



## Developing Inclusive and Sustainable Agricultural Value Chains in the Greater Mekong Subregion

Knowledge Event of the GMS Working Groups on  
Agriculture and Environment

24 June 2015  
Bangkok, Thailand

### Summary of Proceedings

#### Introduction

1. The Third Joint Knowledge Event co-organized by the Greater Mekong Subregion (GMS) Working Groups on Agriculture (WGA) and Environment (WGE) with this year's theme on "*Developing Inclusive and Sustainable Agricultural Value Chains in the Greater Mekong Subregion*" was held on 24 June 2015 in Bangkok, Thailand. It provided an opportunity to address some of the "remaining challenges" identified in the Joint Summit Declaration of the 5<sup>th</sup> GMS Summit in December 2014. These challenges include: (i) the need for inclusive development to counter widening gaps in prosperity within and between GMS countries; (ii) regional cooperation to resolve increasing demands for energy, land, water and other resources; and (iii) more effective and extensive engagement with the private sector to successfully deliver the GMS Economic Cooperation Program. This event also aligned with commitments made by GMS Environment Leaders in their Joint Statement at the 4<sup>th</sup> GMS Environment Ministers' Meeting in January 2015 to work across all sectors to ensure that the sound management of natural capital is addressed at all levels of development planning and investment decision making. The program is attached as [Appendix 1](#).

2. The knowledge event followed the 21<sup>st</sup> Annual Meeting of the WGE (WGE AM21) and preceded the 12<sup>th</sup> Annual Meeting of the WGA (WGA-12). It was attended by around 140 officials from the agriculture, environment, and other relevant ministries of Cambodia, the People's Republic of China (PRC), the Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam; GMS National Secretariats; development partners; ADB and GMS Environment Operations Center (EOC) staff. The list of participants is in [Appendix 2](#).

3. The objectives of the event are to: (i) raise awareness on the importance of promoting inclusive and sustainable development of the subregion, via the development and management of value or supply chains; (ii) share experiences and best practices on developing pro-poor value chains; (iii) highlight synergies and opportunities for increasing investments in pro-poor agricultural value chain development and identify financing mechanisms; (iv) identify possible areas of collaboration among major agriculture and environment stakeholders; and (v) facilitate partners along value chains to better organize themselves and support growth of small and medium enterprises (SMEs).

#### Opening Session

4. Ms. Doojduan Sasanavin, Inspector General, Ministry of Agriculture and Cooperatives (MOAC), Thailand, welcomed all participants to the event. She stated that this year is a major milestone year for the subregion since new growth, regional integration and interregional cooperation opportunities for the GMS member countries are likely to emerge in line with the

launching of the ASEAN Economic Community (AEC) by the end of the year. ADB has largely invested in the subregion through the GMS Economic Cooperation Program and helped propel growth in the six countries including Thailand. In recent years, the region's agriculture had also been shifting from traditional subsistence to modern commercial farming. She believes that the AEC Blueprint will drive up growth and prosperity not only in Thailand but through the GMS. However, she pointed out several urgent concerns that need to be addressed such as: the impacts of climate change, unsustainable management of the environment, rapid population growth, and the widening income disparity between rural and urban areas and between the rich and the poor. She noted that this Joint Knowledge Event is an excellent opportunity to discuss possible solutions in tackling these issues and stressed the importance of developing inclusive and sustainable value chains in order to help the large number of poor households whose livelihood depends on agriculture. She emphasized the importance of developing the capacity of communities to add value to their products and improve their direct access to markets, as well as supporting the "missing middle"—small-scale producers and farmers and ensuring that they benefit from emerging regional growth. In this respect, policies and initiatives need to be undertaken to support both SMEs and rural farmers so that they can have a greater share in the value chain.

5. Dr. Wijarn Simachaya, Deputy Permanent Secretary, Ministry of Natural Resources and Environment, Thailand, extended his warm welcome to the participants. He expressed his appreciation to the ADB, development partners, and donors for supporting the organization of the event. He underscored the strong linkage between the WGA and the WGE, and reiterated the importance of developing inclusive and sustainable agricultural value chains as a way to help small-scale farmers in disadvantaged communities and enhance environmental sustainability. He encouraged participants to strengthen cooperation mechanisms in order to achieve mutual goals.

6. In his opening remarks, Mr. Yasushi Negishi, Country Director of ADB's Thailand Resident Mission, thanked the Government of Thailand for hosting the WGE AM21 and WGA-12, and congratulated both GMS working groups for successfully organizing a joint knowledge event for the third consecutive year which continues to institutionalize cross-sector knowledge sharing. He pointed out that the agriculture, natural resources, and environment sectors are intricately linked in the GMS, and a key challenge facing the GMS in the coming decades is to meet the increasing demand for food, energy, and water, while at the same time ensuring that natural capital stocks remain intact and readily available for future generations. Thus, he encouraged both the agriculture and environment sectors to work together to find solutions that are innovative, sustainable, and inclusive. He reaffirmed that ADB is committed to support the GMS to achieve inclusive and sustainable growth through the improved management of natural resources and the environment.

## **Keynote Address**

7. Dr. Apichart Pongsrihadulchai, Vice Minister, MOAC, Thailand, delivered the keynote address. He pointed out the relevance of the theme of the event and quoted two reports of the Food and Agriculture Organization (FAO) of the United Nations to underscore the challenging issues of food insecurity in the world and the region, and the great losses and food wastage occurring throughout the supply chain. Aside from the importance of reducing losses and wastes in order to develop a sustainable agricultural supply chain, it is also imperative to increase agricultural production and productivity. However, given many problems and constraints that require new technology, especially in relation to addressing climate change, the tasks of increasing production and productivity are not that easy. He cited several technologies such as the "alternate wetting and drying" technique for rice production and the "sustainable rice platform," which he suggested could be promoted throughout the GMS to mitigate the

effects of climate change. Furthermore, he stressed that sustainability of the supply chain based on physical and environmental factors is not sufficient, and that economic factors such as expanding the market for products and profit to the producers must be taken into account to achieve real sustainable value chains. He reiterated that small farmers must have easy access to credit and to markets and get the fair share of the benefits obtained from selling their produce so as to make the value chain inclusive and sustainable. To achieve such a goal, he suggested using the “big area extension system” approach under the concept of “small farmers, large field” as well as using the public private partnership (PPP) model. He concluded by recommending i) the establishment of monitoring and evaluation systems and collecting baseline data and information related to natural resource degradation and impacts of climate change on agricultural production, ii) prioritizing research on topics related to climate change mitigation and adaptation, iii) delineating agro-economic zones for major agricultural commodities, iv) providing incentives to farmers who follow government recommendations, and v) developing innovative business models that enable all stakeholders especially small farmers in the value chain to get fair benefits. The full statement is in [Appendix 3](#).

## **Session1:The Shifting Regional Context (AEC, GMS, and Consolidation of Agricultural Value Chains)**

8. Dr. Larry Wong, Co-founder of Myanmar Praxis Pte. Ltd., moderator of session 1, opened by referring to the 2009 World Economic Development Report, 2012 World Economic Forum publication, and the 2015 World Development Report, which emphasized the reshaping of the economic geography, outlined a new vision for agriculture, and presented a rethinking of development theory and practice respectively as well as recent seemingly unrelated events impacting the GMS region, to act as a backdrop.

9. Mr. Suriyan Vichitlekarn, Regional Project Director, BRIA, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH presented the status, directions, and implications for the agriculture sector in the new context of the AEC which is moving towards realization by the end of 2015. He envisaged AEC to provide new opportunities for the sector with respect to seamless market access and simplified rules. He emphasized that for the sector to benefit from the AEC, it is important for stakeholders to understand ongoing integration measures as a basis for visualizing implications and the shift of national and regional contexts in agricultural value chains. The same holds true for the GMS where the integration is expected to be vibrant and dynamic not only among GMS countries in ASEAN but also in terms of their linkages with PRC. He pointed out that it is also important for the stakeholders to be informed of the ongoing development of the ASEAN vision and plan of action for the agriculture sector for 2016-2025 in order to continue building the AEC beyond 2015. Synergy of efforts in translating the ASEAN integration policy and measures into implementation, among others, through transforming the GMS transport corridors to functional economic corridors, is imperative for greater impacts in strengthening the agriculture sector and improving the quality of life in ASEAN. A copy of the presentation is in [Appendix 4](#).

10. Mr. Ralph Houtman, Marketing and Rural Finance Officer, Regional Office for Asia and the Pacific, FAO, shared experiences of two FAO executed projects funded by the Common Fund for Commodities, International Fund for Agricultural Development, and the OPEC Fund for International Development, that have worked with value chains in Cambodia, Lao PDR, and Myanmar since 2008. The emphasis of these projects has been on fresh agricultural produce (fruits and vegetables) for export. Mr. Houtman discussed pre-existing versus new value chains, logistics, small versus large farmers, the comparative advantages of different agro-ecological areas, the need for small on-farm investments and innovative but appropriate technology, and the various constraints and the potential for PPP. He also provided specific recommendations

for developing inclusive and sustainable agricultural value chains, which include promoting protected and organic agriculture, promoting short value chains such as those in participatory guarantee system, local market, and PPP, among others. Mr. Houtman also tackled the issue commonly faced by farmers who make substantial investments in greenhouses but were unable to increase their incomes since they cannot sell their produce in the market at a higher price. To address this problem, he believed that it would be important to empower the farmers by organizing them into groups and teaching them to grow out-of-season produce to meet the stable market demand of certain products throughout the year. In this way, they can sell their produce at higher prices. His presentation is attached as [Appendix 5](#).

11. Mr. Yuji Nino, Land Management Officer for Asia and the Pacific Region, FAO, focused on the environmental aspect of the value chain. He talked about the sustainable land use management in the GMS and introduced the background, rationale, and relevance of celebrating the International Year of Soils in 2015. He emphasized the unrecognized importance of soil conservation and undervaluation threats faced by soil management, and stressed that without healthy soil, life will not be sustainable. The presentation is provided in [Appendix 6](#).

### **Open Discussion**

12. The following key points were highlighted during the discussion following the presentations:

- In terms of AEC's role in strengthening cross border agricultural trade, Mr. Suriyan Vichitlekarn pointed out that AEC could bring about two main benefits to member countries: (i) preferential treatment in ASEAN trade, and (ii) harmonization of policies, standards and inspection and quarantine requirements. He emphasized that continuous efforts are needed to fill in current gaps of AEC and the AEC needs support from other regional initiatives and pillars to generate social and environmental benefits.
- On the issue of policy gaps on crop insurance raised by the International Rice Research Institute, Mr. Vichitlekarn commented that this is where PPP could offer support for value chain integration and development. He considered crop insurance as an important aspect of ensuring sustainable agriculture and recommended for it to be introduced. Mr. Ralph Houtman also pointed out that some Asian countries (for instance PRC) already have considerable experience in crop insurance— a key lesson is that government subsidies are crucial to make it work. He also suggested the possibility of taking micro insurance into consideration.
- With regard to the important issue of improving production, the Bangkok Office of Global Environmental Strategy commented that the solution should not be centered on improving production but also on improving the food distribution system.

13. The moderator congratulated the participants for their active participation in the open discussion and noted that it is crucial not to lose sight of the key issues and keep the focus on framing the problems and finding solutions while being mindful of changing dimensions and dynamics. He also noted that there is a tendency to focus at the 'macro' (national planning, policy and legislation) and 'micro' (livelihood, community development) levels while often neglecting the 'meso' (provincial or state) level, particularly in transitional economies. This is increasingly recognized as another "missing middle" in development in the region.

## **Session 2:Landscape Management for Climate Friendly Agriculture**

14. Dr. Michael Green, Technical Program Head, EOC, moderated this session.

15. Dr. Karika Kunta, Agricultural Research Scientist, MOAC, Thailand, presented farmland zoning practices and experience in Thailand. Criteria and procedures for assessing suitability of economic crop zoning were introduced that involve soil surveys and land use planning exercises. Thirteen main crops have been identified and assessed, and zones have been classified as suitable and non-suitable zones, for designing appropriate measures and interventions for target areas. At the institutional level, cluster product and provincial level committees were established to implement pilot projects. Data and results generated from the zoning exercises have also been applied to other schemes, such as agricultural insurance. Key challenges faced include low awareness and readiness of farmers, limited capacity on technology, and coordination with government agencies and private sectors. A copy of her presentation is in [Appendix 7](#).

16. Mr. Angus Liu, Director Municipal and Industrial Segment, Head of M&I APAC, Kemira (Asia) Co., Ltd., shared a water stewardship project promoting quality and safe rural water management in Guangxi Province, PRC. The project, involving stakeholders from national and local government, non-government organizations (NGOs), and local residents, kicked off in 2013. It consists of four main modules: i) module 1-baseline survey: approximately 930 households and local government and NGO representatives were interviewed in 2014, and Guangxi University as partner carried out the field surveys; ii) module 2–water monitoring: laboratory testing was provided by Guangxi Marine Environmental Monitoring Central Station; iii) module 3–pilot projects: sewage and wastewater treatment plants have been piloted in selected areas; and iv) module 4–awareness raising: self-monitoring training and awareness-building events were organized by Greenovation Hub in April 2015. The presentation is attached as [Appendix 8](#).

17. Ms. Angela Jöhl Cadena, Program Officer, International Union for Conservation of Nature, reported on the work under the USAID Mekong Adaptation and Resilience to Climate Change project covering 3 villages in Chiang Rai and one village in Sakon Nakhon Province to implement adaptation activities that will strengthen the resilience of their livelihoods and local ecosystem to the projected impacts of climate change. The project undertook a participatory and cyclical process involving vulnerability assessment, adaptation options analysis and prioritization, testing and implementation of suitable livelihood resilience strengthening techniques, and monitoring and revisiting responses for adjustment. Intervention measures included livestock raising, integrated agriculture, forest management, water filtration and management, and organic waste management. In this way, climate change adaptation is integrated with conservation and livelihood development goals. The project also promotes sustainability and scaling-up in practice by: i) developing community vision/plan; ii) involving various stakeholders, including village leaders, local administrations, forestry and livestock offices, and universities; iii) establishing community regulations and management committees; iv) trainings and on-farm demonstrations; and v) promoting local knowledge, policies, and integrated landscape management. Refer to [Appendix 9](#) for the presentation.

## **Open Discussion**

18. Participants discussed related issues on designing and investing in rural agricultural infrastructures to support staple and non-staple crop cultivation, and their accessibility and affordability. Participants and speakers have also exchanged views on the degree of interests from the communities in engaging in conservation activities which may not bring immediate economic benefits but their livelihoods heavily rely on the sustainability of these natural resources, such as water and forest management. Questions were raised on private sector engagement and their collaboration with NGOs on rural water management, and their responsibility and actions in response to water use efficiency and pollution; and government's

role in incentivizing and motivating such initiatives and investments in sustainable water basin management.

### **Session 3: Bridging Finance Gaps**

19. Ms. Michiko Katagami, Senior Natural Resources and Agriculture Specialist, ADB, moderated the session. Ms. Katagami introduced the topic by highlighting its importance as a game changer for public project development given the relative paucity of public sector investments linked to value chains and the limited understanding of viable business models as alternatives to traditional agriculture and rural development financing. In 2013, the top 7 Asian markets with high quality food were valued at over \$286 billion, and estimated to double in value by 2018. The private sector companies are responding to Asia's substantial food market by developing and aggregating small farmers to engage in business models producing certified and sustainable commodities and raw materials. Sustainability and inclusiveness has become a business concern, not just a public issue. Thus, ADB has diversified its portfolio, looking for partnerships to pilot interesting initiatives as commercial models that simultaneously generate profits and development impacts. Interest in entire value chains, markets and business partnerships are now replacing the normal, straightforward, production-side investments. Feedback from the floor suggested that there may be a role for ADB, together with governments and the private sector, to link the whole supply chain and bundle financing into a package.

20. Mr. Erinch Sahan, Senior Policy Advisor on Business and Markets Oxfam GB Asia, presented an approach to finance the "missing middle" by changing the market systems (e.g., national level policies, private sector norms, institutional leadership views) to become more effective and efficient to encourage private sector participation. Currently, financial institutions that are naturally risk averse are confronted with: high transaction costs, complex risk assessments from variable income streams, informal governance mechanisms, lack of financial credentials and collateral, and the general informality of enterprises. So the challenge is to increase their appetite for risk and help get such projects off the ground by de-risking the enterprises. Oxfam has been working to support agricultural enterprises because they are critical for creating economic opportunities for communities who depend on agriculture for their livelihoods and food security. Through this work, the 'missing middle' in finance has become evident, where many SMEs are unable to access financing. Oxfam launched the Enterprise Development Program in selected countries, including Bangladesh, Nepal, and Pakistan. Oxfam invests in early stage enterprise cooperatives that are in rural areas, providing direct linkages between producers and markets, and with impacts on gender balance/women empowerment. Investments take the form of i) business grants for value-addition to products (e.g., packaging), ii) loans for working capital (i.e., guarantees are given to a national bank lending to small enterprises), and iii) project grants to cover enterprise development support activities. Mr. Sahan concluded by identifying other positive trends, offering potential technical solutions, such as i) increase impact investing where commercial profitability occurs simultaneously with positive environmental and social impact (expected to grow from USD24 billion to over USD400 billion and possibly up to USD1 trillion annually by 2021); ii) credit guarantees and de-risking financial institutions are spreading that risk to other financial institutions, with new guarantors cropping up; and iii) technical support/mentoring services for day-to-day business operations, marketing, and assisting vulnerable groups. Finally, regional and global firms have a real opportunity in securing their supply to make small farmers successful and align their trading relationships with the banks to help change their risk portfolio. The full presentation is provided in [Appendix 10](#).

21. Mr. Kriengkrai Chaisiriwongsuk, Vice President of Marketing and Product Development, Thailand Credit Guarantee Corporation (TCG) presented a credit guarantee system for agriculture and rural enterprise development. TCG helps increase lending to SMEs by increasing the bank's return through one of the following schemes: i) individual guarantee, 100% coverage; ii) risk participation, 50% coverage; and iii) portfolio guarantee, 8.5% to 30% coverage, combining an individual guarantee and re-guarantee scheme, pro-rating TCG's claim payments and, thus, allowing faster turnaround in loan processing. A new scheme was recently launched targeting SMEs, allowing financial support ranging from BHT200,000 to BHT 2 million, and addressing the sector's unique assessment challenges. Another scheme promoting innovation and technology, and pushing further credit guarantee support to SMEs, is under consideration by the Ministry of Finance before seeking approval from the Thai Parliament. While TCG transacts only with the banks, farmers or retailers can use the credit guarantee mechanism to leverage their own resources to allow them to bargain for favorable selling prices. An example of guarantee mechanism for longan farmers was presented. TCG cited that longan farming is a seasonal agricultural business and during longan season, farmers are forced by middlemen to sell at low price due to oversupply. TCG discussed the guarantee mechanism for longan farmers which resulted to sufficient funds for both farmers and buyers. As a result of credit guarantee, SME buyers and sellers will have sufficient funds to carry on their businesses and farmers have adequate funds and they do not need to rush to sell their products since they have alternatives for preservation while waiting for better prices. Refer to [Appendix 11](#) for the full presentation.

22. Mr. Clive Murray, Regional Manager for South and Southeast Asia, Syngenta Foundation, introduced Syngenta Foundation for Sustainable Agriculture. Smallholder farmers globally need access to a wide selection of quality, affordable seeds of better-performing and locally adapted varieties. Syngenta Foundation's Seeds2B initiative was designed to enhance seed systems in emerging markets, particularly in sub-Saharan Africa that contribute to food security in the region by bringing better varieties to the market. The foundation performs as an incubator for ideas in market interventions and is looking to expand to Southeast Asia, with the aim of helping poor farmers increase yields and linking them to bigger market. He shared main interventions from the Foundation such as risk management and finance, farmer support services and information technology for promoting agricultural products. One example is crop insurance program called Echo Africa. Echo Africa covers approximately 300,000 farmers in Africa with a vision to expand to India, Myanmar, and other countries in Southeast Asia. Syngenta develops farmer hubs aiming to help generate businesses around irrigated farmers to access markets, inputs, credits, and contract services. Syngenta works closely with public organizations to get varieties of product domain and market linkage mainly for high value vegetables. Currently, the foundation is working with 23 seed companies in evaluating suitable crops as well as providing technical support. The Foundation observes to understand the market and product profile. In areas such as Myanmar, Cambodia, and Viet Nam where there is no functioning seed system, this provides an opportunity to implement a system to improve, for instance, rice production. His presentation is attached as [Appendix 12](#).

23. Ms. Ornsaran Manuamorn, Climate Change Coordinator, EOC, pointed out that climate change brings a lot of new risks and must be given attention to promote sustainability. Agricultural value chain is vulnerable to climate change which affects the socio-economic development in many countries. Business leaders are aware of the risk from climate change, which they consider as one of the top 3 priorities for sustainable business. Developing sustainable and inclusive value chains under a changing climate calls for long-term solutions which integrate climate risk management with access to finance. The presentation discussed examples of approaches that help improve climate resilience of smallholders and agricultural value chains in which they participate. Some examples of risk management for agricultural value chains provided are value chain climate risk assessment, disaster-contingent logistics

plan, agricultural technologies, stand-alone crop insurance, and loan-linked crop insurance. Ms. Manuamorn then introduced the major types of insurance systems: indemnity based system is based on loss adjustment which requires on-the-ground assessment. This provides a great advantage where the loss is paid closer to the real loss. However, the drawback is that the administration cost is very high. Secondly, index-based system offers lower administration costs, but it does not cover all the risks, just index-risk, and may not be accurate enough to cover all the risks at the individual level. Other than these two tools, there has been a surge to develop a mixed crop insurance scheme method which allows quick delivery of cash to the insured. This method also raises high administrative, research, and development costs. In the value chain context, value chain assessment must be carefully carried out to understand the risks before administering a suitable tool to tackle climate change risks. Whether insurance should be used as an adaptation tool depends on the degree of climate change and whether it is occurring in the means or the tails (demonstrating volatility). Insurance can be helpful in managing situations with extreme volatility, but it can also slow down adaptation when the central tendency is changing, especially when subsidies are provided using public money, distorting price signals on the true cost of crop production. Ultimately, when developing insurance schemes in the context of climate change, the risk must be first clearly understood and price subsidies should be used judiciously. Her presentation is in [Appendix 13](#).

## **Open Discussion**

24. Participants identified the importance of consolidating efforts in supporting farmers to adapt to climate change, discussed different ways in measuring and setting weather index insurance, and looking beyond focusing only on increasing domestic agricultural productivity, but also tapping into regional trade benefits in products such as rice. The moderator concluded the session by reminding the participants that there are different kinds of risk management that can be applied to agri-business financing. As to which tool is most effective to bridge this finance gap is still debatable and subject to lengthy discussions for many organizations, both from private and public sectors.

## **Session 4: The Way Forward**

25. Dr. Larry Wong moderated this session.

26. Q: From Cambodia's perspective, as a dynamic and active member of the GMS Economic Cooperation Program as well as Excellency's involvement in GMS and Cambodia's agriculture sector, what do you see as the key environmental considerations that need to be factored into the development of inclusive and sustainable agricultural value or supply chains in the GMS, relating to or beyond that of climate friendly agriculture (CFA) efforts undertaken so far in GMS in general and Cambodia in particular?

A: H.E. Mr. San Vanty, Undersecretary of State, Ministry of Agriculture and Forestry and Fisheries, Cambodia, stressed the need to consider environmental and climate change issues in agricultural value chains and cited government efforts to reduce usage of agricultural chemicals, promotion of contract farming and linking farmers with the private sector, and support to SMEs. The private sector is particularly important with respect to embracing environmental considerations and promoting demand for green products. Economic corridors were identified as the most appropriate geographic focus for agricultural value chains, offering transport links to markets.

27. Q: From PRC/Yunnan's as well as environment protection perspectives coupled with the on-going emphasis on CFA and food safety in GMS as well as in PRC, what are some of the key considerations that must be addressed and incorporated into the development of inclusive and sustainable agricultural value chains?

A: Mr. Zhou Bo, Director, International Cooperation Division, Yunnan Environmental Protection Department, PRC, highlighted environmental problems caused by intensive agricultural practices, including i) non-point source pollution caused by overuse of agricultural chemicals resulting in eutrophication of water bodies and harm to drinking water sources, ii) white solid waste resulting from overuse of plastics to cover field crops, iii) land degradation due to agricultural intensification enabled by high chemical use, and iv) loss of biodiversity and forests due to conversion to agriculture. Yunnan Province is also facing climate change which is exacerbating these problems related to agriculture intensification. A key government response has been to raise awareness and educate farmers on measures to reduce their contribution to environmental problems. The government recognizes the role that green finance has in providing loans to farmers and the private sector to adopt more environment-friendly practices. A suggestion was made for ADB to consider undertaking a strategic environmental assessment of the agriculture sector in order to better understand impacts and propose suitable responses.

The moderator commented that countries like Lao PDR and Myanmar can benefit from other country experiences relating to unsustainable agriculture intensification practices.

28. Q: Can you cite some experiences and lessons from projects funded by the Nordic Development Fund (NDF) supporting inclusive and sustainable agricultural value chain development elsewhere which may be relevant for the GMS region?

A: Ms. Emeli Möller, Country Program Manager, NDF, provided an overview of the Fund efforts to promote climate change mitigation and adaptation. She provided an example from Latin America where NDF is co-financing a program training micro-finance lenders to enable them to provide loans to SMEs that are producing green products. This program has resulted in diversification of micro-finance portfolios and expanded funding for SMEs. She also stressed the importance of conducting climate proofing of road infrastructure investments that in part will improve small-holder farmer access to markets.

29. Q: Building on your presentation and drawing from both your illustrious career in ASEAN and GMS coupled with the various hats you wear in BRIA, ASEAN Sustainable Agri-food Systems and GIZ Sector Network on Rural Development in Asia, Working Group on Agriculture, what are 3 key positives relating to the development of inclusive and sustainable agricultural value chains in GMS as well as 3 potential downsides or pitfalls you would like to share with the WGA and the WGE as well as other participants?

A: Mr. Suriyan Vichitlekarn, GIZ, commented on the importance of developing agriculture so that it becomes more resilient to climate change, and viewed that this cannot solely be a government responsibility. It is necessary for all stakeholders along agricultural value chains to be responsible for taking appropriate measures to ensure the sustainability of agricultural development. He further identified the need to achieve both economic profitability and sustainability, in part through strong partnerships between government and the private sector. He expressed the need for public private partnerships to exist at multiple levels, from the policy level where ideas are formed and incubated to filling gaps in the value chain to benefit smallholders. He also supported promotion of value chains along the economic corridors.

The moderator stressed the need to both develop and manage value chains if they are to be sustainable, and observed that the private sector seems to be better suited to managing and integrating supply chains and trading networks successfully by themselves or under some form of PPP.

30. Q: As the key driving force for this Joint Knowledge Event and from ADB's perspective, what are the key components of the Core Agriculture Support Program (CASP1 and CASP2), including those related to CFA and food safety, which can and should be used as building blocks toward more integrated efforts to develop inclusive and sustainable value chains in the GMS as well as what are some identified gaps which need to be addressed, moving forward?

A: Mr. Pavit Ramachandran, Senior Environment Specialist, ADB and Project Officer of both the CASP and the Core Environment Program (CEP) commented that the terms 'inclusive' and 'sustainable' may not necessarily be compatible and suggested that the meeting needed to hear about examples or working models of inclusive and sustainable value chains. He highlighted the challenge of achieving such inclusive and sustainable value chains in the context of reduced land availability and climate change and identified the need to adopt more sustainable practices in circumstances where agriculture is contributing to 30% of land use change and where agricultural intensification is resulting in soil degradation. He stressed that value chains should be viewed primarily from the perspective of the key beneficiary, the smallholder farmer, and be linked with poverty alleviation efforts. He suggested that ADB should be looking at a range of agricultural support activities along economic corridors that align with country activities and which are based on market analysis. This will necessitate close linkages between ADB and country support for agricultural sector development. He concluded by stressing the importance of considering ecosystem service values in the context of agricultural development and highlighted the ecological costs associated with for example high agricultural chemical usage.

### **Open Discussion**

31. The following key points were highlighted during the open discussion that followed:

- There is a need to manage landscapes in a holistic and balanced way recognizing that high value ecosystems are increasingly surrounded and are being adversely impacted by agriculture.
- Farmers need to produce healthy products demanded by markets in a manner that does not impact the environment, necessitating that governments and buyers send clear signals to encourage farmers to adopt good practices.
- The agriculture sector has great potential to respond to climate change through for example carbon sequestration in soil.
- Attention will be needed in the ASEAN and AEC context to promote good agricultural practices and discourage production of inexpensive food through unsustainable practices.
- Countries will need to look beyond national considerations such as rice sufficiency and embrace regionally integrated agricultural development.
- There should be recognition that typically each party in a value chain will be thinking about themselves (small farmers-good crop prices, the private sector-profits, consumers- safe and affordable food). This will need to change if value chains are to be sustainable.
- Governments need to have clear policies in place to promote inclusive and sustainable value chains.
- In the context of guiding agricultural development within economic corridors, corridors are already quite mature and offer good opportunities to support agriculture initiatives such as cross-border trade and special economic zones.

The session concluded with a consensus that there is a need to move from theory to actually applying good practice, in tandem with focused sharing and shoring efforts like this Joint Knowledge Event, in terms of inclusive and sustainable value chains and beyond.

## Closing Session

32. Mr. Pavit Ramachandran delivered brief closing remarks. He thanked all speakers and participants in engaging in the discussions. He also identified a few areas of which concrete actions are required, including i) positioning and synergizing the work undertaken by CASP and CEP in the context of sustainable and inclusive agricultural value chain; ii) identifying suitable financing model, such as the one being promoted by Oxfam, and scaling up these models to close the estimated \$450 billion financing gap linked to smallholder financing (the so-called 'missing middle') within agricultural value chain; iii) promoting integrated land and water management strategies to minimize agricultural production impacts on the environment, identifying alternative agricultural production methods through which this sector can become a solution to climate change; and iv) working with countries in restructuring rural development policies in the context of the AEC and the ASEAN economic integration.

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## Appendices

All appendices are hyperlinked, click to access.

[Appendix 1: Program of the Joint Knowledge Event](#)

[Appendix 2: List of Participants](#)

[Appendix 3:Keynote Address by the Vice Minister of MOAC](#)

[Appendix 4: Post 2015 ASEAN Economic Community: Status, Directions, and Implications for the Agriculture Sector](#)

[Appendix 5:Inclusive Value Chains for Sustainable Agriculture: Some Lessons from the Fields of Cambodia, Lao PDR, and Myanmar](#)

[Appendix 6: Sustainable Land Use Management in the GMS in Support of Productive Agriculture and Healthy Ecosystems](#)

[Appendix 7:Agro-ecological Zoning Approach to Climate Change Adaptation and Sustainable Agriculture Development—An Example from Thailand](#)

[Appendix 8:Water Stewardship—An Example from Guangxi, PRC](#)

[Appendix 9: Inclusive and Sustainable Agricultural Initiatives for Climate Change Adaptation](#)

[Appendix 10:Oxfam's Approach to Finance the "Missing Middle"](#)

[Appendix 11:Credit Guarantee System for Agriculture and Rural Enterprise Development](#)

[Appendix 12:Improving Smallholder Access to Inputs and Helping to Stimulate Profitable Seed Enterprises](#)

[Appendix 13: Climate Risks and Implications for Access to Finance for Smallholder Producers and Value Chains](#)