



**Food and Agriculture
Organization of the
United Nations**

A way forward for supporting agricultural innovation in Lao People's Democratic Republic

*Key constraints and opportunities as identified by the agricultural innovation
system assessment 2021*



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The TAP-AIS project





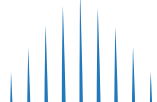
Key Messages

- ⦿ With favorable agroecological conditions, rich natural resources and steady economic growth, Lao People's Democratic Republic is in a good position to harness the opportunity of agricultural innovation to support sustainable development
- ⦿ Agricultural innovation (meaning the introduction of new processes, ways of organizing or products aiming to create positive change in agriculture) is not yet well understood or anchored in the policies and agricultural strategy of Lao People's Democratic Republic
- ⦿ There is a lack of targeted and comprehensive innovation policy and little to no mechanisms for monitoring progress on results and sharing lessons learned
- ⦿ Low multi-stakeholder coordination among different actors (government, private sector, farmer groups, and development partners) is a key factor limiting collaboration to support agricultural innovation
- ⦿ To address constraints to agricultural innovation a multi-stakeholder coordination platform and a monitoring, evaluation and learning (MEL) system should be established; moreover, the role of markets should be anchored into initiatives to support agricultural innovation

Introduction

Agricultural innovation is the central driving force for achieving sustainable agricultural development, transforming food systems and creating jobs and income that lift family farmers out of poverty. The Food and Agriculture Organization of the United Nations (FAO) defines agricultural innovation as 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, to increase effectiveness, competitiveness and resilience with the goal of solving a problem. Consider, for example, the use of a new product such as drip irrigation, which could be introduced as an agricultural innovation into areas of Lao People's Democratic Republic affected by water scarcity in the dry season (more on this issue later in the brief). Another approach to solve this same identified problem could be to introduce an organizational innovation, such as a multi-stakeholder dialogue process to bring water users from different groups (farmers, private businesses, local government, etc.) together to develop a joint water use plan. These hypothetical examples of innovative solutions (to a very real issue) represent just a couple of innovations in agriculture which can effectively address complex issues and are brought into use by diverse actors in the agricultural innovation system.

The agricultural innovation system (AIS) is defined as a network of actors (individuals, organizations and enterprises), together with supporting institutions and policies in the agricultural and related sectors which facilitate the process of agricultural innovation.



Policies and institutions (formal and informal) play a key role in shaping the way that the AIS actors interact, generate, share and use knowledge as well as jointly learn. An example from Lao People's Democratic Republic is the process of importing agricultural equipment, which is reported by farmers to be quite difficult due to complex government regulations and administrative practices, which can lead to the restriction of agricultural innovation by limiting the introduction of new agricultural technologies. This and the previous examples highlight the importance of understanding how the AIS in Lao People's Democratic Republic functions, what the challenges are and what the opportunities for improvement are.

To this end, the TAP-AIS project, jointly implemented by the National Agriculture and Forestry Research Institute (NAFRI) and the FAO, carried out an in-depth assessment of the national agricultural innovation system (AIS) in 2021. The study aimed at gaining a comprehensive understanding of the current status of the AIS in Lao People's Democratic Republic and identifying entry points for strengthening capacities of organizations and stakeholders which play a key role in the national AIS.

The AIS assessment was conducted during the first half of 2021 by a team of representatives from key national stakeholder organizations using a variety of data collection methods including desk review, key informant interviews, consultation workshops, group discussions and an online survey. In the end, data from reports and interviews was collected from 47 organizations and agencies and 20 key experts and 35 farmers were interviewed. Stakeholders involved in the assessment included the Ministry of Agriculture and Forestry (MAF)'s key departments as well as other governmental and non-governmental organizations.

The TAP-AIS project supports the [Tropical Agriculture Platform](#) (TAP) to develop capacities to innovate in agricultural innovation systems (AIS) in the context of the climate-relevant, productive, and sustainable transformation of agriculture and food systems in Africa, Latin America, Asia and the Pacific. The project is funded by the European Union and implemented by the Food and Agriculture Organization of the United Nations (FAO) from 2019-2024. The project operates at national, regional and global levels, in collaboration with a wide range of partner organizations.

The findings were discussed at a validation workshop organized virtually on 27 April 2021 to ensure stakeholder confirmation of results and ownership of the process. Final results from the assessment were then disseminated to key stakeholders and the public in a workshop on 08 July 2021. The main results and recommendations generated by the assessment ([full AIS Assessment Report available here](#)) are summarized in this brief.

National Context

The Lao People's Democratic Republic is less densely populated than most of its neighbors and enjoys a relatively large area for cultivation. By some measures, the agroecological conditions in the country are among the most favorable in Asia. In addition, Lao People's Democratic Republic has enjoyed relatively stable economic growth over the past 30 years, which coupled

with rich natural resources and a young population (the under 25 population accounts for 60 percent of the total population) means the country is likely to achieve its goal to graduate out of its Least Developed Country (LDC) status by 2025, as set out in the 9th National Social and Economic Development Plan (NSED) 2021-2025. The 9th NSED also defines directions for agricultural and rural development in the country – here emphasis is placed on improving food quality, safety and nutrition and promoting sustainable and climate resilient agriculture as well as commercialization.

With regards to achieving higher food safety and climate-friendly agriculture, Lao People's Democratic Republic has a comparative advantage over neighboring countries as a large share of Lao farmers still uses traditional practices with little to no use of chemical inputs resulting in relatively lower productivity but also lower costs and more safety (less exposure to toxic chemicals). The Agriculture Development Strategy (ADS) 2021 – 2025 provides a framework for the development of the agriculture sector in Lao People's Democratic Republic, which is intended to be implemented in close collaboration with Lao farmers. The ADS lays out a plan to develop the agriculture sector in collaboration with many diverse actors from farmers to agricultural service providers and consumers with the goal of improving Lao farmers' access to markets and ability to engage in competitive economic activities.

Constraints to innovation in Lao People's Democratic Republic

The results from the multi-stakeholder AIS assessment revealed that, although Lao People's Democratic Republic has broad strategies in place to promote agriculture development and a wide variety of government documents which emphasize the importance of "innovation," a closer look at these policies reveals a **lack of targeted and comprehensive approaches to foster and scale out innovation in the agriculture sector**. Part of the problem is a varying or limited understanding of the term "innovation" in the context of agriculture and from a systems perspective. This limited understanding of "innovation" and the agricultural innovation system (AIS) may explain the low effectiveness of innovation policies, particularly at the implementation level where there is limited support for agricultural research, innovation and information services.

The effective implementation of policy to support agricultural innovation is also limited by available human resources, both in quantity and quality. This is closely related with the issue of the **limited capacity to develop and adopt appropriate innovation policy and subordinate regulations to support agricultural innovation** as well as monitor progress on results. For example, the AIS assessment found that although the Ministry of Agriculture and Forestry (MAF)'s policy framework has been reinforced to address, e.g. environmental and social issues in agriculture, the extent to which the policy framework is successfully implemented with effective monitoring and reporting mechanisms is questionable. This is coupled with an overall low capacity to generate evidence-based recommendations for farmers and other actors in the agrifood sector.



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In some cases, the introduction of a new policy measure may be required to support agricultural innovation, however, in many cases simplifying or eliminating overly burdensome policies, such as complex administrative procedures, may be the best way to support innovation. The AIS assessment revealed the **difficulty that farmers often face in accessing government services**; for example, when trying to register and operate commercially oriented groups or micro-enterprises, they often face complex procedural barriers. Yet, the establishment of such formal groups and enterprises among farmers is an important mechanism for them to gain equitable terms to interact with market actors and potentially access credit and other services. Moreover, as highlighted in discussions with farmer representatives, the issue of difficulties in importing agricultural equipment was also identified as a key issue.

"The importation process is complicated for importing new technologies for agricultural production. For example, if I want to import a solar dryer from abroad for drying agricultural products it takes too long to get the required papers completed. On the other hand, the funders may have a timeframe to pay. This makes the importation process very difficult as I have to get clearance from MAF, MOIC, MOF, etc."

- Statement by Chairperson of Lao Farmer Network

Access to credit for Lao farmers remains limited which inhibits their ability to commercialize and improve their farms in a number of ways (e.g., increase climate resilience, boost productivity, and more). Another factor which limits farmers' ability to commercialize and

gain access to markets is the **limited number of actors from all sectors which provide access to relevant market information** and assistance with commercialization, including linking farmers with markets. There are indeed several private sector actors in Lao People's Democratic Republic (e.g. AgroAsie, Lao National Chamber of Commerce and Industry (LNCCI), Charoen Pokphand Foods Public Co. Ltd.) which assist in facilitating market linkages and commercialization of smallholder farmers, however, this is nevertheless still an area in which farmers require more assistance.

An overarching capacity weakness is the **limited coordination of actors from different sectors** (government, private sector, farmer groups, development cooperation and non-government organizations [NGOs]) on issues relating to agricultural innovation in Lao People's Democratic Republic. There are existing mechanisms such as the Sector Working Group on Agriculture and Rural Development (SWGARD) and its Sub-Sector Working Groups (SSWGs) under the Ministry of Agriculture and Forestry (MAF) and other inter-ministerial platforms which can, e.g., facilitate policy dialogues bringing together diverse actors. Moreover, there are regional networks which engage to some extent in multi-actor coordination such as the Asia-Pacific Islands Rural Advisory Services Network (APIRAS) and the Asia-Pacific Association of Agricultural Research Institutions (APAARI). However, there is not yet a national multi-stakeholder platform bringing together stakeholders from different sectors to discuss and identify strategies specifically for strengthening agricultural innovation in Lao People's Democratic Republic.

Another widespread issue for many Lao farmers is their lack of legally recognized land-use rights. This struggle is coupled with the widespread urbanization and rural-urban migration of young people, which has increased the labor shortage in the agriculture sector. In addition, although young farmers and especially women farmers are key drivers of agricultural innovation, **there is a lack of specific focus on gender equality in agriculture policies and regulations**. A particular challenge is how to translate gender policies from the national level to local contexts; one barrier is that Lao People's Democratic Republic has many ethnic groups with different gender-related traditions. Some ethnic groups, for instance, are matriarchal societies.

A major factor affecting almost all facets of agriculture in Lao People's Democratic Republic is climate change, which presents challenges to sustainable development in the country while at the same time underscoring the importance of innovation to meet these challenges. With increasing uncertainty with regards to weather patterns and intensity of natural disasters such as floods and drought, the adoption of climate resilient innovations in agriculture is becoming more urgent. However, **resilience to natural disasters is generally weak in Lao People's Democratic Republic** as early warning systems and response mechanisms are only poorly functioning, including widespread lack of access to crop insurance.

"We (farmers) need water to grow vegetables and to feed our family. Groundwater is the source of water for our vegetable production and household's use. However, we lack water in the dry season decreasing vegetable production. Thus, this is a factor increasing prices of vegetables during the dry season."

- Head of Thongmang Agricultural Cooperative.

However, some efforts have been made by the government to allocate funds for disaster recovery including the recent development of a National Disaster Recovery Framework, which is a positive step forward. Disaster resilience can also be bolstered by appropriate natural resource management, which is also an area in need of improvement in Lao People's Democratic Republic. In particular, **the issue of unpredictable water access** was identified by the AIS assessment team as a key issue in natural resource management due to concerns expressed by many interviewed farmers (see box on previous page) over ensuring proper management of this essential resource especially in the dry season and in the upland communities.

Strengthening agricultural innovation in Lao People's Democratic Republic

While the AIS assessment identified many constraints to agricultural innovation in Lao People's Democratic Republic, it also identified opportunities to address these constraints. A first key result from the assessment, which should be applied to any potential solution seeking to reduce or remove barriers to agricultural innovation, is that **farmers play the most crucial role in the agricultural innovation system** (AIS). The assessment's network map analysis showed that among all actors involved in agricultural innovation in the country, farmers play the most significant role (followed by entrepreneurs, the District Agriculture and Forestry Office [DAFO] and Provincial Agriculture and Forestry Office [PAFO]). Thus, any initiative to strengthen the AIS must take the central role of farmers into consideration in the planning and implementation of relevant projects, programs and policies.

Furthermore, there are a few overarching issues which should be considered in the design and implementation of initiatives to strengthen agricultural innovation, such as the need for higher quantity and better quality information as well as the appropriate channels of communication to manage risks regarding **climate change and natural resource conservation**. In particular, the issue of unpredictable water access (as mentioned previously) was identified by the AIS assessment team as significant due to concerns expressed by many interviewed farmers over ensuring proper water management. Lastly, practical steps should be taken to promote and **focus on youth and women agri-entrepreneurs** across the board, who are key to agricultural innovation. On the following page, six recommendations on how to strengthen agricultural innovation in Lao People's Democratic Republic are provided, which should be taken up and applied while centering farmers in the process (especially women and youth) and integrating the central issues of climate change resilience and appropriate natural resource management across interventions.

The highlighted recommendations are intended to serve as starting points for further discussion and action planning among relevant stakeholders who are involved and interested in improving agricultural innovation in Lao People's Democratic Republic. The TAP-AIS project is supporting a series of policy dialogues led by the Sector Working Group on Agriculture and Rural Development (SWGARD), which will foster such discussions around policy-relevant issues

and lead to actionable recommendations. The first policy dialogue event in the series took place on 25 October 2021 during the celebrations of World Food Day in Lao People's Democratic Republic. At this event, the issue of how to establish a multi-stakeholder coordination platform to improve collaboration on agricultural innovation was discussed and the need for better access by farmers and other agrifood actors to market-related information was underscored by participants. Finally, the issues of creating a more conducive policy environment for agricultural innovation, in particular through simplifying procedures for the import of agricultural inputs and export of agricultural products, and again the importance of better supporting young and women farmers, also emerged as key. These important identified topics will be further addressed in the coming policy dialogue events, which will lead to action planning and policy change to support agricultural innovation and thus a sustainable agrifood system in Lao People's Democratic Republic.

Priority Recommendations

- **Actively involve farmers**, entrepreneurs, DAFO and PAFO in innovation processes (e.g., project, program and policy planning and implementation)
- **Support understanding of the innovation systems approach** in practice in the Lao agriculture sector through, e.g., the development of curricula and trainings on the topic
- Develop the capacity of relevant government agencies to **formulate and implement policies which effectively support agricultural innovation**; First steps should include the designation of a department within MAF and the development of a cohesive long-term strategy to support agricultural innovation
- Design and implement an **effective monitoring, evaluation and learning (MEL) system** for key stakeholders, such as government agencies
- Facilitate **better access to credit** for Lao farmers through collaborative work between financial institutions and local government to reduce incidences on Non-Performance Loan (NPL), among others
- Capacity development activities on **market and value-chain issues** should be planned and implemented for stakeholders including government actors and the role of markets should be anchored in initiatives related to agricultural innovation
- **Establish a multi-stakeholder coordination platform** to facilitate exchange, learning and collaboration between AIS stakeholders (government, private sector, farmers/associations and development partners/NGOs) to promote agricultural innovation



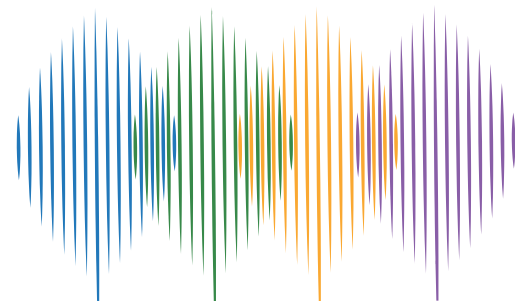
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MORE INFORMATION

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

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