



The Field Alliance



MELA

The Mekong Extension Learning Alliance



REPORT

THE 2024

MEKONG EXTENSION LEARNING

ALLIANCE (MELA) EXCHANGE

WORKSHOP

Ha Long city, Quang Ninh province 24 – 26 July 2024

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Acronyms

APIRAS	Asia-Pacific Island Rural Advisory Services
ASEAN	Association of Southeast Asian Nations
AST	Agricultural Service Provider
CASIC	Cambodia Conservation Agriculture and Sustainable Integration Consortium
DAE	Training and Education Division, National Agriculture Extension Center, Ministry of Agriculture and Rural Development, Vietnam
DOAE	Department of Agricultural Extension, Ministry of Agriculture, Thailand
FAO	Food and Agriculture Organization
FFS	Farmer Field Schools GAP
GAP	Good agricultural practices
GCF	Green Climate Fund
GFRAS	Global Forum for Rural Advisory Services
IoT	Internet of Things
IPM	Integrated Pest Management
LFN	Laos Famer Network
LICA	ASEAN-Laos initiative for agroecology
LMS	Learning Management System
MARD	Ministry of Agriculture and Rural Development, Vietnam
MELA	The Mekong Extension Learning Alliance
MI	MEKONG Institute
SRI	System of Rice Intensification TAPE
TAPE	Tool for Agroecology Performance Evaluation
TFA	The Field Alliance

Chapter 1 Introduction

1.1. Background

The Mekong River passes through Yunnan province of China and five countries in South East Asia: Myanmar, Laos, Thailand, Cambodia and Vietnam. The Region is home to over 225 million people, with more than 60% of the population living in rural areas. Investment, trade, expertise and labour are flowing from one country to another, while social and environmental impacts are also crossing national boundaries.

Agricultural extension and rural advisory services in the Mekong Region have many features in common. Extension methods such as Farmer Field Schools (FFS) and production technologies such as Integrated Pest Management and the System of Rice Intensification (SRI) have spread widely due to exchanges of trainers and technicians among Governments and NGOs. The private sector has also been involved in cross-border dissemination of agricultural technology and services, with companies also providing advice and inputs to tens of thousands of farmers throughout the region.

The Mekong Extension Learning Alliance (MELA) was founded in 2015 with the vision to contribute to the better services to small holder farmers in Mekong Region to become more resilient and have sustainable livelihood. MELA mission is to be an active platform for all stakeholders in agriculture in Mekong Region to continuously collaborate to learn, try out new innovation and share knowledge and best practices with each other and from outside sources in the areas of sustainable agriculture and rural development. During the course MELA has been organizing annual regional exchange and learning workshops and as part of the Asia-Pacific Island Rural Advisory Services (APIRAS), <https://apiras.net/>, and Global Forum for Rural Advisory Services (GFRAS), <https://www.g-fras.org/en/> networks. MELA's members participated at the global, regional and sub-regional level meetings and workshops.

At the MELA Consultation workshop held in Vientiane, Lao PDR, in September, 2023, MELA committee prioritize three themes to be reviewed and planned to be shared on Agroecology, Climate Change and Digitalization during the following 2024 regional exchange workshop. The committee also appointed The Field Alliance (TFA), <https://www.thefieldalliance.org/>, as the secretariat while Vietnam representative volunteered to request permission from the government to be the host of the 2024 MELA regional exchange workshop.

During the course, Lao Upland Rural Advisory Services (LURAS) project, TFA and the Vietnamese Department of the Agricultural Extension and Training, Ministry of

Agricultural and Rural Development, Vietnam and MELA committee has been meeting periodically to coordinate the organization of the 2024 MELA regional exchange workshop to the final date.

1.2. Objectives

The 2024 regional workshop objectives were to:

- Sharing information about the latest developments in advisory services that address the most urgent issues for small farmers, specifically Agroecology, Climate Change and the use of Digitalization.
- Explore field-based innovative developments in Vietnam.
- To further explore joint regional collaboration and development of joint projects and,
- To strengthening MELA committee and members roles for future development of MELA activities and programs.

Expected outcomes will include:

- Summary of innovations presented and shared during the workshop.
- Outlines for future programs to be jointly developed by MELA partners in member countries.
- Update MELA charter and plan.

1.3. Summary Results

A total of 50 participants representing government, academic, civil societies, private sectors and youth organizations from Cambodia, India, Laos, Philippines, Kunming, Myanmar, Thailand and Vietnam were in attendance.

The program began with Dr. Nguyen Viet Khoa, Head of the Training Division, DAET, gave the opening remarks and introduced key members.

Mr. To Viet Chau, Deputy Director of International Cooperation Department - Ministry of Agriculture and Rural Development welcomed participants followed by Mr. Marut Jatiket, The Field Alliance introduced the workshop objectives.

Prof. Dr. Le Quoc Thanh, Deputy Director of International Cooperation Department - Ministry of Agriculture and Rural Development gave a keynote speech stressing that Vietnam Agricultural Extension is developing an agricultural extension strategy to submit to the government, with the target on Ecological agriculture, modern rural

areas, and smart farmers. To achieve that, we should innovate agricultural extension work towards a more modern approach, an agricultural approach that adds value and production efficiency. Extension staff at all levels should be trained in a professional, modern manner, worthy of the slogan "wherever there are farmers, there is agricultural extension, Farmers and Agricultural extension: Growing together". There will be more cooperative efforts among the MELA member countries of the ASEAN Community to support the resilience, productivity, and strength-building of our rural communities in the face of climate change, creating a successful ASEAN rural area. See more details in Annex 2: Integrated CSA Considerations in Public Extension Services in Vietnam.

Total of 17 Presentations on climate change, agroecology and digitalization were presented. Recap of the sessions were summarized by representatives from Cambodia, Laos, and Thailand. Please see more details of the presentations through this link:

<https://drive.google.com/drive/u/1/folders/1uEhEPipIBFTrYkPIEwpDOHBT3np5GeMT>

A half day field visit to "188Green Farm" in Dong Trieu town, Quang Ninh Province was organized by DAET. See Annex 3: Summary of Field Visit for more details.

Bi-lateral meetings were organized by MARD, Vietnam with representatives from each country of Cambodia, Laos and Thailand.

Two groups were divided to discuss future MELA plan and activities and were presented at the plenary session. See more details in following sections.

(Pictures from the workshop can be download here:

https://drive.google.com/drive/folders/1CJ-LdNxWLXz47PKqRFZEwJ0Mvr2fllmZ?usp=drive_link)

The meeting was organized and partially financed by the host DAET/ MARD VN, with LURAS contributing the venue costs and travel costs of some of the presenters. Some participants contributed towards the meeting costs.

Chapter 2 Summary of Innovation Presented

2.1. Climate Change Facilitated by Marut Jatiket, The Field Alliance, Inc.

2.1.1. ASEAN Guideline on the Promotion of Smart Agriculture

Mr. Suriyan Vichitlekarn, the executive director of MEKONG Institute (MI), introduced the MI which is an intergovernmental organization established by the six Greater MEKONG South Asian countries, five MEKONG s, and two Southern Provinces of China. Its mandate is to promote socio-economic development and regional cooperation and integration. MEKONG Institute manages the MEKONG Korea Cooperation Fund and is the interim secretary of the ASEAN Climate Diversity Network. The ASEAN guidelines on climate smart agriculture have been implemented and anticipated since 2016, and this year will be the first year of implementation. The guidelines key features include resilience to climate change, sustainable practices, research and development, collaboration and coordination, policy and regulation. Recommendations for MELA included the followings: raise awareness on the policy frameworks and initiatives relevant to small holder farmers; extension and learning supports to Mekong countries in relevant cooperation mechanisms: addressing policies implementation issues and recommendations for policy refinements and considered as operational network to support implementation of project outreaches targeting at small holder farmers. Mr. Suriyan also suggested that MELA could consider sending a representative to see how to engage with the ASEAN Climate Procedure Network to be held in December 8th in Chiangmai and at the sub-regional level, the Sustainable Network Research Network, SUMANET, and Network Leadership Think Tank Network, or MTT facilitated by Stockholm Environment Institute. MI is looking forward to collaborating with MELA in the near future.

2.1.2. Building Partnership for more inclusive, resilient and sustainable food system

Ms. Cam Thuv Nguyen introduced Grow Asia is multi-stakeholder platform established in 2015 by World Economic Forum and ASEAN to cultivate more inclusive, resilient and sustainable food systems. Grow Asia works in 5 countries of Cambodia, Vietnam, Indonesia, Philippines and Papua New Guinea with 44 working groups on crops and commodities. Grow Asia strategic deployment of 4 blended financial facilities to accelerate access to finance and technical assistance for SMEs involved in transforming Southeast Asia' food, agriculture and forestry sectors. Four pillars established of GrowVentures: for agri-food innovation, GrowRight: for responsible investing, GrowHer: for women's economic empowerment and GrowBeyond: for climate change adaptation and resilient. Grow Asia mobilize resources through Public - Private funds at the global, regional and country levels to provide co-financial

support to small holder farmers and innovative projects including climate change and digital learning.

2.1.3. Climate Resilience for Smallholder Farmers in Cambodia

Mr. Francesco Melara presented The Nurture project, implemented by HEKS and Helvetas and co-financed by Swiss Development Corporation, aims to strengthen the climate resilience of smallholder farmers in Cambodia. The project has identified three main pathways to build climate resilience: supporting system strengthening for climate-resilient agriculture and market development, disaster risk reduction and climate risk awareness, and enhancing water governance. The project has conducted assessments to understand farmers' perceptions of climate change impacts, such as increasing temperatures, more frequent and intense floods, and declining soil fertility. The project works with various partners, including the public sector, private sector, and agricultural cooperatives, to provide extension services and promote agroecological practices. Key models being used include the Metkasekor model, a publicly led extension service, and collaboration with companies like Smart Agro to provide technical assistance and agroecological inputs to farmers. The project is still in its early stages, and the team is working to mainstream the collected data and information into the extension models to support farmers' adaptation to climate change. The Nurture project is still in its early stages, but it highlights the importance of working with multiple partners, both public and private, to provide comprehensive extension services and support climate resilience for smallholder farmers in Cambodia.

2.1.4. Climate Change Adaptation in Myanmar

Mr. Rakesh Munankami is working with Helvetas, a Swiss development organization, on a project in the Gulf of Mottoma area of Myanmar. The project focuses on climate change adaptation and conservation of natural resources in this Ramsar wetland area, which is home to migratory birds and supports the livelihoods of thousands of people. The key interventions include mapping risks, developing community-based adaptation and disaster risk management plans, improving rural infrastructure, promoting ecosystem conservation, and implementing climate-smart agriculture practices. The project has learned important lessons about the need for localized, context-specific approaches, the importance of community involvement and capacity building, and the value of linking community plans to broader development efforts.

2.1.5. Climate-Friendly Agricultural Practices in Yunnan, China

Ms. Yang Hongyan, the Pesticide Eco-Technic Center, a non-profit organization based in Kunming, Vietnam, has been working on climate-friendly agricultural practices since 2012. Their key focus areas include: 1. integrating the use of crop straw waste to reduce burning and produce silage fodder for livestock, 2. supporting farmers to protect and conserve local crop varieties that are adapted to the changing climate, 3. helping farmers manage pests through ecological farming practices to increase economic benefits, 4. exploring climate-friendly rice cultivation techniques, such as using furrow

irrigation and mulching, to reduce water usage and greenhouse gas emissions, 5. promoting the integration of rice cultivation with other crops like apple orchards to increase multiple benefits, 6. experimenting with dry land rice cultivation to adapt to drought conditions. The organization works directly with smallholder farmers, as well as collaborating with research institutes, social enterprises, and government agencies to advocate for policy changes. The organization has also worked with local agricultural extension centers and utilized social media platforms like TikTok and WeChat to distribute information and educate the public, including farmers, children, and consumers. They have successfully promoted the ban of certain pesticides and influenced provincial-level policies related to climate change adaptation and mitigation.

2.1.6. Addressing Crop Burning and Agricultural Hotspots in Thailand

Mr. Nirat Sukanan, DOAE Thailand, presented the efforts to address the problem of crop burning and agricultural hotspots in Thailand. The key issues are: Crop burning in Thailand accounts for 33-36% of agricultural hotspots, with sugarcane waste being a major contributor (48 million tons per year, worth \$88 million). The Department of Agricultural Extension (DOAE) is implementing a '3R' approach to address this issue: 1. Re-habit: Changing farmer behavior and adding value to crop residues through methods like rapid decomposition using microorganisms, 2. Replace: Encouraging farmers to switch from rice to higher-value crops like coffee, macadamia, and avocado and 3. Recycle: Utilizing crop residues for various purposes like animal feed, composting, charcoal production, and mushroom cultivation. Major achievements included agricultural hotspot reduced by 10.75% while the overall areas reduced by 21.2% and over 4,000 farmers were warned and 230 were arrested and fined. The presentation also discusses challenges in scaling up these solutions, particularly in upland areas, and the potential role of carbon credit schemes and government subsidies to provide incentives for farmers to adopt more sustainable practices.

2.2. Agroecology Facilitated by Andrew Bartlett, Independent Consultant

2.2.1. Agroecology, Global Perspectives by Mr. Pierre Ferrand, FAO, Rome

The presentation provided an overview of the development of agroecology at the Food and Agriculture Organization (FAO) over the past 10 years. Key points include: the emergence phase from 2014-2018, marked by the first FAO International Symposium on Agroecology and the launch of the FAO Agroecology Knowledge Hub, the turning point phase from 2019-2021 with milestones such as the endorsement of the 10 Elements of Agroecology by the FAO Council, the development of the Tool for Agroecology Performance Evaluation (TAPE), and the CFS policy recommendations on agroecology.- The expansion phase from 2022 onward, with FAO's strategy focused on raising awareness, generating evidence, fostering policy dialogue, and mainstreaming agroecology across projects and partnerships. Examples of large-scale agroecology initiatives and national policies supporting

agroecology in various regions. - The growing recognition of agroecology in global processes and UN conventions related to climate, biodiversity, and food systems transformation. - The importance of aligning financing and incentives to support the agroecological transition particularly on climate, biodiversity, land degradation, and food system transformation. Pierre also provided information on Alisea network, which focuses on the Mekong region and has over 250 members, and encouraged participants to check out the network's website and resources.

2.2.2. Draft Policy Guidelines on the Agroecology Transition in ASEAN

The ASEAN has developed guidelines on various agricultural practices, including Climate-Smart Agriculture, Agroforestry, Sustainable Agriculture, GAP codes, Organic Standards, and Responsible Agricultural Investment. The Agroecology Guidelines aim to integrate all these elements and promote a transition towards a more sustainable food system. The guidelines are being developed under the LICA (Laos Initiative for Agroecology) initiative, which was set up in 2012 under ASEAN. The guidelines are expected to be approved by the end of this year by the ASEAN Ministers of Agriculture and Food. The guidelines cover topics such as strengthening farmer organizations, creating enabling conditions for the transition, harnessing digital technologies, promoting value chains that benefit small producers, and reshaping extension and advisory services. Agroecology is seen as a mechanism for promoting climate resilience, and the guidelines highlight the synergies between agroecology and climate adaptation. The next step after the approval of the guidelines is expected to be the development of national plans on agroecology and continued support and networking through the LICA initiative.

2.2.3. Cambodia Conservation Agriculture and Sustainable Intensification Consortium (CASIC)

Dr. Chan Saruth, Chair of CASIC Executive Board, presented the CASIC program in Cambodia, highlighting the challenges faced due to soil erosion, natural disasters, and the overuse of chemical fertilizers and herbicides, and the efforts to promote conservation agriculture and sustainable integration through the establishment of the Cambodia Conservation Agriculture and Sustainable Integration Consortium (CASIC) in mid-2020. The aims are to promote conservation agriculture and sustainable integration. The consortium involves various government ministries, research institutions, and the private sector, and has successfully increased the area under conservation agriculture from 200-300 hectares to 4,000-5,000 hectares within two to three years. CASIC includes a steering committee with representatives from various ministries and the private sector, as well as an executive board committee with representatives from government departments, universities, and research institutions. The bottom-up approach was used by CASIC, working with existing resources and organizations, including the private sector, community farmers, and service providers. Various activities and achievements of CASIC, including research and development, capacity building for young farmers, and the establishment of a network of target provinces. The challenges faced, such as the lack of participation from the private sector and the need for appropriate

technology and machinery to support the transition to agro-ecology. Dr. Saruth emphasizing the importance of agro-ecology in addressing the challenges of climate change and intensive agriculture, and the need for a collaborative approach involving the government, civil society, and the private sector to scale up agro-ecological practices.

2.2.4. Growing Peach Palm for Food and Eco-Sustainability

Ms. Supasiri Praisupa, the Young Smart Farmer from Thailand, highlighted the government's support for the young smart farmer program which provided training, networking, market opportunities and resources to help farmers adopt digital skills, technology, and research and development. A former materials engineer returned home to improve the agricultural practices by initiated the peach palm production through agroecology practices such as microorganism to remediate soil, using predator insects, bio-gas for kitchen, developed various valued added products based on research and development. She develops local network to learn and working together along with academics, government and private sectors.

2.3. Digitalization Facilitated by Marieke van Schie, LURAS Laos

2.3.1. East-West Seed Knowledge Transfer Foundation's Approach to Digital Extension

Ms. Girlie Frando presented that East-West Seed Knowledge Transfer Foundation is a corporate foundation based in the Netherlands that has been providing extension services to vegetable farmers in the Philippines since 1999. They have since expanded to several countries in Asia and Africa, with the goal of assisting at least 1 million farmers by 2025 through a combination of face-to-face trainings and online learning platforms. Their approach involves selecting 'key farmers' to serve as demonstration farms and community trainers, as well as setting up learning farms to conduct research and test new agroecological practices. They have developed various digital tools and resources, including the GrowHow app, KT Monitoring App, KT learning platforms, and the VeggieTap app, which are available in multiple local languages. Despite challenges around awareness, high infrastructure cost, literacy, trust, and high cost for farmers, East-West Seed Knowledge Transfer Foundation continues to evolve its digital extension services to better serve the needs of aging farmers and promote vegetable production as a viable livelihood option.

2.3.2. Village Links Presentation

Mr. Nyein Chan presented the Village Links, a product management company in Myanmar that has developed a mobile application to provide various services to farmers. The app includes features such as weather forecasts, crop advisory, Q&A sessions, learning resources, and tools for crop and fish farming. The company has also provided software development services to other organizations, including projects related to traceability, extension management, and microfinance. Additionally, Village Links has developed a value-added service called VLSS, which provides advanced features like weather advisory, crop monitoring, and land monitoring using a combination of data sources and models. The company's goal is to create a farmer-centric community and collaborate with various stakeholders, including agribusinesses, NGOs, and input companies, to provide comprehensive solutions for the agricultural sector in Myanmar.

2.3.3. Promotion on Digital Technology Application in Agriculture for Farmers

Ms. Pratamart Panpum from The Department of Agricultural Extension (DOAE) presented the works on promoting the use of digital technology through HandySense (HS) smart farming system which is designed to help Thai farmers adopt modern technology at an affordable cost. The system uses sensor technology and the internet of things (IoT) to provide real-time data on various farm parameters, such as air temperature, rain intensity, soil moisture, light and relative humidity. The web application allows farmers to view the sensor data and control various farm operations remotely using a smartphone, helping them make more informed decisions and optimize resource usage. The HandySense system is to help Thai farmers increase their productivity and

income by at least 20%, reduce costs, and better utilize resources. Major activities included developing HS learning plots, HS training for farmers and extension agents, coaching role models farmer trainers and extension, HS field trials, dissemination, monitoring and evaluation. DOAE has organized an AST (Agricultural Service Provider) training program to create agricultural entrepreneurs who can provide and service digital technology solutions to farmers in their communities.

2.3.4. Digitalization and Lessons Learned, Myanmar

Mr. Hein Zaw from Helvetas Myanmar presented how their project has integrated various digital applications and tools, particularly in the areas of climate-smart agriculture, vocational training, and livelihood support to support farmers and youth. In the climate-smart rice, they used digital apps like the Sustainable Rice Platform (SRP) app, Agrivi, and Kobo and African climate smart rice checklists to collect data, provide training, and monitor project activities. The main objectives were to share information, provide online training, and support fund monitoring. In the Gulf of Mottama and Biotrade projects, they used digital tools for training, data collection, and monitoring. They challenges faced included low digital literacy, language barriers, and affordability of smartphones among farmers. For the vocational training project (S4E), they used a Learning Management System (LMS) to deliver courses and provide certificates, though the certificates were not formally accredited. - Key lessons learned include the need for local language interfaces, offline availability, and establishing support networks to help farmers use the digital tools. Sustainability of the digital solutions beyond the project duration was also identified as a challenge.

2.3.5. Digital Innovation in Agri-food Value Chain for Small Holder Farmers in Laos

Mr. Phouthasinh Phimmachanh, Laos Farmer Network (LFN), a national-level farmer organization with around 50,000 members, presented the digital technology use by the LFN, LFN developed a mobile app called LFN Mart to help farmers and buyers connect by providing real-time information on crop availability and delivery schedules. This helps address the challenge of buyers not knowing what farmers have to sell. Farmers in Laos are using social media platforms like Facebook and YouTube extensively, even though the country has low computer usage. Facebook is used for selling, marketing, and information sharing, while YouTube is used for learning agricultural techniques, especially by accessing Thai-language content. LFN also encourages farmers to contribute data to Google Maps, creating a profile of their farms and products that can be accessed by potential buyers.- The presenter also discussed emerging technologies like satellite-based mapping and analysis that can provide detailed information on land area, soil quality, and yield estimates, though these services come at a cost. The presentation highlighted the need to leverage existing digital platforms that farmers are already using, as well as explore new technologies that can benefit smallholder farmers, while ensuring the solutions are customized to their specific needs and context.

2.3.6. Pesticide Smart App for Coffee Farmers in Vietnam

The Global Coffee Platform has developed a mobile app called 'Pesticide Smart' in collaboration with the Vietnamese government and private sector partners. The app aims to promote the responsible use of agro-inputs in the coffee sector by providing information on registered pesticides, their active ingredients, and guidelines on their usage. The app is targeted at coffee farmers, government officials, researchers, and students to help them access up-to-date information on approved pesticides and alternatives. The app has been downloaded over 30,000 times and has over 400,000 users. Key lessons learned include the need for frequent content updates, continued investment in the app, more communication and dissemination activities to increase user adoption, and knowledge sharing with other countries on app maintenance and improvement.

Chapter 3

Recap of Presentations

3.1. Recap of Climate Change and Agroecology Presentations:

Major Issues confronting member countries:

- Lack of water for irrigation
- Soil depletion
- Biodiversity loss
- Infrastructure i.e., road repair
- Lack of cooperation and improvement of value chains
- Farmers lacked business minded to adapt
- How to scale up?
- How to reduce risks for farmers to adapt? i.e., collective action
 - Demonstration
 - Research
 - Assurance/ Insurance for crops lost
- Lack of government policy and incentives to support long term adaptation.

Solutions:

- Coordination among concerned agencies/ stakeholders/ donors/ private sectors to provide services to farmers
- Grow Asia example of Win-Win strategies to provide incentives to support farmers.
- Livelihood's diversification of crops (Thailand examples)
- Invest in local infrastructure
- Re-create ecosystems
- Advocacy from community to policy levels
- Digitalize services
- 3 Rs approaches to reduce burning
- Economic incentives to help farmers change behaviors at scale i.e., increase prices for unburned sugarcane and/or maize (TH examples)
- Bottom-up approach from community working group to develop plan for diversify incomes

3.2. Recap Integrating Agroecology and Digital Technologies

The discussion covered several key points as follows:

- The importance of understanding farmer needs and preferences when developing digital apps and services. Farmers often prefer simple, user-friendly tools over complex apps with many features.
- The challenge of financing and sustaining digital agriculture initiatives, especially for promoting agroecological practices that may not have a clear revenue model. Private companies rely on data and advertising, while

- government and project-based efforts face funding constraints.
- The need to balance digital technologies with face-to-face extension and farmer-to-farmer knowledge sharing, as digital tools should complement rather than replace human interaction.
 - Opportunities to develop targeted digital services for specific farmer groups, like organic or agroecology-focused farmers, though the business model for such niche apps may be challenging.
 - The role of government in supporting digital agriculture, such as through training extension workers, establishing learning centers, and promoting young tech-savvy farmers as champions.
 - The potential of emerging technologies like AI to enhance digital agriculture services, though cost and farmer trust remain barriers. Overall, the discussion highlighted the complexities of integrating digital tools with agroecological principles, requiring a balanced approach that centers farmer needs and livelihoods.

Chapter 4 Regional and Country Plans

4.1. Regional Cooperation and Coordination by Government Group.

Summary of the discussion covers various topics related to cooperation among governments, particularly on issues surrounding youth engagement in agriculture, as well as other areas of potential collaboration.

Youth in Agriculture.

The discussion focuses on the need to bring more youth back to farming and agriculture. Participants discuss potential strategies and policies to address this, including capacity building, education, and incentives. There is a recognition that this is an important issue facing many governments in the region and that there could be value in sharing experiences and coordinating efforts.

Other Areas of Cooperation.

Beyond youth in agriculture, the discussion touches on other areas where governments could potentially work together, such as integration of climate change and agroecology training for farmers, food system transformation, i.e. production and residues traceability, safety, and environmental issues in the food system. The PM 2.5 air pollution impacts cross borders and need cooperation and education of new generation through government and public-private partnerships and technology sharing. Reduction of methane in rice production. The gap may be on Public and Private sector working together on crop wastes, bio-fuel, technology sharing. Ensuring that food system transformation, technology benefits vulnerable and smallholder farmer's livelihood.

Suggestions for regional sub-group activities such as regional meeting to share and/or draft training curriculum on AE/ Climate Change issues for farmers, schools and colleges; meeting to share and discuss PPP on cross border issues of PM2.5, Food system and traceability; and meeting to discuss possibilities for develop AE app. where opportunity and funding are available

Coordination and Networking.

The discussion also explores the existing regional networks and mechanisms for coordination, such as the ASEAN Working Groups, Sustainable Rice Platform and GFRAS and ASEAN Pacific Rural Advisory Services (APIRAS) which recognized MELA. Participants discuss the need for Cambodian government representation and engagement with MELA, potentially through letters of invitation to relevant agencies.

The next steps for MELA, including potential hosting of the next regional meeting, with Thailand and Cambodia as potential hosts. Country representatives from

Thailand and Cambodia will consult with government agencies to secure necessary approvals and funding within the next two months while exploring other sources of funding.

4.2. Country plans by Youth Group

The group was focusing more on learning, with 30% of the discussion dedicated to learning and 70% focused on learning integration. The group agrees to collaborate on regional projects and share information with each other. They have created a communication group to share photos, messages, and information, and they are looking to link their projects across countries. They have already created a WhatsApp group to share information each other and on the MELA facebook page.

Collaborative Projects.

The group wants to do collaborative projects in the region and share information with each other. They also want to link their projects and expand some country projects to another country in the region through requests. The successful project in one country and suitable to expand other countries in the regions.

Thematic Focus.

The group wants to continue focusing on agroecology but may change the focus in the future. The group is considering moving forward with carbon credit and green procurement in the coming years.

Communication

The WhatsApp group was set up for exchange, share innovations, opportunities and to facilitate the interaction between members of the group. Moreover, Whatsapp group will be a platform for sharing updates and learnings of each group's activities and for upload on the MELA Facebook group. All want to see MELA facebook more active with results from innovative activities including relevant information, not only from the participants of MELA, but also from the regions.

Chapter 5 Workshop Evaluation:

5.1. Themes of the workshop

Table 5.1

Climate Change		
Good = 9	OK = 1	Need improvement = 0
Agroecology		
Good = 13	OK = 0	Need improvement = 0
Digitalization		
Good = 11	OK = 0	Need improvement = 0

Comments:

Privatize extension services, exchange, study trips, good flow, simple words, fruitful, well organized, networking, good collaborations, food system transformation, bring youth to agriculture, excellent topics and ppt, relevant and interesting, group exercise, organisers very good, more discussion, inspiration, system approach, farmer friendly, fruitful dialogue, very good, relevant and interesting, not too technical and e-filling.

5.2. Content presentations:

Table 5.2

Good = 12	OK = 2	Need improvement = 2
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Comments:

Make it short and clear, get user feedback and impact, policy level more details, good cases, less presentations, joint proposal, less is more, good, have many topic clean, more icon and photos, more time for discussions, all good, less but more, more pics in some ppt, good idea for sharing, clear information, related farmers group, give files to participants, enlarge the font, simple wordings, focused, more clear case study, precise, systematic, more relevant discussion, deeper into subject, informative, less presentation slide, video clips were good.

5.3. Organization of the workshop

- Technical supports for preparation = 5.1
- Administration supports for preparation = 5.8
- Workshop Venue (Meeting room, meals, services) = 4.9
- Field visit site = 5.6

5.4. List 3 topics that I would like to see/learn during the next MELA workshop

Results after implementation, emission, take the sharing into action, digital tech for farmers, supply chain for agroecology, food system approach, local genetic, cross border issues, digitalization, e-agroecology, resolution of pollution, impact from use case, traceability agriculture, use of AI in Agr. ICT, food system transformation, more participation from private sectors, youth in agriculture, innovation, agroecology, food system transformation, agroecology practices, sharing more case studies, extension in agriculture, green digitalization AI, success story of project, cost of AE transition, extension and GCF (Green Climate Fund), agroecology, extension for the poor, smart agriculture, local wisdom, climate resilience, pollution anti-burning, youth and foods system, food system transportations, systems approach, extension services from private sectors, smart agriculture, community agroecology, credit groups, carbon credit, education, nutrition, AI tech for agriculture, carbon credit, case study, smart IOT.

Annex 1: Workshop Program

2024 Mekong Extension Learning Alliance (MELA)
Regional Exchange Workshop, 24-26 July 2024
Muong Thanh Luxury Quang Ninh Hotel, Halong City, Vietnam

Wednesday July 24, 2024

Time	Activities	Facilitator
8:30 - 9:00	Registration participants	NAEC & LURAS
9:00 - 9:15	Opening remarks and introduction participants	Dr. Nguyen Viet Khoa
9:15 - 9:30	Short Intro. Of MELA Workshop programs and expectations	Marut Jatiket
9:30 - 10:00	Keynote speaker: Integrated CSA in Public Extension Service, Dr. Le Quoc Thanh, Director General, DAE, MARD, VN Agriculture Extension (MARD) Hand-over gift to participants by host and group picture	Dr. Nguyen Viet Khoa
10:00 - 10:15	Break	
10:15 - 12:15	Climate Change Presentations: ASEAN Guidelines on the Promotion of Climate Smart Agriculture, Mekong Institute Building Partnership for more inclusive, resilient, and sustainable food system, Cam Thuy Nguyen Grow Asia Nurture Project in Cambodia - Francesco Melara, HEKS Climate Change Adaptation, Rakesh Munankami, Helvetas, Myanmar Mitigation and Adaptation to Climate Change in Agriculture, PEAC, Kunming Reduction of Crop Burning, Nirat Sukanan, DOAE, Thailand	Moderator: Marut Jatiket
12:15 - 13:30	Lunch	
13:30 - 15:00	Agroecology presentations and discussion: Global/Regional perspectives, Pierre Ferrand, FAO Rome (On-line) ASEAN AE Guidelines - Andrew Barlett Cambodia Conservation Agriculture and Sustainable Intensification Consortium (CASIC) - H.E. Saruth Chan Ensuring Food Security through Integrated Farming, Chananya Chawengchote (Young Smart Farmer)	Moderator: Andrew Bartlett

Time	Activities	Facilitator
	Thailand Growing Peach Palm for Food security and Eco-sustainability, Supasiri Praisupa, Young Smart Farmer Thailand Discussion	
15:00 - 15:15	Coffee break	
15:45 - 16:30	Recap and future development	Facilitator
16:30 - 17:00	Bilateral meetings between Vietnam Cambodia, Laos and Vietnam and Thailand delegations. (Dr Koa and team)	Dr. Nguyen Viet Khoa
18.00	Welcome dinner organized by NAEC Departure from hotel at 18.00 Walk to the dinning place (walking shoes) at a special location	Courtesy NAEC VN

Thursday July 25, 2024

Time	Activities	Moderator
8:00 - 8:15	Briefing for field visit, Dr. Khoa	NAEC
8:15 - 11:30	Field Visit Green Farm Cooperative Lunch in the hotel upon return	Organized and supported by NAEC VN
13:00 - 13:30	Debriefing field visits	NAEC
13:45 - 15:15	Part one: Digitalization services (the offering) Digitalization in extension Digital extension in SE Asia - East West Seeds -KT Village Link APP - Nyein Chan (Myanmar) Digital Technology Application for Thai Famers, Pattaramart Panpum, DOAE, Thailand Q&A	Facilitator: Marieke van Schie (LURAS)
15:15 - 15:30	Break	
15:30 - 17:00	Part two: Farmers and other users experiences with digitalized services Capitalization of using different Dig services (by Helvetas Myanmar) Knowledge platform and digital extension CLICK Laos Vietnam green extension mobile application for farmers Q&A and discussion	Facilitator: Marieke van Schie (LURAS)

Friday July 26th, 2024

Time	Activities	Remarks
8:30 - 8:45	Recap programs	
8:45 - 9:30	Country plans	Interested agencies could join in country plans
9:30 - 10:30	Country plans presentations	
10:30 - 10:45	Break	
10:45 - 12:00	MELA's charter, committee and plan	MELA Committee
12.00 - 12.15	Closure workshop	NAEC
12.15- 13.15	Lunch and departure	

Annex 2: List of Participants

	Name	Title	Organization	Email
I Cambodia				
1	Mr. Francesco Melara	Regional Specialist Market Systems and Climate Resilience	HEKS in Cambodia	francesco.Melara@heks-eper.org
2	Mr. POEUNG TRYDA	Director of PDAFF PVH	Department of Agriculture, Forestry and Fisheries of Preah Vihear Province	tryda1@hotmail.com
3	Mr. Ky Bonditphop	Component Manager: Climate Resilient Agriculture and Market Systems Development	HEKS in Cambodia	Bonditphop.Ky@heks-eper.org
4	Dr. Seng Vang	Director	Department of Agricultural Land Resource Management of GDA	sengvangkh@gmail.com
5	H.E. Dr. CHAN SARUTH	Undersecretary of State	CASIC Executive Chair	saruthchan@gmail.com
6	Pinhong Sin	Project Officer	Swiss Contact	pinghong.sin@swisscontact.org
7	Mr. Setha Rath	Deputy Project Manager	Swiss Contact	setha.rath@swisscontact.org
II China (Kunming)				
	Name	Title	Organization	
8	Ms. Yang Hongyan	Director	Pesticides Eco-Alternative Center/ PEAC	174488991@qq.com
III Lao PDR				
	Name	Title	Organization	
9	Mr. Souvanthong	Director Division	MAF/ DAEC	namvongs@gmail.com

	Namvong	DAEC		
10	Mr. Somphone Keohavong	Director General of DAEC	MAF/ DAEC	somphone.phone89@gmail.com
11	Mrs. Khamla Xayapheng	Deputy Director Division	MAF/ DAEC	Lar.saiyapheng@gmail.com
12	Mr. Sinthanou Inthaly	Deputy of Administration and Planning Division	MAF/ DAEC	inthaly89@yahoo.com
13	Mr. Thithphachanh Inthilid	Deputy of Division	MAF/ DAEC	daecnews@gmail.com
14	Ms. Chathaly Syfongxay	Technical Advisor	LuxDev	chanthaly.syfongxay@luxdev.lu
15	Mr. Phouvee Vilay	Technical Advisor	LuxDev	Phouvee.vilay@luxdev.lu
16	Ms. Phouthasone Phengvilai	Youth leader and management committee member	LFA	
17	Mr. Phouthasinh Phimmachanh	Director CLICK and Secretariat LFA	Laos Farmer Association (LFA)	phouthasinh.phimmachanh@gmail.com
18	Ms. Khamla Inmuangxay	Office Manager	LURAS/ Helvetas	Khamla.inmieugxay@helvetas.org
IV Myanmar				
	Name	Title	Organization	
19	Mr. Rakesh Munankami	Chief Technical Advisor	Helvetas	Rakesh.Munankami@helvetas.org
20	Mr. Hein Zaw	Water, Food & Climate Advisor	Helvetas	hein.zaw@helvetas.org
21	Mr. Nyein Chan Aung	Product Manager	Village link	nyeinchanaung@villagelink.co
22	Ms. Yin Yin Phyu	Co-founder and Business Development Director	Greenovator	yphyu@greenovator.co
V Thailand				
	Name	Title	Organization	
23	Ms. Wilasinee	Chief of Local	DOAE	wila_lee@hotmail.com

	Leethaweesup	Wisdom and Agricultural Innovation Group		
24	Miss Pattaramart Panpum	Agricultural Extensionist, Professional level	DOAE	pattaramart.p@gmail.com
25	Mr. Nirat Sukanan	Promotion on Reducing Crop Burning and Utilizing Agricultural Residues	DOAE	agrieng.doae@gmail.com
26	Ms. Chananya Chawendchote	Young Smart Farmer	Farmer	kunghomprao@gmail.com
27	Ms. Supasiri Praisupa	Young Smart Farmer	Farmer	Joy.supasiri@gmail.com
VI Vietnam				
	Name	Title	Organization	
28	Mr. To Viet Chau	Deputy Director General	International Cooperation Department (ICD), MARD	
29	Ms. Cam Thuy Nguyen		Grow Asia Vietnam	thuy@growasia.org
30	Ms. Tran Thu Ha	Team Leader	Transforming the Rice Value Chain for Climate Resilient and Sustainable Development in Mekong Delta, (TRVC)	TRVC@snnv.org
31	Mr. Ngo Tien Dung	Director	Center for Initiatives for Community Empowerment and Rural Development (ICERD)	ngotindungffs@gmail.com
32	Mr. Dinh Pham Hien	Officer	ICD - MARD	hiendp.htqt@mard.gov.vn

33	Dr. Le Quoc Thanh	Director General	NAEC	
34	Mr. Nguyen Viet Khoa	Head of the Training Division	NAEC	Vietkhoanaec@gmail.com
35	Mr. Hoang Tuyen Phuong	Head of Consulting and International Cooperation Division	NAEC	
36	Mr. Do Da Giang	Deputy Head of Consulting and International Cooperation Division	NAEC	
37	Ms. Dao Thanh Huong	Consulting and International Cooperation Division	NAEC	daohuong842010@gmail.com
38	Ms. Ngo Tuyet Lan	Consulting and International Cooperation Division	NAEC	
39	MR. Le Manh Tu	Consulting and International Cooperation Division	NAEC	
40	Ms. Nguyen Thi Thanh Huyen	Deputy Head of the Training Division	NAEC	
41	Mr. Nguyen Duc Hai	Deputy Head of the Training Division	NAEC	
42	Representative Quang Ninh's Agriculture Extension Center		Quang Ninh's Agriculture Extension Center	
43	Representative Bac Ninh's Agriculture Extension Center		Bac Ninh's Agriculture Extension Center	
44	Representative Hai Phong's Agriculture Extension Center		Hai Phong's Agriculture	

			Extension Center	
VII Organizer				
	Name	Title	Organization	
45	Marieke Van Schie	Project Manager	Luras	Marieke.VanSchie@helvetas.org
46	Andrew Bartlett	Consultant	TFA	andrew@seedbed.org
47	Marut Jatiket	Director	TFA	marutj@thefieldalliance.org
48	Nantawan Manprasong	Board Member	TFA	
VIII On-line Presenters				
	Name	Title	Organization	
1	Pierre Ferrand	Agriculture Officer	FAO	Pierre.Ferrand@fao.org
2	Suriyan Vichitlekarn	Executive Director	Mekong Institution	suriyan@mekonginstitute.org
IX Regional Presenters				
	Name	Title	Organization	
49	Ms. Girlie Frando	Farmer Extension Manager	East West Seeds Knowledge Transfer Foundation (EWS- KT)	girlie.frando@eastwestseed.com
50	Mr. Swaroop Nanu	Media and Communications Manager	EWS-KT	swaroop.nanu@eastwestseed.com

Annex 3: Summary of Field Visit



Field Visit to 188 Green Farm, Quang Ninh, Vietnam

Summary of Field Visit Briefing by Dr. Khoa

Vietnam has a comprehensive approach to sustainable agriculture and environmental protection. They have national target programs for rural development and agroecology, as well as initiatives to address climate change. The government funds many agriculture projects and encourages farmers to adopt practices that support environmental protection and food safety. The goal is to promote a better life and healthy living for the people, with a focus on clean air, a beautiful landscape, and safe food production for “Better Life”. Vietnam's approach emphasizes the importance of environmental sustainability and human health in its agricultural development. The visit to the hydroponic farm is focused on the safe foods production. Participants are group into 4 groups with questions to collect information from the visit.

Summary of Feedback from Group 1

The project appears to be well-organized, with good public-private collaboration and certification processes. High investment for commercial farmers but not sure how this will apply to small holder farmers. However, there are concerns about the high energy consumption of the hydroponic system and need for more information in English for foreign visitors. The farmers use Vietnam own quality standards, which is a positive step for the supply chain. However, the implementation of the standards from the provincial to district level is not clear. Food safety certification from the government is seen as a good integration for consumers, but the overall model and its prevalence are not fully understood. The

farmers use good agricultural practices like greenhouses and integrated pest management but lacks diversification beyond just vegetables. There are also concerns about waste management and plastic pollution. The national agricultural extension service is highly committed but the need for specialized expertise to support farmers is unclear. The long-term sustainability and diversification strategies of the project, as well as the role of farmer participation, require further explanation.

Dr. Khoa replied that there are some problems with hydroponic systems especially when farmers mixed chemical pesticides over the Maximum Residue Limit (MRL). You can add diversify crops within the greenhouse but not possible in the hydroponic system. As for the roles of small holder farmers, they can also seek loan to become more commercialize farmer.

Summary of Feedback from Group 2 (the Lao Team)

The Lao team found the organization to be very good, which has a good quality staff with higher income. The organization's food safety practices and the CSA. The team see that there are stable markets for their products. High investment of plastics used for the products thus made the products has higher price.

Dr. Khoa replied that the presentation was deemed appropriate with a clear and easy-to-understand format, including a nice diagram. Vietnam is developing sustainable crop value chains and has received funding from JICA for safe crop value chains and for Laos as well. Farm owners invested a lot due to high price of land but have a very good supply chain from market surveys to plan for production.

Summary of Feedback from Group 3

The group found the strengths of the place to have good organization and management, with some concerns about safety and security measures. The use of reusable planting pots and coconut based helped reduce wastes. The diversification of the market, with a focus on finding end buyers like supermarkets to sell at higher prices and the logistics, including the use of chilled truck to transport the products. The food safety measures, including Vietgap certifications and quality control. The use of a hydroponic system with irrigation, greenhouse for heat protection, and sensor-based monitoring, and with some manual processes. Some weakness included the mixed fertilizers process can be replaced by ready mixed fertilizers to ensure the quality. Facilities should be isolated from visitors for sanitation. The double-doors entry could be used for sanitation and protection from insects. Other improvements could be on waste management and language barriers. The price of vegetables may be not high enough for the investment of greenhouse liked in Thailand. The role of extension services in supporting the project and seeking higher-end markets. Discussions on the challenges of contract farming and the need for effective facilitation and mediation between farmers and buyer on price, standards and knowledge of laws regarding the contracts.

Summary Feedback from Group 4

The group pointed out that due to short visit of the facility, they don't have much information about the organization and management. However, the investors and partners of the company, which include construction and mining companies that see the opportunity and utilize the technology to adapt to the changing situation. The production of nitrogen, NPK, and micro-element fertilizers, as well as the water management and recycling practices of the company. The benefits of hydroponics, such as the ability to produce vegetables off-season and increase market demand for products not available from traditional farms. The importance of food safety and climate-smart practices in hydroponics, as it allows for controlled environments and resilience to climate changes. The role of the extension could be in form of associations of hydroponics and the need for extension services to support small-scale farmers in adopting hydroponics technology.

Discussions about roles of extensions for small farm holders was not possible to observe during this visit since this farm is located in the tourist area. The visit to this farm which is climate smart agriculture which is not the nature-based agriculture. Should our food systems and long-term plan be to clean up the environment or growing foods in this kind of environment.

