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CONVENING PRIVATE SECTOR INVESTMENT IN CLIMATE-SMART COMMODITY PRODUCTION IN SOUTHEAST ASIA

WORKSHOP REPORT

MARCH 29, 2017

BANGKOK, THAILAND

June 15, 2017

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Asia Low Emission Development Strategies Partnership
Food and Agriculture Organization of the United Nations

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MARCH 29, 2017 | BANGKOK, THAILAND

WORKSHOP REPORT

CEADIR

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Crown Agents USA Ltd with Abt Associates Inc., Washington, DC, with contributions from Control Union and Food and Agriculture Organization of the United Nations

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ACRONYMS AND ABBREVIATIONS

AMIA	Adaptation and Mitigation Initiative in Agriculture of the Philippine Department of Agriculture
ASEAN	Association of Southeast Asian Nations
BNP	Banque Nationale de Paris
CEADIR	Climate Economic Analysis for Development, Investment, and Resilience
GHG	Greenhouse gas
DANIDA	Danish International Development Agency
ESG	Environmental, social and governance
FAO	Food and Agriculture Organization of the United Nations
FSC	Forest Stewardship Council
FSC-FM	Forest Stewardship Council-Forest Management
HSBC	Hong Kong and Shanghai Banking Corporation
LEDS	Low Emission Development Strategies
MRV	Measurement, reporting, and verification
NDCs	Nationally Determined Contributions
SDGs	Sustainable Development Goals
SMEs	Small- and medium-sized enterprises
SRP	UNEP Sustainable Rice Platform
TFA 2020	Tropical Forest Alliance 2020
UNEP	United Nations Environment Programme
USAID Asia	United States Agency for International Development Regional Development Mission for Asia
USG	U.S. Government

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Lastly, we are grateful to all of the participants in the workshop for their important contributions, in-depth discussions, and insights on priority issues and needs. These contributions are invaluable in guiding future analysis and assistance to accelerate investment in climate-smart, low-emission agricultural and forestry commodity production in Southeast Asia.

EXECUTIVE SUMMARY

Southeast Asian countries have committed to reduce deforestation and forest degradation and greenhouse gas (GHG) emissions through the implementation of Nationally Determined Contributions (NDCs) and other strategies. Global business leaders have also made ambitious commitments to reduce GHG emissions and address climate risks. Leading corporations have pledged to move toward net zero deforestation in key commodity supply chains by 2020, including rice, palm oil, forestry products, and even aquaculture. In 2015, international agribusiness leaders committed to make 50 percent more food available while reducing agricultural emissions by 50 percent by 2030.[1] With increasing consumer demand for sustainably sourced commodities, companies and investors are seeking more sustainable business models.

On March 29, 2017, leading private sector and government representatives attended a regional workshop on "Convening Private Sector Investment in Climate-Smart Commodity Production in Southeast Asia" in Bangkok, Thailand, to align actions and accelerate investments into climate-smart value chains.

WORKSHOP OBJECTIVES

- Providing public and private sector participants with a forum to learn what drives decisions, facilitate better communication and information exchange among diverse actors, and identify actions that align the priorities of the private sector, governments, and donors to accelerate investment for climate-smart commodity production; [2]
- Encouraging private sector participants to invest in actions that reduce GHG emissions and can increase profitability while reducing business risks and adverse environmental and social impacts;
- Enabling governments and donors to identify priority needs and opportunities for directing investments and technical assistance to increase private sector investments and actions at scale for reducing GHG emissions in agriculture and forestry; and
- Creating a new network of private sector leaders as a foundation for future engagement by governments and donors, including USAID, FAO, Asia LEDS Partnership, and Tropical Forest Alliance 2020 (TFA 2020).

LINKING NDCS TO INVESTMENT NEEDS IN AGRICULTURAL AND FORESTRY VALUE CHAINS

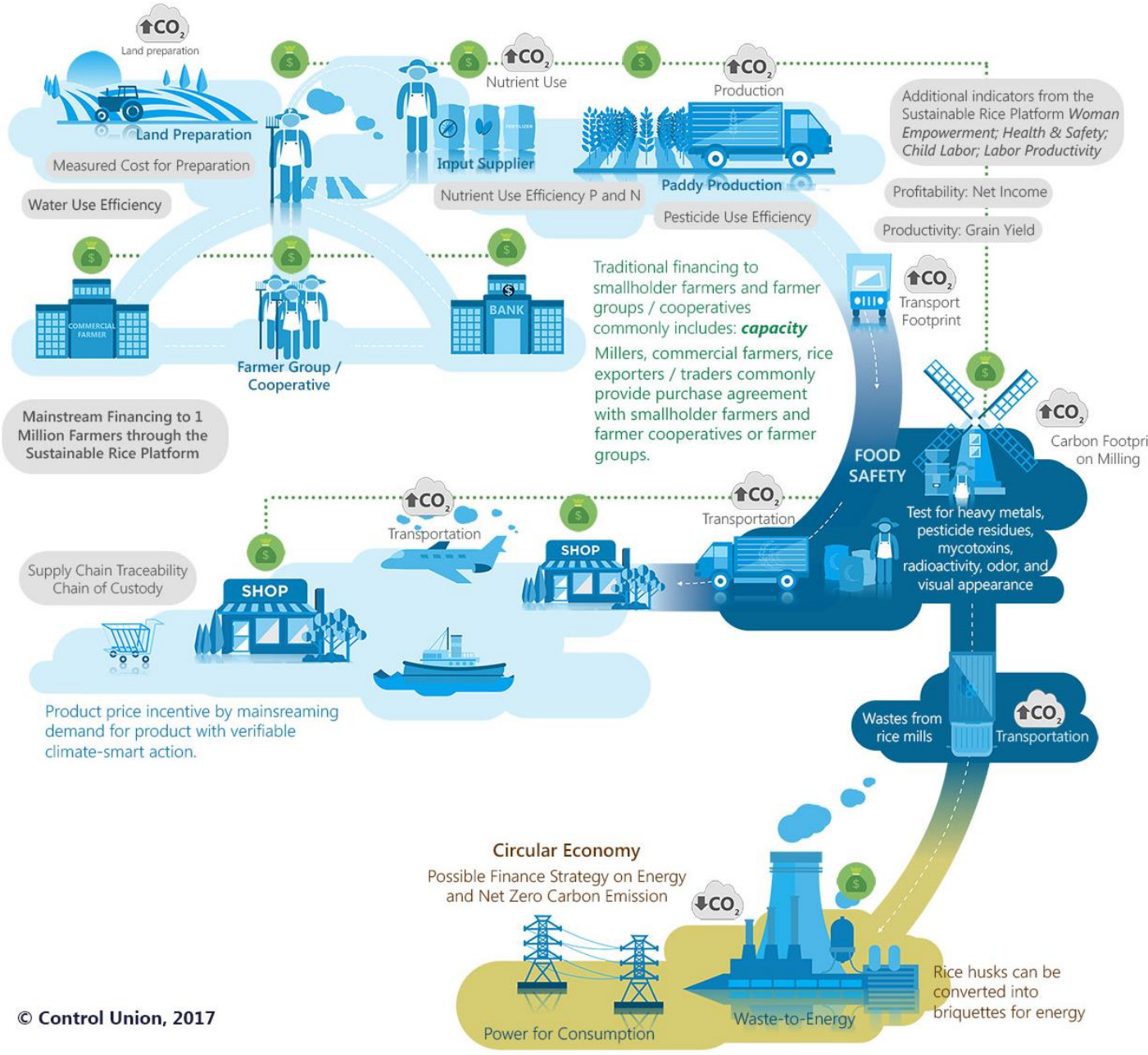
Workshop participants discussed the NDCs of Indonesia, Philippines, and Vietnam and the specific targets established for GHG emission reductions in agriculture, forestry, and land use, using analysis conducted by the USAID-funded Climate Economic Analysis for Development, Investment and Resilience (CEADIR) Activity. Participants also used commodity-specific value chain maps developed by CEADIR partner Control Union to discuss barriers and opportunities for delivering technical assistance and finance within each value chain, in order to enable adoption of climate-smart, low-emission practices

[1] For more information, see the Tropical Forest Alliance 2020, www.tfa2020.org; and World Business Council on Sustainable Development Low Carbon Technology Partnerships Initiative, www.wbcsd.org/Projects/Climate-Smart-Agriculture/News/Agri-business-Leaders-climate-smart-at-COP21-make-50-more-food-reduce-agricultural-emissions-50-2030.

[2] Climate-smart approaches can address the interrelated challenges of food security and climate change for higher productivity and incomes, improved resilience, and lower emissions; see the FAO Climate-Smart Agriculture Sourcebook, www.fao.org/docrep/018/i3325e/i3325e00.htm.

at scale (Figure 1 provides the value chain map for Southeast Asia's rice industry).[3] In this way, the workshop supported participants in developing recommendations, linked with country NDC targets, on priority actions that governments and donors can take to increase private sector investment in climate-smart agriculture and forestry in the region.

Figure 1. Rice Value Chain Map



[3] Annex C provides CEADIR analysis of NDCs in Indonesia, Philippines, and Vietnam, summarizing targets related to agriculture, forestry, and land use in each country. This analysis was used to guide discussion in Session 3 of the workshop. Annex D provides the commodity-specific value chain maps developed by CEADIR partner Control Union, providing a comprehensive illustration of key activities in each value chain. Participants used the maps during breakout sessions to discuss finance, investment, and technical assistance barriers within each value chain and to identify priority actions needed to enable adoption of climate-smart, low-emission practices at scale.

DISCUSSION HIGHLIGHTS

- **Sustainability certification**: Certification systems have the potential to serve as key entry points to promote, track, and verify GHG emission reductions in agriculture and forestry. There has been little adoption of certification systems by smallholder farmers and small- and medium-sized enterprises (SMEs), however, due to limited technical capacity, high costs, insufficient returns, and limited access to financing. Additionally, location-specific baseline data on GHG emissions for key agriculture and forest value chains is generally unavailable, but needed in order to identify good practices and to estimate and measure actual GHG emission reductions. Although certification systems often include sustainability criteria, most do not require monitoring and reporting of GHG emissions or emission reductions.
- **Achieving scale and impact**: Poverty in communities near forest production increases risks of illegal logging, encroachment, and uncontrolled fires, reducing the ability of companies to scale up sustainable and climate-smart practices. In addition, banks often view lending to smallholder farmers and SMEs as high risk and costly, making it difficult for them to access financing. Public-private sector dialogues are necessary to improve communications on policies and actions to encourage climate-smart investments and finance.
- **Data gaps**: More and better data on agriculture and forest management practices is necessary to ensure that production meets national and international certification standards and the needs of producers and distributors. Smart technologies are available to facilitate data collection by smallholder farmers and SMEs, but training and other support are needed to scale up use of these tools. Even when data are publicly available (e.g. satellite imagery), the accuracy may be uncertain. Third party data providers and a credible validating organization can improve data accuracy. In addition, distrust among stakeholders results in limited data sharing. Third-party monitoring bodies or networks could increase trust and encourage data sharing.
- **Entrepreneurial experiences**: Entrepreneurs take risks to obtain future returns from climate-smart technologies and practices. To motivate long-term and forward thinking, public sector interventions are needed to de-risk investments, while creating confidence within the private sector by highlighting climate-smart technologies that have a track record of technical and financial feasibility.

KEY CHALLENGES AND PRIORITY ACTIONS IDENTIFIED

Participants identified five key challenges limiting private sector investment in climate-smart commodity production in Southeast Asia.

- **Communication**: There are limited channels for national and subnational policy makers, businesses, farmers and other small-scale producers, and financial institutions to exchange views on the policy and regulatory environment needed for scaling sustainable investments and to share evidence on the technical and financial viability of climate-smart technologies and practices.
- **Policy**: Most commercial banks and companies have not incorporated sustainability into their core values and policies, in part due to lack of incentives and policy support. Climate-smart investments are generally viewed as a niche market.
- **Finance**: Small-scale farmers and other producers often have difficulty obtaining financing due to high perceived risks and transaction costs for banks to administer large numbers of small loans, especially in remote areas.
- **Capacity development**: SMEs and smallholder farmers have limited capacity to collect, verify, and report data. Most commercial banks have not incorporated environmental, social, and

governance (ESG) standards and sustainability principles into their core values and lending criteria. Governments have limited ability to aggregate, verify, and report emission reductions by large and small stakeholders.

- **Data**: Insufficient baseline and monitoring data limit the ability to track and verify GHG emission reductions from agricultural and forestry in developing countries. Although some data collection tools are available, there is limited capacity to collect, analyze, and report the data.

To address these challenges, participants identified priority actions to enable private sector investment in climate-smart commodity production at scale.

- **Communication**: Facilitate regular dialogues among national and subnational policy makers, businesses, and small-scale producers.
- **Policy**: Develop policy incentives to promote climate-smart investment, and enhance private sector engagement in developing, implementing, monitoring and evaluating policies, regulations, financing, and support.
- **Finance**: Improve access to finance for SMEs and small-scale producers to scale up climate-smart actions, and increase use of loan guarantees and other de-risking mechanisms for climate-smart agriculture and forestry.
- **Data**: Increase resources and capacity for measurement, reporting, and verification (MRV) of GHG emission reductions and documenting progress for national climate change commitments.

RECOMMENDED ROLES FOR GOVERNMENTS AND DONORS

Finally, participants recommended specific roles for governments, including central banks, and donors to increase private sector investment in climate-smart agriculture and forestry in Southeast Asia, as summarized in Table 1.

Table 1. Recommended Roles for Governments and Donors

Governments and Donors	
Finance	• Develop and implement investment de-risking measures (e.g., loan guarantees and weather-indexed insurance) • Improve access to financing on affordable terms for SMEs and small-scale producers
Donors	
Communication	• Facilitate regular dialogues of national and subnational policy makers, businesses, and farmers, as well as sharing of good practices and technologies with proven financial and technical feasibility • Improve ability of the private and public sectors to communicate and understand climate change actions
Capacity Development	• Support SMEs and smallholder farmers in data collection and MRV • Support bank adoption of ESG standards, sustainability principles, and green lending • Strengthen capacities to adopt improved practices that reduce GHG emissions and aggregate and verify GHG reductions
Data	• Facilitate information sharing platforms or networks for farmers and forest product producers and processors • Increase confidence in the technical and financial feasibility of climate-smart technologies by sharing experiences
Governments	
Data	• Verify, aggregate, and report on GHG emission reductions and targets
Policy	• Provide guidance and incentives for incorporating sustainability in company and bank policies and strategies • Provide incentives to promote climate-smart approaches and penalties and enforcement to deter unsustainable practices

STRONG PRIVATE SECTOR LEADERSHIP WITH DIVERSE PERSPECTIVES REPRESENTED

The workshop convened 87 representatives from multinational and domestic corporations, financial institutions and investment firms, SMEs, commercial commodity certification platforms, senior government officials, donors and U.S. Government (USG) implementing partners. The majority of participants were businesses and investors (50 percent), followed by donors (21 percent), implementing partners (13 percent), and government officials (10 percent), as shown in Figure 2. The private sector participants had operations focused in Vietnam (29 percent), Philippines (22 percent), Thailand (17 percent), Indonesia (12 percent), Cambodia (5 percent), Singapore (3 percent), and other countries in the region, as shown in Figure 3.[4]

[4] While domestic companies, SMEs, and small-scale businesses typically operate in only one country, multinational companies often have supply chains spanning many countries in the region. Thai Union, for example, has operations focused in Thailand, Philippines, and Vietnam.

Figure 2. Total Participants Classified by Groups

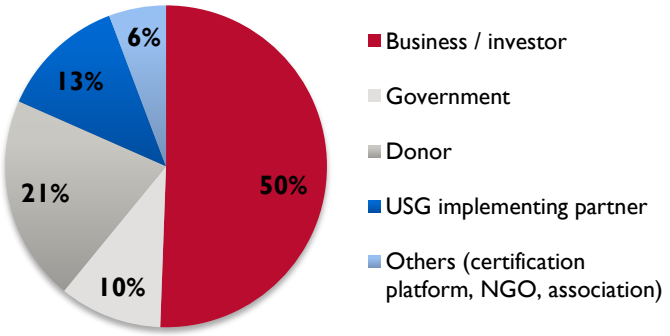
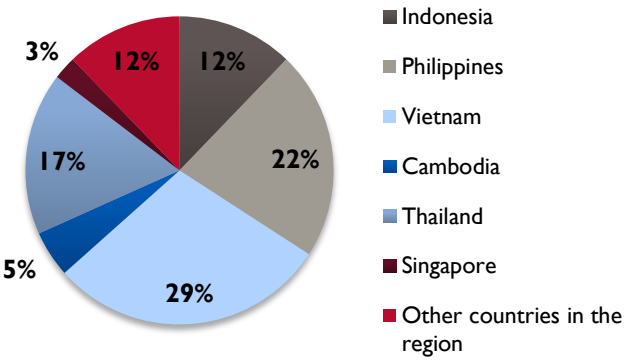
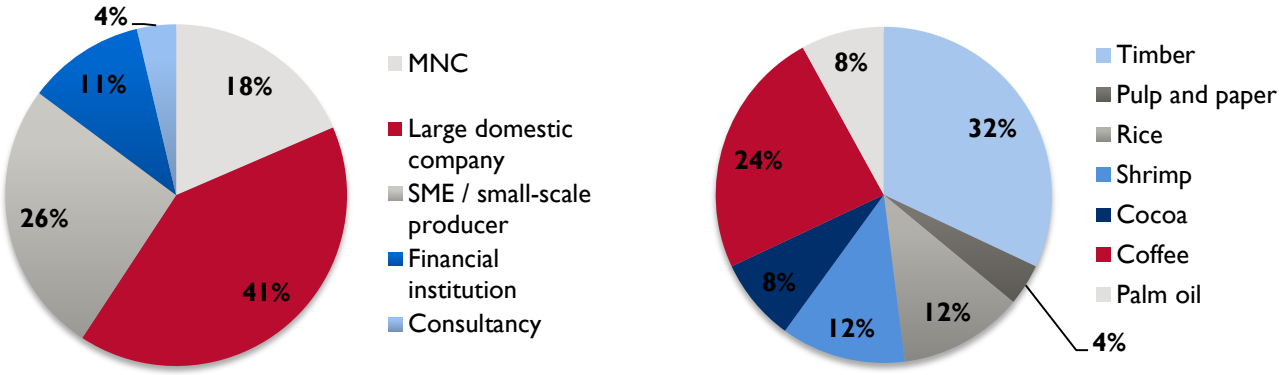


Figure 3. Total Private Sector Participants Classified by Geographical Focus



Private sector participants with a focus on Indonesia, Philippines, and Vietnam represented large domestic companies (41 percent), SMEs and small-scale producers (26 percent), multinational corporations (18 percent), and financial institutions (11 percent), as shown in Figure 4**Error! Reference source not found.**. The key commodities produced by these private sector participants include timber (32 percent of participants), coffee (24 percent), rice (12 percent), shrimp (12 percent), cocoa (8 percent), palm oil (8 percent), and pulp and paper (4 percent).

Figure 4. Private Sector Participants with Focus on Indonesia, Philippines, and Vietnam Classified by Types (left) and Commodities (right)



GOVERNMENTS IDENTIFY NEXT STEPS AND PRIORITIES FOR SUPPORT

Following the workshop, on March 30, 2017, government representatives from Indonesia, Philippines, and Vietnam joined FAO and USAID Asia in a half-day meeting to discuss next steps based on the recommendations and key issues raised by private sector participants in the workshop. During this session, government representatives identified two priority areas for additional donor support:

- Capacity strengthening on MRV at the national and subnational levels to enable governments to quantify and track emission reductions from all stakeholders.
- Facilitating regular dialogues and enhanced partnerships between governments and the private sector to strengthen collaborative actions for achieving NDC targets.

USAID, FAO, and the Asia LEDS Partnership will share these and all findings and recommendations from the workshop with governments, the private sector, donors and development partners in the region and identify opportunities additional support to increase public-private sector partnership and financing for climate-smart production.

1. OVERVIEW AND OBJECTIVES

Southeast Asian countries have committed to reduce deforestation and forest degradation and greenhouse gas (GHG) emissions through the implementation of Nationally Determined Contributions (NDCs) and other strategies. To reach their targets, governments will need to increase their efforts, develop partnerships that drive investment, and devise strategies to achieve change at a significant scale.

Global business leaders have also made ambitious commitments to reduce GHG emissions. Leading corporations have pledged to move toward net zero deforestation in key commodity supply chains by 2020, including rice, palm oil, forestry products, and even aquaculture. In 2015, international agribusiness leaders committed to make 50 percent more food available while reducing agricultural emissions by 50 percent by 2030.[5] With increasing consumer demand for sustainably sourced commodities, companies and investors are seeking more sustainable business models.

Agriculture and forestry commodity production is a significant source of GHG emissions in Southeast Asia, while also being exposed to significant climate risks. Collaboration between the public and private sectors presents strong opportunities to promote lower-emission approaches, which can enhance climate resilience and have positive economic, social, and environmental impacts for countries, businesses, and farming communities.

On March 29, 2017, 87 private and public sector leaders attended a regional workshop on "Convening Private Sector Investment in Climate-Smart Commodity Production in Southeast Asia," held in Bangkok, Thailand. Participants included multinational and domestic corporations, financial institutions and investment firms, small- and medium-sized enterprises (SMEs), commercial commodity certification platforms, and senior government officials working to accelerate investments in climate-smart value chains aligned with NDCs.

Drawing upon analysis of the NDCs of Indonesia, Philippines, and Vietnam, outreach to private sector leaders in the region, and evaluation of value chains for key agricultural and forestry commodities, the workshop addressed emerging strategies, tools, and technical services for promoting more transparent, resilient, and lower-emission commodity production.[6] It also identified investment opportunities associated with NDC targets, highlighted corporate commitments, investments, and long-term goals, and showcased country-specific policies to enable incubation and deployment of commercial investment.

Key objectives of the regional workshop included:

- Providing public and private sector participants with a forum to learn what drives decisions, facilitate better communication and information exchange among diverse actors, and identify actions that align the priorities of the private sector, governments, and donors to accelerate investment for climate smart-commodity production;
- Encouraging private sector participants to invest in actions that reduce GHG emissions and can increase their profitability and reduce business risks and adverse environmental and social

[5] For more information, see the Tropical Forest Alliance 2020, www.tfa2020.org; and World Business Council on Sustainable Development Low Carbon Technology Partnerships Initiative, www.wbcsd.org/Projects/Climate-Smart-Agriculture/News/Agri-business-Leaders-climate-smart-at-COP21-make-50-more-food-reduce-agricultural-emissions-50-2030.

[6] Annex C provides CEADIR analysis of NDCs in Indonesia, Philippines, and Vietnam, summarizing targets related to agriculture, forestry, and land use in each country. This analysis was used to guide discussion in Session 3 of the workshop. Annex D provides the commodity-specific value chain maps developed by CEADIR partner Control Union, providing a comprehensive illustration of key activities in each value chain. Participants used the maps during breakout sessions to discuss finance, investment, and technical assistance barriers within each value chain and to identify priority actions needed to enable adoption of climate-smart, low-emission practices at scale.

impacts;

- Enabling governments and donors to identify priority needs and opportunities for directing investments and technical assistance to increase private sector investments and actions at scale for reducing GHG emissions in agriculture and forestry; and
- Creating a new network of private sector entities as a foundation for future engagement by governments and donors including the United States Agency for International Development (USAID), Food and Agriculture Organization of the United Nations (FAO), Asia Low Emission Development Strategies (LEDS) Partnership, and Tropical Forest Alliance 2020 (TFA 2020).

The majority of participants (47 percent) were private sector leaders, primarily identified by CEADIR partner Control Union.[7] The companies included many of the largest producers of rice, pulp and paper, shrimp and other aquaculture products, palm oil, cocoa, and coffee in the region, in addition to leading SMEs, financial institutions, and investment firms.

The workshop was organized by the USAID-funded CEADIR Activity. It was hosted by USAID Asia, FAO, and the Asia LEDS Partnership. This workshop report will be available on the USAID Development Experience Clearinghouse at https://dec.usaid.gov/dec/home/Default.aspx.

[7] Annex B provides a list of workshop participants.

2. PROCEEDINGS

2.1 OPENING REMARKS

Alfred Nakatsuma (Regional Environment Office Director of USAID Asia), welcomed participants to explore how we can advance the ambitious climate change targets under the 2015 Paris Agreement while meeting the needs of a growing population and promoting sustainable economic development in agriculture and forestry.

"It is the right thing to do. Now is the right time, and Asia is the right place to do this."

Alfred Nakatsuma, USAID Asia Regional Environment Office Director

Research and studies commissioned by USAID Asia in recent years, including an Assessment of Business Models for Sustainable Landscapes in Asia conducted by Dalberg Global Development Advisors in 2016, highlighted the role of the private sector in driving sustainable landscape investment in Asia, due to growing consumer demand for sustainably sourced products and increasing corporate commitment to responsible production.[8] An upcoming USAID-funded Green Invest Asia project will (1) develop a pipeline of investable sustainable landscape projects; (2) increase sustainable landscape investments by banks, financial institutions, funds, and low-emission land use management businesses; and (3) improve the capacity for regional investments in sustainable landscapes. Mr. Nakatsuma emphasized the timeliness of convening private and public sector leaders to chart a course for scaling up innovative approaches and green investment to reduce GHG emissions in the sector. He noted, "It is the right thing to do. Now is the right time, and Asia is the right place to do this." He encouraged participants to engage fully in discussions, identify actions to strengthen private and public sector collaboration, and share solutions.

Following the opening remarks delivered by Mr. Nakatsuma, Kundhavi Kadiresan, (Assistant Director-General and Regional Representative of FAO) acknowledged challenges and actions, and put forward a vision for climate-smart commodity production in Asia. She noted that agriculture and forestry accounts for at least one-fifth of global GHG emissions, primarily from the conversion of forests to farmland and also livestock and crop production. In Southeast Asia, the largest sources of emissions from agriculture and land use come from forest conversion, rice paddy management, livestock, and synthetic fertilizers. Asian countries face increasing challenges in satisfying rising demands for food and forest products under a more variable climate and increasing pressure to reduce GHG emissions and meet NDC targets.

[8] See the USAID Asia Assessment of Business Models for Sustainable Landscapes in Asia, which identified high-value business models and profitable case studies that have potential to catalyze private sector investments in Cambodia, Indonesia, Philippines and Vietnam, with broader scalability across the Asia region, http://pdf.usaid.gov/pdf_docs/PA00MK9D.pdf. See also an October 27, 2016, CEADIR Series webinar discussing results.

"Investment opportunities for the private sector in agriculture and forestry to achieve the Paris Agreement and Sustainable Development Goals could exceed $2.3 trillion annually by 2030."[8]

Kundhavi Kadiresan, FAO Assistant Director-General and Regional Representative

Ms. Kadiresan emphasized that the Paris Agreement provides opportunities to address these challenges. Asian countries prepared their NDCs to provide the foundation for transformative, resilient, low-emission development. Many NDCs include actions that address both the drivers and impacts of climate change in agriculture and forestry.

Commercial banks such as Crédit Agricole Corporate and Investment Banking, Banque Nationale de Paris (BNP) Paribas, and Hong Kong and Shanghai Banking Corporation (HSBC) have pledged to scale up their investments in renewable and clean energy, green bonds, low-emission transport, and agriculture. Multilateral development banks have also committed to increase climate-smart finance in developing countries to more than $30 billion per year by 2020. Ms. Kadiresan noted that according to the Business and Sustainable Development Commission, global private investment opportunities in agriculture and forestry to achieve the Paris Agreement and Sustainable Development Goals (SDGs) could exceed $2.3 trillion annually by 2030.

Climate-smart agriculture and forestry will help the region and world achieve a better food system – with higher production, greater resilience, and lower GHG emissions. Creating innovative partnerships to realize the potential of climate-smart production is essential. For example, the World Bank and BNP Paribas collaborated on a 10-year Sustainable Development Bond that supports SDGs, as well as the Solactive SDGs World Index, which enables investors to gain exposure to companies identified as making a significant contribution to the advancement of SDGs.[9]

2.2 ALIGNING AGRIBUSINESS AND CLIMATE ACTION: VISION, INVESTMENTS AND CHALLENGES FROM PRIVATE SECTOR COMMITMENTS

Rachel Zedeck (Director for Sustainable Programs of Control Union) moderated the opening panel of Asian corporation representatives. The panel included Petra Meekers (Director of Corporate Social Responsibility and Sustainable Development of Musim Mas Holdings); Darian McBain (Global Director of Sustainable Development of Thai Union); and Khac Hai Nguyen (Chief Executive Officer of The PAN Group). The panelists discussed their companies' strategies, drivers, and challenges to increase the value of food and forest products while reducing GHG emissions in their value chains, and highlighted priorities to better align private sector investment.

- **Engaging third-party suppliers and smallholders.** There are fewer challenges in

[9] For more information, see on the Sustainable Development Bond, see http://treasury.worldbank.org/cmd/htm/World-Bank-Launches-Financial-Instrument-to-Expand-Funding-for-Sustainable-Development.html. For more information, on the Solactive SDG World Index, see www.solactive.com/press-releases/solactive-sustainable-development-goals-world-index/.

implementing climate-smart approaches in parts of the business that companies manage directly, but it can be difficult to achieve changes in external supply chains. To influence suppliers especially smallholders, it is crucial to conduct outreach to understand country and location-specific factors and identify tangible actions that have clear financial benefits for suppliers, such as reducing the impacts of adverse weather and managing crop diseases. Climate-smart practices should be framed as strategies to make production easier, more efficient, and less risky.

- **Supportive policy instruments.** In many Asian countries, there are insufficient incentives for companies or smallholders to adopt climate-smart practices. More attention should be directed to improving the policy and enabling environment for climate-smart production.
- **Business drivers for investment in climate-smart and sustainable practices.** Companies can have external and internal drivers for adopting more sustainable practices. Sustainability standards are often required to access new export markets, particularly in Japan, Europe, and the United States. Sustainable practices are also often demanded by investors and shareholders to help ensure long-term growth. Increasingly, commercial banks are taking sustainability into account in their risk analyses.
- **Addressing the gaps in financing.** There are gaps in financing for more sustainable production for both corporations and their suppliers. Companies can offer a secure market for climate-smart commodities, but generally cannot provide financing for their suppliers.

Panelists (left to right): Petra Meekers, Musim Mas; Khac Hai Ngyen, The PAN Group; Darian McBain, Thai Union

2.3 CLIMATE-SMART FINANCING FOR SCALE AND IMPACT

Moderator Marie Lam-Frendo (Associate Director of Atkins Acuity) moderated a session on climate-smart financing. The panel included Prasun Das (Secretary General of Asia-Pacific Rural and Agricultural Credit Association), James Bui (Managing Partner of Lotus Impact), and Arindom Datta (Asia Head, Sustainability Banking of Rabobank). The panelists shared their insights on the risks and opportunities of climate-smart agriculture and forestry and challenges for scaling investment.

- **Information-intensive finance.** Agricultural finance is information intensive. Banks generally require comprehensive information for direct lending to farmers and SMEs. This information is not readily available, increasing the perceived risks of lending to these potential clients.
- **Smallholder aggregation.** Commercial banks face high transaction costs in lending to a large number of small-scale borrowers, especially in rural areas. Aggregation of small loans through cooperatives or farmer associations can reduce transaction costs for banks. These organizations may also have important roles in developing the capacity of their members to obtain, use, and repay loans effectively.

- **Climate-smart and sustainability as part of the core strategies of banks.** Many commercial banks are applying environmental, social and governance (ESG) standards and sustainability principles in their lending criteria. Banks that are early adopters of sustainability principles can reduce their risks and gain a leadership role in the market. However, most commercial banks address climate-smart concepts on an individual transaction basis, if at all, or view this as a niche market. Risk mitigants (such as loan guarantee funds) may be needed to help scale up finance for climate-smart production.
- **Policy support from central banks.** Central banks can play a significant role in setting policies for climate-smart financing. There has been growing interest for these policies in the Philippines, Bangladesh, and Nepal, but policy support from central banks remains limited. Some central banks have encouraged commercial banks to include climate-smart principles in their lending policies and reporting. However, central banks often do not have sustainability policies, because sustainability and climate change are considered outside their responsibility.

"Sustainability facilitates risk management along with knowledge and business development opportunities. This is crucial because Rabobank has a large lending portfolio in food and agriculture lending."

Arindom Datta, Asia Head, Sustainability Banking of Rabobank

Moderator and panelists (left to right): Marie Lam-Frendo, Atkins Acuity; Prasun Das, Asia-Pacific Rural and Agricultural Credit Association; James Bui, Lotus Impact; and Arindom Datta, Asia Head Sustainability Banking of Rabobank

Box 1. Rabobank Support for the Climate Smart Agriculture Finance Working Group

The World Business Council for Sustainable Development established a Climate Smart Agriculture Finance Working Group. The Working Group established four priorities for 2017: 1) increasing smallholder farmer resilience; 2) scaling up climate-smart investment; 3) improving the ability of businesses to trace, measure, and monitor progress in climate-smart agriculture; and 4) implementing zero deforestation agriculture-driven and sustainable land-use commitments. The group has an ambitious commitment to make 50 percent more food available, while reducing agricultural and land-use GHG emissions 50 percent by 2030.

2.4 COMMITMENTS FROM SOUTHEAST ASIAN GOVERNMENTS

Beau Damen (FAO Natural Resources Officer) moderated a panel of government representatives discussing NDC targets and private sector roles in reducing GHG emissions from agriculture and forestry. The panel included Miranti Ariani (Indonesian Agricultural Environment Research Institute Researcher), Joel Rudinas (Philippine Department of Agriculture Adaptation and Mitigation Initiative in Agriculture Program), and Nguyen Thi Dieu Trinh (Senior Official of the Ministry of Planning and Investment of Vietnam). Panelists emphasized the importance of public-private policy dialogues to improve the regulatory environment.

"NDCs provide a framework for improved coordination of project-level interventions in support of national priorities to address climate change and they send important policy signals for increased investment in climate-smart commodities."

Beau Damen, Natural Resources Officer, FAO

Mr. Damen provided an overview of the Paris Agreement and NDC targets of Indonesia, the Philippines, and Vietnam associated with agriculture, forestry, and land use (Table 2). He noted that NDCs present an opportunity to shift focus from project-level interventions to national-level strategies. Low adoption rates for sustainable, climate-smart practices are due to the burden of increased costs for smallholder farmers. He emphasized that there is an important "missing middle" in sharing this burden to lower costs for smallholder farmers, which governments, banks, donors, and development partners can help to address. Mr. Damen also highlighted FAO's support to governments to increase private sector investment and improve transparency of data and verification.

Panelists (left to right): Miranti Ariani, Indonesian Agricultural Environment Research Institute; Joel Rudinas, Philippines Department of Agriculture AMIA Program; Nguyen Thi Dieu Trinh, Vietnam Ministry of Planning and Investment

Table 2. Climate Change Mitigation Targets as Prescribed in NDCs

Country	Climate change mitigation targets
Indonesia	Economy-wide • Unconditional 29% GHG reduction by 2030[10] • Conditional 41% GHG reduction by 2030 Agriculture • Unconditional 0.32% GHG reduction by 2030 • Conditional 0.13% GHG reduction by 2030 Land use • Unconditional 17.2% GHG reduction by 2030 • Conditional 23% GHG reduction by 2030
Philippines	Economy-wide • Unconditional 70% GHG reduction by 2030 Agriculture – not part of the mitigation target Land use – included in the economy-wide target, but no sector-specific target
Vietnam	Economy-wide • Unconditional 8% GHG reduction, and 20% emissions intensity reduction by 2030 • Conditional 25% GHG reduction, and 30% emissions intensity reduction by 2030 Agriculture – included in the economy-wide target, but no sector-specific target Land use • Unconditional target of forest cover increase to 45% by 2030

The panelists highlighted the following key points:

- **Sharing good practices to engage the private sector.** The private sector invests to improve the efficiency of agricultural and forestry production and some improved production practices also have GHG mitigation benefits. Private sector investment will continue based on financial objectives, regardless of government priorities. To increase alignment of private sector investments with government climate change targets, there is a need for more regular dialogues among the business community, governments, and donors to share good practices with proven financial feasibility.

- **Data and transparency.** Greater data availability and accessibility are needed to improve transparency of NDCs and monitor the progress of all stakeholders toward meeting national climate targets. Governments need stronger MRV capacities to track and report this data, including in biennial update reports and NDC communications.

- **Agriculture as an adaptation priority.** The governments of the Philippines and Indonesia view agriculture as strategic focus for climate change adaptation, rather than GHG emission reductions. Adaptation is critical due to the vulnerability of agriculture to climate change and the increased frequency of severe weather events, including floods and typhoons.

> **"Regular dialogues among the business community, donor community, and the government is very important. It cannot just be the public sector driving ambition and change – there is a very important role for the private sector and small and micro-enterprises."**
>
> Nguyen Thi Dieu Trinh, Ministry of Planning and Investment of Vietnam

[10] Unconditional pledges are actions that the countries take unilaterally and conditional pledges are dependent on external finance and other forms of international cooperation.

- **Private sector role and investment in NDC targets for agriculture.** Vietnam has an increasing number of start-ups and women-owned organizations in agriculture. Private sector investment is important for meeting NDC targets for agriculture, especially the unconditional targets. Although agriculture is not a climate change mitigation priority for Indonesia and the Philippines, the private sector has an important role in meet NDC targets. Participants from Indonesia highlighted capacity development to increase productivity particularly for smallholder farmers. Participants from the Philippines recommended increasing private sector research and development to reduce post-harvest losses and improve seed storage.
- **Supportive policies.** The Government of the Philippines is considering de-risking approaches, such as loan guarantees and insurance for crops and livestock. The Government of Vietnam has encouraged public-private collaborations to increase two-way communications on NDC targets, the policy and regulatory environment, and increasing private investment in climate-smart production. In addition to a public-private sector dialogue through provincial governments, the national government in Vietnam is considering improving communications through the Chamber of Commerce.

2.5 COMMERCIAL CERTIFICATION: TOOLS FOR SCALING VERIFIABLE IMPACT

Rachel Zedeck (Director for Sustainability Programs from Control Union) moderated a discussion of internationally accredited certification systems and their clients. The panel included Wyn Ellis (Coordinator for the United Nations Environment Program, UNEP, Sustainable Rice Platform), Shizuka Yasui (Quality Assurance Coordinator for the Forest Stewardship Council, FSC), Duong Van Chin (President of Dinh Thanh Agricultural Research Center of Loc Troi Group), Khunty Kann (Chief Executive Officer of Battambang Rice Investment Company), and Stephane Passeri (Geographical Indications Project Coordinator for FAO). Panelists shared their vision for impact and identified opportunities and challenges associated with using certification platforms as entry points to promote, track, and verify GHG emission reductions in agriculture and forestry.

Panelists and participants then joined discussion groups on key products and based on value chain maps prepared, they identified entry points for efficiently promoting, tracking, and verifying GHG emission reductions as well as challenges and solutions. Annex D provides the value chain maps that were developed.

Groups discuss challenges and opportunities for certification schemes to serve as entry points for promoting, tracking, and verifying GHG emission reductions in key commodity value chains.

The discussion generated the following key points:

- **Smallholder farmers and certifications.** Sustainability certifications are challenging for smallholders due to insufficient understanding of the required practices, the cost of improved practices, certification fees, and documentation requirements. To increase smallholder acceptance of certifications, the costs need to be reduced and financed and certification should open up access to more profitable markets.
- **Geographic origin indications.** Geographic origin indications can sometimes enable producers to obtain higher unit prices for agricultural products on certain markets, mainly if there are accepted quality or varietal differences. Origin-based approaches enable small-scale producers to increase traceability and differentiate their products, even if traditional production practices are maintained.[11] The first step is to obtain an agreement for product branding that includes farmers, processors, and distributors in a defined area. This branding approach is only likely to be successful if there is a system to improve and ensure product quality and if products can be easily differentiated. Such a system does not replace food safety, quality, or sustainability certifications required for export markets that offer higher price premiums. Premium prices may only be available on small, niche markets and the rest of the production may be sold without a price premium.
- **Undifferentiated low-value commodities.** Many of the crops produced by small-scale farmers are staple foods mainly sold on domestic markets that are difficult to differentiate and have a relatively low unit price. Domestic consumers may be unwilling to pay a price premium for these products, even if they meet sustainability certifications or have distinct geographic indicators. For example, most low- and middle-income consumers of rice in Association of Southeast Asian Nations (ASEAN) countries are unwilling to pay a premium price for sustainably certified or geographically identified rice. Despite these challenges, there may be some potential for growth in these small niche markets. Donors, such as the UNEP have supported efforts to adopt sustainable rice standards, such as the Sustainable Rice Platform (SRP).
- **GHG emission reduction from good production practices.** Even in the absence of sustainability standards or certifications, GHG emission reductions can sometimes be achieved by improving production and processing approaches or following industry standards and good practices. Only the European Union requires that new standards include reporting of direct and indirect GHG emissions from agricultural commodities. Most existing certifications do not require monitoring or reporting of GHG emissions or reductions.
- **GHG assessment and role of SMEs in value chains.** More information is needed on life cycle costs and GHG emissions of key products to identify high-impact areas for interventions and investment, especially those involving small-scale producers and service providers.

[11] More information on geographic origin indications for agricultural products can be found at www.fao.org/docrep/013/i1760e/i1760e.pdf.

2.6 INCREASING SCALE AND IMPACT IN CLIMATE-SMART AGRICULTURE AND FOREST PRODUCTION

Dewi Bramono, Deputy Director of Sustainability and Stakeholder Engagement of Asia Pulp and Paper

Erwin Widodo (Southeast Asia Regional Coordinator of TFA 2020) moderated this session on challenges and achievements in achieving GHG emission reductions from agriculture and forestry, while maintaining acceptable yields, quality, market access, and profit margins. The panel included Dewi Bramono (Deputy Director of Sustainability and Stakeholder Engagement of Asia Pulp and Paper), Jorge Disuanco (Chief Executive Officer of Macnuts), and David King (Chairman of GEA Timber Ventures).

Key points from the panel discussion include:

- **Poverty alleviation reduces risks.** Poverty in communities near forest concessions can lead to illegal logging, encroachment, and uncontrolled fires. These risks can limit the ability of companies to implement climate-smart practices. Participatory approaches to improve livelihoods of nearby communities can strengthen forest management and sustainability on concession lands and supplier lands.
- **Increasing financing for smallholders and SMEs.** Commercial banks consider direct loans for smallholder farmers and SMEs to be high risk and costly to administer. As a result, these groups have limited access to credit. For example, although the Agri-Agra Act in the Philippines mandates that 25 percent of bank loans be given to agriculture, the actual lending volume to agriculture is less than 1 percent. It may be possible to increase bank lending for smallholder agriculture through loan guarantees for banks, weather-indexed insurance for farmers, and other de-risking measures, and lending through farmer associations or cooperatives to reduce transaction costs.
- **Developing more collaboration with private companies.** Smallholder farmers and SMEs can benefit from the technical expertise of multinational and domestic companies on sustainable practices and access to markets offering premium prices for sustainably certified products. These companies have business reasons for securing their supply chains over the long-term and may have specific sustainability targets. Some provide philanthropic support through corporate social responsibility efforts.

2.7 DATA GAPS: UNDERSTANDING RISKS, REWARDS, AND OPPORTUNITIES

Christy Owen (Chief of Party for the USAID Mekong Partnership for the Environment Program) moderated this session on the importance of improving data on investment opportunities, costs, rewards, and risks of sustainable landscape practices and investments. The panel included Alistair Douglas (Partner of EcoHub Global), Seneka Basnayake (Climate Change Department Head of Asian Disaster Preparedness Center), and Ainu Rofiq (Chief Executive Officer of Koltiva).

Following the panel discussion, participants worked in product-specific groups to identify data gaps and actions to address them, based on value chain maps prepared for rice, palm oil, and timber production, as summarized in Table 3. Annex D provides the value chain maps.

The panel and group discussions highlighted the following points:

- **Build capacity of smallholders and other small-scale producers to collect data to address data gaps.** Upstream data, including field-level data collection and monitoring, are crucial inputs to apply appropriate climate-smart practices and assess performance, yet they are widely lacking. Smart technology tools targeting small-scale producers have been developed. Current capacity of small-scale producers to adopt those tools is generally limited. The tools therefore need to be designed in close consultation with target users to ensure their functions align with user demands and capacity. In addition, training may be needed to build capacity to ensure consistent and accurate data collection.

Moderator Christy Owen, USAID Mekong Partnership for the Environment

- **Increase data sharing and improve accuracy of existing data.** Where data exist, particularly upstream data of individual companies or smallholder farmers, they are often not shared or accessible due to insufficient collaborations among stakeholders, incompatibility of data, and lack of an available system to store and retrieve data. In cases where data are accessible and free (e.g., satellite imagery), the data must still be interpreted and validated. SERVIR Mekong is collaborating with the Asian Disaster Preparedness Center to validate satellite weather and hydrological data to make it available for public use. The use of third-party data providers and data-sharing platforms trusted by various stakeholders could encourage sharing of information, verify data accuracy, and archive data, thereby avoiding unnecessary additional data collection activities.

Table 3. Data Gaps in Rice, Palm Oil, and Timber Production Value Chains

Commodity	Data Gaps
Rice	• Gaps exist in quality and coverage of data particularly on land conversion, rice cultivation areas, rice farming practices and input use, crop varieties, timing and cropping intensity, intercropping practices and timing, water management, soil characteristics and management, yields, and GHG emissions • Remote-sensing data can improve the accuracy of rice crop mapping, cropping intensity, areas damaged by floods or droughts, and yield estimates and modeling • There are differing views on who should conduct and pay for data collection and validation and how to share data more broadly
Palm oil	• Gaps exist in primary forest deforestation rates, compliance with laws and regulations on new palm oil plantations, daily market prices, incomes of growers and millers, and long-term economic and financial viability • Data gaps often result from insufficient technical capacity of farmers and oil mills to collect data and insufficient incentives and trust for data sharing
Timber	• There is inadequate data on forest and other land uses, land tenure and resource rights, causes of deforestation, work opportunities, income generation, financing, extension services, and processing methods and energy consumption • Consumers and retailers have increasingly demanded traceability of timber products at each point in the value chain

2.8 REDUCING RISKS AND INCREASING PROFITABILITY OF BYPRODUCT USE AND WASTE REDUCTION

Ingo Puhl (Chief Growth Officer and Managing Partner of South Pole Carbon Asset Management) moderated a panel of entrepreneurs focused on the potential to increase use of byproducts and waste from timber plantation processing operations as raw materials and energy sources ("circular economy models"). Use of these resources can reduce costs or generate additional revenues and decrease GHG emissions. Panelists included Le Hoang The (Director of Daviwood) and Bo Andersen (Manager of CF Nielsen/Daviwood).

Daviwood is a Vietnamese timber plantation company with a business of charcoal briquette production, using waste from timber processing operations. Since 2011, Daviwood has maintained Forest Stewardship Council-Forest Management (FSC-FM) certification for 1,200 hectares of hybrid acacia in wetlands in Vietnam. The company has held a forestland certificate for 50 years. It uses 95 percent of available wood products and produces briquettes from wood wastes for export.

Ingo Puhl, South Pole Carbon Asset Manager (left), Bo Andersen, CF Nielsen (middle), Le Hoang The, Daviwood (right).

The discussions highlighted the following points:

- **Business drivers.** There has been a significant demand for FSC-FM certified wood and fuel exports from Vietnam. Japan offers a 20 percent price premium for FSC certification. Certification can be an important business driver for sustainable practices, even though GHG emission reductions have not yet been specified in certification criteria.
- **Confidence in technology.** Charcoal briquette production from wood waste has a proven track record of commercial viability that justifies high upfront capital investments.
- **Donor funds to increase technical capacity and leverage financing.** Daviwood benefited from donor funding to address technical capacity gaps and help leverage private sector financing. The Danish International Development Agency (DANIDA) provided technical assistance on briquetting technology and support for business plan and feasibility study development.

2.9 PEER EXCHANGE AND REFLECTIONS

Moderators from each breakout session summarized key points from their respective sessions, emphasizing those that made the biggest impression on them and on participants in their sessions. Table 4 summarizes highlights from the discussion.

Moderators from each breakout session summarize key points from their respective sessions.

Table 4. Key Points from the Breakout Sessions

Session	Highlights
4A: Sustainability Certifications	• There has been relatively little adoption of certification systems by smallholder farmers and SMEs due to insufficient technical capacity, high costs, insufficient returns, and limited access to financing. • Location-specific baseline data on GHG emissions for key agriculture and forest value chains is generally unavailable, but needed in order to identify good practices and to estimate and measure actual GHG emission reductions associated with potential certification criteria. • Although certification systems often include sustainability criteria, most do not require monitoring and reporting of GHG emissions or emission reductions. • The value of certification systems needs to be demonstrated for domestic and regional markets.
4B: Achieving Scale and Impact	• Poverty in communities near forest concessions increases risks of illegal logging, encroachment, and uncontrolled fires, reducing the ability of companies to adopt more sustainable practices at scale. • Banks often view lending to smallholder farmers and SMEs as high risk and costly, making it difficult for them to access financing for broader impact. • Public-private sector dialogues are needed to improve communications on policies and actions to encourage climate-smart investments and finance.
5A: Data Gaps	• More and better data on agriculture and forest management practices is needed to ensure that production meets national and international certification standards and the needs of producers and distributors. • Smart technologies are available to facilitate data collection by smallholder farmers and SMEs, but training and other support are needed to scale up use of these tools. • Even when data are publicly available (e.g. satellite imagery), the accuracy may be uncertain. Third party data providers and a credible validating organization can improve data accuracy. • Distrust among stakeholders results in limited data sharing. Third-party monitoring bodies or networks could increase trust and encourage data sharing.
5B: Entrepreneurial Experiences	• Entrepreneurs take risks to obtain future returns from climate-smart technologies and practices. • To motivate long-term and forward thinking, public sector interventions are needed to de-risk investments, while creating confidence within the private sector by highlighting climate-smart technologies that have a track record of technical and financial feasibility.

2.10 ROLES AND STRATEGIES FOR CONSUMER CLIMATE ACTION

Paradon Munro (Chief Executive Officer of VDM Group Limited) led a plenary discussion on the importance of communication and consumer awareness in driving traceability and sustainable, climate-smart production practices. Participants also discussed consumer trends for sustainably produced brands. The following key points were highlighted in the discussion:

- **Communicating sustainability to consumers.** Consumer demand for sustainability certifications, labels, and traceability of their food is on the rise. Many consumers want to know how the food was produced and the stories behind the labels. The magnitude of this consumer interest can be expanded by communicating the importance and characteristics of sustainability to potential customers.

"If we cannot communicate sustainability to consumers, we cannot monetize it. Our efforts for climate-smart initiatives might then remain only as good practices."

Paradon Munro, Chief Executive Officer of VDM Group Limited

- **Crowd-funded financing platforms.** Crowd-funded or peer-to-peer lending platforms, such as Kickstarter and Kiva, are filling in some financing gaps for entrepreneurs and producers who may find it difficult to obtain loans on favorable terms from banks. These new platforms link entrepreneurs and producers to individual funders and impact investors.
- **Connecting directly with consumers.** Farmers and other small-scale producers and their groups can now connect directly with customers on social media, such as Facebook, and direct marketing sites, such as Amazon and Etsy. These trends will continue reshaping economies and bringing new values to markets, increasing opportunities for sustainable production.

2.11 CLOSING REMARKS

Aurelia Micko (Deputy Director of the Regional Environment Office of USAID Asia) thanked the hosts, sponsors, and participants and highlighted the progress in sustainable agriculture and forestry investment and production. Ms. Micko emphasized the need for joint private and public sector efforts to bridge the gaps between NDC targets and investments in agriculture and forestry in the region.

Aurelia Micko, Deputy Director of the Regional Environment Office of USAID Asia

3. CHALLENGES AND PRIORITIES FOR FUTURE ACTION

3.1 KEY CHALLENGES

Workshop participants identified five key challenges for scaling up private sector investment in climate-smart agriculture and forestry in Southeast Asia: finance, policy, communication, capacity development, and data.

Participants vote on priorities for further actions to scale up climate-smart investments in Southeast Asia.

- **Finance:** Small-scale farmers and other producers often have difficulty obtaining financing due to high perceived risks and high transaction costs for banks to administer large numbers of small loans, especially in remote areas.
- **Policy:** Most commercial banks and companies have not incorporated sustainability into their core values and policies, in part due to lack of incentives and policy support. Climate-smart investment has been generally viewed as a niche market.
- **Communication:** There are limited channels for national and subnational policy makers, businesses, farmers and other small-scale producers, and financial institutions to exchange views on the policy and regulatory environment needed for scaling sustainable investments and to share evidence on the technical and financial viability of climate-smart technologies and practices.
- **Capacity development:** SMEs and smallholder farmers have limited capacity to collect, verify, and report data. Most commercial banks have not incorporated ESG standards and sustainability principles into their core values and lending criteria. Governments have limited ability to aggregate, verify, and report emission reductions by large and small stakeholders.
- **Data:** Insufficient baseline and monitoring data limit the ability to track and verify GHG emission reductions from agricultural and forestry in developing countries. Although some data collection tools are available, there is limited capacity to collect, analyze, and report the data.

3.2 PRIORITIES FOR FUTURE ACTIONS

To address these challenges, participants voted on priority actions as next steps for governments, donors, and public-private sector collaboration. The top six priorities were:

Communication

- Facilitate regular dialogues among national and subnational policy makers, businesses, and small-scale producers.

Policy

- Enhance private sector engagement in developing, implementing, monitoring, and evaluating

policies, regulations, financing, and support.

- Develop policy incentives to promote climate-smart investment.

Finance

- Improve access to finance for SMEs and small-scale producers to scale up climate-smart actions.
- Increase use of loan guarantees and other de-risking mechanisms for climate-smart agriculture and forestry.

Data

- Increase resources and capacity for measurement, reporting, and verification of GHG emission reductions and documenting progress for national climate change commitments.

Public and private sector participants prioritized needed actions differently, however. Government officials emphasized the importance of more private sector input in developing policies, regulations, and support and in reviewing policy implementation outcomes. Private sector participants emphasized the importance of increasing the ability of small-scale producers to obtain financing for more sustainable practices. Donors placed a high priority on facilitating regular dialogues among stakeholders.

Table 5. Top Six Priority Actions Identified by Government and Private Sector by Topic

	Government	Private Sector
Policy	• Increase private sector engagement in developing, implementing, monitoring and evaluating policies, regulations, financing, and support. • Develop policy incentives to promote climate-smart investment.	• Develop policy incentives to promote climate-smart investment.
Communication	• Facilitate regular dialogues among national and subnational policy makers, businesses, and small-scale producers. • Improve the ability of the private and public sectors to communicate and understand climate change actions.	• Facilitate regular dialogues among national and subnational policy makers, businesses, and small-scale producers. • Improve the ability of the private and public sectors to communicate and understand climate change actions.
Finance	• Increase use of loan guarantees and other de-risking mechanisms for climate-smart agriculture and forestry. • Improve access to finance for SMEs and small-scale producers to scale up climate-smart actions.	• Improve access to finance for SMEs and small-scale producers to scale up climate-smart actions.
Data		• Increase data sharing on weather and good practices with farmers and forest product producers. • Increase resources and capacity for measurement, reporting, and verification of GHG emission reductions and documenting progress for national climate change commitments.

3.3 RECOMMENDED ROLES OF STAKEHOLDERS

Table 6 summarizes priorities for action and recommended roles for governments (including central banks) and donors to increase private sector investment in climate-smart agriculture and forestry in the region.

Governments and donors can cooperate to de-risk finance for SMEs, agribusinesses, and farms through loan guarantees and weather-indexed insurance, and improve access to finance for SMEs and small-scale producers to scale up climate-smart actions.

"Working with USAID, FAO, and other development partners will help us better engage with the private sector and research institutions."

Nguyen Thi Dieu Trinh,
Ministry of Planning and Investment

Governments have the primary responsibility for MRV and aggregation of national GHG emission reductions. Governments also provide information and incentives for incorporating sustainability in production practices and bank lending, as well as establish penalties and take enforcement actions for unsustainable practices.

Donors can support stakeholder communication and capacity development and help address data gaps by:

- Facilitating regular dialogues among policy makers, businesses, and small-scale producers to (i) develop a common understanding of climate change actions; (ii) provide a forum for policy discussion; (iii) improve coordination on climate-smart approaches, and (iv) increase private sector collaborations within value chains; and (v) share good practices and lessons learned on climate-smart technologies, business, and financing models.
- Strengthening capacities for (i) data collection by small- and large-scale producers, (ii) adoption of ESG standards, sustainability principles, and green lending by banks, and (iii) aggregation, verification, and reporting of GHG emission reductions.
- Supporting information-sharing platforms or networks on sustainable agriculture and forestry.

USAID, FAO, and other donors can:

- Share workshop findings and recommendations with public and private sector leaders within and beyond the region;
- Continue facilitating strategic public-private sector dialogues and capacity development, working with the Asia LEDS Partnership and others;
- Provide technical assistance on data collection, analysis, dissemination, and MRV through existing partnerships between USAID, FAO, UN-REDD and NASA-SERVIR (including SERVIR-Mekong); and
- Identify opportunities for additional support to increase public-private sector partnerships and financing of climate-smart production.

Table 6. Priorities for Action and Recommended Roles

Governments and Donors	
Finance	• Develop and implement investment de-risking measures (e.g., loan guarantees and weather-indexed insurance) • Improve access to financing on affordable terms for SMEs and small-scale producers
Donors	
Communication	• Facilitate regular dialogues of national and subnational policy makers, businesses, and farmers, as well as sharing of good practices and technologies with proven financial and technical feasibility • Improve ability of the private and public sectors to communicate and understand climate change actions
Capacity Development	• Support SMEs and smallholder farmers in data collection and MRV • Support bank adoption of ESG standards, sustainability principles, and green lending • Strengthen capacities to adopt improved practices that reduce GHG emissions and aggregate and verify GHG reductions
Data	• Facilitate information sharing platforms or networks for farmers and forest product producers and processors • Increase confidence in the technical and financial feasibility of climate-smart technologies by sharing experiences
Governments	
Data	• Verify, aggregate, and report on GHG emission reductions and targets
Policy	• Provide guidance and incentives for incorporating sustainability in company and bank policies and strategies • Provide incentives to promote climate-smart approaches and penalties and enforcement to deter unsustainable practices

ANNEX A: PROGRAM AGENDA

All sessions take place at the Sofitel Sukhumvit Bangkok Hotel.

Tuesday, March 28, 2017

18:30 – 20:00	**Networking Reception** The Food and Agriculture Organization of the United Nations (FAO) will host an evening reception at the Sofitel Sukhumvit. This will include a running slideshow to promote networking, through profiling workshop participants and their investments, activities, and interests related to climate-smart commodity production in the region.	Inspiration Floor

Wednesday, March 29, 2017

08:00 – 08:30	**Registration**	Ballroom Foyer
08:30 – 09:00	**Welcome and Setting the Intention** Opening remarks will reinforce meeting objectives and desired outcomes; help frame discussion and create awareness of the different drivers among stakeholders; highlight linkages between country climate change targets, market drivers, and development and business objectives; and spotlight opportunities for companies to deliver tangible co-benefits in key markets. **Welcome address:** • Alfred Nakatsuma, Director of Regional Environment Office, USAID Asia **Keynote address:** • Kundhavi Kadiresan, Regional Representative for Asia and the Pacific, FAO	Ballroom
09:00 – 10:00	**Session 1: Aligning Agribusiness and Climate Action: Vision, Investments, and Challenges from Private Sector Commitments** Leading corporations will discuss their vision, investments, and challenges to meet growing regional and global demand for food and forestry products while reducing GHG emissions in their value chains. Panelists will share drivers for these decisions; innovative models and methods to create a system for success; challenges for scaling good practices; and priority needs to better align approaches with national and global climate change targets, e.g., Nationally Determined Contributions (NDCs) and Sustainable Development Goals (SDGs). **Moderator:** Rachel Zedeck, Director for Sustainable Programs, Control Union	Ballroom

	Panelists: • Petra Meekers, Director CSR and Sustainable Development, Musim Mas Holdings • Darian McBain, Global Director of Sustainable Development, Thai Union • Khac Hai Nguyen, Chief Executive Officer, The PAN Group	
10:00 – 10:30	**Morning Coffee Break and Networking**	Ballroom Foyer
10:30 – 11:30	**Session 2: Climate-Smart Financing for Scale and Impact** Regional and international financiers will challenge the status quo and share insights into risks and opportunities of climate-smart, low emission agriculture and forestry investments across the finance spectrum, including incubation, growth, and mezzanine. Panelists will discuss innovative financial models and tools; methods for building a pipeline of bankable investments; challenges for scaling investment; and priority needs to accelerate investment aligned with national and global climate change targets. **Moderator:** Marie Lam-Frendo, Associate Director, Atkins Acuity **Panelists:** • Prasun Das, Secretary General, Asia-Pacific Rural and Agricultural Credit Association • James Bui, Managing Partner, Lotus Impact • Arindom Datta, Asia Head – Sustainability Banking, Rabobank	Ballroom
11:30 – 12:30	**Session 3: Next Generation Strategies: Commitments from Southeast Asian Governments** Senior government representatives will discuss their NDC targets, strategies, and investments designed to support GHG emission reductions from the agriculture and forestry sectors. Panelists will highlight the roles of government and the private sector in achieving NDC targets, how governments are offering or will offer incentives through policy and regulation, and priority opportunities for aligning private sector action and NDC targets. **Moderator:** Beau Damen, Natural Resources Officer – Climate Change and Bioenergy, FAO **Panelists:** • Miranti Ariani, Researcher, Indonesian Agricultural Environment Research Institute, Indonesia • Joel Rudinas, Philippines AMIA Program, Department of Agriculture, Philippines • Nguyen Thi Dieu Trinh, Senior Official, Ministry of Planning and Investment, Vietnam	Ballroom
12:30 – 13:30	**Lunch**	Voila Restaurant
	Session 4: Scaling Investment and Achieving Impact Participants will join one of two concurrent session tracks.	

13:30 – 14:30	**4A: Commercial Certification: Tools for Scaling Verifiable Impact** Representatives of internationally accredited certification schemes and their clients will summarize their visions for impact and discuss the opportunities and challenges of using certification platforms as entry points to promote, track, and verify GHG reductions in commodity value chains. **Moderator:** Rachel Zedeck, Director for Sustainable Programs, Control Union **Speakers:** • Wyn Ellis, Coordinator, Sustainable Rice Platform • Shizuka Yasui, Quality Assurance Coordinator, Forestry Stewardship Council • Kunthy Kann, Chief Executive Officer, Battambang Rice Investment Co., Ltd • Duong Van Chin, President of Dinh Thanh Agricultural Research Center, Loc Troi Group • Stephane Passeri, Project Coordinator, Promotion of Rural Development through Development of Geographical Indications at Regional Level in Asia, FAO **Activity:** The context-setting panel discussion will be followed by an interactive exercise in which participants will work in groups based on the commodity in which they primarily work (or are interested in). Groups will refer to commodity value chain maps (provided by workshop organizers) to discuss the key entry points in the system for promoting, tracking, and verifying GHG emission reductions and identify challenges within the system and potential solutions.	Salon I
13:30 – 14:30	**4B: How To Achieve Scale and Impact in Climate Smart Agriculture and Forestry Commodity Production** In this industry "black box" discussion, representatives of leading corporations will highlight challenges and achievements related to business models and good practices for realizing verifiable emissions reductions in agricultural and forestry commodity production, while attaining adequate profit margins, yields, quality, and market access. Participants should come prepared to reflect on topics of interest to industry. **Moderator:** Erwin Widodo, Southeast Asia Regional Coordinator, Tropical Forest Alliance 2020 **Industry discussants:** • Dewi P. Bramono, Deputy Director Sustainability & Stakeholder Engagement, Asia Pulp and Paper • David King, Chairman, GEA Timber Ventures • Jorge Disuanco, Chief Executive Officer, Macnut (Phils) Inc.	Salon II
	Session 5: Scaling Investment and Achieving Impact Participants will join one of two concurrent session tracks.	
14:30 – 15:30	**5A: The Data Gap: Understanding Risk, Reward and Opportunity** A barrier to investment and scaling good practices are the data gaps that exist to effectively understand costs, opportunities, and impact of climate-smart practices and to help de-risk low-emission agricultural and forestry investments. This session focuses	Salon I

	on data and information needs of the stakeholders in commodity value chains, and how higher quality data and data analytics can be used to better assess investment opportunities, understand impacts, and de-risk and deploy more investment to support economic gains and help achieve climate change targets (NDCs). **Moderator:** Christie Owen, Thailand Country Director, Pact **Speakers:** • Alistair Douglas, Partner, EcoHub Global • Ainu Rofiq, Chief Executive Officer, Koltiva • Senaka Basnayake, Department Head, Climate Change and Climate Risk Management, Asian Disaster Preparedness Center **Activity**: The context-setting panel discussion will be followed by an interactive exercise in which participants will work in groups based on the commodity in which they primarily work (or are interested in). Groups will refer to commodity value chain maps (provided by workshop organizers) to identify areas where data gaps inhibit climate action, determine the most significant data gaps, and discuss what needs to be done and by whom to overcome these challenges.	
14:30 – 15:30	**5B: The Entrepreneurial Journey: Layering Circular Economy Investments To Reduce Risk and Grow Profits** The real entrepreneurs championing circular economy models will discuss the financial, social, and environmental risks, rewards, and benefits of integrating circular economy into their business models. Participants will hear case studies on methods and technologies that support increased production and cost savings while reducing the GHG footprint of a company's supply chain (e.g., conversion of agricultural and forestry byproduct to energy). **Moderator:** Ingo Puhl, Chief Growth Officer & Managing Partner, South Pole Carbon Asset Mgt. **Speakers:** • Le Hoang The, Director, Daviwood • Bo Andersen, Sales Manager, C.F. Nielsen / Senior Advisor, Daviwood **Activity**: The context-setting panel discussion will be followed by an interactive exercise in which participants will work in groups based on the commodity in which they primarily work (or are interested in). Groups will refer to commodity value chain maps (provided by workshop organizers) to identify opportunities and challenges in the value chain for using circular economy approaches.	Salon II
15:30 – 16:00	**Afternoon Coffee Break and Networking** To include an interactive voting activity where participants select priority topics on which to advance work and collaboration.	Ballroom Foyer

16:00 – 16:30	**Session 6: Peer Exchange and Reflections** The moderator from each of the breakout sessions (Sessions 4A, 4B, 5A, and 5B) will summarize the points discussed in their session that made the biggest impression on them and their session's participants. **Moderator:** Mikell O'Mealy, Activity Manager, USAID CEADIR Activity	Ballroom
16:30 – 17:00	**Session 7: Climate Action Consumers and Strategies** SDG 12 requires action to promote both sustainable production and responsible consumption. Participants will debate on the importance of consumer awareness, responsibility, and impact in driving corporate strategies, investments, and reporting (verification). Participants will also discuss efforts being made to better understand and respond to consumer trends that prioritize sustainably conscious, climate-smart brands and goods. **Moderator:** Paradon Munro, Chief Executive Officer, VDM Group Limited	Ballroom
17:00 – 17:30	**Session 8: What does Success Look Like: Prioritizing Actionable Next Steps** A representative from the private and public sectors will provide closing reflections, highlighting key findings, needs, and recommended actions. A facilitator will summarize accomplishments, next steps, and linkages with other efforts in the region. **Reflections:** • Representatives from private sector • Soumya Chaturvedula, Programme Coordinator, Asia LEDS Partnership **Closing:** • Aurelia Micko, Deputy Director of Regional Environment Office, USAID Asia	Ballroom

ANNEX C: NDC TARGETS

SNAPSHOT OF

USAID FROM THE AMERICAN PEOPLE

CLIMATE CHANGE COMMITMENTS OF INDONESIA, THE PHILIPPINES, AND VIETNAM

The Paris Agreement is an international agreement that urges nations to undertake ambitious efforts to address climate change through mitigating greenhouse gas (GHG) emissions and adapting to impacts. Countries that ratify the Paris Agreement are required to outline the mitigation actions they intend to take, report regularly on GHG emissions and on implementation efforts, and strengthen those efforts in the coming years.

Under the agreement, Nationally Determined Contributions (NDC) outline each country's post-2020 climate change mitigation actions and associated GHG emission reductions. Each country prepares its NDC in consultation with diverse stakeholders, including government ministries and government, academia, private sector, and civil society organizations. GHG mitigation commitments made by the governments of Indonesia, the Philippines, and Vietnam are shown below. To review the full text of submitted NDCs, visit the NDC Registry at **www4.unfccc.int/ndcregistry.**

COMMITMENTS FROM INDONESIA, THE PHILIPPINES, AND VIETNAM

	INDONESIA	PHILIPPINES	VIETNAM
2012 Global GHG emissions ranking (Including LULUCF)	6th	43rd	33nd
1995-2014 Global Climate Risk Index ranking	66th	4th	7th
Paris Agreement status	Entered into force November 20, 2016	Entered into force April 22, 2017	Entered into force December 3, 2016
Marginal abatement cost	DNPI, 2010	x	MoNRE, 2015
AFOLU INDC Action Plan	x	x	MoNRE, August 26, 2016

Source: (1) CAIT/WRI (2016), (2) UNFCCC Ratification Status (2016), (4) UNFCCC INDC Submission (2017), (5) UNFCCC NDC Registry (2017)

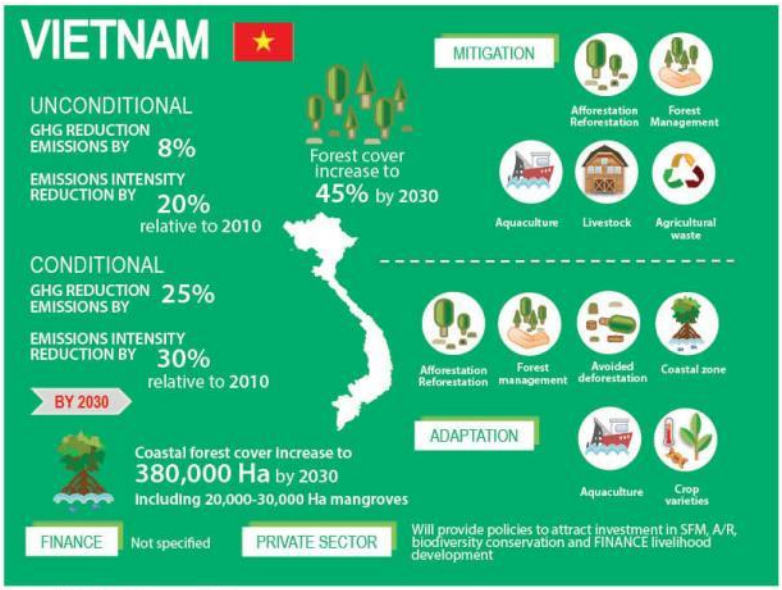
THE ROLE OF LAND USE AND AGRICULTURE IN THE NDCS OF INDONESIA, PHILIPPINES, AND VIETNAM

Land use and agriculture are recognized mitigation measures in the NDCs of Indonesia and Vietnam, and the Philippines includes land use in its overall mitigation target.

Indonesia's NDC provides quantitative unconditional and conditional targets for land use (often referred to as LULUCF) and agriculture. Actions highlighted include crop, water, and livestock management for agriculture mitigation measures, as well as Reducing Emissions from Deforestation and Forest Degradation (REDD+), peat land restoration, sustainable forest management, and a landscape approach for land use mitigation measures.

Source: 1ST NDC of Indonesia

Vietnam's NDC establishes a 45 percent forest cover increase target, and includes agriculture in its economy-wide target. Specifically, Vietnam seeks to focus on research for mitigation solutions in fisheries, livestock, and agricultural waste, and includes sustainable forest management, afforestation and reforestation, REDD+, and Payments for Forest Environmental Services as part of land use mitigation measures.



Source: 1st NDC of Vietnam (2016)

The Philippines INDC includes land use in its economy-wide mitigation target, but does not provide specific measures for how to achieve emissions reductions in the land use and agriculture sector.

Source: INDC of Philippines (2015)

FINANCE, THE PRIVATE SECTOR, AND MEETING NDC TARGETS

The NDCs of Indonesia, the Philippines, and Vietnam do not specify the **amount of finance needed** to achieve each countries' GHG mitigation targets. While it is widely recognized that private sector engagement will be essential to help countries to meet targets, the NDCs only briefly mention roles for the private sector.

To meet NDC targets, countries will need to prepare additional detail on implementation – including accurate, accessible cost estimates – and develop strategies for scaling finance, mobilizing private sector action and investment, and accessing new sources of finance and technological development. As an example, Vietnam has developed a supplemental **INDC Action Plan** for agriculture and land use that describes actions to achieve its targets, focusing on key commodities, priority areas for implementation, financial gaps, and potential finance sources including domestic budgets and private sector investment. Although information gaps remain, the Action Plan provides insight on how the private sector can support NDC implementation and help Vietnam to meet its climate change targets.

PRIORITIES FOR PUBLIC-PRIVATE SECTOR COLLABORATION

Major businesses and investors in Asia have expressed support for the Paris Agreement, pledging to work with governments to implement needed measures and committing to take ambitious action to reduce GHG emission in their operations. In March 2017, the U.S. Agency for International Development (USAID), Asia Low Emissions Development Strategies (LEDS) Partnership, and the Food and Agriculture Organization of the United Nations (FAO), convened nearly 90 representatives from leading corporations, financial institutions, investment firms, small and medium sized enterprises, commercial commodity certification platforms, and senior government officials from Indonesia, the Philippines, and Vietnam to accelerate investment into low-emission agricultural and forestry production in Asia to support achievement of country NDC targets.

These leaders shared commitments and identified challenges and opportunities for ongoing work and action. Top priorities identified for public-private sector collaboration include:

- Facilitating regular dialogue between national level policymakers, businesses, and smallholder farmers who are at the front of implementation;
- Identifying pathways and solutions to enable small and medium sized enterprises to access financing, in order to scale up climate-smart actions;
- Developing and implementing policies that incentivize (or penalize) companies that pursue (or do not pursue) climate-smart approaches;
- Aggregating, reporting, and verifying emission reductions achieved by all stakeholders towards national climate change commitments to understand and document progress; and
- Seeking private sector inputs during government policy preparation and review of implementation.

View the complete findings, recommendations, and next steps from the regional meeting on *Convening Private Sector Investment in Climate-Smart Commodity Production in Southeast Asia*, March 29, 2017 in Bangkok, Thailand: http://www.asialeds.org/events/convening-private-sector-investment-in-climate-smart-commodity-production-in-southeast-asia-2/

Prepared by the USAID Climate Economic Analysis for Development, Investment and Resilience (CEADIR) Activity. The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government.

ANNEX D: VALUE CHAIN MAPS

Commodity-specific value chain maps were created by CEADIR partner Control Union providing a comprehensive illustration of activities within each value chain. Workshop participants used the maps during interactive breakout sessions to discuss finance, investment, and technical assistance barriers at key points in the value chain and to identify priority actions needed to enable adoption of climate-smart, low-emission practices at scale.

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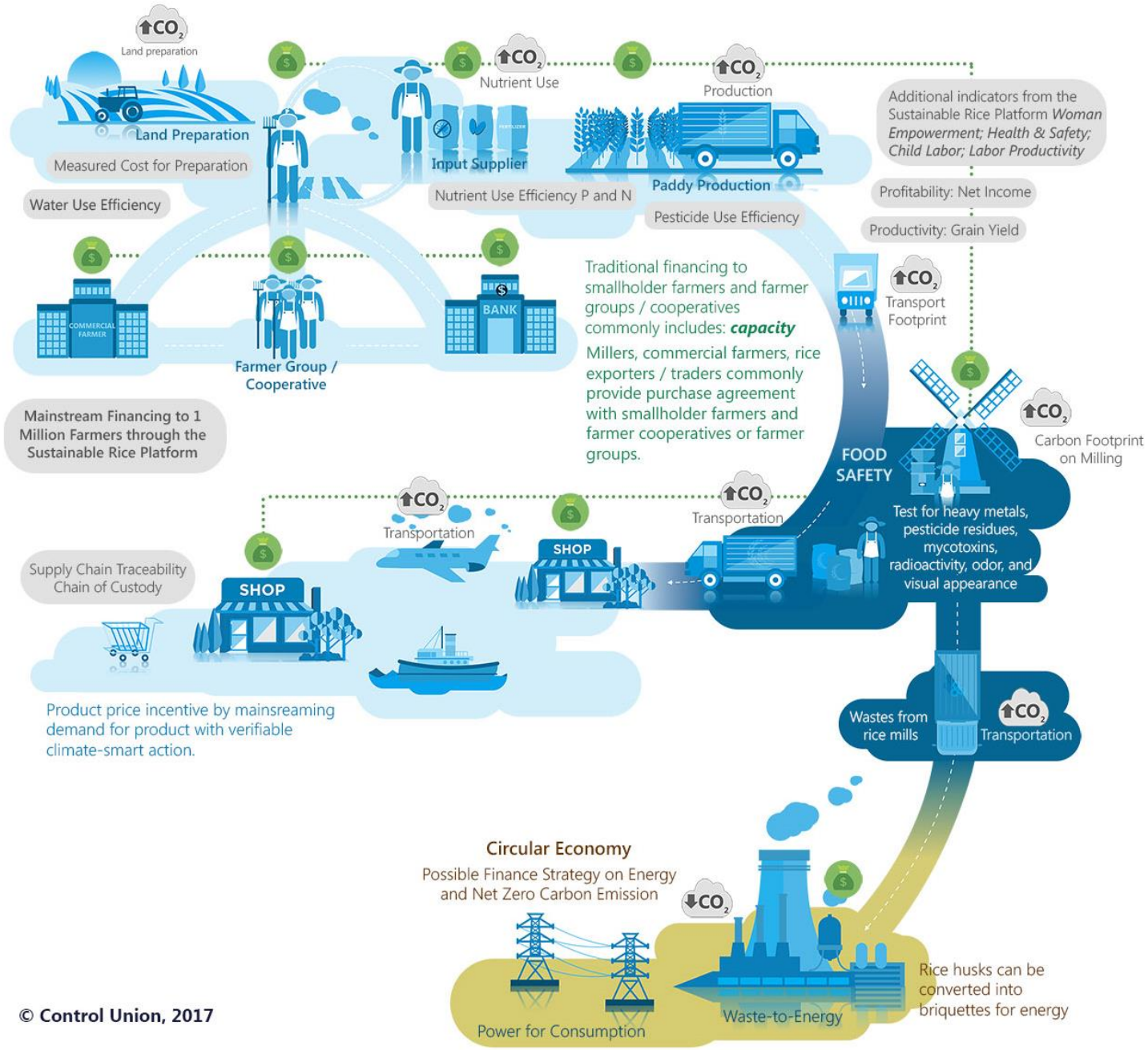
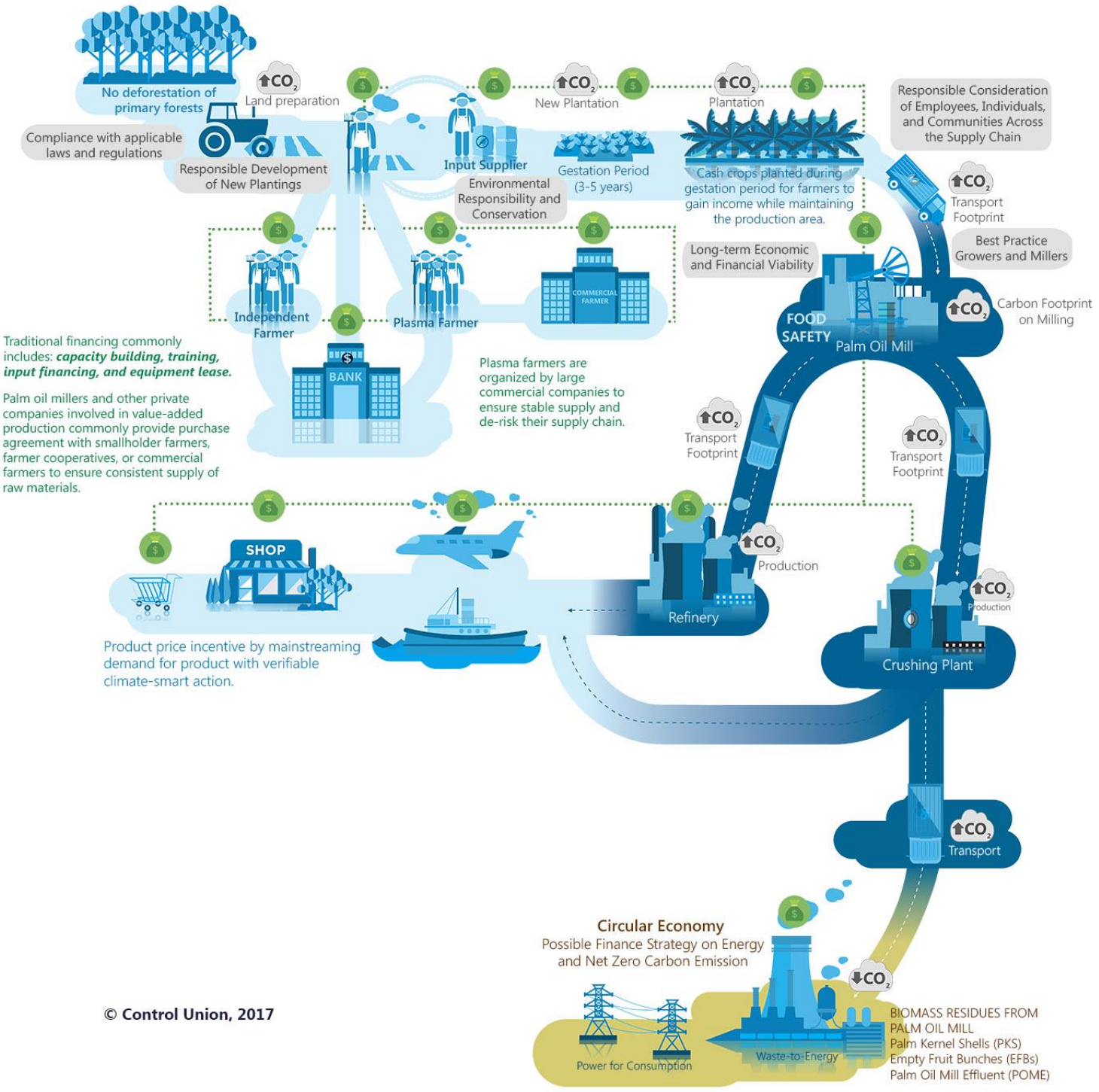
Rice Commodity: Value Chain, GHG Emissions, and Finance Flow

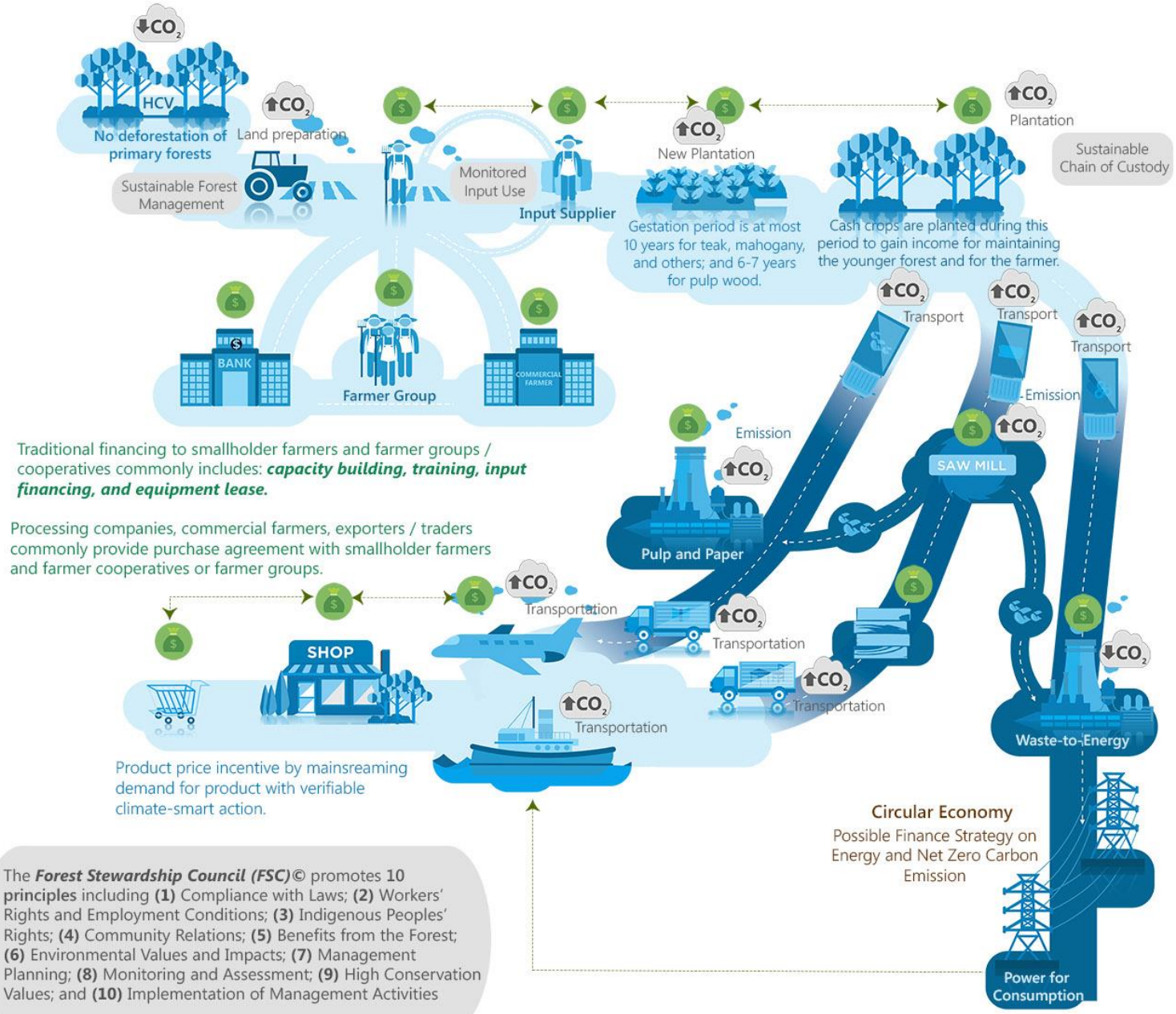


Climate Smart Agriculture 2017
Palm Oil Commodity: Value Chain, GHG Emissions, and Finance Flow



Climate Smart Agriculture 2017

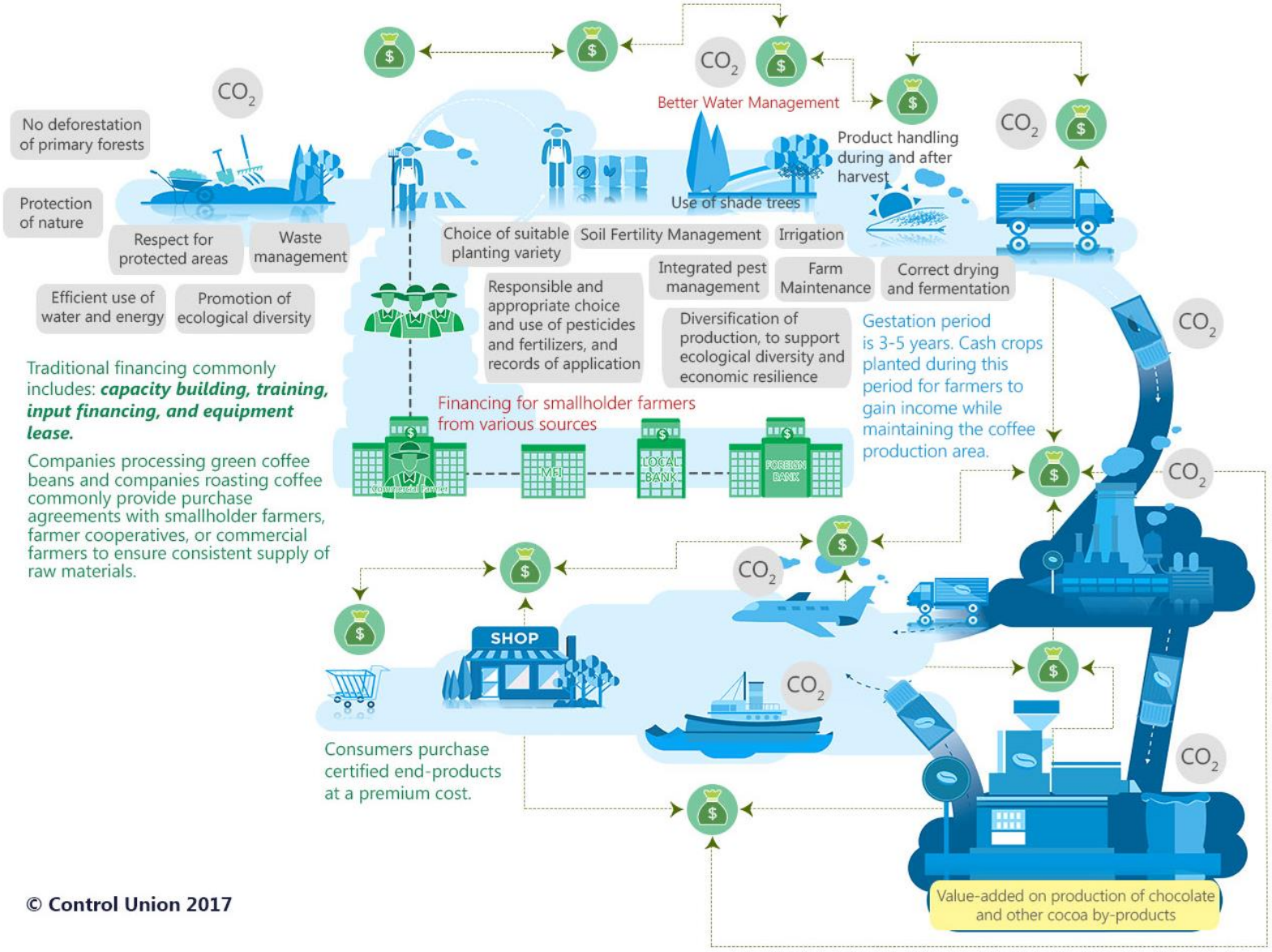
Timber Commodity: Value Chain, GHG Emissions, and Finance Flow



The ***Forest Stewardship Council (FSC)***© promotes 10 **principles** including **(1)** Compliance with Laws; **(2)** Workers' Rights and Employment Conditions; **(3)** Indigenous Peoples' Rights; **(4)** Community Relations; **(5)** Benefits from the Forest; **(6)** Environmental Values and Impacts; **(7)** Management Planning; **(8)** Monitoring and Assessment; **(9)** High Conservation Values; and **(10)** Implementation of Management Activities

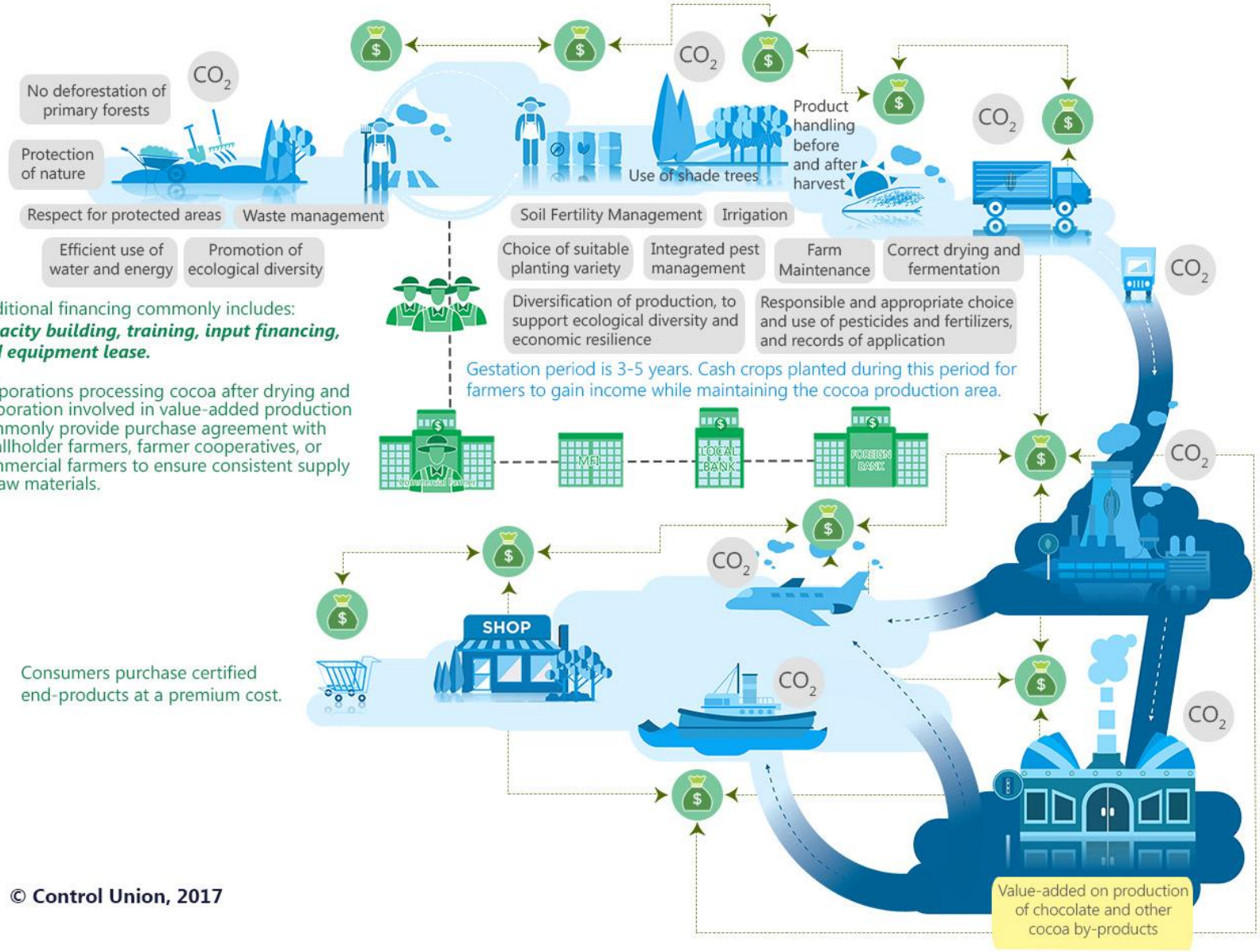
Climate Smart Agriculture 2017

Coffee Commodity: Value Chain, GHG Emissions, and Finance Flow



Climate Smart Agriculture 2017

Cocoa Commodity: Value Chain, GHG Emissions, and Finance Flow



ANNEX E: POST-WORKSHOP MEETING OUTCOME

Following the workshop, on March 30, 2017, the governmental participants from Indonesia, Philippines, and Vietnam joined FAO and USAID Asia in a half-day meeting to discuss next steps based on private sector recommendations in the workshop. In this session, the government representatives identified two priority areas for additional donor support:

- Capacity strengthening on MRV at the national and subnational levels to enable governments to quantify and track emission reductions from all stakeholders.
- Facilitating regular dialogues and enhanced partnerships between governments and the private sector to strengthen collaborative actions for achieving NDC targets.

In addition, government representatives from Vietnam requested support to develop a pipeline of bankable projects to meet NDC targets. Government representatives from the Philippines requested support for weather-indexed insurance for agricultural loans and exploring the potential contribution of carbon markets to achievement of NDC targets.

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