



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Nepal Seed and Fertilizer Project

Seed Component Review

Building resilience and self-reliance in Nepal's seed sector:

NSAF's seed systems interventions, achievements, lessons, and challenges

AbduRahman Beshir Issa (PhD)

Seed systems lead with contribution from NSAF seed team

a.issa@cgiar.org

Annual Review Meeting
22-12-22, Kathmandu



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**_{MR}
International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Rationale/Background

- **Over 80% of Nepalese farmers** are not getting quality certified seed
- **Very low variety turn over** (RC,47yrs; AR-2, 41yrs; Red Croel,32yrs; Radha-4, 28yrs of age since recommended)
- **Low SRR- Cereals, 21%, Lentil, 5%**MoALD,2021
- Nepal spends **millions of dollar** annually for the import of seed & grains of food crops (in 2020/21 nearly **130 million USD** for import of maize grain)
- **One in three children** in Nepal are malnourished (stunting)
- Local hybrid seed production at **nascent stage** (demands met via import)
- Absence of **market-oriented** seed system
- Scope for seed sector development



USAID
FROM THE AMERICAN PEOPLE

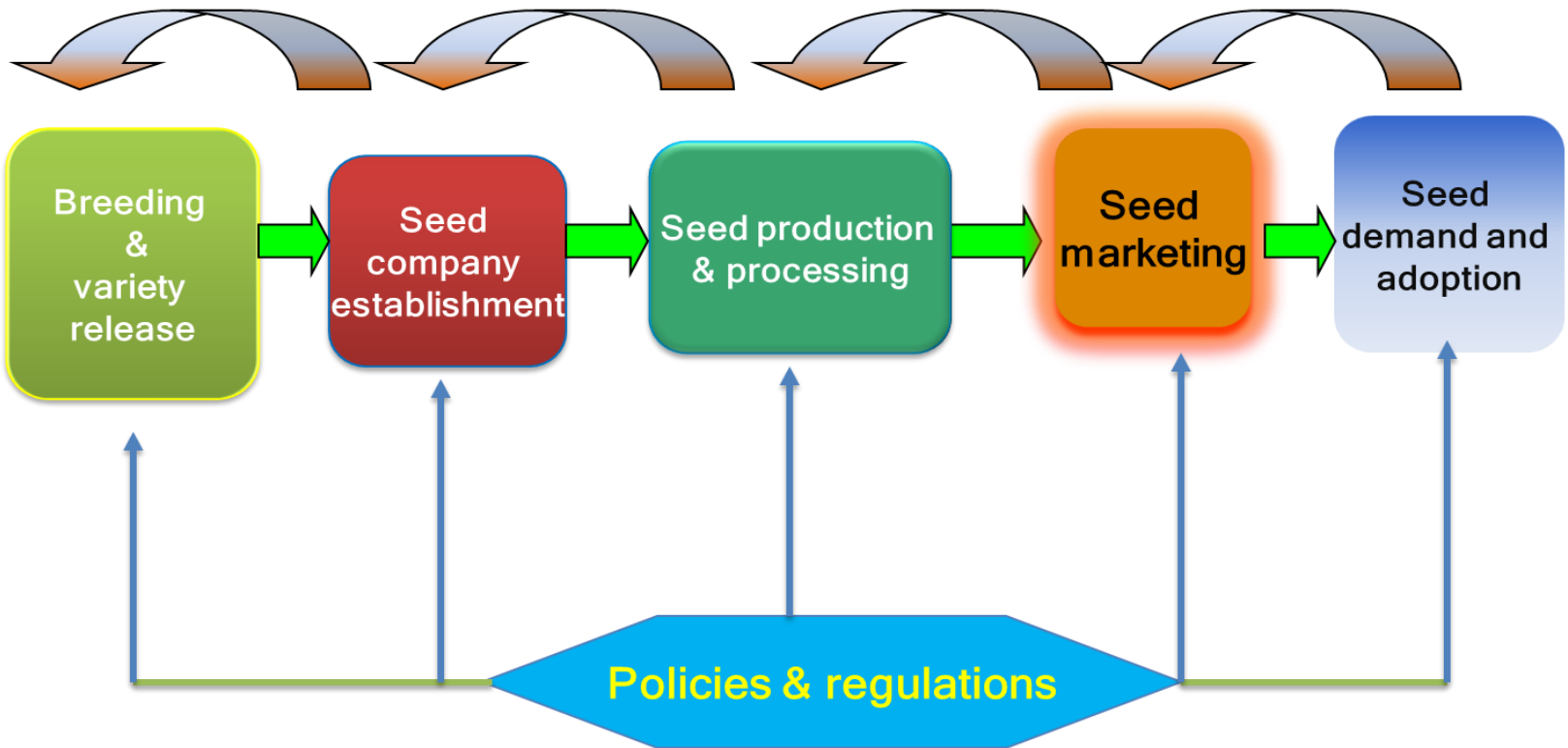


FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



The Seed Value Chain



USAID
FROM THE AMERICAN PEOPLE



CIMMYT^{MR}

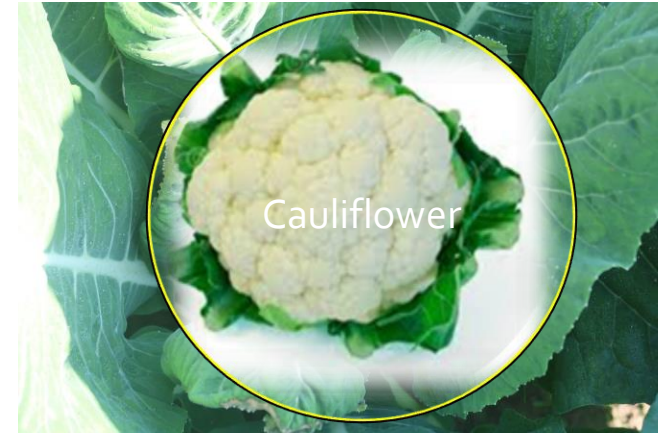
International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

NSAF TARGET CROPS



USAID
FROM THE AMERICAN PEOPLE



CIMMYT^{MR}

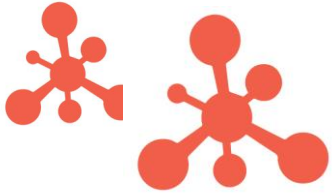
International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

ENHANCING THE R&D CAPACITY



- Before 2017 only one private seed company has a designated R&D site as compared to seven in 2021
- NARC-Private sector evaluation network



- Products evaluation and validation/MLT
- Introduction of new germplasm, >900 maize, 21 Veg, 11 lentil products shared
- New products allocated (Maize, tomato and onion)



- New field designs (Alpha-lattice)
- Analytical software
- International training
- On job training





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

NSAF'S R&D INTERVENTIONS AND INNOVATIONS IN HYBRID SEEDS



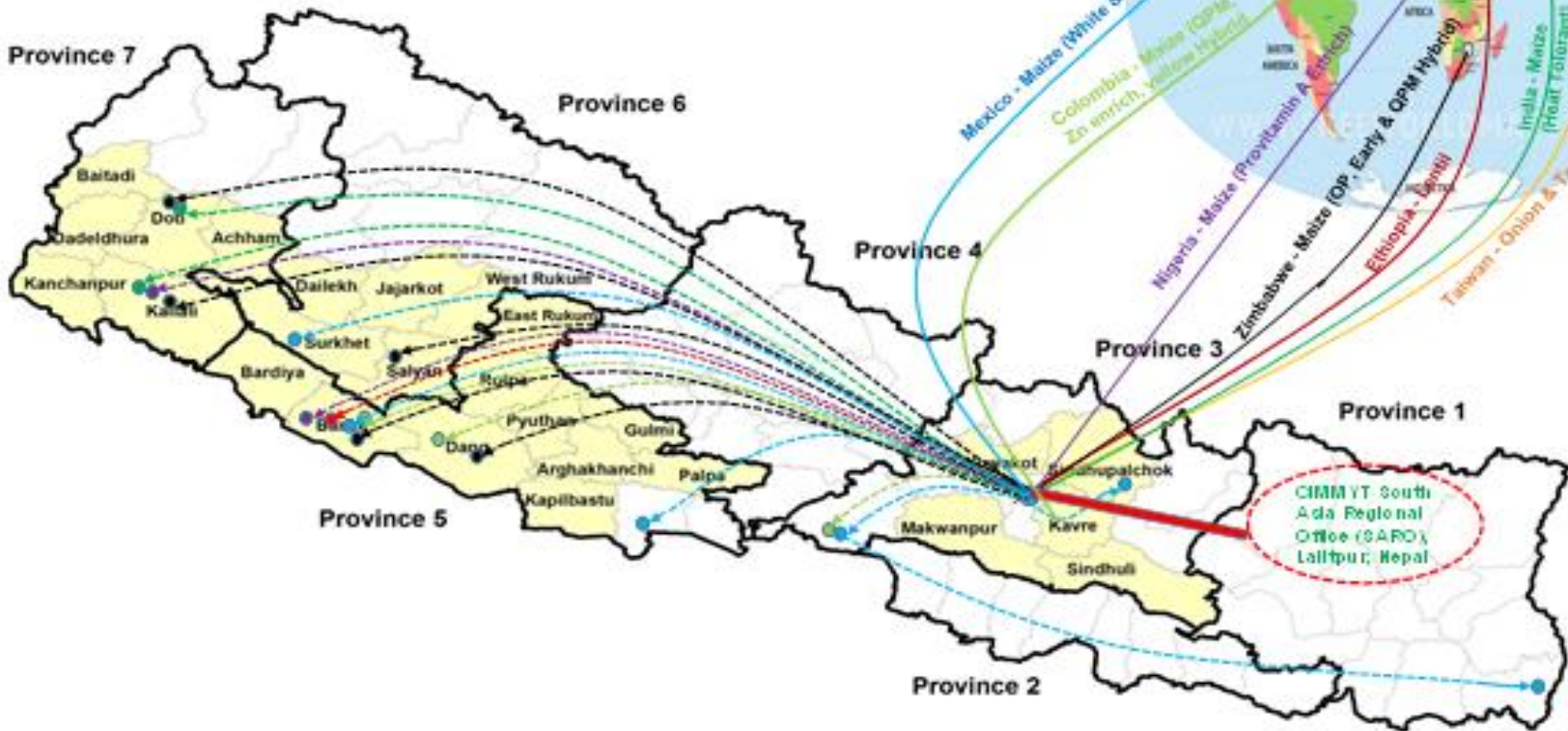


FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



NSAF's International Germplasm Inflow & Distribution Network



CIMMYT South Asia Regional Office (SARO), Lalitpur, Nepal



USAID
FROM THE AMERICAN PEOPLE

CIMMYT
International Maize and Wheat Improvement Center



MAIZE PRODUCTS ALLOCATED

Product Name	Type	Potential yield (Mt/ha)	Grain yield advantage over check (s) (%)
SA2272-1	Zn enriched	10.9	20%
CLTHY15031	Yellow hybrid	12.9	44%
SA2283-14	QMP hybrid	9.20	105%
SA2181-11	Yellow SC hybrid	10.7	121%
CZH142133	White TWC hybrid	9.40	42%
EEPVA-12	Provitamin A hybrid	7.0	27%





PRODUCTS ALLOCATED

Product Name	Type	Potential yield (Mt/ha)	Grain yield advantage over check (s) (%)
SA2181-4	Yellow SC hybrid	9.4	93%
CLTHY16155	Yellow TWC hybrid	11.0	52%
CZH142145	White TWC hybrid	11.2	43%
CZP1508	White OPV	8.0	15.7%





Varieties identified for registration



Released/Pipeline varieties

- Onion (one released one in pipeline)
- Two tomato hybrids (in pipeline)
- Kernel Zinc enriched maize (in pipeline)
- Two fine rice varieties from NRRP
- Lentil cultivars identified for excess moisture





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

INTRODUCTION, VALIDATION AND COMMERCIALIZATION OF NSAF'S CROP VARIETIES





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Interventions in Quality Seed production

Key areas of interventions

- Best management practices
- Public private partnerships
- Access to early generation seeds
- Tailor-made trainings
 - Farmers/seed growers
 - Mid career technicians
 - CEOs and higher level professionals
- Seed quality awareness



The grid contains 12 panels with the following titles and content:

- Panel 1:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 2:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 3:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 4:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 5:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 6:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 7:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 8:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 9:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 10:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 11:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.
- Panel 12:** धानको खेती प्रविधि (Rice Cultivation Technology) - Includes an image of a person in a field and a diagram of a seedbed.

Nepal Seed and Fertilizer Project

International Training Workshop on Hybrid Maize Production & Marketing

01-03 October, 2018 | Kathmandu

Jointly organized by:
International Maize & Wheat Improvement Center (CIMMYT)
National Maize Research Center of Nepal (NMRC)



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Total Seed and area coverage (2017-22)

- **11, 885 MT seed produced and sold**
- **Area covered 0.36 million ha**
- **83% of the seed is from rice and 15% from maize**

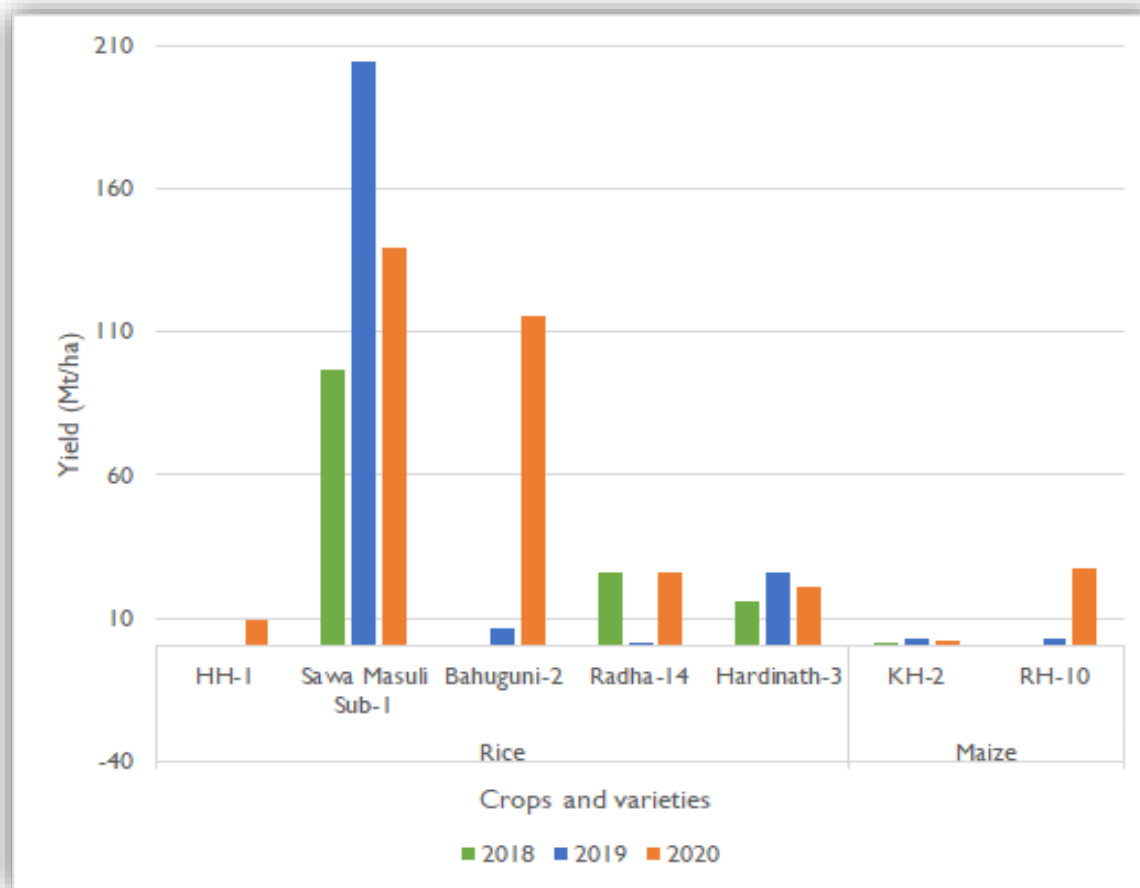


USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**_{MR}
International Maize and Wheat Improvement Center



Example of varietal turnover- example of Bahuguni -2 rice



- **Bh-2- from 0 to 115 Mt between 2018-2020-enough to plant nearly 3,000 ha of rice fields and to benefit nearly 40,000 farm families**

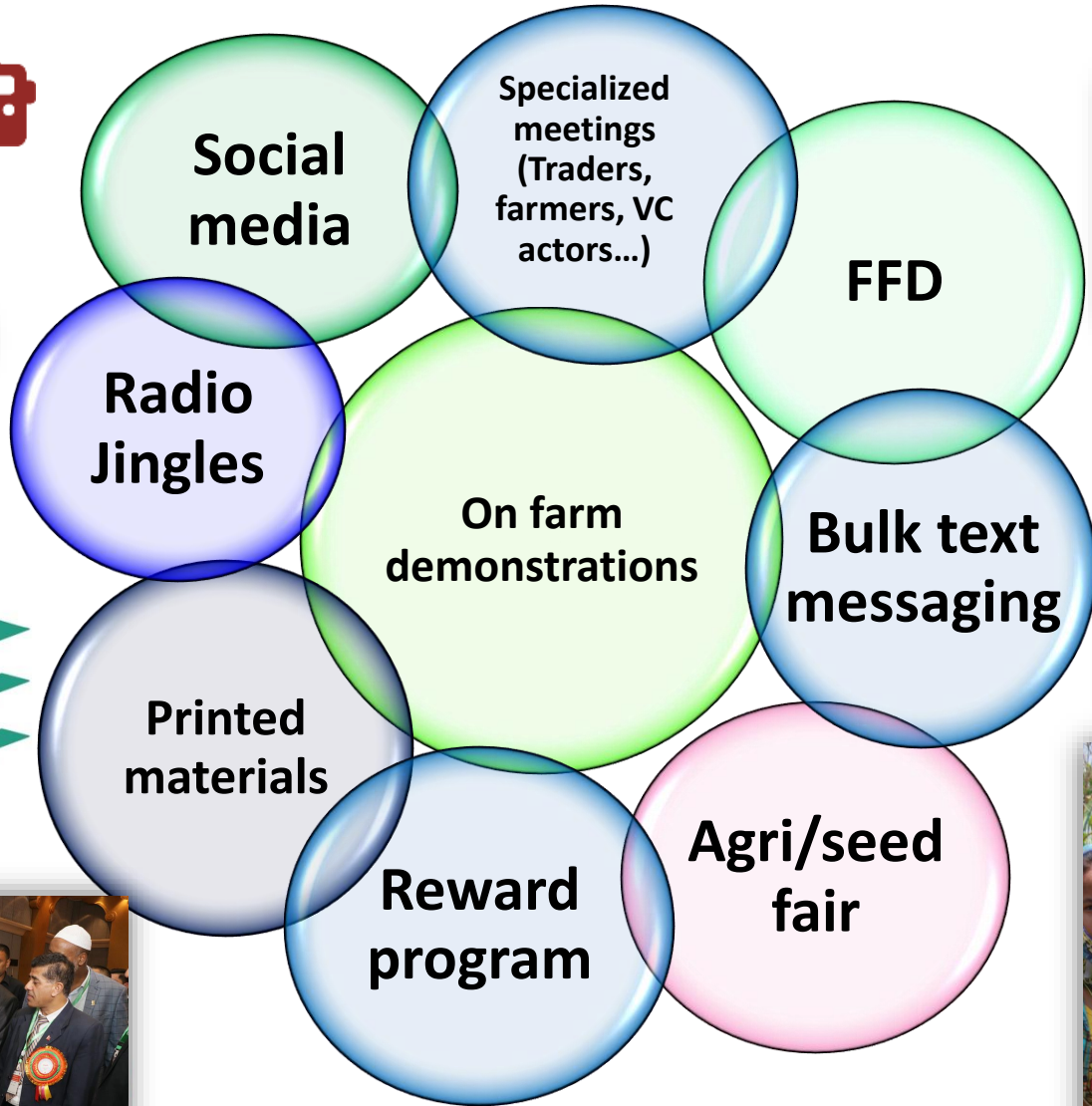
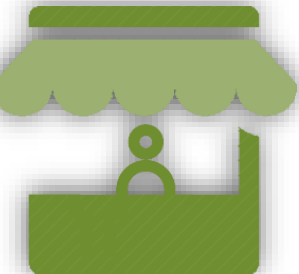
- **SRR in Kialali district by NSAF seed partners :**
 - **9% in 2017**
 - **20% in 2020**



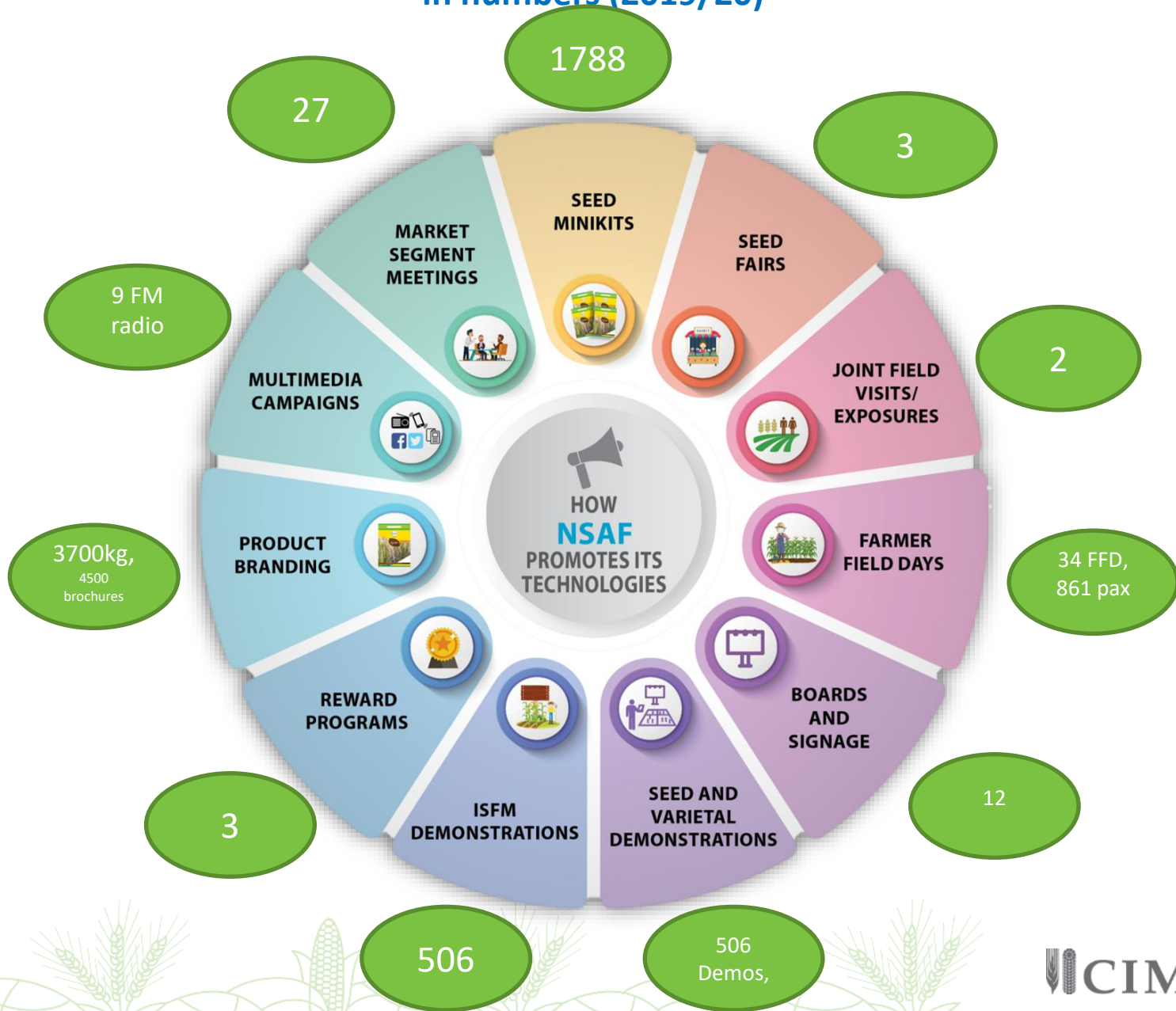
FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

SEED MARKETING/PROMOTION



NSAF's various market interventions- in numbers (2019/20)



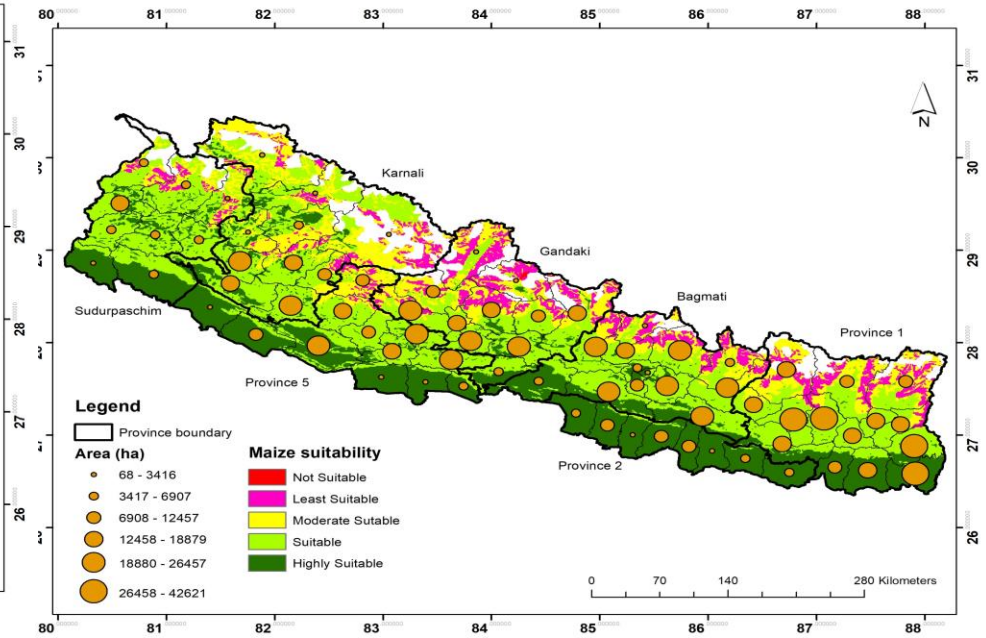
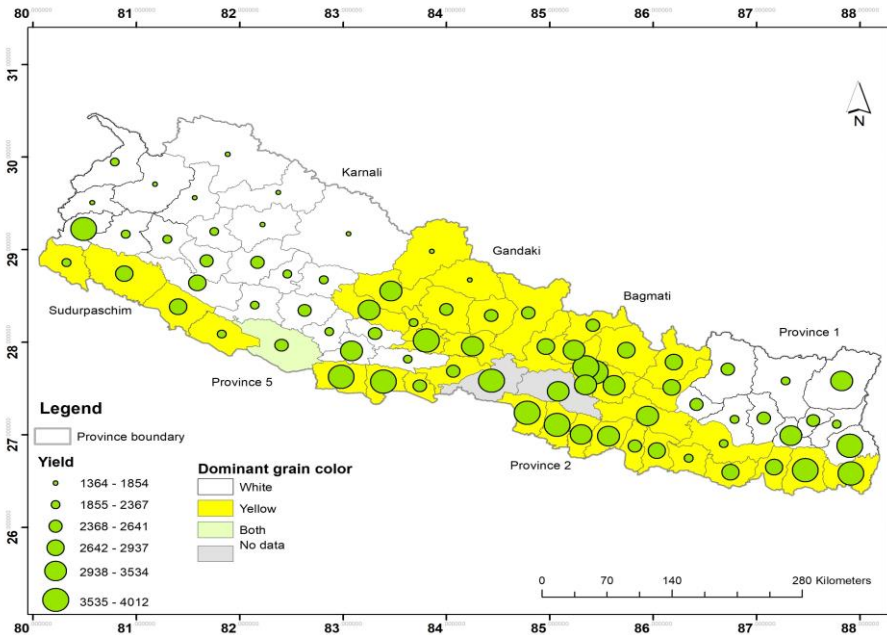
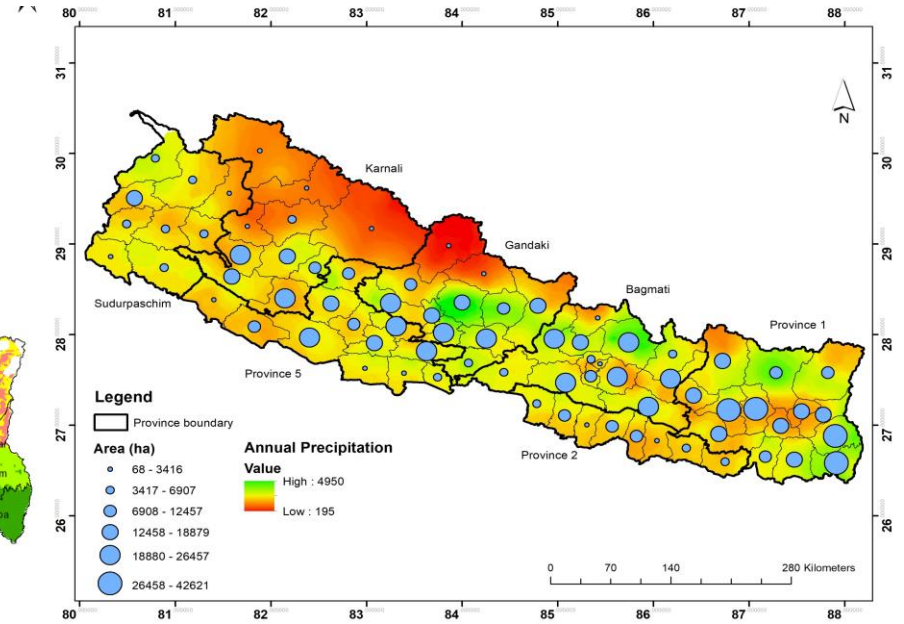
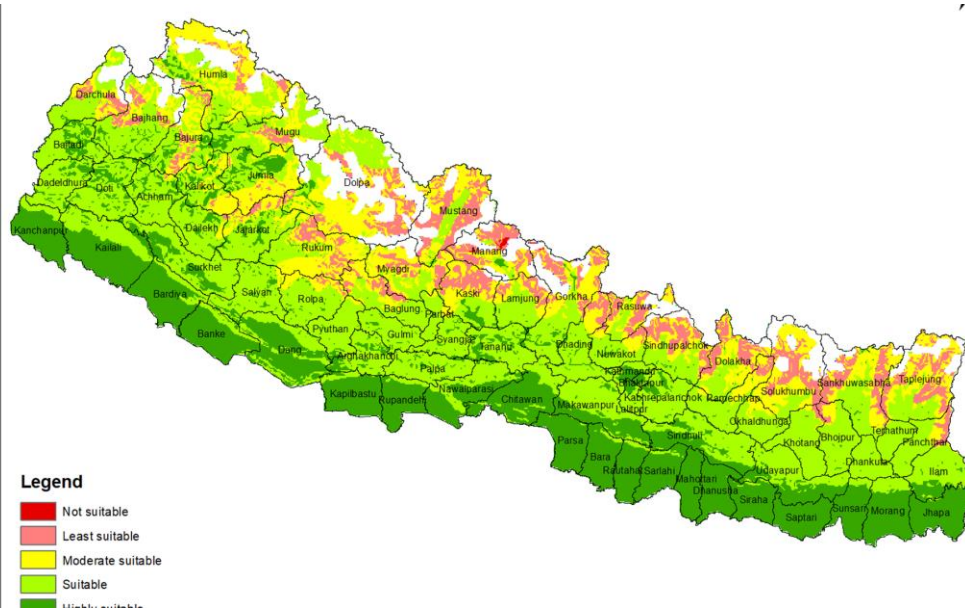


ENHANCING SEED DEMAND & ADOPTION

- **Promotion of recently released varieties**
- **Focus on preferred traits**
- **Various nudging tools to increase SRR**
- **Linkage with output/end users markets**
- **Seed information system**



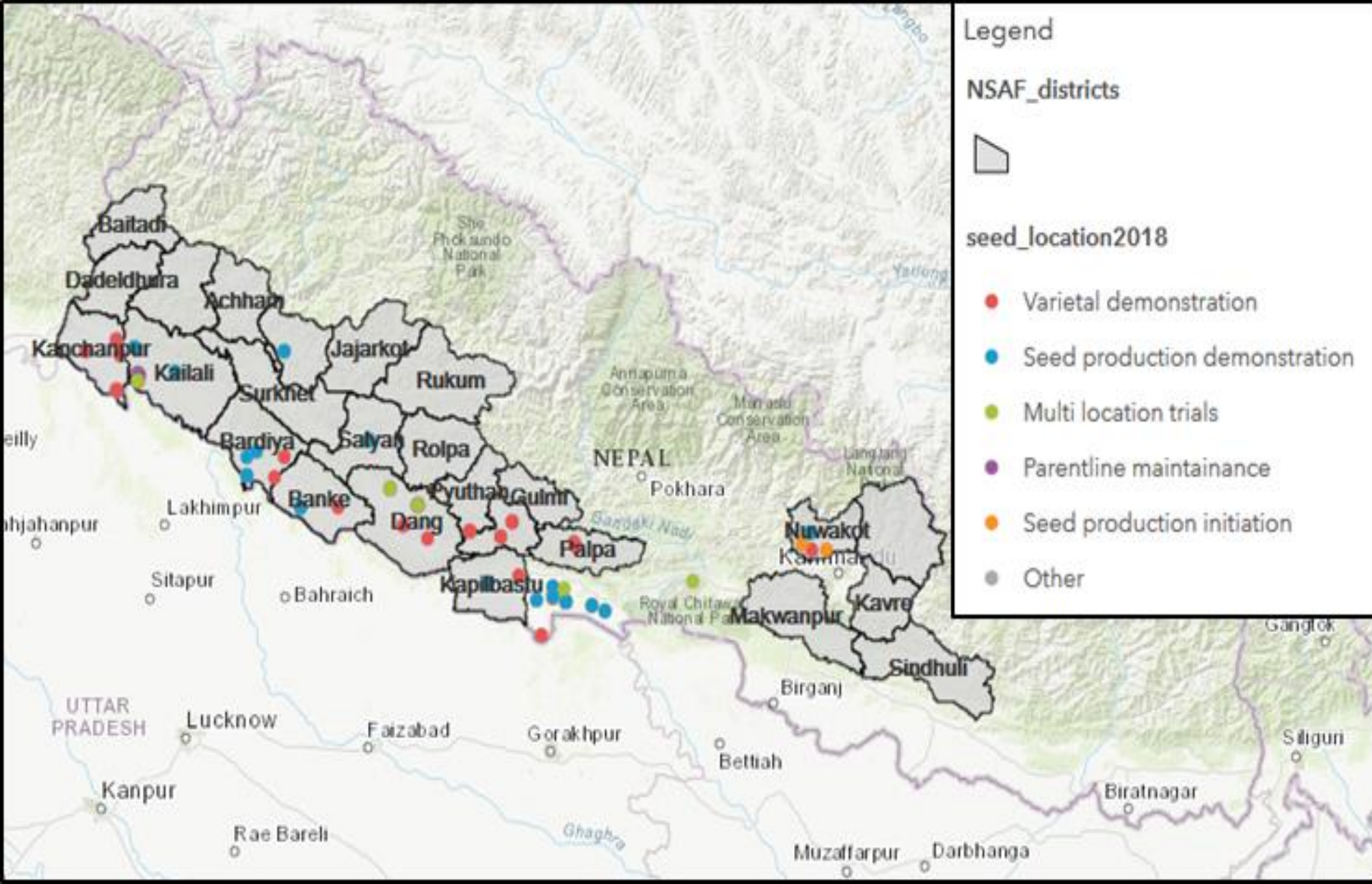
Data driven maize seed marketing





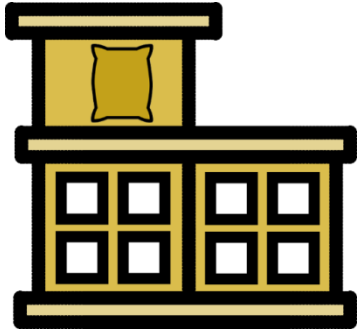
FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative





WORKING WITH PRIVATE SEED COMPANIES



- Business mentoring
- Staffing with required personnel
- Capacity building
- Diversified products portfolio

- Business plan development
- Access to finance
- Value chain approach
- Market access

- Increased sales volume
- Increased seed quality
- Increased business literacy





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Collaboration with AFU and OSU

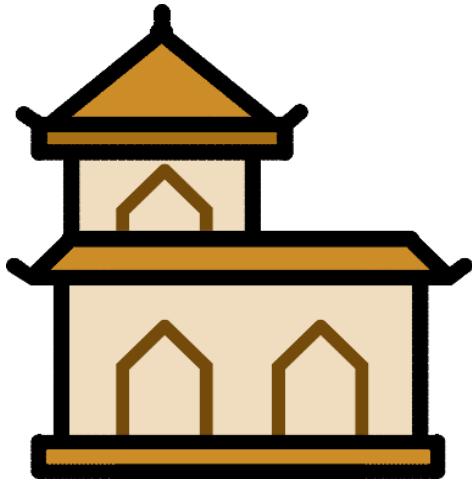


USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**
International Maize and Wheat Improvement Center



POLICY INTERVENTION



- **Products (R&D) licensing to the private sector**
- **Hybrid seeds quality and certification standards**
- **Private sector involvement on products testing**
- **Tripartite agreement to fast track variety release**
- **Inclusion of biofortified crops under National Planning commission**



POLICY INTERVENTION...

- Seed sector financing
- Enhance private sector engagement-SEAN
- Nepal Seed Vision review (2013-25)
- Policy related studies: seed subsidy...

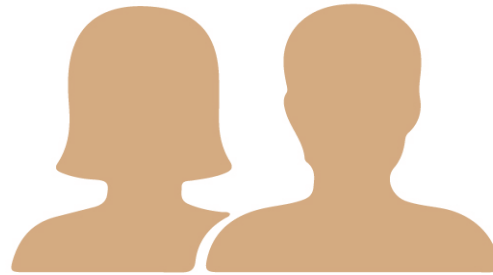




FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

REACHING LAST MILES, PARTNERSHIP & GESI



- Working directly with 20 public, private and civil society partners (including NARC centers)
- Indirectly working with more than 2500 seed value chain actors
- Joint monitoring, annual planning and review meetings, Sub grant agreements, Interaction workshops with provinces...to strengthen partnerships
- Promote inclusive seed system: more women and disadvantaged communities



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**
International Maize and Wheat Improvement Center

OUR INTERVENTION

- Inclusive seed business model
 - Women seed growers groups – Banke-**Market access**
 - Lead women cooperative farmers- Hariali Seed Co. Mid hills of Nepal- **Skill and technology transfer**
 - Agrovets network in the remote areas of Nepal- **Enhance availability**
 - Engage youth and marginalized communities
- Synergies with other rolled out projects
 - HTMA, CSISA, Other USAID projects (K-2, IPM-Nepal, CRS...)
 - B2B and experience sharing among local private sector





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



परियोजना कार्यान्वयन इकाई, सिन्धुपाल्चोक

**खाद्यान्न तथा तरकारी बालीहरूको गुणस्तरीय बीउ
उत्पादन सम्बन्धी अगुवा महिला कृषकहरूको
क्षमता अभिवृद्धि तालिम**

मिति : २०७६ असोज ८ र ९ गते

स्थान : बलेफी गा.पा.-५, सिन्धुपाल्चोक



USAID
अमेरिकी जनताबाट

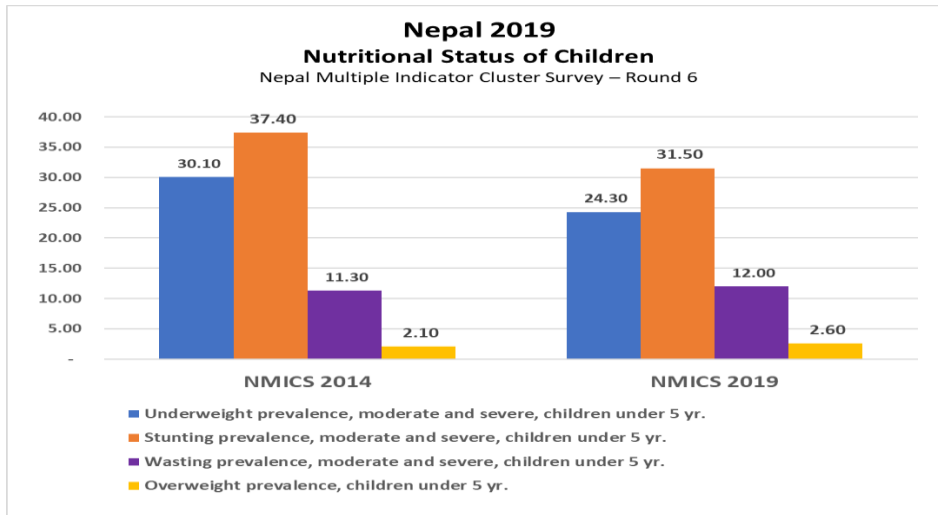


CIMMYT
अन्तर्राष्ट्रिय मकै तथा गहुँ सुधार केन्द्र



PROMOTION OF BIOFORTIFIED PRODUCTS

Nutritional Status of Children



- PVA hybrid seed production
- Zinc enriched synthetic maize
- QPM hybrids shared
- PVA+QPM hybrids under testing
- Working Khajura Masooro-3

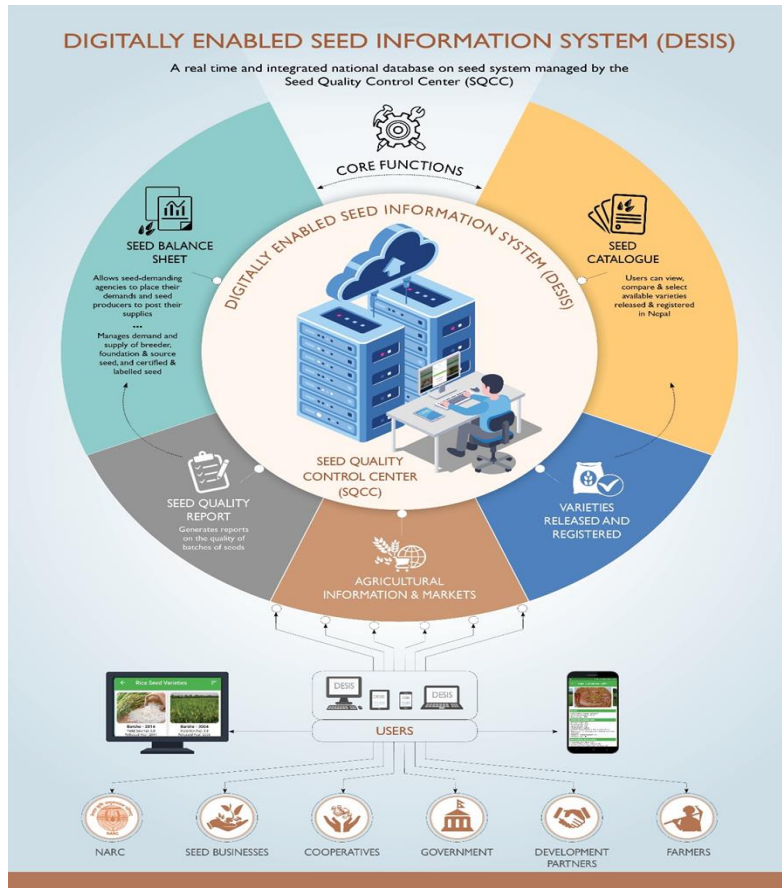




FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

DIGITAL INNOVATIONS

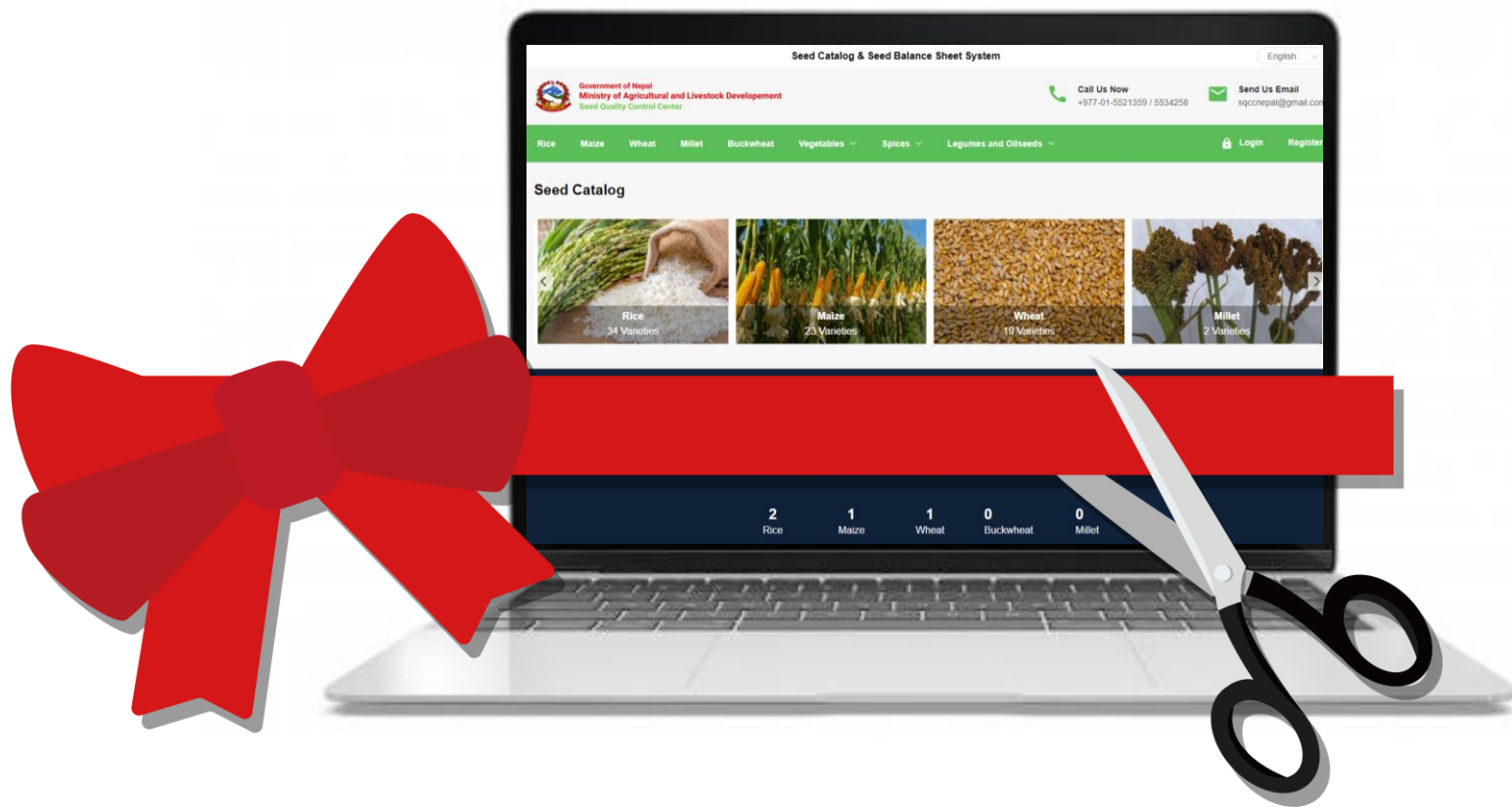


USAID
FROM THE AMERICAN PEOPLE

CIMMYT
International Maize and Wheat Improvement Center

Official Launching of Digitally Enabled Seed Information System

<https://seed.sqcc.gov.np>





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

DIGITALLY ENABLED SEED INFORMATION SYSTEM

Seed Catalog & Seed Balance Sheet System

English



Government of Nepal
Ministry of Agricultural and Livestock Development
Seed Quality Control Center



Call Us Now
+977-01-5521359 / 5534258



Send Us Email
sqccnepal@gmail.com

- Rice
- Wheat
- Maize
- Millet
- Buckwheat
- Finger millet
- Foxtail millet
- Proso millet
- Barley
- Vegetables
- Spices
- Legumes
- Oilseeds

Login Register

Seed Catalog



Seed Suppliers



USAID
FROM THE AMERICAN PEOPLE



CIMMYT^{MR}

International Maize and Wheat Improvement Center



DESIIS ON THE MOVE

- **More than 60 crops and 850 varieties updated on the catalogue**
- **Seed demand and supply of various classes of seeds managed online (started with rice and wheat...)**
- **A national digital platform to integrate and coordinate the three tier of government and stakeholders of the seed sector**
- **New features in progress**
 - **Digital seed inspection and certification**
 - **Seed import and export management**
 - **Seed tracking and online report sharing**
 - **Seed Information Portal**



FAW a threat to Nepal's Agriculture





FEED THE FUTURE

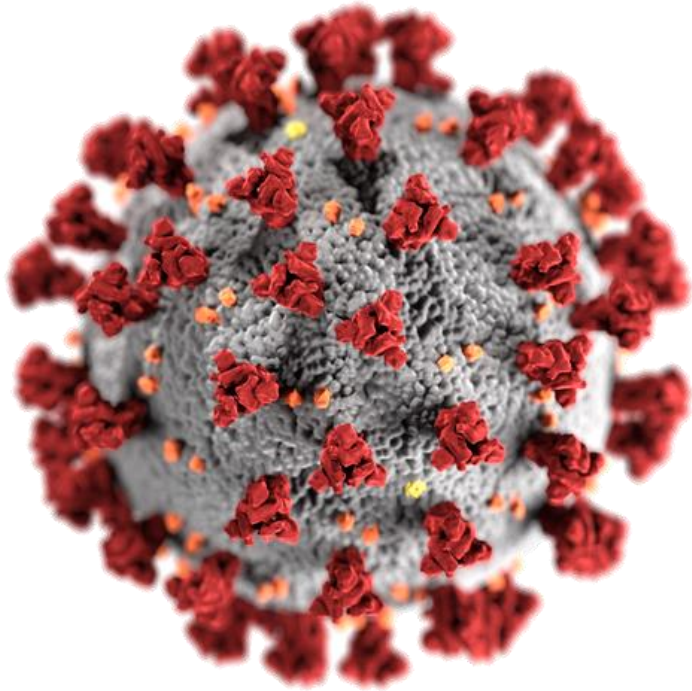
The U.S. Government's Global Hunger & Food Security Initiative

OUR INTERVENTION

- Awareness campaign (Banke over 1000 farmers)
- FAW online training over 500 participants
- Working with USAID IPs, PPS, PQPMC, MoALD FAW taskforce
- Animation FAW video in Nepali (National TV broadcast over 1 million viewers)
- Pheromone lures: surveillance network
- 5000 Fact sheets
- Preparation to test FAW tolerant maize (HPR)



COVID-19 IS ALSO AFFECTING THE SEED INDUSTRY



- **Seed supply chain disruptions**
- **Migrant returnees and Job creation**
- **EGS supply for next season**
- **Seed and grain yield impact**
- **Engage with seed companies and other VC**
- **In country seed availability and future scenarios**

NSAF COVID-19 response

Seed relief to C19 affected communities





RICE VARIETIES DISTRIBUTED

1. Sawa mansuli sub 1, mostly in Barbardiya- 4990Kg , Radha-4, 10Kg
 2. Radh-4= Raptisonari, 5000Kg
 3. Radha-4= Thakurbaba, 1050Kg
 4. Sawa Mansuli sub 1, Thakurbaba, 3950Kg
- Total 15000Kg





IN FIGURES (2017-2022)

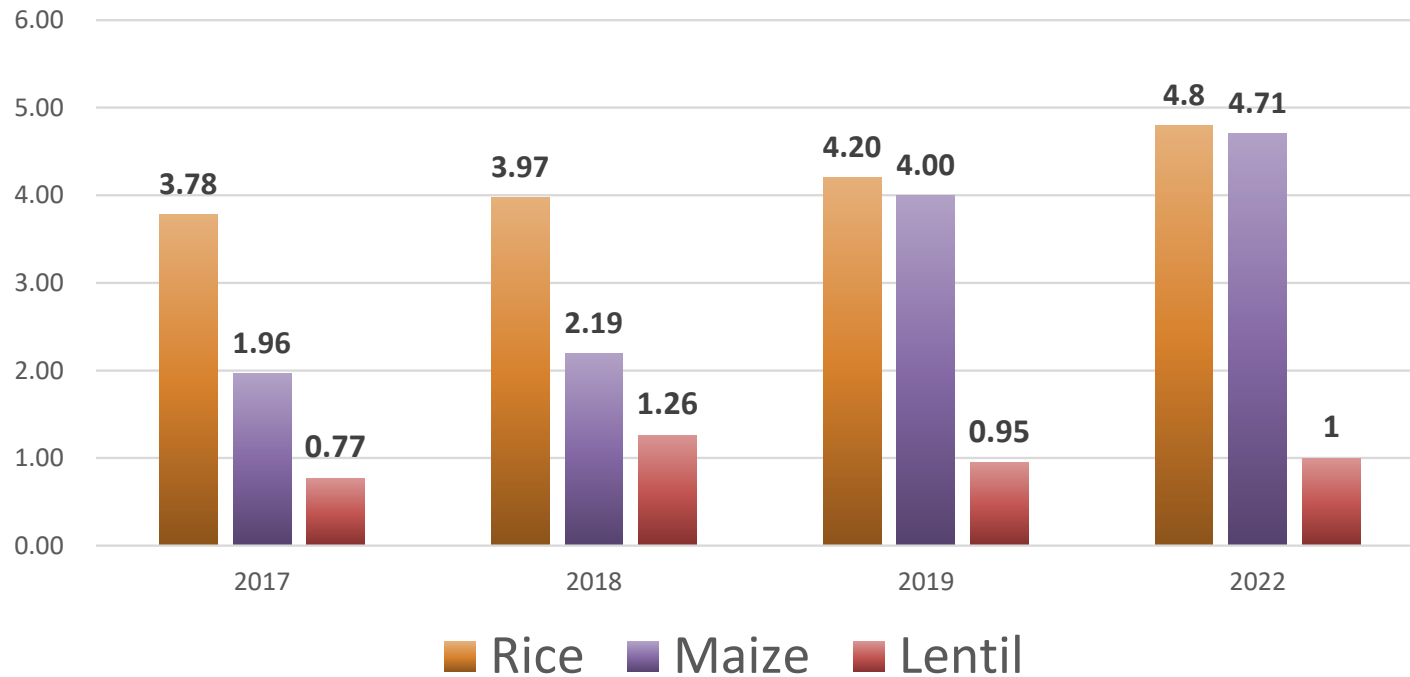
- 670,194: HH benefitted
- 364,468: Hectare-improved ag. practices
- 256, 152: Million USD value of sales
- 64,750: Metric tons of maize from local hybrid seeds
- 13, 888: Individuals trained
- 11, 885 : Metric tons of seed sold





YIELD OF TARGETED AGRICULTURAL COMMODITIES WITHIN TARGET AREAS [MT/HA] EG 3-10

Yield increment of NSAF crops in Zol
(2017-2020, Mt/ha)





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Rewarding Achievement





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

SALIENT FEATURES



USAID
FROM THE AMERICAN PEOPLE





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Handing over of new seeds & varieties to public and private partners



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**
International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

THE NEW PRODUCTS INCLUDES

- Biofortified maize hybrids (PVA, QMP+PVA)
- Extra early maturing (less than 100 days)
- Aflatoxin tolerant synthetics
- FAW tolerant inbreds
- Sweet and pop corn varieties
- White and yellow kernel hybrids
- Single and three way crosses
- Inbred lines with diverse traits
- NARC and Seven private seed companies received the seeds



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**
International Maize and Wheat Improvement Center



NEW ONION VARIETY REGISTERED

“Khumal Pyaj-2”

- Yield potential: **35-40 Mt/ha**
- Average weight of onion bulb: 120-130 gm
- Bulb skin color: dark violet
- 100% yield advantage over Red Creole- a market dominated variety released in 1990





VARIETY REGISTRATION ONGOING ACTIVITIES

Ongoing Activities:

- **NMRP and GATE-Nepal collaborate to register zinc enriched synthetic white maize.**
- **Lumbini Seed Company working on proposal for yellow and white hybrid maize.**
- **SEAN Seed Service Center and Gorkha Seed Company to register two hybrid tomato variety**
- **R&D License for NSAF supported two seed companies under review**
- **Field testing of potential varieties of Lentil, tomato and onion varieties**





HYBRID SEED CERTIFICATION AND INSPECTION TRAINING

- Familiarize crop inspectors with the new hybrid seed quality control guidelines
- Practical field exercise for quality monitoring
- **49 participants** on hybrid maize and **40 participants** on **hybrid rice** all provinces including private crop inspectors
- In collaboration with SQCC NMRP and NRRP. Conducted for the first time in Nepal.





HYBRID MAIZE SEED PRODUCTION HUB IN DANG

- In 2021/22 hybrid maize production was held in Dang in collaboration with private seed companies, PMAMP, NMRP and NSAF
- Initially 20 ha planted, however, seed was harvested from only 10ha, due to parental seed quality issues.
- Nearly 9.0Mt seed so far collected which will be enough to cover 450ha with expected grain production of more than 3000Mt.
- Major lessons from hub Approach:
 - Importance of clustering lands as blocks for ease of farm operations, logistic management, seed collection, transportation and frequent seed quality monitoring.
 - The hybrid maize production hub fosters collaboration and market access by integrating major value chain actors viz contract growers, seed companies and end users.
- Technical support from full time staff of NSAF and fertilizer and machinery support from PMAMP was critical for farmers motivation and back stopping
- Farmers from hub are now requesting more hybrids that can able to maximize profit.





Strengthening partnership for scaling

- **CCDABC:**
 - **Rice seed 1,400.0 kg** (Bahuguni-2: 1,200 kg and SMS-1: 200 kg)
 - **Maize Seed: 50.0 kg** (25 kg each RH-10 and Zn enriched)
 - **Hybrid rice seed: 140.0 kg (HH-1)**
- **ASDP, Surkhet:**
 - 25 kg Zn enriched maize





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



High level joint field monitoring visit

- 29 April to 01 May 2022
- 35 participants, led by the secretary of MoALD
- Senior officials from MoF, NPC, SQCC, NARC, CCDABC, PMAMP, SEAN and NSAF
- Objectives were-
 - visit hybrid seed production fields,
 - visit performance of field trials and
 - Evaluate the level of engagement of public private partners in the seed value chain.



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**
International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



ENHANCING THE CAPACITY OF PRIVATE SEED COMPANIES THROUGH EXPOSURE VISITS

- Exposure visit to Hyderabad-India, 3-6 May 2022
- Five partner seed companies participated in the trip
- The exposure visit includes:
 - B2B interaction with Indian seed companies
 - Participate in the IMIC Asia field day
- The main purpose of the visits were:
 - Practical visit and experience sharing from the seed business operations of Indian seed companies involved in hybrid seeds



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**
International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

High-level Government of Nepal Officials' Exposure Visit to Kenya 26 July – 03 August 2022



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**
International Maize and Wheat Improvement Center



Purpose of the visit

- Get lessons and experiences from Kenya's agricultural research system and seed sector development
- Special emphasis was given to:
 - hybrid seed varietal development and deployment process,
 - seed policies and regulation,
 - seed quality monitoring and certification system,
 - variety release system and
 - enabling environment for the private sector in the seed industry,
- A 21 pages comprehensive report prepared for submission to the Ministry





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Secretary MoLAD of GoN Dr. Govinda Prasad Sharma, planting a tree at the premises of Seed Co (right) and the Nepal delegation visiting the hybrid maize fields at seed Co R&D farm in Kitale (left)



USAID
FROM THE AMERICAN PEOPLE



Nepal Seed and Fertilizer Project

International Training Workshop on

Quality Hybrid Maize Seed Production and Seed Business Management in South Asia

August 15 - 18, 2022 | Kathmandu, Nepal



Organized by



CIMMYT
International Maize and Wheat Improvement Center

Supported by



USAID
FROM THE AMERICAN PEOPLE



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Objectives

- Share **global experiences** on developing competitive hybrid maize products & seed production technologies
- Address **key aspects of hybrid seed business** strategies and management practices
- Enrich **technical, managerial and leadership** skills of seed company owners and their staff.
- Share experiences on variety registration, seed certification, **seed quality monitoring** and enabling seed policies and regulations



USAID
FROM THE AMERICAN PEOPLE





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Glimpses of the hybrid maize seed training 15-18 August 2022



Nepal Seed and Fertilizer Project
International Training Workshop on
Quality Hybrid Maize Seed Production
Seed Business Management in South



- 60 participants from Nepal and south Asian countries
- 14 resource persons both in person and online
- Practical exercise on seed road map and business plan development





Participants and resource persons

- Private seed companies
- Public research institutions
- NARC commodity program
- Agricultural Universities
- Seed quality regulatory
- 14 resource persons
- Jointly organized by SQCC, SEAN, NMRP, 1CGIAR SEI



A total of 60 participants





Refresher Webinar on Fall Armyworm Management in South Asia

July 21, 2022

Organized by

Supported by





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

FAW REFRESHER WEBINAR FOR SOUTH ASIA 21 JULY 2022

OBJECTIVES

- Share latest updates and scientific advances
 - Awareness creation and experience sharing
 - Address the importance of enabling policy environment
 - Enhance collaborations and networking
-
- Inaugurated by Sec. MoALD of GoN



USAID
FROM THE AMERICAN PEOPLE





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Nearly 600 online participants from:



36%



30%

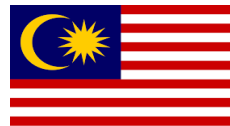


25%



6%

Other nationalities (3%)



USAID
FROM THE AMERICAN PEOPLE



CIMMYT_{MR}

International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

HYBRID RICE SEED EXPOSURE VISIT



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**
International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

IN BANGLADESH



USAID
FROM THE AMERICAN PEOPLE



CIMMYT_{MR}

International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

RESEARCHERS AND TECHNICIANS TRAINING ON BIOMETRY AND BREEDING OPTIMIZATION (HYDERABAD INDIA)



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**
International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

EQUIPMENT SUPPORT-TO ENHANCE SEED QUALITY AND QUANTITY



USAID
FROM THE AMERICAN PEOPLE

CIMMYT
International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

KEY LESSONS

- **Private sector engagement**
- **Elite germplasm**
- **Strengthening seed value chains**
- **R & D license issuance**
- **Digital innovations (DESI)**
- **Local hybrid maize and rice seed production**



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**_{MR}
International Maize and Wheat Improvement Center



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Challenges

- **Maintaining seed quality**
- **Skilled manpower across the seed value chain**
- **Financial resources**
- **COVID-19 and climate change**
- **Volatile seed market systems**
- **Regulatory system to ensure seed quality**



USAID
FROM THE AMERICAN PEOPLE

 **CIMMYT**_{MR}
International Maize and Wheat Improvement Center



Acknowledgement

- **MoALD, NARC, SQCC, MoALM&C**
- **Seed company partners**
- **SEAN, CEAPRED**
- **Farmer cooperatives**
- **NSAF team- Fert, M&E, Socio Economics, Communications, Admin...**
- **NSAF-NARC staff**
- **USAID-Nepal Mission**
- **HTMA, CSISA**





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Nepal's first PVA hybrid, PSC on farm demo (June 2020)



**Thank you
for your
interest!**