

National Closing Workshop of the “Applying Seasonal Climate Forecasting and Innovative Insurance Solutions to Climate Risk Management in the Agriculture Sector in SE Asia (DeRISK SE Asia)”

Tonle Bassac 2 Restaurant, Phnom Penh, 17 November 2022

The project “Applying seasonal climate forecasting and innovative insurance solutions to climate risk management in agriculture in Southeast Asia” (DeRISK SE Asia) was launched in 2018. The project aim was to develop climate risk management systems, best practices, and insurance products that will safeguard smallholder farmers and businesses across key agricultural value chains (especially rice, coffee, and cassava) in Vietnam, Lao PDR, Cambodia, and Myanmar from physical and financial disasters associated with climate change.

The project is supported by the International Climate Initiative (IKI) of the German Federal Ministry for Economic Affairs and Climate Action (BMU), with the lead implementing agency, the World Meteorological Organization (WMO) together with the University of Southern Queensland (USQ) and the Alliance of Bioversity International and CIAT (ABC) and is now in its project closure stage and currently organizing an event to showcase the key outputs and to report the milestones and outcomes generated with project partners, stakeholders, and collaborators in Cambodia. This occasion aims to convene the partners who made significant contributions to this project and enabled implementers to deliver and create an impact in enhancing climate risk management practices in response to the challenges experienced by the agriculture sector.

With the end of the project in sight, 8,000 smallholder farmers and 23 cooperatives in Cambodia (Battambang and Kampong Speu provinces) have benefited from climate advisory based on seasonal forecasts. This experience will assist government agencies in developing adaptation and risk management strategies in other provinces as well. Instrumental to the current approach was a cross-country assessment to identify the demand and supply of climate services and scaling opportunities.

Objectives:

The national closing meeting aims to:

- Present the key milestones achieved in climate forecasting and research, delivery of agro-advisory, crop insurance, irrigation management, and crop modeling and contribution to enhanced policy within the 4-year implementation in Cambodia.
- Generate responses and recommendations from the government, private sector, NGOs, development organizations, and donor community on how to sustain outputs and scale project outcomes created in Cambodia.
- Stimulate discussion, building on the lessons learned and identifying gaps in project implementation in order to develop action plans based on relevant and potential programs (i.e. Asian Mega Delta Initiative, CREWS project) in Cambodia that can take up key results from the project.

Date and venue: The workshop was held on 17 November 2022 at Tonle Bassac 2 Restaurant, Phnom Penh, Cambodia.

Participants: Approximately 50 participants attended the national closing workshop. They are representatives of the GDA technical departments, the Department of Meteorology (DOM) of the Ministry of Water Resources and Meteorology (MoWRAM), Cambodian Agricultural Research and Development Institute (CARDI), Food and Agriculture Organization of the United Nations (FAO), the World Food Programme (WFP), Provincial Department of Agriculture, Forestry, and Fisheries (PDAFF), the Provincial Department of Water Resources and Meteorology (PDoWRAM), the private sector, and so on. This event was organized by the International Institute of Rural Reconstruction (IIRR) under the DeRISK project with support from the Alliance of Bioversity and CIAT and other project partners, including the World Meteorology Organization (WMO), University of Southern Queensland (USQ).

1. Opening session

Opening remarks by GDA

The workshop begins with an opening statement from the GDA's Deputy Director Mr. Srun Sokhom. He mentions the impact of Climate Change on agricultural production, including the recent flood in 2022, which affected production costs and farmers' profitability. High production costs, combined with the effects of climate change, make it difficult for farmers to make a reasonable profit. Therefore, improved access to climate information services is important for farmers to reduce their vulnerability to climate risks. He extends his gratitude to all event organizers and participants, as well as to all development partners. He finally opened the workshop and wishes for its success.



Welcome message WMO

Following the opening remarks of GDA Deputy Director [Mr. Robert Stefanski](#), the World Meteorological Organization (WMO) provides a welcome speech. He started with the project information, which includes BMU as the project donor, WMO, CIAT, and USQ as implementing partners. He wishes for a successful closing workshop and looks forward to future collaborations with partners.



1.1. Overview of the DeRISK Southeast Asia

Dr. Kees Swaans, Alliance of Bioversity International and CIAT Regional Lead for Climate Action in Asia, provides an overview of the [DeRISK SE Asia project](#), highlighting the project goal, objectives, target countries (Cambodia, Lao, Myanmar, and Vietnam), work packages, activities across different countries, as well as the project results and lessons learned.



2. Session 1: Looking back: climate risk management for last-mile users

2.1. Evaluating global climate models for local and regional suitability, including decision analysis tools

Mr. Torben Marcussen, University of Southern Queensland (USQ) provided a presentation on “[evaluating global climate models for local and regional suitability including decision and analysis tools](#)”. He highlighted that the information is available on the website of the Project <https://deriskseasia.org/>

2.2. Mapping the demand for climate services for enhanced planning and decision-making

The country coordinator for DeRISK Cambodia presented the [mapping of demand for climate services for planning and decision-making](#), specifically related to the Climate risk workshop approach used by the DeRISK project at the start of its implementation. He also referred to the participatory mapping process. 1) validation of the national livelihood map, 2) identification and prioritization of major cropping systems based on livelihood zones, 3) development of crop calendars and related management practices, 4) recall of climate-related risk events and management response, 5) identification of climate information and support networks for each management response, and 6) climate service requirement.

2.3. Establishment of the Local Technical Agro-climatic Committees (LTAC) in Battambang and Kampong Speu

Mr. Heng Seth, an extension officer with the Provincial Department of Agriculture, Forestry, and Fisheries (PDAFF), discussed his experience with [LTAC implementation](#). Use of the digital Sesame app for the dissemination of climate information and Agro climatic advisory, as well as the need for downscaled climate information, are essential for farmers in communities.

2.4. Coffee and tea break and viewing exhibits and knowledge products

The materials that were produced by the project were given to the participants during registration. These materials include a policy brief on livelihood zone mapping and climate risks, a brief on the agricultural forum, crop insurance prototypes, irrigation and water budget manuals. The draft of the LTAC manual that is currently being developed. All materials were displayed to the participants during the workshop.

2.5. Integration of crop decision trees into the Specialized Expert System for Agro-Meteorology and Early Warning (SESAME) tool

Ms. Carlyn Yu of the Regional Integrated Multi-Hazard Early Warning System (RIMES) discusses the incorporation of crop decision trees into the [SESAME application](#). Sesame is a web portal that generates and disseminates crop management advisories based on weather and climate data for specific crops at specific growth stages. The DeRISK project collaborates with RIMES to incorporate crop decision trees into the SESAME App for agricultural extension workers, Farmer Cooperative leaders, and local authorities.

2.6. Application and integration of climate-smart crop production and water management in Cambodia

Jochen Eberhard from USQ discussed "[the application and integration of climate-smart crop production and water management in Cambodia](#)." His presentation focused on a digital application that allows farmers to calculate the availability of water for irrigation and water budget management. The application is being developed, and the participant is very interested in water irrigation and budget management, so it is important to translate it into Khmer and make it easily accessible to users. Senior research fellow Louis Kouadio from USQ discusses "developing targeted seasonal climate forecasting crop yield modeling system for improved climate risk management-[crop modeling](#)." He mentioned the tailored seasonal climate forecast for Cambodia's cassava growing regions.

2.7. Agricultural insurance prototypes in Cambodia: farmers' willingness to pay

Prof. Shahbaz Mushtaq of the University of Southern Queensland presents "[Financial risk management through innovative insurance solutions](#)." He shared a study conducted in Battambang province in collaboration with the PDAFF on crop insurance willing to pay. There are two prototypes proposed: one with low cumulative rainfall and one with high cumulative rainfall. Finally, he concluded the presentation by discussing the lessons learned.

2.8. Q&A

Question 1: how can we access the digital application for the water irrigation management?

Jochen: The app is not yet available on Google Play and is only available in English, so a translation into Khmer is required for a later stage. To install, simply scan the barcode provided in the document.

	<p>Question 2: What is the status of the implementation of crop insurance in Cambodia? Who is the project partner for the crop insurance program's implementation?</p>
	<p>Mr. Am Phirum, DALRM of GDA: Crop insurance has been piloted by the Ministry of Economic and Finance (MEF) under the climate resilience rice commercialization sector development program (Rice SDP) project. We have no experience with crop insurance from the agricultural departments, which is why the MEF is taking the lead in piloting crop insurance in Cambodia. Mr. Phirum added that he used to attend crop insurance workshops in Indonesia; there are two types: weather-based index insurance and production cost index insurance, but we aren't sure which one to choose right now. Furthermore, there is currently no national regulation or framework for crop insurance.</p>
	<p>Ms. Lyka Barlis, DeRISK project manager, responded that the DeRISK project conducted a crop insurance willing to pay study and developed crop insurance prototypes, which will be improved further to meet the needs and preferences of farmers. She added that in Cambodia, the project is attempting to collaborate with local partners to pilot crop insurance.</p>
<p>Information sharing from FAO: Mr. Proyuth from FAO shared information about the new project "PEARL" funded by the Green Climate Fund, which also involves climate service in northern Cambodia, including Kampong Thom, Siem Reap, and Oddar Meanchey. The final approval from the GCF is expected by the end of March 2023. One of the project's components is concerned with the provision of climate services. The project will collaborate with MAFF and MoWRAM to improve technical capacity in the production of climate information products, as well as climate agrometeorology for dissemination to farmers so that they can make agricultural planning decisions. The project also assists in the installation of new weather stations as well as the repair of existing weather stations. This project will last for six years and is expected to help improve climate service. This project also includes crop insurance for vegetables, rice, mango, and cashew nuts. We spoke with the Forte insurance company, and it appears that they are interested in various insurance prototypes (especially for the cashew nut).</p>	



Dr. Kees Swaans added information regarding the CREW project that will be implemented in Cambodia by WMO. So, it is encouraging to see that this is also occurring. CIAT is collaborating with IIRR, World Fish, and IRRI to implement the Asian Mega Delta (AMD), which includes a climate service component. Within this component, we will attempt to build on the DeRISK project's experience by focusing on digital climate advisory services and determining how best to combine them with other types of climate services, such as insurance and access to credit, input supplies, and not only concentrating on the production but also the value chain component.

3. Session 2: Participatory livelihoods mapping to define users' demand for CS

3.1. Consolidated Livelihood Exercise for Analyzing Resilience (CLEAR) approach: methodology, potential areas for application and implication of changes in livelihood on food security

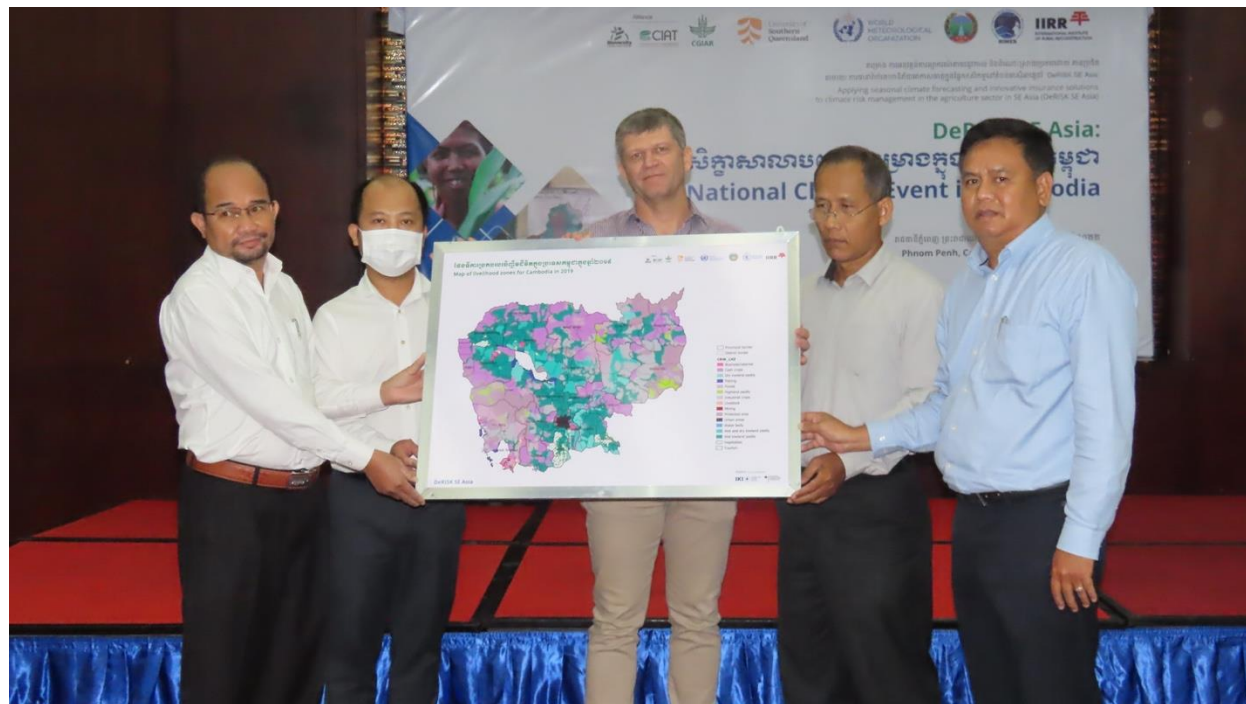
Mr. Choeur Chanvibol, WFP, provided a presentation on "Consolidated livelihood exercise for analyzing resilience-the [CLEAR Approach](#)". The objective of the CLEAR approach was to understand how specific livelihoods (micro livelihood zones) are affected by natural resources management, weather or climate impacts.

3.2. Lessons from the collaboration between WFP-CLEAR and DeRISK SE Asia: building on existing knowledge product

Dr. Kees Swaans then presented [Lessons from the collaboration between WFP-CLEAR and DeRISK SE Asia](#): building on existing knowledge. Specifically, he highlights the steps of the climate risk workshop and presents key changes in livelihood zones, information derived from CRWs, and a summary of the most important messages.

3.3. Official handover of the updated CLEAR map to the General Directorate of Agriculture (GDA)

The Alliance of Biodiversity International and CIAT, along with WFP and IIRR, presented the GDA with the updated livelihood clear map (2019) for Cambodia. The GDA's Department of Agricultural Land Resource Management (DALRM) appreciates the updated maps and requests the map's shapefile in order to utilize it effectively.



3.4. Way forward: Integrating key lessons from DeRisk SE Asia into the priorities of Cambodian agriculture

Mr. AM Phirum thanks to the DeRisk project for collaborating with the GDA's DALRM to implement the project. The DALRM, which is the focal point for climate service and a member of the national technical working group on climate change in agriculture, forestry, and fisheries, will continue to carry out work related to climate service in the future. We have incorporated a number of crop decision trees into the Sesame App, and we will work to enhance the use of climate information in crop management, planning, and decision-making. Even though the project has been piloted in two provinces, this could be a good model that should be expanded to other provinces. Since the new projects, including AMD will be implemented in the provinces of the Mekong Delta, we anticipate that the project will train farmers, farmer trainers, and extension workers in the provision of climate services and agroclimatic advisory. We will attempt to promote the development and distribution of agroclimatic bulletins within upcoming projects, and we anticipate future collaboration to sustain our work.

4. Closing remarks

Or Thy, director of IIRR, delivers the concluding remarks. He expresses gratitude to all those who attended the event, as well as the donor, International Climate Initiative (IKI), World Meteorological Organization (WMO), University of Southern Queensland (USQ), Alliance of Bioversity International, and CIAT. He appreciates the government's (MAFF, MoWRAM, PDAPP, PDoWRAM) positive response and proactive participation at different levels. The achievements of DeRISK SE Asia enabled smallholder farmers to make well-informed decisions regarding farm planning by providing them with access to the scientific knowledge. In addition, the project's high-quality research outputs and technical products (such as index-based insurance for rice and cassava and the water management system) have the potential to enhance farmers' ability to manage climate risks. In addition, he witnessed significant collaboration and partnership established and strengthened by DeRISK. The updated CLEAR livelihoods map from the WFP that was enriched by the project has the potential to be utilized by policymakers and planners. With these outcomes and the acquired knowledge, there is a high likelihood that upcoming development programs (e.g., GCF-FAO-PEARL Project, Asian Mega Delta Initiative) in Cambodia will be updated, thereby increasing the country's potential for impact.



Annexes

Annex 1: Agenda

Time	Activity	In-charge
08:00 – 08:30	Registration of participants	Secretariat
Opening session		
08:30 – 08:40	Introduction and welcome participants	Yim Sokphors DeRISK SE Asia, Cambodia Coordinator International Institute of Rural Reconstruction (IIRR)
08:40 – 08:50	Opening remarks	Deputy Director, General Directorate of Agriculture (GDA)
	Welcome message (pre-recorded)	Robert Stefanski, World Meteorological Organization (WMO)
08:50 – 09:00	DeRISK Southeast Asia: An Overview (2018-2022)	Kees Swaans DeRISK SE Asia, Project Leader, Alliance of Bioversity International and CIAT (ABC)
Session 1: Looking back: climate risk management for last-mile users		
09:00 – 09:15	Evaluating global climate models for local and regional suitability, including decision analysis tools	University of Southern Queensland (USQ)
09:15 – 09:25	Mapping the demand for climate services for enhanced farm planning and decision-making	Yim Sokphors IIRR
09:25 – 09:40	Establishment of the Local Technical Agro-climatic Committees (LTAC) in Battambang and Kampong Speu	Provincial Department of Agriculture, Forestry, and Fisheries (PD AFF)
09:40 – 09:50	Q&A	
09:50 – 09:55	Introduction of knowledge products and exhibit display + group photo	DeRISK SE Asia and participants
09:55 – 10:15	<i>Coffee and tea break and viewing exhibits and knowledge products</i>	Participants
10:15 – 10:25	Integration of crop decision tress into the Specialized Expert System for Agro-Meteorology and Early Warning (SESAME) tool	Regional Integrated Multi- Hazard Early Warning System (RIMES)
10:25 – 10:40	Application and integration of climate-smart crop production and water management in Cambodia	University of Southern Queensland (USQ)
10:40 – 10:50	Agricultural insurance prototypes in Cambodia: farmers' willingness to pay for premium	University of Southern Queensland (USQ) / International Institute of Rural Reconstruction (IIRR)

Time	Activity	In-charge
10:50 – 11:00	Q&A	
Session 2: Participatory livelihoods mapping to define users' demand for CS		
11:00 – 11:20	Consolidated Livelihood Exercise for Analyzing Resilience (CLEAR) approach: methodology, potential areas for application and implication of changes in livelihood on food security	World Food Programme (WFP) - Cambodia
11:20 – 11:30	Lessons from the collaboration between WFP-CLEAR and DeRISK SE Asia: building on existing knowledge product	Alliance of Bioversity International and CIAT
11:30 – 11:40	Official handover of the updated CLEAR map to the General Directorate of Agriculture (GDA)	Moderator
11:40 – 11:50	Way forward: Integrating key lessons from DeRISK SE Asia into the priorities of Cambodian agriculture	General Directorate of Agriculture (GDA)
11:50 – 12:00	Closing remarks	Director, Department of Agricultural Land Resource Management (DALRM)
12:00 – 13:30	Lunch	

Annex 2: Presentation slides

https://drive.google.com/drive/folders/1PU6MLAFPxZ-PldUxQQal9-ntVyQta630?usp=share_link

Annex 3: Photos:

https://drive.google.com/drive/folders/1tbX8WX0I6eDIQp31MwJ3ev8-opmJJ_uT?usp=share_link

Annex 4: Attendance list:

https://drive.google.com/file/d/1fD_QMPyMOowfQS4VOkKL9GQF78IBd5Yf/view?usp=share_link

** This report was prepared as an output for DeRISK SE Asia and is aligned with the new CGIAR initiative on Asia Mega-Deltas (AMD). Key relevant outputs and outcomes generated from DeRISK SE Asia are continued and adopted in AMD Focus Area 3 implementation in Cambodia.*



INITIATIVE ON
Asian Mega-Deltas