



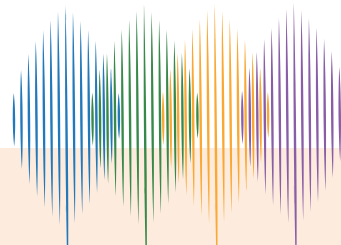
Food and Agriculture  
Organization of the  
United Nations

# Agricultural innovation pathways in Cambodia

*Highlights and way forward from the TAP-AIS project*



Funded by  
the European Union



## Key Messages

- ⦿ Technological, social and institutional innovations are needed to achieve the transformational changes required for long-term food security, improved livelihoods and climate resilience in Cambodia
- ⦿ The EU-funded TAP-AIS project strengthened the capacities of three key institutions to innovate: the Cambodian Agricultural Research and Development Institute (CARDI), Cambodia Conservation Agriculture and Sustainable Intensification Consortium (CASIC) and the Department of Extension for Agriculture, Forestry and Fisheries (DEAFF)
- ⦿ The project strengthened the capacities of 161 individuals including national and subnational staff/members of CARDI, CASIC and DEAFF and collaborators from non-governmental organizations (NGOs) and the private sector. The project also directly benefited an additional 591 individuals
- ⦿ The project contributed to making agricultural research more participatory and demand-led (CARDI), promoting conservation agriculture and agroecology through multistakeholder policy dialogue (CASIC), empowering community extension workers and improving collaboration in the agricultural extension system (DEAFF)

## Innovation for the sustainable transformation of agrifood systems

The world is facing unprecedented challenges, such as climate change and rapid biodiversity loss that hinder the transformational changes foreseen in the 2030 Agenda for Sustainable Development. Today, about 815 million people are chronically undernourished and FAO estimates that by 2050 global agricultural output will need to increase by almost 50 percent compared to 2012 to meet the needs of a growing global population (FAO, 2018b). Achieving this output growth sustainably in the face of climate change requires a departure from the “business as usual” approach. Indeed, as highlighted in FAO’s most recent Future of Food and Agriculture report “widespread technological, social and institutional innovations” are required as one of the key triggers for the sustainable transformation of agrifood systems (FAO, 2022b).

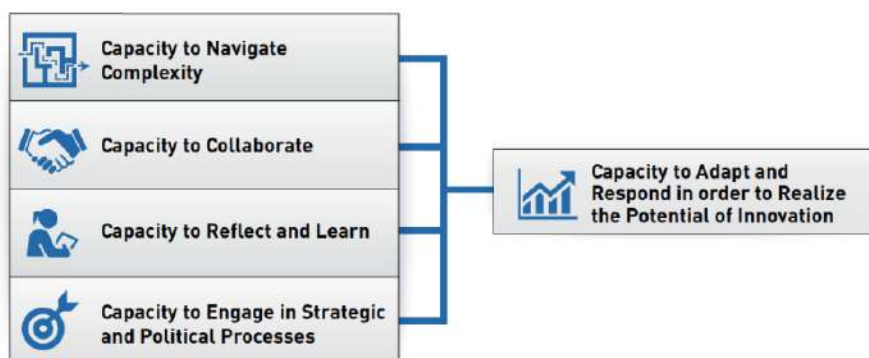
In Cambodia, global challenges are felt acutely, and in particular the multifaceted challenges posed by climate change, land degradation and rural poverty threaten the country’s sustainable development (MAFF, 2018). New approaches and technologies, i.e. innovations, are needed to achieve the transformational changes required for long-term food security, environmental and social stability. Innovation, especially in the agrifood sector will be a fundamental part of this transformation, yet the question of how best to support agricultural innovation often remains unanswered.

*“Agricultural innovation is the process whereby individuals or organizations bring new or existing products, processes or ways of organization into use for the first time in a specific context in order to increase effectiveness, competitiveness, resilience to shocks or environmental sustainability and thereby contribute to food security and nutrition, economic development or sustainable natural resource management.” (FAO, 2018a, p.5)*

## The TAP-AIS Project in Cambodia

The Food and Agriculture Organization of the United Nations (FAO) is committed to and has been actively supporting agricultural innovation through various projects and initiatives (FAO, 2018a). Among them, FAO is implementing a European Union (EU)-funded global project entitled, "Developing Capacity in Agricultural Innovation Systems Project: Scaling up the Tropical Agriculture Platform Framework" (TAP-AIS). The TAP-AIS project<sup>1</sup> has been developed under the EU initiative "Development Smart Innovation through Research in Agriculture (DeSIRA): Towards climate-relevant Agricultural and Knowledge Innovation Systems", which aims to contribute to climate-relevant, productive, and sustainable transformation of agriculture and food systems in low and middle-income countries (LMICs).

At the national level, the TAP-AIS project aims to strengthen the capacities of relevant actors of the agricultural innovation system (AIS), where the AIS is defined as a network of actors i.e. organizations and individuals, together with supporting institutions and policies in the agricultural and related sectors that engage in and facilitate agricultural innovation. TAP-AIS works in nine countries, including Cambodia, and focuses on strengthening functional capacities of key actors; functional capacities are the "soft" skills that enable the effective use of technical skills to facilitate innovation. Thus, strengthening functional capacities leads to the improved overall capacity to "adapt and respond in order to realize the potential of innovation" (see figure below) which strengthens the agricultural innovation system (TAP, 2016).



In Cambodia, the TAP-AIS project has been implemented by FAO in close partnership with the Ministry of Agriculture, Forestry and Fisheries (MAFF). The main objective of the TAP-AIS project in Cambodia was to assess Cambodia's agricultural innovation system (AIS), identify capacity development needs and strengthen the AIS over the period from January 2020 to December 2022. The project contributes to the achievement of the policy commitments of the Royal Government of Cambodia (RGC) in promoting sustainable and innovative agriculture sector development, which are reflected in various national and sectoral policies and plans of the RGC, including the Agricultural Development Policy (ADP) 2021 – 2030.

<sup>1</sup> For more information on the TAP-AIS project see: <https://www.fao.org/in-action/tap-ais/en/>.

Under the TAP-AIS project, the assessment of Cambodia’s AIS was completed in June 2021.<sup>2</sup> The assessment identified three key organizations of the national AIS for capacity strengthening. These three organizations (see box below) were selected due to their central role in Cambodia’s AIS. Functional capacity gaps were identified through participatory capacity needs assessments with each of the organizations and capacity development (CD) plans formulated as entry points to strengthen these organizations and the overall AIS.



**Cambodia Conservation Agriculture and Sustainable Intensification Consortium (CASIC)**

CASIC’s capacity to engage in political processes to promote conservation agriculture (CA) in Cambodia was strengthened through the implementation of a series of multistakeholder policy dialogues.



**Cambodian Agricultural Research and Development Institute (CARDI)**

CARDI’s capacity to collaborate with and engage their partners was strengthened through a new participatory approach used to develop their Strategic Development Plan (SDP) for 2023 – 2027.



**Department of Extension for Agriculture, Forestry and Fisheries (DEAFF)**

DEAFF’s capacity to reflect and learn was strengthened through trainings and practical experience with capacity needs assessments (CNA) for community and village extension workers. DEAFF’s capacity to collaborate was also strengthened through the development of a national forum of pluralistic extension providers linked to the Global Forum for Rural Advisory Services (GFRAS) network.

The TAP-AIS project supported the three organizations with the implementation of these tailor-made CD plans that included the core areas highlighted above and more. All activities were planned and implemented by the organizations themselves with technical support and guidance from FAO and partners, such as the Centre for Research on Science and Innovation Policy (CRISP – based in India) and the BDtruS Research and Business Consultancy (Cambodia). Key achievements from the work with the three organizations are highlighted on the following pages, which demonstrate the outputs and early outcomes from the project. We hope the reader will benefit from learning about these experiences which aimed to promote a shift towards innovation mindsets in Cambodia. This brief ends with conclusions and a way forward, including recommendations for national and international stakeholders interested in further supporting agricultural innovation in Cambodia.

<sup>2</sup> Full report available online at <http://www.fao.org/3/cb5159en/cb5159en.pdf>.

## Multistakeholder policy dialogue to promote conservation agriculture and agroecology

The Cambodia Conservation Agriculture Sustainable Intensification Consortium (CASIC) is a well-recognized national coordination platform that promotes conservation agriculture (CA) and sustainable intensification (SI) towards agroecological transition in Cambodia and Southeast Asia. Conservation agriculture (CA) consists of three key principles: (i) minimum soil disturbance (zero/no till), (ii) permanent soil cover and; (iii) crop rotations (FAO, 2022a). These innovative and agroecological farming practices strengthen farmers' ability to cope with economic and climate shocks, especially when embedded in a support system (i.e., with accompanying access to relevant education, services etc.) that promotes a wholistic approach to agriculture.

In spite of the benefits of CA, which have been demonstrated in the Cambodian context by various scientific studies (see e.g., Beesa et al., 2021; Hok et al., 2021, and; Pheap et al., 2019) its adoption remains limited. Indeed, concerted efforts by multiple national and international partners led by CASIC since its establishment in 2020 have resulted in a solid knowledge and practice base of CA, but the total area under CA management is still estimated at just around 7250 ha. Low adoption is in large part due to limited multistakeholder collaboration and a lack of targeted policies to support farmers in adopting CA and related agroecological practices.

The TAP-AIS project's comprehensive assessment of the national AIS identified CASIC as an important player in the AIS and its limited capacity to effectively engage in policy processes as a



capacity gap to be addressed by the project. Multistakeholder policy dialogue was selected as the approach to strengthen this capacity gap also because this aligned with CASIC's objectives set out in its five-year roadmap (CASIC, 2021). Thus, CASIC and FAO developed a CD plan to organize a policy dialogue process in a bottom-up manner and involving all relevant stakeholders, in particular local level stakeholders such as farmers, their organizations, agribusinesses, NGOs

*"The policy dialogue is a very good platform offering an opportunity for all relevant stakeholders to identify key challenges in implementing conservation agriculture. They were able to collectively explore and document possible solutions to those challenges and present them to policy makers. Previously there was no such platform of exchange among farmers, service providers and other actors to enable cooperation among different stakeholders to share common goals and understanding."*

*- Mr. Sar Veng, Coordinator of Conservation Agriculture Service Center (CASC) in Battambang*

and local government. The result was a year-long process, which was kicked off by a policy dialogue training workshop in November 2021<sup>3</sup> facilitated by FAO's Office of Innovation (OIN). Following the workshop, FAO and CASIC developed and validated a roadmap for the multistakeholder policy dialogue process starting with subnational policy dialogue events in Battambang province, where CA has a long history. These events were facilitated in a participatory workshop style to encourage maximal participation by local stakeholders. Local stakeholders involved in CA discussed the issues they face and opportunities they see to expand CA in their region and beyond. The subnational policy dialogues were held in April and June 2022 with 56 participants.

The results from the subnational dialogues were supplemented by an online survey conducted by CASIC among Provincial Departments of Agriculture, Forestry and Fisheries (PDAFFs) across the country and a policy brief was drafted. The draft policy brief with background information and results from subnational dialogues was presented and discussed at the national policy dialogue held at MAFF in Phnom Penh on 7 September 2022 with 49 participants and presided over by H.E. Dr. Chan Saruth and H.E. Dr. Yoeu Asikin, Undersecretaries of State of MAFF.

The national policy dialogue generated a high level of interest and engagement among government and non-governmental stakeholders including development partners. One major highlight of the dialogue was an announcement made by a policy maker from MAFF that a target will likely be included into the updated Agricultural Development Policy for 2023 – 2030 to expand the area under CA in Cambodia. If realized, this would be a major success for CA and agroecology in Cambodia which the TAP-AIS project has contributed towards.

Following the national policy dialogue CASIC and FAO revised the policy brief based on results of the dialogue and published it in November 2022<sup>4</sup>. The policy brief highlights practical recommendations from local and national stakeholders' perspectives, which are considered as an input into the updated Agricultural Development Policy (2023 – 2030). The brief will also be

<sup>3</sup> To read more about the policy dialogue workshop, please see this online article:

<https://www.fao.org/in-action/tropical-agriculture-platform/news/detail/en/c/1459340/>

<sup>4</sup> FAO, MAFF and CASIC. 2022. *Bottom-up solutions to promote conservation agriculture in Cambodia – Results from a multistakeholder policy dialogue process*. Rome, FAO (also available online at <https://doi.org/10.4060/cc2698en>).



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considered in CASIC’s ongoing strategic development and work plan moving forward. But beyond the brief, the policy dialogue process gave a unique opportunity to diverse stakeholders involved in CA, including farmers, representatives from agricultural machinery companies, microcredit institutions, local NGOs, government and more, to voice their opinions and discuss their issues and ideas related to CA. Participants in the policy dialogue process appreciated this opportunity and recognized the benefits of increased collaboration and knowledge sharing.

Bringing stakeholders together from the local and national levels, from the private sector, development partners, high-level policy makers and more is an unconventional approach and presented some challenges in implementation. For example, to allow some local participants (e.g., farmers) to feel free to share their views openly, the agenda of the subnational dialogue events had to be adjusted to give time for local stakeholders to discuss issues among themselves before bringing in the higher-level officials. This facilitated more balanced communication, allowing all voices to be heard. During the first dialogue it also became evident that some discussion points on the agenda were not well understood by everyone, hindering some participants’ full engagement in the discussion. The solution was to adapt discussion questions to the local context and simplify some of the language to increase local stakeholders’ understanding, interest and active participation. In spite of these challenges, the policy dialogue events, both at subnational and national levels, were highly participatory and sparked interest and enthusiasm among participants.

In addition to the policy dialogue process, CASIC established an innovation platform (IP) at the local level in Ratanak Mundul district, Battambang province with TAP-AIS project support. This IP utilized the momentum of the policy dialogue events to get started and is intended to act as a more permanent mechanism to facilitate regular interactions and joint knowledge sharing and

*"CASIC is committed to replicating the policy dialogue model with other related projects, maintaining national and subnational policy dialogues as regular events in its short-, medium- and long-term work plans, and integrating conservation agriculture and agroecology into relevant policies and plans of MAFF and other ministries."*

- HE Dr. Chan Saruth, Undersecretary of State, MAFF, and Chair of CASIC Executive Board

action planning among local stakeholders to promote CA. The IP and multistakeholder policy dialogue process to promote CA in Cambodia were successful in bringing stakeholders together constructively to engage in the discussion around policy support to CA and agroecology. The multistakeholder approach used to

plan and implement the dialogue events strengthened CASIC's capacity to collaborate and engage in political processes and CASIC has expressed its intention to continue to use this approach and that further support and engagement from potential collaborators and donors is welcome in this regard.

## Participatory strategic planning for effective agricultural research

The Cambodian Agricultural Research and Development Institute (CARDI) is a semi-autonomous, leading agricultural research institute under the jurisdiction of MAFF and the Ministry of Economics and Finance (MEF). CARDI is mandated to lead scientific research, technology, and innovation development to promote sustainable agricultural and socio-economic development. However, CARDI has been facing a number of challenges ranging from limited institutional influence, relevance, resources and collaboration to the absence of a medium to long-term strategic plan to effectively mobilize partnerships and resources to support and expand its work.

CARDI's limited capacity to collaborate with and engage their partners (especially the private sector and development partners) as well as their limited capacity to strategically plan were addressed by the TAP-AIS project. In the past CARDI has typically done a simple internal review of their research outputs and outcomes and made their research development plans according to government priorities and available resources. However, this process did not allow for the strategic expansion of partnerships, resource mobilization and bringing innovative ideas into the research planning process. Thus, with support from the TAP-AIS project, CARDI embarked on a new kind of strategic planning process which was opened up to inputs and co-planning with partners from government, development partners, the private sector and civil society. This process of participatory strategic plan development was facilitated by the BDtruS Research and Business Consultancy with technical and financial support from FAO's TAP-AIS project.

In November 2021, CARDI began the process of developing its five-year Strategic Plan for Agricultural Research and Technology Development (SDP) for 2023 – 2027 with the establishment of a working group consisting of 18 key persons, especially young researchers and staff, from all offices of CARDI. This working group led the whole 9-month SDP development process, organizing regular meetings with the guidance and hands-on support of the external consultant from the BDtruS consultancy firm. CARDI's working group engaged in exercises such as review and reflection on CARDI's accomplishments, its mission and vision, SWOT analysis and



stakeholder identification and analysis. These exercises enabled working group members to think critically about CARDI's work in the context of the Cambodian agrifood system and draft a new strategic development plan (SDP) based on these reflections.

A stakeholder consultation workshop was organized in June 2022 with 86 participants representing CARDI's main stakeholder groups identified by the stakeholder analysis exercise. Participants represented relevant government ministries and departments, including representatives from Provincial Departments of Agriculture Forestry and Fisheries (PDAFF) from six provinces, universities (Royal University of Agriculture, National Agriculture Institute of Prek Leap and more), development partners and NGOs (Korean International Cooperation Agency [KOPIA], EU, FAO, Swisscontact, and more), private sector such as representatives from crop seed suppliers, machinery dealers, the Cambodian Chamber of Commerce and from farmers' organizations.

*"This [SDP development process] was a good start for CARDI, especially myself, and the team, to understand the key principles of strategic planning, policy review and stakeholder consultations."*

*Dr. Pol Chanthy, Deputy Director, CARDI*

The stakeholder consultation workshop enabled CARDI's working group to receive valuable inputs from diverse stakeholders which were taken into consideration and integrated into the final SDP document. This was a new experience for many of CARDI's working group members who, through the SDP development process, strengthened their capacities to plan collectively, identify relevant stakeholders and conduct multistakeholder workshops. CARDI realized the value of this opportunity to understand the demand and interest from relevant stakeholders and reflect them in their research plans, thus taking a step in the direction of demand-led research.

CARDI has also started to improve its visibility through the SDP development process, which has led to increased opportunities for potential partnerships and resource mobilization. CARDI's final Strategic Plan for Agricultural Research and Technology Development (SDP) for 2023 – 2027 was launched in an official dissemination workshop event on 31 August 2022 with 76 participants from CARDI's diverse stakeholder groups and the event was presided over by H.E. Dr. Chan Phalleoun, Under Secretary of State of MAFF. With the SDP document officially launched and disseminated, CARDI has informed key stakeholders about its research development priorities over the next five years and as a result, CARDI has received strong commitment from the management of MAFF to collaborate with CARDI in seed production, and interest from the Ministry of Economy and Finance (MEF) and private sector partners.

The SDP development process supported by the TAP-AIS project has shown promising early results in terms of increasing CARDI's institutional capacity to collaborate, its visibility and engagement among key stakeholders and its capacity to strategically plan. However, in future planning processes, wider stakeholder consultations with more private sector actors, farmers, and agriculture cooperatives should be incorporated into the SDP development. Due to limited time and financial resources the meaningful involvement of various stakeholders in the process was limited and it can be said that CARDI has remained modest in adopting reforms to become



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more market-oriented in the new SDP. Future strategic planning processes should consider a higher level of stakeholder engagement and taking on more bold changes to the “business as usual” operations of CARDI e.g., by exploring innovative business models to enable CARDI to generate more revenue and make research highly relevant to farmers and other actors in the private sector.

*“The strategic plan document provides a solid basis to highlight what CARDI is doing and planning to do. This shows strong evidence to attract interest and potential collaboration through presentation in various workshops and to different stakeholders. [...] Recently, the Minister of MAFF instructed CARDI to produce around 10 to 20 tons of foundation seeds, while MEF and a private company showed some interest in CARDI’s work.”*

Mr. Keam Meth, Deputy Director, CARDI

Despite the above-mentioned limitations, CARDI has already made strides in becoming a more collaborative institution, e.g., during the SDP development process CARDI engaged another partner organization, the Korea International Cooperation Agency (KOICA), to co-share the cost of the process. Building further partnerships with the private sector and farmers will take time, but CARDI has made a step in the right direction. As a next step CARDI plans to conduct a review and re-prioritization of the SDP among all staff

members. With the support of FAO’s TAP-AIS project, CARDI has transformed its strategic development planning process from a routine research planning process into a more participatory and demand-driven process, now it is up to CARDI and its partners to continue and expand on this work to transform CARDI into a dynamic and modern research institute.

## Empowering community extension workers and increasing collaboration to strengthen the extension system

The Department of Extension for Agriculture, Forestry and Fisheries (DEAFF) is one of the key technical units of MAFF which leads and coordinates technical extension services that link farmers and other agrifood actors with knowledge, information, markets, technologies and innovations. DEAFF is committed to fostering an innovative agricultural extension system in Cambodia that effectively contributes to the realization of the RGC's policies and strategies to improve agricultural productivity, diversification, modernization, and commercialization. However, the TAP-AIS project identified DEAFF's limited capacity to foster knowledge sharing and co-learning among community extension workers (CEWs) as a key challenge to DEAFF's mission.

There were two main streams of CD activities supporting DEAFF – one was strengthening DEAFF's capacity to share relevant technical knowledge and best practices among CEWs through conducting capacity needs assessments (CNAs) with CEWs and addressing identified needs through targeted knowledge sharing. The second stream, which emerged from planning talks with DEAFF, supported DEAFF in developing and establishing a national forum for extension providers (from public and private sectors and civil society) to increase collaboration and effectiveness of the extension system in Cambodia overall. Both streams of capacity development (CD) were supported by FAO's TAP-AIS team and the Centre for Research on Innovation and Science Policy (CRISP).

Training sessions and workshops were organized to build the skills of DEAFF staff in conducting CNAs with CEWs and utilizing the results to facilitate more effective knowledge sharing. A Training of Trainers (ToT) session on CNAs was conducted in May 2022, enabling DEAFF staff and targeted staff from four PDAFFs to gain the necessary skills. Subsequently, trained DEAFF staff led a workshop-style CNA with CEWs in Svay Chrum district, Svay Reang province in July 2022. At the CNA workshop CEWs shared the areas in which they felt they have limited capacity to assist farmers such as on contract farming, rice broadcasting techniques and agricultural marketing, among others. These findings from the CNA were shared and discussed in a reflection meeting with CRISP, in which identified capacity gaps were prioritized and a plan on how to start to address these gaps was discussed.

An interactive two-day training session in August 2022 on "Knowledge Products for Capacity Development of Extension Workers" focused on enhancing DEAFF staff's capacity to document and share good practices among extension workers. DEAFF staff were trained on using approaches such as writing good practice notes and blog articles and discussing best ways to disseminate these among extension workers, such as through social media. Training participants also practiced preparing draft knowledge products, such as a good practice note on farmer-farmer exposure visits which could be a good technique for CEWs to address the capacity gaps identified by the CNA. Finally, a training on monitoring, evaluation and learning (MEL) for extension was conducted at the request of DEAFF on 1 September 2022 to generate suggested improvements for their MEL system.

In the second stream of the CD plan with DEAFF, efforts were made to strengthen DEAFF's capacity for coordination and collaboration with pluralistic EAS actors through the establishment of a national EAS forum linked with the Global Forum for Rural Advisory Services (GFRAS) network. First, a sensitization workshop was organized in March 2022 with EAS providers from different sectors to identify the composition of the country network and the Steering Committee/Executive Committee. A core team was formed (with representatives from DEAFF, private sector and NGO service providers, and more) to develop short-term and medium-term priorities for the national forum. The core team held meetings to review and revise the Concept Note (CN) and Terms of Reference (ToR) for the national forum. Then, the official launch event of the national forum of EAS providers was organized in September 2022 to inform stakeholders about the proposed EAS forum, its purpose and functions and collect feedback for further refinement. This event also facilitated the integration of comments and the identification of next steps, including collaboration and resource mobilization for strengthening the forum.

Overall, the TAP-AIS project's CD interventions significantly contributed to strengthening DEAFF's capacities. In stream one, DEAFF staff gained enhanced skills in conducting CNAs to identify and prioritize capacity gaps among extension workers and began to address these with tailored knowledge products. They also acquired knowledge on steps to improve their MEL system. In stream two, the establishment of the national EAS forum has provided a platform for coordination and collaboration among various EAS actors, enabling DEAFF to foster stronger partnerships and enhance the effectiveness of the extension system in Cambodia.

Even though the TAP-AIS project made a good start in strengthening the capacities of DEAFF, the CD plans could have benefited from a more simplified and streamlined approach. Two streams of work with one organization was ambitious and resources likely could have been used more efficiently by focusing on and deepening just one stream of work. Nevertheless, due to the CD intervention, trained DEAFF staff are now in a strengthened position to scale up the use of CNA to identify and address community extension worker (CEW) needs (e.g., through knowledge sharing, collaborating with partners to implement trainings, etc.) if sufficient financial resources are made available. However, without significant commitment from higher management in DEAFF, MAFF and/or other partners for further funding, the ability to address the capacity development needs of CEWs to strengthen the extension system remains limited. Indeed, the CNA methodology has been accepted and is promising, but a longer-term program is needed to truly embed these practices into DEAFF's organizational structure.

*"I have gained knowledge and capacity to use the methods and tools of the capacity needs assessment with the extension workers, and I am confident that my team and I could scale up the use of capacity need assessments in other provinces in the future."*

Mr. Heng Choulong, Head of ICT Office, DEAFF



The future of the EAS forum currently remains uncertain as well pending approval by higher management at MAFF. The process of developing the EAS forum has already increased collaboration between both national and regional stakeholders working in extension. National level extension providers from the private sector, civil society and DEAFF have strengthened their relationships and DEAFF staff have also strengthened their collaboration with the regional network Asia-Pacific Islands Rural Advisory Services Network (APIRAS). For example, several DEAFF staff were sponsored by APIRAS and GIZ to attend the APIRAS regional learning workshop in Bangkok in January 2023 to learn and share knowledge on best practices with regional counterparts on effective coordination of pluralistic extension systems. The EAS forum still has great potential to further enhance coordination among extension providers (public, private and civil society) to increase effective service delivery, leverage potential partnerships and resources and thus contribute to strengthening the agricultural extension system in Cambodia.

## Conclusion and way forward

The TAP-AIS project supported three key organizations in Cambodia's agricultural innovation system (AIS). CASIC as a multistakeholder platform promoting conservation agriculture and agroecology, CARDI as a leading agricultural research institute and DEAFF as the main provider of public extension services in Cambodia are all supporting innovation in their own ways. This project has contributed to strengthening their functional capacities to innovate and, through the process of assessing the AIS, it has also raised awareness and interest in the AIS approach more generally. There have been several important lessons learned from the project in

Cambodia, both elements of success and some cautionary points.

The work with CASIC, including the policy dialogue series and the Innovation Platform (IP), generated a lot of interest among local stakeholders in Battambang province and high level government officials and development partners at the national level. This was likely due to the good timing of the project in terms of the momentum behind CASIC, which the policy dialogue process was able to harness and thus garner significant attention. So much so that a policy maker present at the national dialogue announced that a target to expand the area under CA in Cambodia would be integrated into the updated Agricultural Development Policy for 2023 – 2030. This potentially very significant achievement was only possible due to years of groundwork by CASIC partners which led to the TAP-AIS project's success in this area. Thus, a positive lesson learned in this case is to focus (in particular when funding and time are limited) on those “low hanging fruits” in the AIS – in other words, areas that already have been developed and garnered interest by multiple stakeholders but may just need that extra push from a project or partner.

A further element of success with all three organizations, was the project's strengthening of multistakeholder collaboration. In particular, the SDP development with CARDI brought stakeholders together with CARDI in a new way that opened their staff up to more potential areas for collaboration. For example, during the SDP development CARDI successfully engaged KOICA to share some costs associated with the SDP that could not be covered by the TAP-AIS project. There have also already been promising developments for CARDI in terms of potential collaborations on seed development with other partners, including with the private sector.

Overall, the TAP-AIS project faced the challenge of managing high expectations with a limited budget, human resource capacity and time. Although the project contributed to capacity strengthening for all three organizations, the long-term sustainability may be called into question, in particular in the case of DEAFF. The CD plan for DEAFF became complex and took the longest to agree upon and thus at this stage it seems there are no clear commitments from higher management at DEAFF/MAFF or from development partners to continue the work on CNAs among extension workers, related knowledge products and the national EAS forum. The lesson here is perhaps, as mentioned previously, that the CD plan should have been simplified to deepen transformation in one area, rather than seeking to influence multiple areas of the organization at once.

In spite of some challenges, however, the project generated a lot of engagement, improved collaboration between multiple actors in Cambodia's AIS and strengthened the capacities of some 161 individuals significantly. This core group of beneficiaries attended multiple trainings, events, participated in practical exercises, dialogues and workshops to meaningfully strengthen their functional capacities to innovate. In addition, approximately 591 further individuals participated in at least one TAP-AIS supported activity. And, while continuation of project efforts in the case of DEAFF is uncertain, CARDI's SDP will continue to be implemented and CASIC has shown commitment to continue the policy dialogues and it seems has successfully leveraged the dialogues to influence the updated Agricultural Development Policy. For national and international partners and stakeholders interested in building onto the accomplishments made by the TAP-AIS project in promoting agricultural innovation in Cambodia, below are some potential ways forward:

## Priority Recommendations

- CASIC and partners can be supported in the implementation of the recommendations from the policy brief (see FAO, MAFF & CASIC, 2022) and to implement further policy dialogues on a regular basis taking the RGC's policy cycles into consideration.
- Support CARDI with the implementation of the Strategic Plan for Agricultural Research and Technology Development (SDP) for 2023 – 2027. There is considerable scope within the SDP to support climate-smart and agroecological science, technologies and innovations (STIs).
- Further support to the review and re-prioritization of CARDI's SDP and/or to other potential opportunities for more transformative reforms to make agricultural research in Cambodia more market-oriented and demand-driven.
- Support DEAFF with more comprehensive capacity needs assessments (CNAs) among extension workers and mobilize resources to systemically address identified needs through targeted knowledge sharing (e.g. products, communities of practice, social media, etc.) and trainings.
- If MAFF approves and demand from pluralistic extension providers is still present, support to the national EAS forum (led by DEAFF) could significantly strengthen the extension system.

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## MORE INFORMATION

<http://www.fao.org/in-action/tropical-agriculture-platform>  
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