

International training workshop and stakeholder consultations
Enhancing access to quality maize
seed and feed in the crop-livestock
farming system of Lao PDR



Photos: NAFRI/CIMMYT/CIAT/ACIAR



7-9 May 2024 | Vientiane

Organized by:

The National Agriculture and Forestry Research Institute (NAFRI), Lao PDR
CIMMYT

The CGIAR Sustainable Intensification of Mixed Farming Systems Initiative (SIMFS)
The CGIAR Seed Equal Initiative (SEI)
The CGIAR Plant Health Initiative (PHI)



Background

Maize is the second most important cereal in Laos after rice, driven primarily by the demand for animal feed in neighboring countries such as China, Thailand, and Vietnam. Laos has an export-oriented maize sector, with most of the production destined for these markets. The sector touched its peak in 2016, reaching 0.26 million hectares in area, 1.55 million metric tons in production, and 6.00 metric tons per hectare in productivity. Over 90% of the maize production relies on rain-fed agriculture, with maize grain and stover serving as the primary source of feed for smallholder farmers, who depend on integrated crop and livestock farming for their livelihoods.

However, between 2016 and 2022, both total maize area and production declined significantly, contracting by 64% and 70% respectively by 2022 (FAOSTAT, 2022). Several factors have contributed to this decline, including volatile market prices, competition from cassava and other crops, rising production costs, and yield losses due to pests, diseases, and soil nutrient degradation as a result of monocropping. Additionally, Laos relies on imported hybrid maize seed, primarily from Thailand and Vietnam, creating dependence on external suppliers and exposing farmers to price fluctuations. Recognizing the importance of improving maize productivity and sustainability, the Laotian government is taking steps to enhance local capacity for seed production and ensure access to affordable high-quality feed.

In line with these efforts, the National Agriculture and Forestry Research Institute (NAFRI) and CIMMYT are evaluating high-yielding maize hybrids for grain and stover quality. In 2023, twelve yellow-kernel maize hybrids developed by the CIMMYT-Asia breeding program were evaluated in Laos, and the same set of hybrids will also be evaluated in 2024 to identify stable and suitable hybrids for the mixed farming system of Laos. To strengthen the capacity of NAFRI and other stakeholders for the development and seed production of the new hybrids, NAFRI and CIMMYT, under the CGIAR Sustainable Intensification of Mixed Farming Systems (SIMFS), Seed Equal and Plant Health Initiatives, will organize an international training workshop and stakeholder consultations on “Enhancing access to quality maize seed and feed in the crop-livestock farming system of Lao PDR.” The workshop will take place from 7–9 May 2024, in Vientiane, and aims to achieve the following objectives:

Objectives

- ◆ Understand the challenges and opportunities of the crop-livestock farming nexus and integrate these for a more sustainable and productive system.
- ◆ Promote synergistic partnerships among value-chain actors in enhancing local access to good quality seed and feed.

- ◆ Enhance participants' technical skills in understanding and applying the principles and practices of quality hybrid maize seed production.
- ◆ Exchange experiences and knowledge from different countries that can be applied to strengthen institutional and human resource capacities across the seed and feed value chains.

Workshop approaches

The training workshop and stakeholder consultations provide a platform for the exchange of knowledge and experience through multiple engagement formats, which include group discussions, lectures, and assignments that allow the knowledge and principles learned during the workshop to be applied. The first day is dedicated to an interactive discussion with key stakeholders and value-chain actors; parallel group sessions will be held to dive deep into the various components of the maize sector. The remaining two days will encompass a wide spectrum of essential components of quality hybrid seed production, furthering the understanding of product profiles and market segments and the economics of hybrid maize seed production and seed quality assurance.

Date

The training workshop will be held from 7–9 May 2024. Participants coming from distant places need to reach Vientiane in the afternoon of 6 May 2024 and depart on the morning of 10 May 2024.

Venue

Crowne Plaza, Vientiane

20 Samsenthai Rd., Nongduang Nua Village, Sikhottabong Dist.
Vientiane, 01000, Lao PDR

<https://vientiane.crowneplaza.com/>

Tel: +856 21 908 888

Mobile: +85620 5429 9299

E-mail: Phaylin.khounlorvong@ihg.com

Participants

Participants will be maize researchers, extension agents, input traders, and other technical experts from NAFRI, the Department of Agriculture, the Department of Extension, and higher learning institutions, among others.

Resource persons and facilitators



The primary resource person for this training is AbduRahman Beshir, a senior scientist and seed systems specialist for Asia at CIMMYT, based in Kathmandu, Nepal. . Beshir also serves as the seed-system lead for the Nepal Seed and Fertilizer Project (NSAF), collaborating with several public and private partners to enhance Nepal's seed system, particularly in the hybrid seed sector. Prior to joining the Nepal project, he worked as a maize improvement and seed systems specialist at CIMMYT-Pakistan under the Agricultural Innovation program (AIP) for Pakistan. With over 25 years of experience in research and development, seed production, and seed business management, particularly within developing countries, he brings hands-on experience in maize hybrid development, seed production, and marketing. In addition to Beshir, subject matter specialists from NAFRI, CIMMYT and ILRI will contribute their expertise, either virtually or in person, on relevant topics related to the workshop.

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Program schedule

Time	Program	Responsible	Facilitators
Day 1: 7 May 2024			
Official opening session			
8:30-9:00	Registration	NAFRI team	
9:00-9:10	Welcome notes	NAFRI	
9:10-9:20	Introduction and objectives of the workshop	AbduRahman Beshir, CIMMYT- Nepal	NAFRI
9:20-9:50	Maize in Lao PDR: status, challenges, and opportunities	Siviengkhek Phommalath, NAFRI, Laos	
9:50-10:05	CGIAR Research Initiative on Mixed Farming Systems (MFS) activities in Laos and SE Asia	Timothy Krupnik, CIMMYT-Bangladesh (Online)	NAFRI
10:05-10:20	CIMMYT's maize seed systems interventions in Asia	AbduRahman Beshir, CIMMYT- Nepal	NAFRI
10:20-10:30	Remarks on CIMMYT-Laos collaborations	Santiago Lopez-Ridaura (CIMMYT-Mexico) (Online)	NAFRI/ CIMMYT
10:30-10:40	Remarks on CIAT-CIMMYT collaborations in strengthening seed system activities in Laos	Newby Jonathan-Alliance Bioversity International- CIAT	NAFRI/CIAT
10:40-10:50	Remarks on ensuring seed quality and availability	DoA	NAFRI
10:50-11:00	Opening remarks and official inauguration of the workshop	Head of NAFRI	NAFRI
11:00-11:30	Group photo, tea break, and networking	Crowne Plaza	
Technical session 1: Stakeholder consultations on the maize value chain in Lao PDR			
11:30-13:00	Description of the seed value chain and group formation	Siviengkhek Phommalath, Tassilo Tiemann, AbduRahman Beshir	NAFRI/ CIMMYT
	Group 1: Research and varietal development		
	Group 2: Quality seed production and marketing		
	Group 3: Seed demand and adoption by farmers		
13:00-14:00	Lunch break	Crowne Plaza	

Technical session 2: Report back from the group session

14:00-15:00	<p>Group 1: Research and varietal development</p> <p>Group 2: Quality seed production and marketing</p> <p>Group 3: Seed demand and adoption by farmers</p>	Siviengkhek Phommalath, Tassilo Tiemann, AbduRahman Beshir	NAFRI/ CIMMYT
15:00-15:30	Tea break	Crowne Plaza	
15:30-16:00	Understanding farmers' needs and priorities in crop-livestock-based interventions	Powell Mponela, CIMMYT-Nepal	CIMMYT
16:00-16:30	Reflection and wrap up	All	NAFRI/ CIMMYT

Day 2: 8 May 2024–Quality hybrid maize seed training

Technical session 3: Introduction to and understanding of a functional seed system

09:00-10:30	<p>Zero assessment</p> <p>Components of a functional seed system</p> <p>Basic maize-breeding concepts and terminologies</p>	AbduRahman Beshir, CIMMYT's Seed Systems Specialist, Asia	CIMMYT
10:30-11:00	Tea break and networking	Crowne Plaza	

Technical session 4: Principles of hybrid maize seed production

11:00-13:00	<p>Principles and techniques in hybrid seed production</p> <p>Hybrid types and key determinants of productivity</p> <p>Distinguishing morphological traits in maize</p> <p>Roughing, detasseling and pollen control (staggering, nicking and isolatio...) in hybrid maize seed production</p>	AbduRahman Beshir, CIMMYT's Seed Systems Specialist, Asia	CIMMYT
13:00-14:00	Lunch break	Crowne Plaza	
14:00-14:30	Techniques in manual pollination in maize	AbduRahman Beshir, CIMMYT's Seed Systems Specialist, Asia	CIMMYT
14:30-15:30	Development and maintenance of maize inbred lines, and breeder seed production (Online)	B.S Vivek, Regional Maize Breeding Coordinator (Asia) CIMMYT-India	CIMMYT
15:30-15:50	Tea break and networking	Crowne Plaza	

15:50-16:50	Developing seed production and marketing roadmap Seed grower selection, support, contracts, and seed collection pricing Hybrid seed pricing and budget exercise	AbduRahman Beshir, CIMMYT's Seed Systems Specialist, Asia	CIMMYT
16:50-17:20	Enriching stover quality with dual purpose maize: experiences from ILRI (Online)	Padmakumar V. ILRI Nepal/India	CIMMYT/ILRI
17:20-17:30	Reflection and wrap up		
Day 3: 9 May 2024			
Technical session 5: Crop management, seed processing and marketing			
9:00-10:30	Principles of seed quality control and certification Procedures in variety registration	AbduRahman Beshir, CIMMYT's Seed Systems Specialist, Asia	CIMMYT
10:00-10:30	Variety registration, seed quality control and certification systems in Laos	Representatives from DoA and other concerned departments	NAFRI
10:30-11:00	Tea break and networking	Crowne Plaza	
11:00-12:30	Seed processing, packaging, and storing Seed sales promotion and marketing	AbduRahman Beshir, CIMMYT's Seed Systems Specialist, Asia	CIMMYT
12:30-13:00	Discussions and developing action plans for strengthening local hybrid seed production		
13:00-14:00	Lunch break	Crowne Plaza	
14:00-15:00	Identification, scouting and management of Fall armyworm (Online)	B.M Prasanna, Director, Global Maize Program, CIMMYT	CIMMYT
15:00-16:00	Identification and management of major diseases of maize (Online)	L.M. Suresh, Maize Pathologist, sub-Saharan Africa, CIMMYT-Kenya	CIMMYT
16:30-16:15	Tea break and networking	Crowne Plaza	
Official closing session			
Session chairperson:			
16:15-16:30	Course reflections and assessment	All	
16:30-16:40	Remarks by participants	Representatives of participants	NAFRI/ CIMMYT
16:40-16:50	Certificates of participation	All	
16:50-17:00	Remarks and closing by the Chairperson	NAFRI	

~ End of program ~

For technical matters please contact:

- Siviengkhek Phommalath, NAFRI, Laos, Email: siviengkhek@yahoo.com
- Tassilo Tiemann, Consultant, Email: tasstie@gmail.com
- AbduRahman Beshir, CIMMYT-Nepal, Email: a.issa@cgiar.org
- Timothy Krupnik, CIMMYT-Bangladesh, Email: t.krupnik@cgiar.org
- Santiago Lopez-Ridaura, CIMMYT-Mexico, Email: s.l.ridaura@cgiar.org
- Powell Mponela, CIMMYT-Nepal, Email: p.mponela@cgiar.org

For logistics and administrative matters please contact:

- Siviengkhek Phommalath, NAFRI, Laos, Email: siviengkhek@yahoo.com
- Tassilo Tiemann, Consultant, Email: tasstie@gmail.com
- Powell Mponela, CIMMYT-Nepal, Email: p.mponela@cgiar.org

RSVP:

Please confirm your participation on or before **May 3, 2024**, to Siviengkhek Phommalath, Email: siviengkhek@yahoo.com; Cell: **+8562099653959** so that the necessary bookings can be made.

National Agriculture & Forestry Research Institute (NAFRI)
Vientiane, Lao, PDR

CIMMYT-Nepal
CIMMYT, South Asia Regional Office
1st Floor, National Plant Breeding & Genetics Center, Khumaltar,
Lalitpur, Kathmandu, Nepal

