**, General Manager, X; **Vikas Choudhary**, World Bank

(2nd row L-R) **Paul Teng Piang Siong**, Managing Director & Dean, NIE International Pte Ltd | Nanyang Technological University, Singapore; **Vladimir Stankovic**, Program Coordinator, International Telecommunication Union; **Don Tan**, Director-Corporate Affairs, Pinduoduo Inc.

(3rd row L-R) **Jawoo Koo**, Senior Research Fellow, International Food Policy Research Institute; **Takeshi Ueda**, Principal Natural Resources and Agriculture Economist, Asian Development Bank; **Otini Mpinganjira**, Program Lead, PxD

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Digital Technology for Agriculture



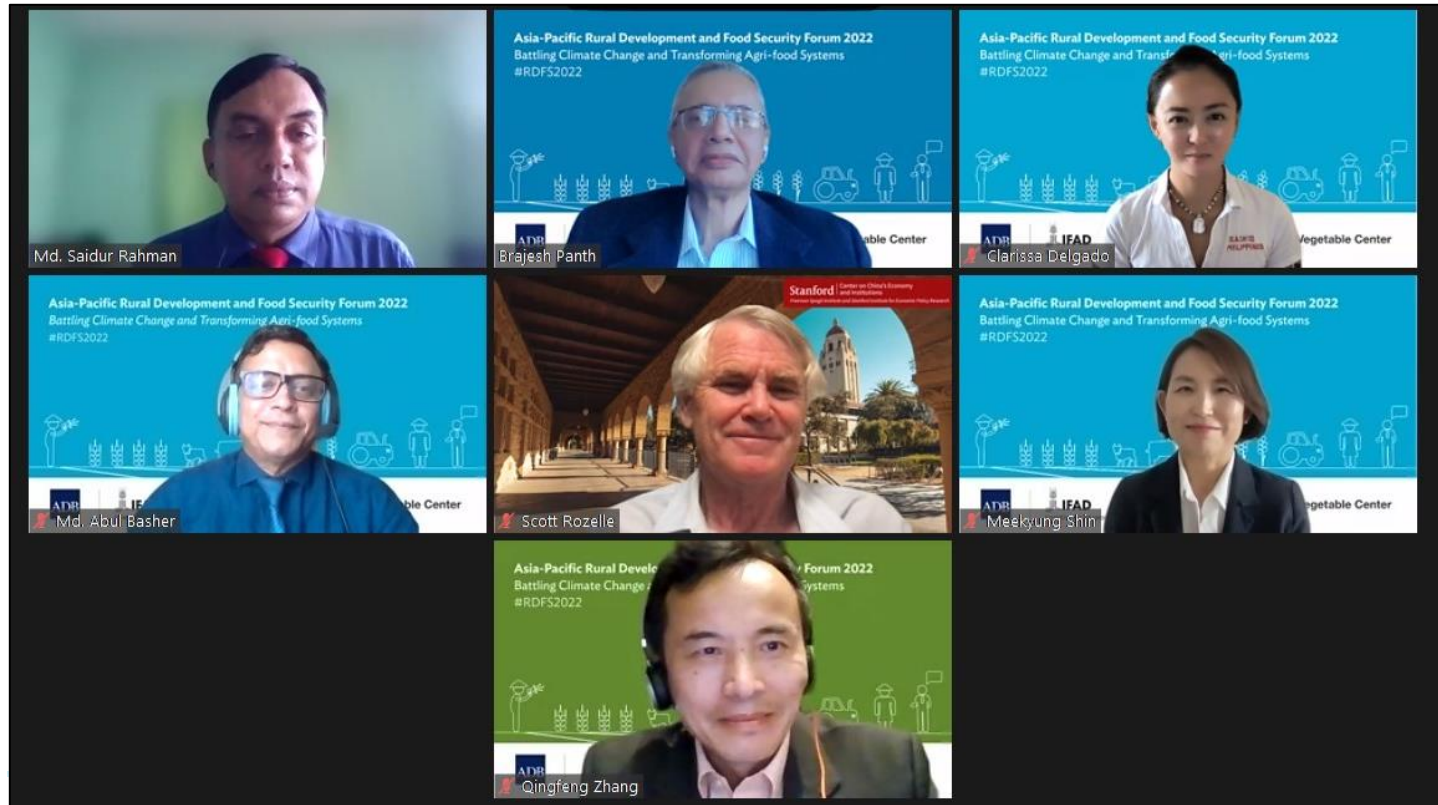
During the **Technical Session 1 Digital Technology for Agriculture** on 22 March 2022, keynote speaker **Paul Teng Piang Siong**, Managing Director & Dean, NIE International Pte Ltd | Nanyang Technological University, Singapore stressed that many problems in the agri-food system can be addressed by and should drive the application of digital technologies.

He also noted that digital technologies need a supporting ecosystem with enablers that can accelerate stakeholder adoption along the food system. Essential enablers include supportive government policies, regulations and instruments; digital infrastructure; government investments; private capital markets and financing mechanisms; and entrepreneurial spirit.

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The Role of Education in Reducing Rural-Urban Divide



At the **Deep Dive 1: The Role of Education in Reducing Rural-Urban Divide** on 23 March 2022, discussions stressed that human capital should be considered if middle-income countries are to progress from the middle-income trap. Interventions for rural education, especially in digital technology applications, and international cooperation are needed to reduce the growing educational gap between rural and urban areas.

(1st row L-R) **Md. Saidur Rahman**, Professor & Former Head Dept. of Agricultural Economics, Bangladesh Agricultural University; **Brajesh Panth**, Chief, Education Thematic Group, Asian Development Bank; **Clarissa Delgado**, CEO, Teach for Philippines

(2nd row L-R) **Md. Abul Basher**, Senior Natural Resources and Agriculture Specialist, Asian Development Bank; **Scott Rozelle**, Helen F. Farnsworth Senior Fellow and the co-director of the Rural Education Action Program, Freeman Spogli Institute for International Studies, Stanford University; **Meekyung Shin**, Education Specialist, Asian Development Bank

(3rd row) **Qingfeng Zhang**, Chief, Rural Development and Food Security (Agriculture) Thematic Group, concurrently OIC, Environment Thematic Group, Sustainable Development and Climate Change Department, Asian Development Bank

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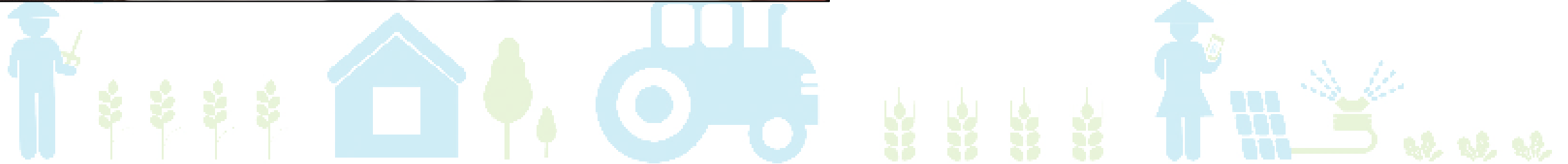
The Role of Education in Reducing Rural-Urban Divide



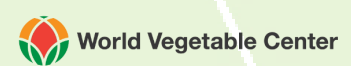
During **Deep Dive 1: The Role of Education in Reducing Rural-Urban Divide** held on 23 March 2022, keynote speaker **Scott Rozelle**, Helen F. Farnsworth Senior Fellow and the co-director of the Rural Education Action Program, Freeman Spogli Institute for International Studies, Stanford University tackled the importance of human capital for middle-income countries to graduate from the middle-income trap. He highlighted the case of People's Republic of China and cited lessons from other Asian countries.

Despite the growing rise of most countries in Asia, he said that there is an “invisible crisis” lurking for middle-income countries. One key element to this crisis is the nature of the human capital, the labor force, which is not often discussed because it takes decades to develop and initially has a low rate of return. However, if maximized, human capital development rate of return is high in the long term.

He added that investments in education, health, and early childhood development must be given high priority if countries want to raise the nature of human capital and graduate from the middle-income category.



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Urban/Controlled Environment Farming—New Window for Fresh and Nutritious Food



At the **Deep Dive 2: Urban/Controlled Environment Farming—New Window for Fresh and Nutritious Food** on 23 March 2022, speakers and panelists agreed that a multisectoral approach is needed to promote urban agriculture and increase access to healthy, safe, affordable, and mass-produced food in urban communities. Future opportunities in urban agriculture include vertical farming; organization of urban farmers; modernization of infrastructure, technologies, and urban agriculture learning modules; promotion of climate resilience; and adoption of precision agriculture.

(1st row L-R) **Michiko Katagami**, Principal Natural Resources and Agriculture Specialist, Asian Development Bank; **William Dar**, Secretary, Department of Agriculture, Philippines

(2nd row L-R) **Sairam Reddy Palicherla**, Co-Founder and Chief Scientific Officer, UrbanKisaan Farms Pvt Ltd.; **Maria Tran**, Senior Project Officer (Urban Development), Asian Development Bank

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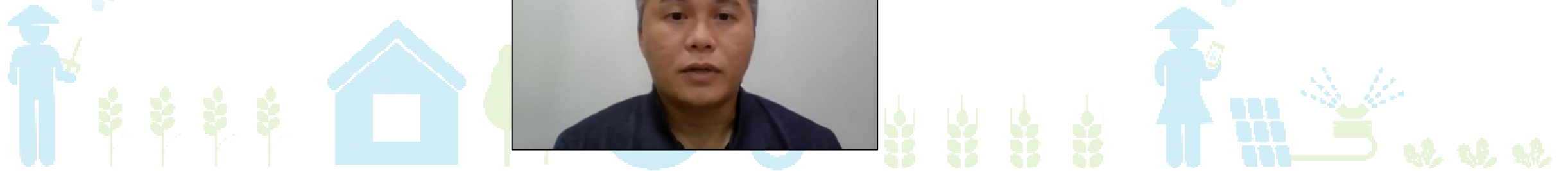
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Urban/Controlled Environment Farming—New Window for Fresh and Nutritious Food



During **Deep Dive 2: Urban/Controlled Environment Farming—New Window for Fresh and Nutritious Food** on 23 March 2022, keynote speaker **William Dar**, Secretary, Department of Agriculture (DA), Philippines focused his presentation on DA's National Urban & Peri Urban Agriculture Program (NUPAP). He highlighted how NUPAP responded to the food security challenges amidst the pandemic while promoting food safety, livelihood, and logistics. He reiterated that food security is everybody's responsibility.

Secretary Dar was assisted by **Gerald Glenn Panganiban**, Director, NUPAP, who accommodated questions and shared programs and experiences during the COVID-19 lockdowns, most importantly the Department's partnerships with private sector and promotion of the Food Always in the Home (FAITH) program.



Pathways to Sustainable and Inclusive Food Systems



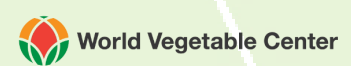
On 23 March 2022, the **Technical Session 2: Pathways to Sustainable and Inclusive Food Systems** discussions highlighted the crucial role of partnerships in advancing the development of holistic solutions for effective, efficient, and more sustainable farming systems. To help mainstream women's contribution in realizing sustainable food systems, accurate data must be made available and accessible to enable better-informed decision making, policy reforms, and improved practices on-the-ground; address women and gender inequalities in terms of access to land tenure; and tailor focused investments to improve access to inputs, knowledge and financing for women farmers.

(1st row L-R) **Samantha Hung**, Chief of Gender Equality Thematic Group, Asian Development Bank; **Jiangfeng Zhang**, Jiangfeng Zhang, Director, Environment, Natural Resources & Agriculture Division, Southeast Asia Department, Asian Development Bank; **Bruno Carrasco**, Director General, concurrently Chief Compliance Officer, Sustainable Development and Climate Change Department, Asian Development Bank

(2nd row L-R) **Omer A. Zafar**, Principal Natural Resources and Agriculture Specialist, Asian Development Bank; **Romina Cavatassi**, Lead Economist, International Fund for Agricultural Development; **Le Hoang Anh**, Senior Official, Department of Science Technology and Environment, Ministry of Agriculture and Rural Development, Viet Nam

(3rd row L-R) **Louis Verchot**, Principal Scientist and Leader of the Land Restoration Group, International Center for Tropical Agriculture; **Jean Balie**, Director General, International Rice Research Institute; **Sudarshan Dutta**, Lead Agronomist, Agoro Carbon Alliance (Yara)

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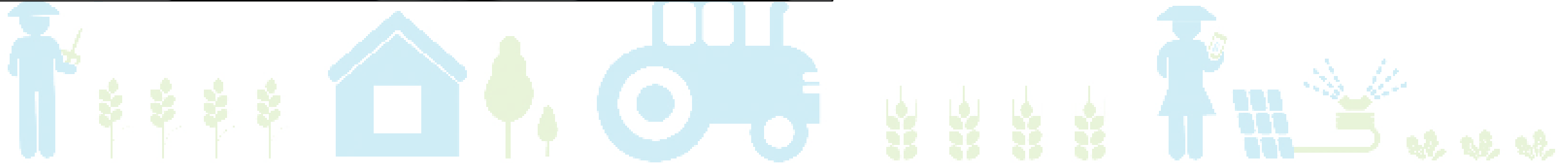


Pathways to Sustainable and Inclusive Food Systems



During the **Technical Session 2: Pathways to Sustainable and Inclusive Food Systems** discussions on 23 March 2022, keynote speaker **Louis Verchot**, Principal Scientist and Leader of the Land Restoration Group, International Center for Tropical Agriculture noted that there are promising approaches in dealing with greenhouse gas emissions. These approaches not only promote economic development and farmer well-being, but also help reduce emissions and environmental impacts of agriculture and food production.

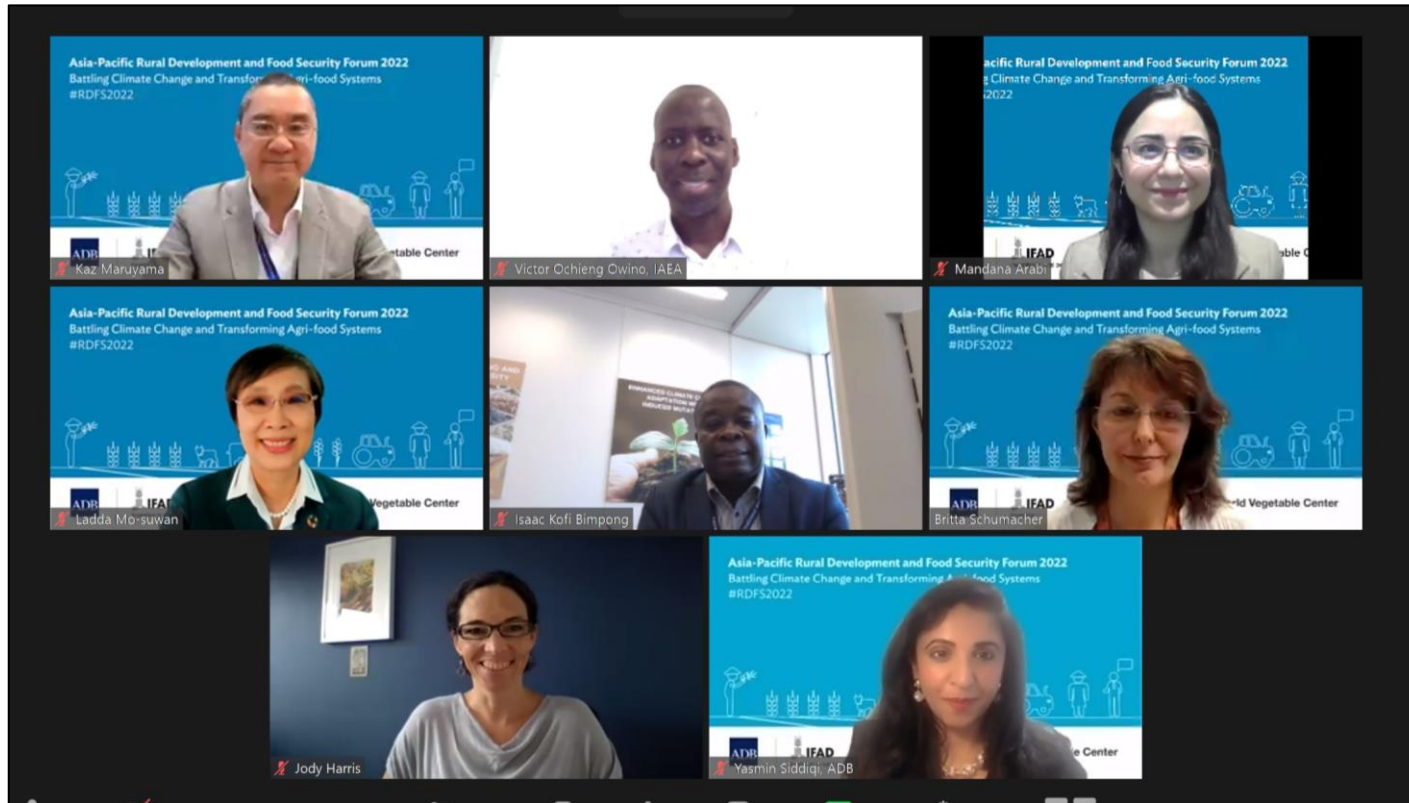
He also emphasized that governance is important in promoting investments and initiatives on production systems that promote efficiency while reducing emissions. He added that an enabling environment is important to achieve the impact and scale of these approaches to increase farmer returns and improve food system resilience.



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Intersectoral Approach to Nutrition Security



At the **Technical Session 3: Intersectoral Approach to Nutritional Security** on 23 March 2022, speakers and panelists noted that integrated nutrition intervention can lower all forms of malnutrition in all life stages. Investments in early nutrition offer the next generation the means to combat both the multiple burdens of malnutrition and increased occurrence of noncommunicable diseases, creating long-term impacts. Nutrition has not been prioritized against other interventions, and yet it is considered an integral component of every development intervention. Within the post-pandemic recovery efforts, there are opportunities for integration of efforts through social safety net platforms, among other initiatives.

(1st row L-R) **Kaz Maruyama**, President & Representative Director, DSM Japan; **Victor Ochieng Owino**, Nutrition Specialist, Division of Human Health, International Atomic Energy Agency; **Mandana Arabi**, Vice President, Nutrition International

(2nd row L-R) **Ladda Mo-suwan**, Professor, Department of Pediatrics, Faculty of Medicine, Prince of Songkla University; **Isaac Kofi Bimpong**, Plant Breeder / Geneticist, Department of Nuclear Sciences and Applications; **Britta Schumacher**, Senior Nutritionist, Regional Bureau for Asia-Pacific (Bangkok), World Food Programme

(3rd row L-R) **Jody Harris**, Lead Expert, World Vegetable Center; **Yasmin Siddiqi**, Director, Environment, Natural Resources & Agriculture Division, Central and West Asia Department, Asian Development Bank

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Intersectoral Approach to Nutrition Security



During **Technical Session 3: Intersectoral Approach to Nutritional Security**, held on 23 March 2022, keynote speaker **Mandana Arabi**, Vice President, Nutrition International noted that the global landscape for health and nutrition continues to evolve. The distribution of multiple burdens of malnutrition and non-communicable diseases (NCDs) continue to increase and overlap.

Opportunities for significant benefits exist from investing in maternal and early childhood nutrition interventions, noting that actions against undernutrition / overnutrition can benefit the current and the next generation.

Data and reliable, expert analyses are needed to identify the right mix of interventions, and the right platforms to be leveraged for policy and decision-making. Systems integration allows for synergistic benefits and savings at all levels of the pathway.

She further noted that nutrition is central to addressing the increasing burden of noncommunicable diseases, and that nutrition should be prioritized as part of a larger initiative that address noncommunicable diseases targets and promote overall investments in health and human capital.

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COVID-19 Impacts on Food Systems



At the **Special Session: COVID-19 Impacts on Food Systems** on 24 March 2022, discussions confirmed that the pandemic disrupted food systems as evidenced by market closures, mobility restrictions and other challenges. Policy responses on food systems were robust and localized as governments turned to local food production, direct product procurement, and domestic production alternatives like urban agriculture and modified supply chains. The pandemic also saw the rise of e-commerce and applications of digital technologies on food distribution which could be further improved and maximized post-pandemic.

(1st row L-R) **Aziz Elbehri**, Senior Economist and Stream Leader, Agri-food, Rural Development and Socio-economic Policies, Food and Agriculture Organization Regional Office for Asia and the Pacific; **Jalil Pirzada**, Director, Institute of the Economy, Analysis and Agriculture Development, Ministry of Agriculture, Tajikistan; **Sangjun Lee**, Natural Resources and Agriculture Specialist, Asian Development Bank

(2nd row L-R) **Yasmin Siddiqi**, Director, Central and West Asia Department, Asian Development Bank; **Takashi Yamano**, Principal Economist, Asian Development Bank; **PK Joshi**, Former Head, International Food Policy Research Institute

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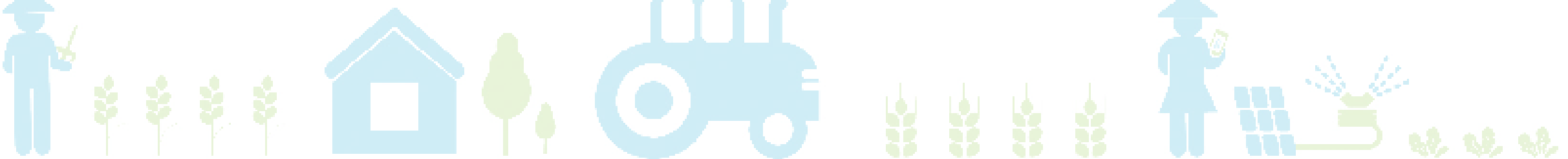


COVID-19 Impacts on Food Systems



During the **Special Session: COVID-19 Impacts on Food Systems** held on 24 March 2022, keynote speaker **Aziz Elbehri**, Senior Economist and Stream Leader, Agri-food, Rural Development and Socio-economic Policies, Food and Agriculture Organization Regional Office for Asia and the Pacific, outlined the impacts of COVID-19 on food systems worldwide. He added that governments responded to these impacts by turning into local food production, direct product procurement, digital technology applications, and domestic production alternatives like short value chains or urban agriculture to strengthen agri-food systems.

He also shared FAO's priorities to support COVID-19 responses which focused on building back better through agri-food system transformation, rural revitalization, digital innovation acceleration, and expansion of social protection and safety net programs.



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Alternative Proteins to Meet the Growing Demand



During the discussions in **Deep Dive 3: Alternative Proteins to Meet the Growing Demand** on 24 March 2022, speakers and panelists emphasized the shared responsibility in food system transformation. Private-public partnerships must be strengthened to develop efficient food systems that include alternative protein sources. Innovation in food waste reduction must also be implemented to transform into a circular economy.

(1st row L-R) **Varun Deshpande**, Good Food Institute; **William Chen**, Director, Food Science and Technology Programme, Nanyang Technological University; **Neil Ian Lumanlan**, Circular Bioeconomy Consultant

(2nd row L-R) **Kate Jarvis**, Climate Finance Specialist, Agribusiness Investment Team, Private Sector Operations Department, Asian Development Bank; **Isabelle Decitre**, Founder and CEO, ID Capital

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Alternative Proteins to Meet the Growing Demand



At the **Deep Dive 3: Alternative Proteins to Meet the Growing Demand** discussions on 24 March 2022, keynote speaker **William Chen**, Director, Food Science and Technology Programme, Nanyang Technological University cited the University's food tech innovations.

Dr. Chen discussed the role of alternative foods in the future of food systems. He also cited how alternative foods provide efficiency and sustainability that could help respond to the rising demand for food, climate change, and COVID-19. Dr. Chen cited that development of natural food preservatives and upcycling food waste into useful materials to promote a food circular economy were among the innovations the University developed.

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Financing Green, Resilient and Inclusive Agriculture



Discussions in **Technical Session 4: Financing Green, Resilient and Inclusive Agriculture** on 24 March 2022 emphasized that solutions are often complex and cover various areas, not just agriculture and natural resources. There is a need to offer customized solutions to mobilize finances for smallholder farmers and promote the implementation and adoption of innovations and technologies on the ground. There must be opportunities to convene and introduce investors to long-term financing that guarantee better return on investments.

(1st row L-R) **Stephen Hart**, Senior Loan Officer, European Investment Bank; **Qingfeng Zhang**, Chief, Rural Development and Food Security (Agriculture) Thematic Group, concurrently OIC, Environment Thematic Group, Sustainable Development and Climate Change Department, Asian Development Bank; **Arnaud Heckmann**, Principal Urban Development Specialist, Asian Development Bank

(2nd row L-R) **Piet van Asten**, Head Sustainable Production Systems – Coffee, Olam Food Ingredients; **Gretchen Daily**, Bing Professor of Environmental Science, Stanford University; **Mio Oka**, Director, Environment, Natural Resources & Agriculture Division, South Asia Department, Asian Development Bank

(3rd row L-R) **Joost Zuidberg**, Management Board, AGR13 Fund; **Kisa Mfalila**, Lead Environment & Climate Specialist-Asia & the Pacific Region, International Fund for Agricultural Development

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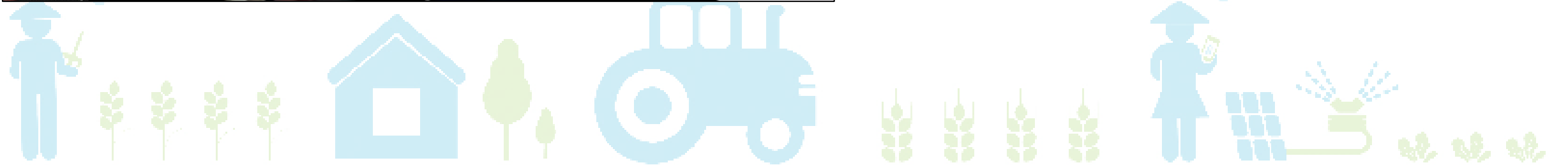


Financing Green, Resilient and Inclusive Agriculture



At the **Technical Session 4: Financing Green, Resilient and Inclusive Agriculture** held on 24 March 2022, keynote speaker **Gretchen Daily**, Bing Professor of Environmental Science, Stanford University cited that the Gross Ecosystem Product (GEP) accounting framework, a natural capital accounting framework that considers nature's contribution to people and communities, is now being adopted globally after the United Nations certified its use. There is growing support from governments around the world to use GEP alongside other mainstream metrics such as the Gross Domestic Product. There is also growing interest from private institutions to integrate the GEP accounting framework into their investment decisions.

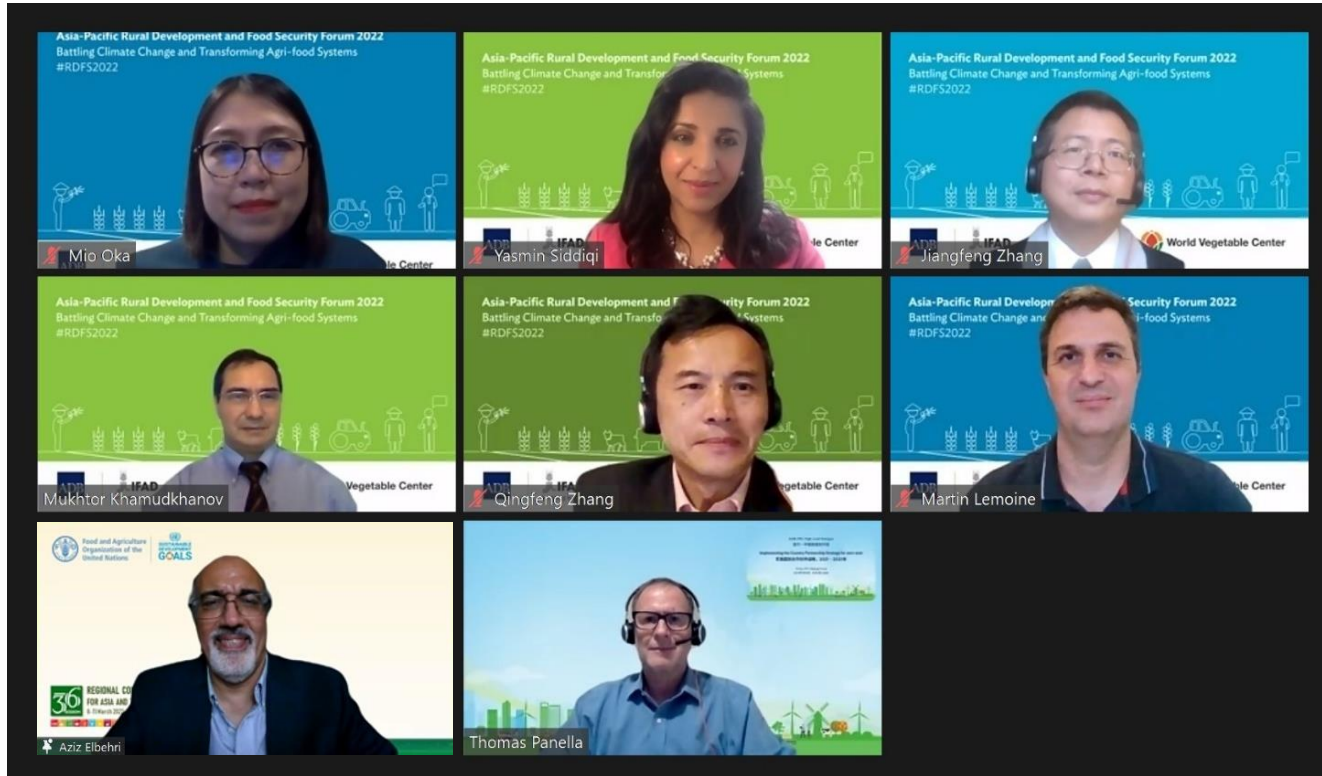
She further noted that this is a key moment for financial sector leadership in driving the momentum to mainstream GEP and target investments to scale and accelerate efforts to recover from the pandemic and secure climate while considering people's livelihoods and well-being.



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Actions and Recommendations



ADB's agriculture and natural resources operations directors shared their insights and key take-aways during the **Actions and Recommendations** on 24 March 2022. They highlighted the need to maintain open trade and enhance inclusive social protection systems; introduce medium- and long-term measures to cope with climate change impacts; increase investments on digitalization; promote public-private partnerships; improve and increase food production while promoting food safety; and enhance cross-regional knowledge sharing. They also emphasized the need for sustainable business models to better link smallholders with markets and increase profitability, promote energy efficiency to support circular economy, improve natural capital/biodiversity management, and support policy reforms.

(1st row L-R) **Mio Oka**, Director, South Asia Department, Asian Development Bank; **Yasmin Siddiqi**, Director, Central and West Asia Department, ADB; **Jiangfeng Zhang**, Director, Southeast Asia Department, ADB

(2nd row L-R) **Mukhtor Khamudkhanov**, Director, Pacific Department, ADB; **Qingfeng Zhang**, Chief, Rural Development and Food Security (Agriculture) Thematic Group, concurrently OIC, Environment Thematic Group, Sustainable Development and Climate Change Department, ADB; **Martin Lemoine**, Head, Agribusiness Investment Unit, Private Sector Operations Department, ADB

(3rd row L-R) **Aziz Elbehri**, Senior Economist and Stream Leader, Food and Agriculture Organization; **Thomas Panella**, Director, East Asia Department, ADB

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Actions and Recommendations



To conclude the three-day forum, **Sungsup Ra**, Chief Sector Officer, SDCC, ADB on 24 March 2022 emphasized ADB's commitment to continue working collaboratively and in coordination with partners to achieve impacts at scale in rural development and food security.

He thanked all the Forum speakers and participants who joined various sessions that discussed issues in agri-food system transformation.

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#RDFS2022

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Highlights: bit.ly/3HX3UCN



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