The COVID-19 is a global health emergency with more than 16 million coronavirus cases recorded worldwide and with more than 500,000 deaths (as of June 2020). The pandemic has been disproportionately affecting lives by posing fundamental threats to how people will provide for themselves and feed their families. For the countries already experiencing poverty and hunger, the pandemic is raising new food security challenges, and need to continue by adapting programs and partnerships to mitigate impacts on food systems and resilience.

Towards this, the Asian Development Bank (ADB), convened on 25 June 2020 a virtual dialogue on Greater Mekong Subregion (GMS) Working Group on Agriculture (WGA) under the theme of “Priorities for Post-Pandemic Food Security Response and Recovery”. The meeting was attended by about 80 participants, including representatives from 6 GMS countries, namely: Cambodia, People’s Republic of China, Myanmar, Lao People’s Democratic Republic, Viet Nam, and Thailand; international organizations, relevant stakeholders, international and national non-governmental organizations (NGOs), and research institutions. The objectives of the virtual dialogue were to (i) assess the progress of GMS countries’ response to COVID-19 including challenges and opportunities in food security and agriculture production; and (ii) discuss COVID-19 impact on development, issues related to livestock and cross-border trade, role played by digital agriculture, building resilient agriculture and livestock systems, and a way forward by the national government in prioritizing their national systems with strong policy response and resilient recovery measures.

In this important dialogue, GMS officials presented on their respective countries’ COVID-19 responses and perspectives, especially on agriculture sector, as well as short, medium and long-term measures. Next, the leading experts presented on digitization of agriculture and livestock vulnerabilities to COVID-19, followed by discussions on sectoral and subregional-level solutions on addressing COVID-19 post-pandemic scenarios. Lastly, Q&A session was held which allowed clarifications on all sessions, followed by concluding remarks.

Overall, the GMS-WGE dialogue has been highly successful and productive in terms of knowledge sharing and resulted to a formulation of practical measures for post-pandemic food security response and recovery. There is a need to take urgent actions to mitigate the negative effects in the GMS, where protecting agricultural production is key to ensuring food security and people’s livelihoods. Other countries’ experiences in Asia could offer some suggestions to cope with these challenges.
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I. INTRODUCTION

1. The novel coronavirus (COVID-19) continues to spread rapidly. So far, more than 16 million cases and over 500,000 deaths have been reported worldwide (as of June 2020). Since December 2019, the outbreak has spread to over 130 countries in less than six months. To contain the pandemic, entire cities and regions in Asia have been by and large shut down, putting a halt to much economic activity, quarantining people, and idling many activities. While epidemiologists are concerned about the rapid spread of the virus, economists are worried about the pandemic’s already visible and potential economic damage.

2. The world’s food systems are under threat due to COVID-19 pandemic, jeopardizing human health, disrupting the food systems, soaring unemployment rates, income losses and rising food costs across developed and developing countries alike. Smallholder farmers and their families, food workers in all sectors, and those living in commodity-dependent economies like most of the Greater Mekong Subregion (GMS) countries, are particularly vulnerable. The COVID-19 pandemic outbreak has both direct and indirect negative impacts on food security. In addition to blocked transportation routes, impeded access to markets and labor shortages, the COVID-19 crisis in GMS countries to an extent and Asia as a whole led to a significant drop in food production, with more than 40 percent of agricultural land going uncultivated. The market disruptions resulted in domestic rice and other crops price increases of more than 30 percent and 150 percent, respectively. Further, according to recent report, “The State of Food Security and Nutrition in the World (2020), the pandemic may add 132 million people to the existing total number of 720 million undernourished people (Dec 2019 estimates) in the world by end of 2020. Simultaneously, the World Bank’s estimates, forecasts that this pandemic’s economic impact could push about 100 million people into extreme poverty, globally.

3. There are also serious concerns that further spread of the pandemic could jeopardize food security of nations. Food distribution channels could face some disruption from transport interruptions and quarantine measures but impacts on staple commodities are less frequent and shorter in duration than for higher valued food items. It is also believed that the new coronavirus will have major direct impacts on the supply of staple foods and there is immediate need for panic regarding imminent risks to food security, and reason for complacency either for the GMS countries and Asia region.

4. GMS-Working Group on Agriculture (WGA) dialogue on “Post-Pandemic Food Security Response and Recovery” and meeting objectives, Dr. Ancha Srinivasan, facilitator, GMS-WGA dialogue introduced the event to the virtual participants and highlighted that COVID-19 has caused profound damage to human health, societies, economies, food supply chains and measures to control the outbreak, such as border restrictions and lockdowns slowing harvests, destroying livelihoods and hindering food transport in every corner of the world and in GMS countries.

5. The dialogue was moderated with Co-Chairs by Jiangfeng Zhang, Director, Environment, Natural Resources and Agriculture Division (SEER) ADB, and Thanda Kyi, Deputy Director General, Ministry of Agriculture, Livestock and Irrigation (MOALI) Myanmar. The objectives of this virtual meeting was overviewed with emphasis that, there is a greater need to fully understand the impact of COVID-19 on food security in GMS countries, threats they pose to farming and the communities and how to further minimize the risk of further devastating outbreaks. It is also very essential to understanding in depth the key drivers that has been disrupting the food systems in GMS countries due to COVID-19 outbreak and inform Governments to prioritize policy response options areas of actions needs to prevent further crises, increase resilience to shocks, and accelerate the rebuilding and sustainable transformation of our food systems.
6. In the wake of the COVID-19 pandemic, ADB hosted open dialogue on “Priorities for Post-Pandemic Food Security Response and Recovery in the Greater Mekong Subregion”, on 25 June 2020, to bring together GMS WGA national government coordinators and focal points, public and private organizations to discuss the priorities for post-pandemic response and recovery and strategies to mitigate the immediate impacts of the pandemic while strengthening the long-term resilience of food systems and livelihoods in GMS countries.

7. The objectives of this dialogue were set out to facilitate discussion with member countries and other wide range of partners in the region on the potential of deepening collaborations and strengthen partnership opportunities for national coordinated response to immediate humanitarian food crises (food security), as well as for mid- and long-term development actions. In particular, the objective of the GMS-WGA dialogues is to: i) offer GMS country governments and all stakeholders a critical opportunity for mobilizing multi-stakeholder action, both around the short-term socio-economic response and medium-term priorities to strengthen the food systems in the context of post-pandemic recovery efforts; and ii) forge an improved and coordinated approach to the complex task of transforming supply value chains ensuring innovative responses to impacts of the COVID-19 pandemic on the agriculture and food sectors in GMS.

8. Given the GMS location is in southeast Asia, the dialogue focused not only on Asia but also covered global trends on COVID-19 policies, strategies, and investments. The following meeting agenda were adopted that read as follows (see Annex 1 for meeting agenda).

(i) Opening remarks – Ramesh Subramaniam, Director General, Southeast Asia Department, ADB followed by 3-minute video on ADB’s response to COVID-19

(ii) Presentations by GMS WGA representatives on Post-COVID Food Security Response and Recovery Efforts in Agriculture and Related Sectors in each of the GMS Countries (Cambodia, PRC, Lao People’s Democratic Republic, Myanmar, Thailand, Viet Nam, and expectations of ADB’s support in priority themes (Co-chairs: Jiangfeng Zhang, Director, SEER, ADB and Thanda Kyi, Deputy Director General, MOALI, Myanmar)

(iii) Updates on (i) ADB TA 9916: GMS Sustainable Agriculture and Food Security Program and (ii) GMS Regional Investment Framework 2022 for Agriculture – Srinivasan Ancha, Principal Climate Change Specialist, ADB

(iv) Digital technologies for COVID-19-Responsive Green Agribusiness Supply Chain Management in the GMS– Presenter – Rajesh Nair, Resource Person, ADB; Discussant - Gerard Sylvester, Digital Agriculture Specialist, Food and Agriculture Organization of the United Nations (FAO); and Reflections by GMS WGA representatives and other participants

(v) Post-Pandemic Priorities for Livestock Health and Value Chains Improvement in the GMS; Presenter - Thomas Weaver, Resource Person, ADB Consultant; Discussant - Discussants: (i) Kachen Wongsathapornchai, Officer-in-Charge, Emergency Centre for Transboundary Animal Diseases (ECTAD), FAO; and (ii) Hu Suk Lee, Veterinary Epidemiologist, International Livestock Research Institute Hanoi Office; and Reflections by GMS WGA representatives and other participants

(vi) Concluding Remarks by WGA 2020 Co-Chairs
II. SESSION 1: OPENING REMARKS

9. In the opening session, the Director General (DG) of SERD, Mr. Ramesh Subramaniam has delivered the opening remarks. The DG welcome all the participants such as distinguished WGA delegates from all six GMS member countries, development agencies and civil society including the private sector and ADB colleagues for this virtual WGA dialogue. The key highlights from the DG’s statement that covered comprehensive overview and objectives of this meeting were as follows.

10. The COVID-19 pandemic is causing the global economies to shrink and disrupting food systems and supply chains. The current situation is an unprecedented threat to food security and livelihoods in the region and could lead to further stressed conditions of food insecurity, increase in the number of poor and hungry, along with the growing intensity and severity of climate-related and economic shocks. According to the World Bank estimates, the world economy is likely to face a recession that could push 40–60 million people to extreme poverty.

11. One of the noteworthy things about this subregion is that the health, economic and political impact of COVID-19 has been significant across Southeast Asia, but the virus has not spread as rapidly here as in other parts of the world. There is much to learn from the response to date of countries in the subregion as governments have acted swiftly and despite limited fiscal space to contain the pandemic and avoid its worst effects.

12. While the magnitude of the effects of COVID-19 on food security is still uncertain in GMS countries, it is clear that people in food crisis contexts are ill-equipped to cope with this additional shock in this subregion. It is also known that this pandemic has inflicted real suffering, with a disproportionate impact on the most vulnerable, and it has highlighted prevailing inequalities, concerns over governance, and the unsustainability of the current development pathway.

13. Digital technology is important for the agility of supply chains. COVID-19 has highlighted the role of digital technologies in responding to global pandemics and of the vulnerabilities posed by lack of digital access. Before the pandemic, countries such as Vietnam and Thailand had installed critical digital infrastructure, allowing effective use of digital technologies in combating cluster outbreaks and quickly sharing credible information. Public information on the Internet and social media platforms made important contributions to leaving no-one behind. Digital platforms enabled by digital connectivity helped maintain livelihoods and enabled delivery of high value-added professional services.

14. It was stressed that ADB will continue to focus on supporting its GMS member countries in mitigating the impact of the COVID-19 pandemic on food security and livestock systems and help them focus more on the recovery through identified areas of work and priorities. Since the COVID-19 started, ADB, has been actively working with their partners and engaged governments, the private sectors and civil society to coordinate and strengthen policy responses (that is stronger, resilient, inclusive and sustainable) for the longer-term resilience of food systems and livelihoods in the subregion.

III. SESSION 2: COUNTRY PERSPECTIVES ON POST-COVID FOOD SECURITY RESPONSE EFFORTS IN AGRICULTURE AND RELATED SECTORS BY GMS WGA COUNTRY REPRESENTATIVES

15. Presentations by GMS WGA representatives on post-COVID food security and policy responses and resilient recovery efforts in each of the GMS countries, and expectations of ADB’s support in priority themes.
A. Cambodia

16. The presentation was made by Dr. Prum Somany, Director of the Department of International Cooperation, Ministry of Agriculture, Forestry and Fisheries (MAFF), Government of Cambodia.

17. The COVID-19 pandemic has affected all key economic sectors either directly or indirectly in Cambodia. There were not many cases in the country, this is mainly due to Cambodia’s effective initial response strategy, involving testing and aggressive contact tracing, temporary suspension of foreign travellers, domestic travel restrictions, extensive screening at border entry points, quarantine and home isolation.

18. Despite Cambodia’s success on the COVID-19 containment front, the economic outlook is of great concern. The pandemic has severely impacted the major contributors to Cambodia’s Gross Domestic Product (GDP) growth—the construction, tourism, garment industries, wholesale and retail trade, exports, factory shutdowns/suspension, affecting the labour employment as whole. Cambodia has experienced a staggering decline in tourist numbers, with a 90 percent drop in air passenger volume and a 99.5 percent decline in monthly revenues. Further, the border closures, travel restrictions, school closures and business shutdowns had negative effects on national economic growth and national revenues. Moreover, internal and external factors have serious impact on agricultural supply chains, affecting input suppliers, producers, collectors, processors and consumers disrupting the food supply and demand, markets and businesses.

19. The government have introduced emergency measures with stimulus package to contain the outbreak and provided fiscal assistance to affected households, workers, and enterprises, ensuring macroeconomic and financial sector stability and accelerated trade and investment reforms as well as encouraging faster adoption of digital technologies. Meanwhile, the government has also taken the immediate measures to ensure food availability in the country by banning the export of rice and fish. Depending on how long the pandemic will last and that would grapple with the economic fallout, the ban on rice exportation was lifted on 20 May 2020.

20. Agriculture is vital for the Cambodian economy, however, small farmers will hit hard once the planting season starts. The government, through MAFF and in collaboration with FAO has conducted a sectoral assessment to provide post-COVID-19 policy responses and recovery efforts for its agriculture and food security have been categorised as immediate, medium and long term measures. The details of different types of policy measures that have been set are:

21. Immediate policy responses:
   (i) promoting social protection to support agri-livelihoods and food security;
   (ii) support smallholders for agri-inputs, basic assets and supply chains;
   (iii) monitor production activities to ensure adequate input supplies and challenges;
   (iv) actions to boost consumption of diverse range of nutritious locally produced foods;
   (v) improve sanitation and hygiene procedures for agri-products transport and marketing;
   (vi) capacity building for producers, traders and retail sellers on consumer education;
   (vii) enable farmers to access financial capital to rebuild livelihoods;
   (viii) enforce actions to protect natural resources; and
   (ix) forefront of gender and women needs in policies designs and guidelines.
22. **Medium-term policy responses:**
   (i) keep the value chains moving by focusing on rice, fish, livestock and vegetables;
   (ii) in-depth assessment of COVID-19 impacts on vulnerable populations/agri-sector;
   (iii) streamline national statistical systems and sharing of information; and
   (iv) more attention ensuring cross-border movement of goods.

23. **Long-term policy responses:**
   (i) establish contract farming mechanism connecting buyers and producer communities to ensure a sustainable market network;
   (ii) develop e-agriculture strategy based on detailed survey and encourage private sector investment
   (iii) finalise draft Food Safety Law and Plant Protection and Quarantine Law; and
   (iv) improve communications through ICT technologies for effective data collection, information sharing and extension.

24. And the other MAFF priorities for immediate actions and response are as follows:
   (i) government in collaboration with private sector and development partners promote short- and long-cycle aquaculture production through various means and support fish fingerlings, fish feed production and production techniques;
   (ii) promote short-and long-cycle animal production by providing guidance for production techniques, assisting smallholders to access input supplies and protection of livestock against disease;
   (iii) promote short-cycle vegetable production by providing guidance for production techniques and assisting smallholders to access input supplies;
   (iv) assist agricultural cooperatives in accessing subsidized loans for preparation of proposals, financial reporting and business plan to meet the Bank’s criteria; and
   (v) establish market network connecting buyers and producer communities ensuring sustainable market through contract farming.

B. **People’s Republic of China**

The presentation for PRC was made by **Dr. Xu Yubo**, Division Director, Department of International Cooperation, Ministry of Agriculture and Rural Affairs, Government of PRC.

25. The Chinese government took broad measures to contain the spread of COVID-19 in the country. There were also rising concerns over the impact of COVID-19 on the agricultural production, which may become a non-negligible threat to the long-term food supply and food security. To avoid the impact of pandemic on the national food security; the government launched various immediate food security interventions and initiatives. The Ministry of Agriculture and Rural Affairs (MARA) countermeasures to ensure domestic food security are:

26. **Ensure emergency food needs** in the form of:
   (i) facilitating supply of emergency raw materials;
   (ii) emergency processing and sales by facilitating 5338 emergency processing enterprises; 44601 emergency supply centres; 3170 emergency distribution centres; 3454 emergency storage and transportation enterprises; and
   (iii) monitoring of market fluctuations by establishing 1072 national food market information direct reporting places; and 9206 local food market information monitoring places.
### Exhibit 1: Key slides from PRC presentation

#### China’s Efforts to Ensure Domestic Food Security in COVID-19

**Xu Yubo**  
Ministry of Agriculture and Rural Affairs, PRC  
June 25, 2020

**Countermeasures**

- Ensure emergency food needs  
  a) Supply of emergency raw materials  
  b) Emergency processing and sales  
  5398 emergency processing enterprises, 44601 emergency supply centers, 3170 emergency distribution centers, 3454 emergency storage and transportation enterprises  
  c) Monitoring of market fluctuations  
  1072 national food market information direct reporting places and 9206 local food market information monitoring places

**Countermeasures**

- Enhance the application of digital technology  
  a) Digitization of epidemic data services  
  b) Digitization of matching production with sales

![Image](image_url)  
Fig: At a video promotion event between Hubei and Guangdong provinces held on April 1st, the two provinces signed a purchase and sale agreement for agricultural products such as tea and crawfish, totaling 1,700 tons and worth USD 21.43 million.

#### Countermeasures

- **Enhance the application of digital technology** by:  
  i) Digitization of epidemic data services; and  
  ii) Digitization of matching production with sales

#### Cooperation

- **Cooperation** is an important way to respond to the COVID-19 and promote agricultural development in the region.

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27. **Continually consolidate and improve production capacity** through:  
   (i) supporting policies;  
   (ii) resume grain production in different areas with regard to different epidemic risk levels; and  
   (iii) guarantee the stable supply of meat products.

28. **Enhance the application of digital technology** by:  
   (i) digitization of epidemic data services; and  
   (ii) digitization of matching production with sales

29. **Cooperation** is an important way to respond to the COVID-19 and promote agricultural development in the region.

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### C. Lao People’s Democratic Republic

30. The presentation was made by **Thatsaka Saphangthong**, Director General, Department of Policy and Legal Affairs, Ministry of Agriculture and Forestry, Government of Lao PDR.

31. Laos is one of the less advanced ASEAN members in agriculture development with 80 percent of the population living in rural areas, 70% of households engaged in agriculture and 90% of farmers cultivating rice that constitute the main staple, and about 30% of farmer growing other crops. The agriculture and forestry sectors are the main contributors to GDP and general economic development, and in particular to the Government’s targets for food production and poverty reduction. According to its overarching national agriculture development strategy (2025), “improved food and nutritional security by enhancing policy, planning and implementation mechanisms” is one of priorities for country’s agriculture sector.

32. Lao PDR has been fortunate in having very few cases of COVID-19 due to prompt actions by the government. Nevertheless, control measures have greatly impacted all sections of society due to loss of income and restricted access to goods. The lockdown that
went into effect has limited the movement of economic activity and impacted different sectors of the economy.

33. **Impact on agriculture:** As in other countries of the subregion, agriculture an agribusiness in Laos has been affected in a number of distinctive ways. The worst affected has been the farmers who have been producing seasonal products that are highly perishable, specifically fruits and vegetables. There were number of cases reported of farmers whose vegetables such as cabbages and livestock are getting rot in the fields due to lack of buyers. And furthermore, a large portion of rural households those who produce rice for their own consumption and sell the surplus, and if these farming families decide to keep more rice due to the uncertainty brought about by the COVID-19 crisis, there is a possibility that less will be available in the market for urban consumers. Other aspect that connects to this situation is that tens of thousands of migrant workers have returned to their villages from neighbouring countries, most notably Thailand, meaning that many rural households now have more mouths to feed.

34. According to the Lao national Government, the impact of the COVID-19 on agriculture has been summarised as: a) limited supply of some inputs; b) reduced demand for agricultural produce due to the stoppage in tourism arrivals and closing of businesses; c) reduction in income and purchasing power due to unemployment; and d) disruptions in the transportation and distribution mechanisms.

35. On agriculture inputs, while on average, significant reductions in agricultural activity or access to inputs were reported, and significant disparities were observed. On markets, the restrictions in movement by traders, middlemen and farmers had a visible impact on the sales of farmer produce and on the availability and prices of some food products. Regarding the livelihoods, unemployment spiked in many parts of the country, with daily laborers most impacted. Overall income for farmer households also declined as a result of both reduced volume of sales and lower prices. A decline in remittances also affected a subset of households.

36. **Lao Government aimed at addressing the impact of COVID-19 on agriculture sector** through number of measures to support affected businesses. The Lao government is working towards evaluating the full extent of the economic impact of COVID-19 on its agriculture sector. According to the Government, the proposed measures include:

   (i) **Immediate and short-term response and recovery measures:**
   - Taking urgent action to protect the most vulnerable;
   - Addressing farmers’ immediate COVID-19 related shortfalls; and
   - Avoiding disruption in food movement and trade.

   (ii) **Intermediate and long-term measures:**

Exhibit 2: Key slides from Lao PDR presentation

**Impacts of COVID-19 on agriculture**

- Globally, number of policy measures are implemented to avoid the spread of the disease. However, this might affect agriculture production and trade.
- COVID-19 pandemic builds on an existing crisis in agricultural production, especially of rice.
- Reduction in domestic demand that is mostly due to the stoppage in tourism arrivals and closing of businesses.
- Reduction in income and purchasing power due to unemployment.
- Disruptions in the transportation and distribution mechanisms.

**Response and recovery efforts in agriculture sector**

**Immediate and short-term response and recovery measures:**

- Taking urgent action to protect the most vulnerable
- Addressing farmers’ immediate COVID-19 related shortfalls
- Avoiding disruption in food movement and trade.

**Intermediate and long-term measures:**

- Strengthening farmer organisations and networks
- Creating genuine domestic, regional and global partnerships
- Proactive inclusion of climate change resilience
- Disaster mitigation resilience in value chain analysis and development.
37. Currently, farmers in Laos are not able to sell their produce and requesting the government to help them by purchasing their produce. The group appeals to the Laos government to provide them assistance with the production inputs for the next cropping season also to ensure the market so they can still sell their produce. To this government is also facilitating assistance to farmers including the supply of seeds, home gardening kits, animal healthcare items and technical support.

38. To the forthcoming implementation of TA 9916, the Lao government would like to attentively support and assist the ADB by creating a favorable condition. Likewise, the government has the following expectations from the implementation of this program. Which are as follows:

(i) **Agribusiness Supply Chain Management in the GMS: focus on Climate Friendly Agribusiness Value Chains Project (CFAVCP)**
- Readjustment of construction of facilities and upgrading of bio-fertilizer factories workplan
- Reconsidering target areas by focusing on some parts of Vientiane Municipality and Vientiane Province as an establishment of demonstration sites for CFAVCP

(ii) **Livestock Health and Value Chains Management in the GMS:**
- Accelerate the process and preparation

D. **Myanmar**

39. The presentation was made by Thanda Kyi, Deputy Director General, Department of Planning, Ministry of Agriculture, Livestock and Irrigation, Government of Myanmar.

40. Agriculture is the source of livelihood for nearly 70 percent of the population and accounts for nearly 25 percent of national GDP and merchandise exports. It is the main sector of employment for the poor with 85 percent of the rural population living in a household with one or more members engaged in agriculture.

41. Compared to other countries in the subregion, Myanmar’s COVID-19 outbreak has been limited and reports about 260 confirmed cases (and about 170 recovered and 6 died) despite its large population of 54 million. The Government imposed strict containment measures including travel restrictions, closure of land borders, and bans on mass public gatherings. And although the cases remain low, the social and economic effects are very significant, given the externally oriented economy, uneven social safety nets, and the fragile healthcare system.

42. **Impacts of the COVID-19 on the agriculture sector:** COVID-19 inflicted a much greater impact on export-oriented agriculture sub-sectors in Myanmar, such as livestock, fisheries and fruit production apart from its most important crops (such as rice, and beans and pulses). Agriculture firms have experienced shortages in cash-flow and reduced access to credit due to COVID-19. Government and private sector have also experienced significant drop in production this year and brief halt of agri-exports as a result of the pandemic, which was resumed later in month of May through government export policy. Due to outbreak, the government was also stockpiling rice reserves in case of any immediate food emergencies or spiralling prices, perhaps prompted by the pandemic and a wake-up call about the fragility of supply chains.
43. There were also temporary shutdown of wet markets and animal feed factories, movement restrictions, the disruption of logistics and transport systems, and tightened restrictions on cross-border flows which in turn has created disruptions in the country’s agriculture and food system. And supply chain disruptions have resulted in market losses and increased feed costs to poultry farmers, small enterprises, and meat producers.

![Exhibit 3: Key slides from Myanmar presentation](image)

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<tr>
<th>Intervention Areas of MOALI under CERP</th>
<th>CERP Area of Intervention</th>
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<tr>
<td>Department of Agriculture</td>
<td>Agricultural production technology dissemination and communication campaigns.</td>
</tr>
<tr>
<td>Provide subsidies for rice seed producer farmers; support smallholder farmers to get inputs ready</td>
<td></td>
</tr>
<tr>
<td>Irrigation and Water Utilisation Management Department</td>
<td>Communication campaigns through water user association and groups</td>
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<tr>
<td>Maintenance of flood protection embankments and saltwater prevention embankments</td>
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### 2.1.7 Support to Farmers, Small Agri Processors, Seed Farmers and Agribusinesses for Planting and Income Retention

<table>
<thead>
<tr>
<th>Department</th>
<th>CERP Area of Intervention</th>
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<tbody>
<tr>
<td>Department of Rural Development</td>
<td>Covid-19 prevention communication campaigns in rural areas:</td>
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<tr>
<td>Village Development Fund Project implementation</td>
<td></td>
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<tr>
<td>Department of Livestock Veterinary Breeding</td>
<td>Establishment of Digital Communication System for animal health and production.</td>
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<tr>
<td>Funding support for livestock inputs</td>
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<tr>
<td>Department of Fisheries</td>
<td>Support fish seeds for freshwater fish farming</td>
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<tr>
<td>Training for aquaculture workers</td>
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44. At the **micro level many farming households were feeling the larger strain with the impact of COVID-19**. Already longstanding problems of farmers, such as inefficient growing techniques (upcoming seasonal planting) and lack of access to affordable credit, were combining with COVID-19 factors – including reduced income from work and remittances and created much more hardship of living among them. Farmers were relying on local microfinance institutions for cash-flow, charged at maximum of 28pc/year, to buy inputs like fertiliser, seeds, and to pay casual workers. Further, poverty among agricultural households could be increased by two to four million people if incomes continue to decline for another three to six months due to the COVID-19 pandemic.

45. To mitigate the economic impacts of COVID-19 and facilitate the country’s economic recovery the **Government has launched COVID-19 Economic Relief Plan (CERP)**. Through the CERP, the Government has committed to helping protect the agricultural sector, food security and livelihoods and support to fully recover the country from the current crisis by increasing agricultural productivity and diversification and enhance market access for Myanmar farmers, with a strong focus on inclusion for smallholder farmers, women and other vulnerable groups.

46. **Measures to contain the spread of COVID-19 in Myanmar agriculture sector** as the country moves into the recovery stage were, supporting income retention for farmers by improving the quality and utilization of agricultural inputs, and generate labour-intensive cash-for work-activities to create jobs for poor households, in particular for migrants returning to country after losing jobs abroad due to the pandemic. The Government would
also help develop digital extension services to raise awareness about food safety risks, strengthen digital agriculture technologies, develop online transaction facilities for agricultural goods, and help link farmers with markets through increased product diversification and agricultural research and development systems.

E. Thailand

47. The presentation for Thailand was made by Mrs. Benjawan Siribhodi, Acting Expert on International Agricultural Economics Policy, Office of Agricultural Economics, Ministry of Agriculture and Cooperatives (MOAC), the Royal Thai Government.

48. **Thailand has been severely impacted by the ongoing COVID-19 outbreak.** Thailand reports 3,000 cases of COVID-19 infections, with 1,500 patients recovered and discharged and has around 40 deaths. The infections are found in 68 provinces, with the highest share in Bangkok.

49. The implications of this pandemic have impacted not only the key economic sectors but more severely on its various allied sectors. The sectors most heavily impacted are tourism, agriculture, retail & wholesale, restaurants & food shops, health and hospitality, manufacturing industry, exports & logistics and construction. The tourism sector is impacted the most, since all travel from abroad is suspended and domestic travellers are encouraged to stay at home. The impact of COVID-19 also resulted in 5–7 million people facing unemployment, a huge portion of the 38 million people in the workforce. This figure could go up to 10 million if the COVID-19 outbreak continues until Q3 & Q4.

50. Thailand is one of the world’s largest food exporter with a big proportion of global market share, and is placed 2nd in Asia after PRC. Its export value of food is worth US$33.1 billion per year. The country has been placing priorities on food security, food safety, innovation and productivity for agriculture and agro-food industry value chain.

51. **The impact of COVID-19 on the different sub-sectors of agriculture.** According to MOAC, Thailand’s agriculture and its value chains has severely affected by the COVID-19 outbreak. Agriculture is one of Thailand’s most important industries. **Productivity in agro-food chain** is not disrupted but the demand has dwindled due to a lack of tourists and a diminishing purchasing power due to unemployment, as well as a sharp decline in exports. The **Poultry industry** has been heavily hit by COVID-19, especially the domestic market which accounts for 62% of total production. Mainly because all the tourists have vanished, but also because of consumers making more economic choices with less meat. The price for chicken has decreased since month of April.
52. **Fisheries and aquaculture products** account for 85% of export in Thailand with major markets destinations. The sector is estimated to lose 1,000 million THB due to the crisis and delayed orders from many international buyers. The cancellation of international and domestic flights and exports of live and chilled fish and sea food products would also decrease income sources up to 1,000 million THB. The local fisheries market already has serious impact of losing income estimated at 530 million THB due to lack of domestic demand.

53. **The horticulture products (tropical fruits, etc)**, of which durian, longan, and mango account for 80% with an export worth of 88,000 million THB per year. Export of all fruit products (fresh, chilled, frozen, dried) by Thailand (with major exports up to 50% to PRC) is expected to drop to 45,000 million THB due to COVID-19 pandemic and transport disruptions.

54. **Floricalcute is one of the major productions in Thailand** with larger exports. The floriculture production in Thailand with annual floriculture export value of 4,000 million THB will be heavily hit with decline in demand due to COVID-19 outbreak leading to cancellation of most festive events and big gatherings.

55. **Thailand has announced the Emergency Decree** to Remedy and Restore the Economy and Society as Affected by the Coronavirus Disease Pandemic, B.E. 2563 (2020). It consists of 3 parts which are: Solving the problem of the COVID-19; Assisting, Remedy, and Compensation; and Restoration the Economy and Society According to the Restoration the Economy and Society aspect. The Office of the National Economic and Social Development Council or NESDC has created the National Restoration the Economy and Society Plan which composed of 4 tasks which are Enhancing Production Efficiency, Restoring Local Economies and Communities, Promotion and Increase households & private sector expenditure, and Infrastructure Development & Building Economic Stability. In this connection, the Ministry of Agriculture and Cooperatives has prepared project’s proposals for agricultural and social rehabilitation from the impact of the COVID-19.

56. **The immediate stimulus recovery measures taken by the Royal Thai Government** to contain the present and post-COVID-19 situation and to aid the agriculture sector and the affected farmers were:

   (i) Providing financial assistance farmer households for next couple of months.
   (ii) Extending the repayment period of farmers & cooperatives loans with an exemption of principal repayment and allowing cooperatives to apply for new loans to restore cooperative business.
   (iii) Temporarily reducing unemployment in rural area by providing employment with daily wages.
   (iv) Governmental agencies to buy more agricultural and food products from farmer groups (community rice centres) and cooperatives.
   (v) Promoting efficiency in the agro-food value chain (farm productivity) to ensure food security and safety.
   (vi) Improve logistic and distributive capacity via e-marketplaces and cooperatives nationwide.
   (vii) Collaboration with agricultural cooperatives nationwide
   (viii) Launch online community market to stimulate the buying of more locally produced agricultural and food products.

57. **The long-term plans to improve Thai agriculture sector** are:

   (i) Development of innovation-driven agriculture with enhancing investments
   (ii) Use of smart-farming solutions/methods to reduce future dependency on labor-intensive demand
(iii) Develop capabilities in agricultural economic information using big data system.
(iv) Accelerate consumption of internally grown agricultural products and focus on developing more quality agricultural products.
(v) Enhance competitiveness of the local farmers by fostering cooperation by applying more latest market principles and technologies.
(vi) Ensure the entire food supply chains, including logistics, operates efficiently and increases distribution channels via e-marketplaces.
(vii) Equip farmers with business know-how to sell their crops via online platforms and add more value to their products, encouraging them to cooperate more closely with industries specialising in agriculture.
(viii) Develop regional agriculture by building connections with related industries helping farmers, community enterprises and small and medium-sized enterprises (SMEs).

F. Viet Nam

58. The presentation for Viet Nam was made by Nguyen Do Anh Tuan, Director General, International Cooperation Department, Ministry of Agriculture and Rural Development (MARD), Government of Viet Nam.

59. Viet Nam has been one of Asia’s most successful nations in dealing with the COVID-19 pandemic. It is among the first countries to impose strict containment methods by mobilising available resources for quarantining and contact tracing, and prevent overcrowding its under-equipped health system.

60. Viet Nam is a trade-dependent country, vulnerable to supply and demand shocks. With the outbreak of the COVID-19 pandemic, the economy remains vulnerable and was stuck in “COVID-19 economic trap”. Vietnamese economy fully rely on its two traditional drivers of growth – foreign demand and private consumption. Given the uncertainties in the domestic and international contexts, exporters will continue to suffer from international mobility restrictions and falling global income.

61. The spread of COVID-19 pandemic caused serious impacts on Viet Nam key economic sectors with serious effects on export markets. Some of the impacts on Viet Nam agriculture sector were:

(i) In the initial months after the pandemic outbreak, the total export turnover of agriculture, forestry and fishery products decreased by 4%; the export price of most agricultural products reduced sharply, total export revenue of some main market dropped (e.g. PRC dropped 675 million; USD (-15.5%); and EU dropped by 19 million USD (-1.1%).
(ii) Coffee, rice, and vegetables were among the commodities with the strongest export growth, whereas rubber, tea and pepper saw a sharp fall.
(iii) The supply chains of many agricultural commodities have been disrupted, especially those that relied on imported inputs such as aquaculture and forestry product processing.
(iv) The logistic system has been interrupted, mainly due to movement restrictions and blockade at the borders, as well as the weakness of cold chains.
(v) The labor supply has been shortage in some period due to social isolation, but this impact has not been serious because of the promptly response of Government and enterprises.
(vi) Covid-19 has also brought opportunities such as pushed-up demand for rice with the highest price in the last 8 years.
62. **The Viet Nam Government solutions**: Vietnamese government has implemented several solutions to overcome the impacts of Covid-19 epidemic and succeeded initial achievements. They are:

(i) MARD, Ministry of Industry and Trade (MOIT) and the leaders of provinces who share border with PRC have carried out a series of meetings with the Chinese authorities to overcome difficulties, ensuring continuous flow of export.

(ii) In addition, the MARD and MOIT have worked with domestic retail systems to ensure the purchasing agricultural products of farmers, while ensuring the availability of necessary foods for consumers.

63. **Measures by the governments to cope with COVID-19**: Emergency tasks and measures to reduce difficulties for production and business, ensure social security to cope with the COVID-19 epidemic are:

(i) Provided a credit package to deal with the COVID-19 pandemic, including specific support policies for agricultural enterprises, co-operatives and farmers such as: restructuring debts, continuing to provide new loans with preferential interest rates for reinvestment to production and business that affected by the pandemic.

(ii) The Government promulgated tax payment extension for VAT. This policy also gives specific support to tax exemptions, reduce enterprise tax in cold storage and preservation services; and refund value added tax for domestic enterprises that effected by the pandemic, etc.

64. **Viet Nam Government priorities for ensuring food security and to overcome the impact of COVID-19 on the agricultural sector**. They are:

(i) Ensuring food access by reducing transportation costs, removing technical barriers ensuring food safety through recognition similarities in product quality management among countries;

(ii) Improving effectiveness of market information system;

(iii) Promoting application of informative and digital technology to agricultural trade and development of agriculture product exchange;

(iv) Improving the efficiency of agriculture logistics systems, avoiding trade disruptions, controlling food losses and waste, prioritizing the development of the supply centres that link production regions to major domestic markets or to border for export;

(v) Implementing credit support packages following regional and international financial mechanisms supporting re-production of farmers, cooperatives and small and micro enterprises; and

(vi) Enabling the investment environment and rural infrastructure (including logistic and technology infrastructure) to welcome foreign enterprises coming to Viet Nam after the Covid-19 epidemic.

65. **COVID-19 outbreak in Viet Nam has been brought under control and many domestic agro-firms is likely to increase their production**. They could take advantage of the current crisis situation by appropriately changing their production and trade approaches. According to the Government, **agriculture still has room for development** while other sectors have been hit hard by the pandemic. However, it could only be achieved if the sector could **make real transformative changes**.
IV. SESSION 3: UPDATES ON ADB TA 9916: GMS SUSTAINABLE AGRICULTURE AND FOOD SECURITY PROGRAM, AND GMS REGIONAL INVESTMENT FRAMEWORK 2022 FOR AGRICULTURE

66. The presentation was made by Dr. Ancha Srinivasan, Principal Climate Change Specialist and Project Officer for the ADB-CCESP TA 9916.

67. ADB is launching the new phase of the SAFESP (2020-2024) that will address strategic issues for fostering sub-regional cooperation in sustainable agriculture and food security through conducting feasibility studies and pilot activities, and providing policy, advisory, and knowledge support. It aims to create an enabling environment that will enhance economic, social and environmental benefits to GMS stakeholders from access to markets and safer food products. The TA is aligned with the impact of “GMS as a leading supplier of safe and climate-friendly agri-food products realized” and has the outcome of “investments and capacities for climate-friendly, safe and sustainable agri-food value chains increased”.

68. The program will build on the achievements of phase 1 (2006–2012) and phase 2 (2012–2019) of the GMS Core Agriculture Support Program, help create enabling conditions, and strengthen the capacity for leveraging knowledge and investments in three priority areas: (i) climate-smart, inclusive, and gender-responsive agri-food value chains; (ii) food safety and quality systems; and (iii) climate-adaptive agriculture in the context of the water–energy–food security nexus.

69. The TA will take a holistic approach and enhance ADB’s value addition by promoting high- level technology, novel knowledge products, and integrated solutions. It will (i) target government officials, farmers, and agribusinesses; and (ii) develop enabling policies to support private sector investments and select the best available technology for demonstration. By assessing how each GMS country responds to challenges, the TA will deliver three outputs (listed above), drawing on lessons and good practices from other countries and minimizing risks encountered in past and current efforts.

70. The GMS Working Group on Agriculture (WGA), at its 16th Annual Meeting held in Luang Prabang, Lao PDR in June 2019, identified six themes for ADB support. They were: (i) promoting green, inclusive, and gender-responsive agri-food value chains; (ii) facilitating climate-smart agribusiness financing; (iii) enhancing food safety and quality standards, certification, and traceability; (iv) improving cross-border animal health and value chains; (v) managing water and soil for enhanced food security in a changing climate; and (vi) adapting agriculture to climate change in the context of the water–energy–food security nexus. The TA will support the implementation of the GMS Safe and Environment Friendly Agro Based Value Chains Strategy and Siem Reap Action Plan.
71. ADB made presentation to the GMS-WGA representatives about the second progress report and brief update on the GMS Regional Investment Framework (RIF) 2022 and also reminded about the commencement of the preparatory process for the upcoming third round of progress report and update for RIF-2022.

72. Mention was also made about the ongoing ADB Regional Investment Project: “Climate-friendly Agribusiness Value Chains Sector Project” (approved in 2018), that is implemented in Cambodia, Myanmar, and Lao PDR. It was also mentioned about the pipeline project “GMS Cross-border Livestock Health and Value Chains Improvement Project”, due for approval in 2021/22 and planned to be implemented in target countries of Cambodia, Myanmar, and Lao PDR.

V. SESSION 4: DIGITAL TECHNOLOGIES FOR COVID-19 RESPONSIVE GREEN AGRIBUSINESS SUPPLY CHAIN MANAGEMENT IN THE GMS

73. The technical session facilitating on the theme of post-pandemic green and resilient recovery in the GMS countries was presented by Rajesh Nair, ADB Consultant, followed with elaborated views from discussant Gerard Sylvester, Digital Agriculture Specialist, Food and Agriculture Organization of the United Nations (FAO) and overall reflections on the two discussions from the GMS WGA representatives and other participants.

74. The world is rapidly evolving into digital landscape and nations are building their systems in digital development outlining deliberate and holistic commitment to strengthen open, inclusive, and secure digital ecosystems in each country. These digital ecosystems are transforming how people worldwide gain access to information, goods, services, and opportunities. And in today’s world, a country cannot achieve self-reliance without them.

75. Now more than ever, as the global development community works to deliver life-saving assistance and relay crucial information in the face of the pandemic of COVID-19, the role of digital technology is undeniable. And though COVID-19 pandemic has made us all these economies dependent on digital technologies, however, the poorest were left behind in this process. The present COVID-19 crisis has also demonstrated that those who remained connected could continue working up to some extent, while those confronted with the rural digital divide had difficulties to keep their activities at level.

76. When it comes to niche agri-tech solutions, farmers have more options today than at any time in the past. From marketplace apps that help them to buy supplies and sell their produce, to drones, IoTs, AI, remote-sensing sensors, food traceability linked to their phones that help them keep their farms in check, there is an abundance of choice. This range of mobile solutions is often said to be transforming the business of agriculture – particularly for the smallholders who make up most of the industry in countries, such as those in Southeast Asia. But the obstacle here is lack of basic digital literacy. While in Southeast Asia a growing number of farmers have smartphones, however, there is a very small percentage that uses them for farming information. However, in GMS countries, digital technologies are creating new opportunities to integrate smallholders in a digitally-driven agrifood system.

77. Countries around the GMS are in the midst of a historic digital transition. The rapid development and adoption of digital technology are transforming industries, governments, economies, agriculture, and societies in this subregion. Particularly, in the agriculture sector, digital technologies improve the lives of farmers and agricultural workers, wherein farmers use these technologies to access information, updates and other community related communications about securing their livelihoods. Increasing investments in ICT/digital
technologies will help small-scale farmers in particular yielding far-reaching benefits long after the pandemic has passed.

78. Furthermore, the pandemic is also reshaping societies globally, by accelerating the digital revolution that was already underway that began couple of years back. Now with pandemic and governments instituting lockdown conditions, the corporations have instituted mass teleworking (e.g. Zoom, Team works, etc), international gatherings taking place online with participations from home, students learn remotely, and digital payments further edging out cash.

79. Digital agriculture/farming will set to boom in the aftermath of the COVID-19 crisis, given its capacity to help the GMS farming sector improve its sustainability and recover from the outbreak’s impact. However, the most important concern raised is whether GMS farmers are adequately prepared for it?

80. It is important to note that digitalization of the agrifood sector is a prominent aspect in most of the GMS countries agriculture strategies, wherein all stakeholders in this value chain would harness and deliver technological and digital solutions. Which will add to support the digital transformation of farms and to help farmers better use data to improve their environmental performance. With fast and reliable internet connection, farmers will have better access to farm advisory services and to online information/courses (to video services to consult advisors, agronomists and retailers) guiding them through a transition to more sustainable and more lucrative practices.

81. Moving towards the digitisation of the agriculture, there is need to establish a common GMS agricultural data space, outlined and designed to help better process and analyse data to allow precise and tailored techniques at the farm level for the subregion, as well as the monitoring of the performance of the agriculture sector. There is also a need to establish an advanced central information centre that includes a comprehensive database on farmers, animal, poultry and fish production within the National Information Technology Programme. An epidemiological map of animal diseases that has been developed. Usage of remote sensing technique to monitor encroachment of lakes on agricultural land, and develop an early warning system to predict transboundary diseases.

82. The COVID-19 pandemic has shown more than ever the need for farmers to be connected and able to communicate from remote locations, emphasising that this is particularly important to encourage the next generation of farmers to take up the baton. And digitalization would allow for a greater level of insight on farms as more and more information is available, it will help better mitigate the risk in an inherently risky business, like agriculture, which drives productivity and higher yields. And digitalisation, focusing not on individual ICTs but the application of these technologies to entire agri-value chains, is a theme that cuts across all agriculture and its allied sectors.

83. Currently, the GMS countries, except China,¹ has no comprehensive e-agriculture strategies in place. The state of the e-agriculture ecosystem varies from country to country, and is fragmented within the countries as well in GMS. This calls for a comprehensive strategic approach that would prioritize actions in order to maximize the benefits for the stakeholders involved in agriculture, food production, livestock, forestry and fishery at national level. At sub-regional levels, it requires enhanced exchange and collaboration that allow learning from member countries’ (also from neighbouring countries) experiences, hence avoiding repetition of mistakes and enabling faster development eventually.

84. Another step in agriculture digitization transformation in GMS countries is the development of a **national digital agriculture strategy** and introduction of digital agriculture framework, situational analysis, and a **road map with the key priorities of the digital agriculture strategy**. At the national level, digital agriculture strategy has the potential to contribute to a more economically, environmentally, and socially sustainable agriculture and meet the agricultural goals of a country. Having a national digital agriculture strategy can help GMS countries increase food production, establish incentives, and facilitate the development of digital technologies for the agrifood sector. It can be used to promote new markets, strengthen social protection, decentralize trade, and serve as a driver for digital agricultural innovation at national level and sub-regional level.

85. Countries in the sub-region however do not have enough capacity to go alone with the development and implementation of e-agriculture strategies and its related activities. Subregional and regional exchange and capacity development can offer sustainable solutions in this area. Hence, whilst strengthening collaboration between the GMS countries on digital agriculture, there is a need for **setting a subregional/regional platform** to share best practices, highlighting gaps and identifying sustainable models and value-chains to support e-agriculture, and focus on e-agriculture strategies and regulations systems across countries.

A. **Discussion**

86. The technical session continued with brief presentation by Dr. Gerard Sylvester representing UN-FAO with key insights discussed on different perspectives and policy response for pandemic recovery that is ongoing globally and at Asia regional level.

87. Some of the necessary conditions for the GMS countries for current and post-COVID in the digital agriculture are:
(i) **Need for a national e-agriculture strategy** - a guideline on leveraging the advances in ICT to address some of the challenges faced in agriculture. However, most GMS countries are yet to adopt a strategic approach in making the best use of ICT developments for agriculture. E-agriculture strategies will help to rationalize resources (financial and human) and address, holistically, ICT opportunities and challenges for the agricultural sector in a more efficient manner. Such strategies will also help to generate new revenue streams and improve the livelihoods of the rural community as well as ensure that the goals of the national agriculture master plan are achieved.

(ii) **Investment in legal and regulatory framework enabling digital agriculture** at national and across countries. In many GMS countries, need of government policies and frameworks are one of the driving forces behind digitalisation. These create an enabling environment for competitive digital markets and e-services. There is also a trend towards governments themselves deploying e-services – ‘e-government’ – especially in health, education, environment, and employment.

(iii) **Data for decision-making** - incubate, accelerate and upscale new digital technology solutions to enable the production of timely and reliable data with regional and country specificities. And undertake statistical innovation by leveraging innovative data sources and collecting process (non-traditional, non-structured data and remote data collection tools) to monitor agriculture and food security to inform cross-spectrum of subnational, national, regional and global responses;

(iv) **Digital infrastructure** - digital services depend on infrastructure for delivery, which usually represents the physical assets required to operate technologies such as digital communication, computing or data storage. They are internet, fixed broadband, mobile telecommunications, communications satellite, network infrastructure, data centers, cloud computing, platforms, systems, user devices, IoTs, etc.

(v) **Digital literacy** that include basic literacy and numeracy as well as special technical knowledge and skills. People without such competencies can end up marginalized in increasingly digitally driven societies. The agricultural sector remains a major source of livelihoods in rural areas of GMS countries. Digital skills and e-literacy remain a significant constraint to the use of new technologies and are particularly lacking in rural areas, especially in GMS countries. The diversity of available digital technologies and a lack of standardization also present a barrier to adoption. The choice of which technology to use is complex and there is a lack of advisory services to support farmers in these decisions. Education and supporting services must be improved to support the adoption of digital technologies.

(vi) **Capacity building** - features determining new skills sets requirements and driving the digital economy requirements for re-skilling, those highlight different levels of skills required, from basic digital skills that are aimed at raising ICT awareness and enabling use of simple applications to advanced digital skills targeted at more complex tasks such as network management and data analytics, cloud computing, IoTs, quality of service, big data, Artificial Intelligence (AI) and related skills requirements.

(vii) **Incentives mechanism for digital technologies** - To facilitate the growth in digital industry, the national governments need to offer a range of tax and non-tax incentives for projects related to both the soft and hard infrastructure that align with national development objectives. Taxi-incentives include corporate income tax exemptions, exemptions of import duty on machinery, etc. Non-tax incentives that are provided in addition are permission to own land, to acquire property, etc.
VI. SESSION 5: POST-PANDEMIC PRIORITIES FOR LIVESTOCK HEALTH AND VALUE CHAINS IMPROVEMENT IN THE GMS

88. The presentation was made by Mr. Thomas Weaver, ADB Consultant followed with detailed views on the topic by discussants (i) Kachen Wongsathapornchai, Officer of FAO-ECTAD; and Hu Suk Lee, Veterinary Epidemiologist of International Livestock Research Institute (ILRI), and reflections shared by the respective GMS WGA representatives and other participants.

89. Livestock contributes 40 percent of the global value of agricultural input and supports the livelihoods and food security of almost 1.3 billion people. Beyond its direct role in generating food and income, livestock is a valuable asset, serving as a store of wealth, collateral for credit, and an essential safety net during times of crisis. At the same time, smallholder livestock owners are increasingly becoming vulnerable to food insecurity due to recurrent climatic shocks, conflicts, and economic crises.

90. The COVID-19 pandemic represents an unprecedented emergency and grave societal threat. It is affecting key sectors that contribute to global food security, nutrition, and livelihoods, including the livestock sector. This session describes the observed and potential impacts of COVID-19 on the livestock sector, based on evidence from the ongoing crisis. It highlights key impacts on animal production, processing, transport, sales, and consumption as well as on the poorest and most vulnerable. Finally, the presentation provides mitigation measures or policy options for consideration by national policy makers to mitigate the impact of COVID-19 on the sector.

91. Globally, major challenges for the livestock farmers during COVID-19 include decreasing prices, surplus supply, decreased demand, and slow trade flow due to movement controls, all of which are related. Due to COVID-19, tourism stopped and consumption decreased, the surplus increased and prices decreased, and trade slowed due to travel restrictions and decreased demand in export markets. The severity of the impact varies with the type of business. Livestock products are highly perishable and storage options are limited, meaning that producers cannot hold onto products to wait for prices to normalize. Some retailers closed their shops in wet markets entirely.

92. Animal protein consumption is expected to decline across the countries this year in Southeast Asia as a result of the quarantine measures and negative economic growth resulting from Covid-19. This sudden downturn in consumption activities has instantly hit the informal economy and is increasingly impacting the formal economy in this region.

93. The economic impacts of the drop in tourism and quarantine measures have further reduced purchasing power and have driven change in the types of products demanded. Moreover, COVID-19 has created congestion and exposed vulnerabilities in agri-food and livestock supply chains.

94. COVID-19 forces many to fall back on the safety nets on short-term, but there is a need for more long-term support of the continent’s livestock sector is laid bare. And amid increased reliance on animal agriculture to cope with shocks, together with rising demand for meat and milk from urban areas, the sustainable growth of livestock sector is an opportunity for GMS countries to turn insurance into investment, recovery into resilience.
Exhibit 1: Key presentation slides on post-priorities for livestock sector

**Introduction**
COVID-19 has affected global livestock as much as any sector. For example:
1. U.S. farmers were forced to destroy US$27 billion worth of feed due to COVID-19
2. Feed exports have decreased due to logistical issues, e.g. travel restrictions and trade restrictions
3. 20% in China alone; Vietnam and other MS countries also badly affected
4. Chinese bovine production expected to increase; growing domestic herd and robust demand, partly compensating for the pig shortfall

**Production**
1. Global meat expected to be down by 1%, in contrast to 7% growth in 2019
2. 5% drop in global pork production in 2020
3. Financial measures

**Markets**
MDAL reported: “potentially difficult for livestock farmers (especially smaller farmers) to continue farming activities due to potential unstable market demand” – FAO

Social distancing and movement restrictions, resulting in:
1. Closure of live animal markets
2. Closure of wet markets
3. Suspension of supermarkets and other retailers
4. Rise of e-commerce and alternatives

**Infrastructure & equipment**
1. Production systems → breeding, fattening, biosecurity
2. Disease monitoring and control zones, quarantine facilities
3. Markets → live animal and meat markets; hygiene, biosecurity
4. Redesign of slaughtering and processing methods
5. Laboratories → refurbishment, equipment, operating costs, biosecurity and bio-safety

**Policy support**
1. Value chain • Assessment of impact • Efficiency, competitiveness • Risk – financial, disease, other • Governance • Inventory management • Production flexibility/centralisation
2. Regulations • Disease surveillance • Market operation • Veterinary drug use • Anti-trust
3. Formalisation of trade • Risk analysis • Equivalence & trade negotiation

**Key messages**
1. Livestock supply has been badly affected by COVID-19/transport, production, prices, marketing, distribution, markets and demand
2. Strengthening livestock value chains & improving animal health systems is needed for food security and public health, including reducing the risk of future pandemics
3. Safety nets, rescue investment & required One Health approaches are needed to reduce the burden on domestic and the risk and impact of future financial, health and climate crises

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**Mitigating the impacts of COVID-19 on the livestock sector.** Actions needed to be taken in the form of policies and responses contextualized to fit into national frameworks, while ensuring compatibility with public health measures to suppress COVID-19 transmission. National policy makers need to consider different policy options to mitigate the impact of COVID-19 on the livestock sector. These options for considerations are:

(i) **Measures to protect animal production and markets:**
- Establish production safety nets, that include new or resupplied feed reserves and promote the local sourcing and production of animal feed and supplements.
- Establish emergency management procedures and services, including communications and resources to crisis relief activities.
- Allow food markets to remain open while facilitating physical distancing via., public-health-conscious rules and application of behavioral insights.
- Maintain open borders for imports and exports relevant to all nodes on the value chain and support transboundary livestock movement.

(ii) **Measures to maintain processing and retail operations:**
- Provide guidelines for COVID-19 control and prevention along the supply chains to protect value chain actors.
- Provide grants to increase packaging and freezing capacities for SMEs and factories to produce safe products with long shelf lives.
- Organize grouped slaughter points and support the installation of the cold chain to reduce unregulated slaughtering and improve meat inspection.

(iii) **Financial measures**
- Help SME businesses mitigate short-term COVID-19 impacts via dedicated financial facilities (e.g. temporary tax relief, emergency loan programmes, direct stimulus payments, tax exemptions, extensions for overdue loan repayments, grace periods, low interest rates and direct public investments and subsidies).
- Provide training or mentoring programmes to help SME enterprises assess and manage the financial impact of the crisis and go digital and find new markets.
- Provide subsidies to agri-food sectors that maintain activities during lockdown; implement price controls to reduce inflation on livestock commodities.
- Provide cash transfers to livestock farming and production stakeholders

A. Discussion

96. This presentation was followed with discussion by Kachen Wongsathapornchai, with key insights discussed on different perspectives and policy response for livestock pandemic recovery.

97. By now it is very clear and much aware of the sweeping negative impacts of the COVID-19 pandemic on many sectors of the economy. The livestock industry has not been spared. It has not been possible to accurately measure the magnitude of these impacts, whether positive or negative.

98. The ongoing crisis will likely cause significant changes in our food systems, which includes a greater response to new demands from consumers, who will be increasingly concerned with where their food comes from, its quality, sustainability and the well-being of animals. Once the crisis eases, more investments will be made to improve value chains, so they are better equipped to respond to new demands.

99. GMS’s livestock sector requires a systemic approach to sustainable agri-food value chain development, including growing a quality animal feed industry to support the growth of the sector. As countries respond to the immediate and longer-term consequences of the pandemic, governments need to prioritize investments to bolster the GMS countries livestock sector. And crosscutting aspects, such as agricultural research, platforms, and communication across levels are subject to analysis, and how virtuality and digitization will play a key role.

100. Governments, policy makers and the communities must also recognize and attempt to mitigate the negative impacts (current and potential) of the pandemic and related response efforts on key sectors that contribute to food security, nutrition, and livelihoods. National governments in GMS countries need to take sensible livestock policies, capacity building activities and surveillance systems to avoid futures pandemics.

101. Current observations reveal disruptions to livestock value chains will increase and lessons from past epidemics also indicate that these disruptions are likely to grow, along with their dire, socio-economic consequences. Hence national governments need to take actions to protect this sector and its activities, services, and products upon which the countries themselves and the region relies.

102. But as the world looks to “build back better”, GMS countries must raise the ambition for animal agriculture, not just to respond or recover but to lead and unlock its potential. And institutions like FAO are effectively working on this line and trying to build anticipated capacities for future planning of national governments; and building capacities for future pandemics based on the available information we have today.
B. Discussion

103. The presentation was followed with discussion by Hu Suk Lee of ILRI on perspectives of livestock.

104. The origin of current outbreak of COVID-19 pandemic with research evidence points to a journey from wild animals to humans and shows that most zoonotic diseases originate in wildlife.

105. There is a need for monitoring of livestock diseases to help prevent them from spreading across borders the way that Covid-19 has done, and need to manage by advance farm and facility practices, animal nutrition, veterinary diagnostics.

106. It is also crucial that the cross border trade flows for livestock products, as well as inputs and services continue unhindered with strict adherence to requisite hygiene, sanitary and phytosanitary measures, biosecurity protocols and other veterinary procedures to protect livestock from diseases, pests, or contaminants of products.

107. The national government authorities need to utilise, the existing regional intergovernmental groups, academics, and nongovernment organizations (NGO) groups by reaffirming the safety of livestock production with robust food safety system; improved policy and regulation; and banning of hunting of wildlife and illegal trading.

108. National governments need to build resilience of farmers, women, youth, communities, livestock businesses and trade agents, and all relevant stakeholders by shifting their short-term political responsibilities to long-term political commitments in the livestock sector and its associated activities.

VII. SESSION 7: CONCLUDING REMARKS

109. The Chair and Co-chair expressed thanks to the organisers, WGA Country representatives and all other participants for their input to the virtual dialogue. The closing session reflected on all the sessions and the key messages for member countries on post-pandemic food security priorities and policy response actions. It was highlighted the richness of the whole dialogue’s discussions, which involved representatives of GMS-WGA, partners, and colleagues from around the region.

110. It was stressed the importance of WGA as an excellent network and a knowledge hub for the subregion, dedicated to sharing information on good practices and lessons gained for enhancing the partnership among member countries.

111. Moving forward, WGA needs to consider the ongoing implementation of COVID-19 food security response and resilience building at national level. It was noted how the pandemic is affecting both the supply and demand of food and a limited amount of time to minimize the damage that would cause on people’s lives and livelihoods. The current pandemic also has highlighted that challenges are apparent around the subregion; it underscores the need to work together to address challenges; such issues as government coordination are real in member countries and must be addressed. GMS-WGA members’ cross-country and multidirectional knowledge sharing can help identify solutions. It is evident that GMS countries has many experiences and practical approaches to working together – even in a crisis (such as COVID-19) where time is of the essence.
112. The facilitator of the virtual dialogue (Dr. Ancha Srinivasan), on behalf of the ADB, thanked participants for their involvement and called the meeting to a close at 4:30 PM.
Annex 1: GMS WGA Virtual Meeting Agenda

**Greater Mekong Subregion (GMS) Working Group on Agriculture (WGA) Dialogue on**

*Priorities for Post-Pandemic Food Security Response and Recovery in the GMS*

**Thursday, 25 June 2020 / 1:30-4:30 p.m.**

**(Bangkok time, GMT+7)**

**WGA Co-Chairs**
- Jiangfeng Zhang, Director, Environment, Natural Resources and Agriculture Division, Southeast Asia Department, ADB
- Thanda Kyi, Deputy Director General, Ministry of Agriculture, Livestock and Irrigation, Myanmar

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<th>Time</th>
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| 1:30 pm - 1:40 pm | Opening remarks  
Ramseh Subramaniam, Director General, Southeast Asia Department, ADB, followed by 3-minute video on ADB’s response to COVID-19 |
| 1:40 pm - 2:10 pm | Presentations by GMS WGA representatives on Post-COVID Food Security Response and Recovery Efforts in Agriculture and Related Sectors in Each of the GMS Countries, and Expectations of ADB’s Support in Priority Themes  
- Cambodia (Prum Somany, Department of International Cooperation, Ministry of Agriculture, Forestry and Fisheries)  
- China, People’s Republic of (Xu Yubo, Division Director, Department of International Cooperation, Ministry of Agriculture and Rural Affairs)  
- Lao People’s Democratic Republic (Thatthana Saphangthong, Director General, Department of Policy and Legal Affairs, Ministry of Agriculture and Forestry)  
- Myanmar (Thanda Kyi, Deputy Director General, Department of Planning, Ministry of Agriculture, Livestock and Irrigation)  
- Thailand (Pisan Pongsapat, Deputy Permanent Secretary, Ministry of Agriculture and Cooperatives)  
- Viet Nam (Nguyen Do Anh Tuan, Director General, International Cooperation Department, Ministry of Agriculture and Rural Development) |
| 2:10 pm - 2:20 pm | Updates on (i) ADB TA 9916: GMS Sustainable Agriculture and Food Security Program and (ii) GMS Regional investment Framework 2022 for Agriculture  
Srinivasan Ancha, Principal Climate Change Specialist, ADB |
| 2:20 pm - 3:20 pm | Digital technologies for COVID-19-Responsive Green Agribusiness Supply Chain Management in the GMS  
Presenter: Rajesh Nair, Resource Person, ADB Consultant  
Discussant: Gerard Sylvester, Digital Agriculture Specialist, Food and Agriculture Organization of the United Nations (FAO)  
Reflections by GMS WGA representatives and other participants |
| 3:20 pm - 4:20 pm | Post-Pandemic Priorities for Livestock Health and Value Chains Improvement in the GMS  
Presenter: Thomas Weaver, Resource Person, ADB Consultant  
Discussants:  
(i) Kachen Wongkaphapomchai, Officer-in-Charge, Emergency Centre for Transboundray Animal Diseases (ECTAD), FAO; and  
(ii) Hu Suk Lee, Veterinary Epidemiologist, International Livestock Research Institute Hanoi Office  
Reflections by GMS WGA representatives and other participants |
| 4:20 pm - 4:30 pm | Concluding Remarks by WGA 2020 Co-Chairs |