



PROMOTING

KNOWLEDGE MANAGEMENT CULTURE

NARO's Achievements in FY 2025/26:

Preparation of NARO Annual Report

5th August, 2026

11:00am – 12:00pm



ID: 896 7530 1999

Passcode: 264604



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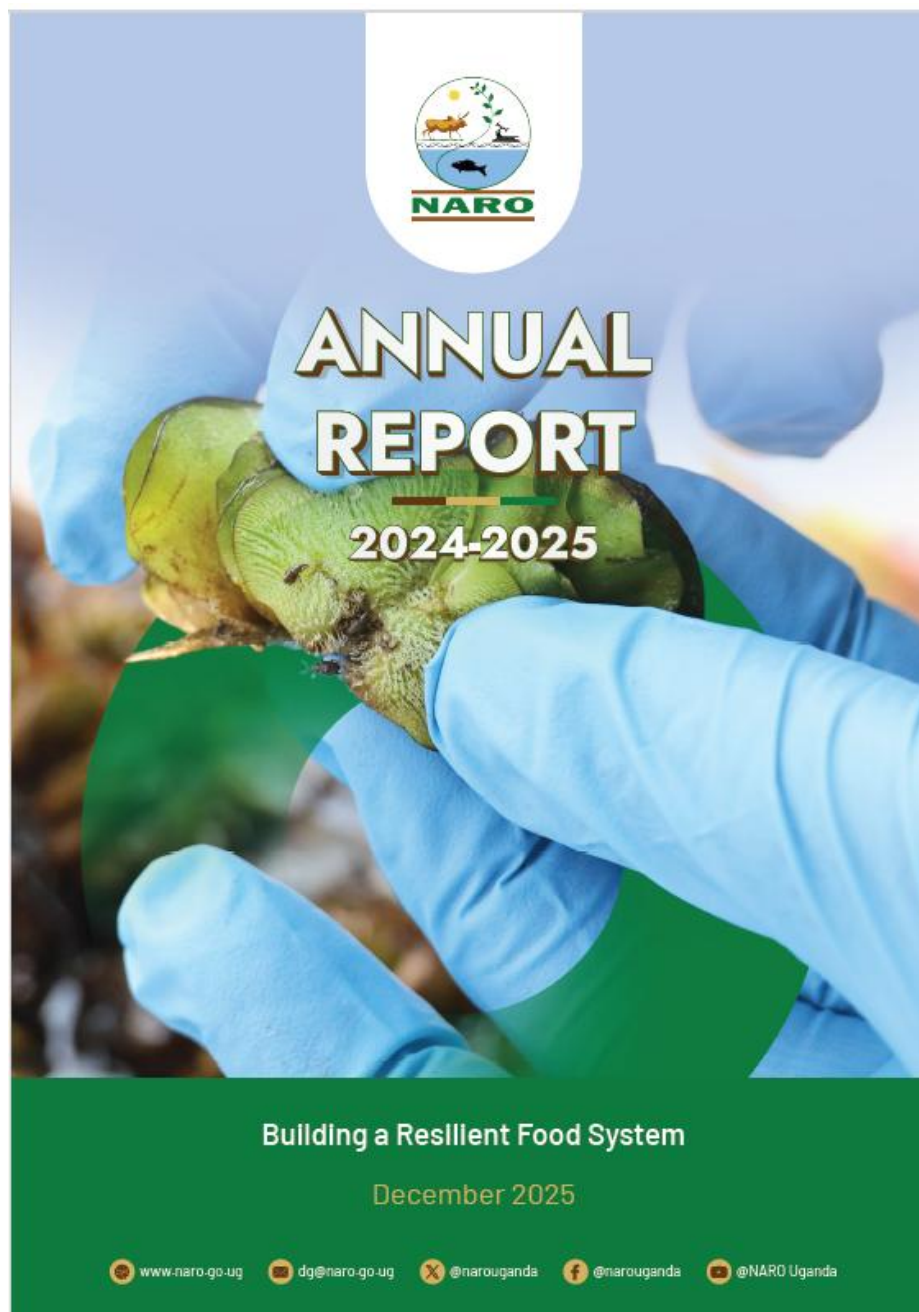


NARO'S ACHIEVEMENTS IN FY2025/26

as of May 2026

Prepared by: Directorate of Research

Presented with modifications by: Barbara M Zawedde, PhD
Knowledge Management Unit, NARO



[Annual Report 2024-2025 – NARO
elibrary](#)

NARO Info Hub
<https://naroinfohub.naro.go.ug/>



MANDATE

Oversee, guide and coordinate agricultural research

VISION

A competitive society supported by a dynamic agricultural research innovation system

MISSION

To innovate for sustainable agricultural transformation

INNOVATIONS, RESEARCH PRODUCTS AND SERVICES COVER



Crops



Livestock



Fisheries



Forestry



Agro-machinery



Agri-skilling



Technology promotion and outreach



Key Performance Indicators as of May 2026

Indicator		Target	Achieved
1.	No. of technologies and innovations that enhance environmental sustainability and biodiversity conservation	4	4
2.	Number of gene banks established	5	12
3.	Number of genetic resources conserved	2022	8106
4.	No. of agricultural research facilities rehabilitated	7	11
5.	No. of improved fish seed propagated for stocking	55000	800000
6.	No. of agricultural research support facilities rehabilitated	10	23
7.	No. of research laboratories rehabilitated	3	4
8.	No. of extension staff retooled with new skills	100	342
9.	No. of land, crop, and forage suitability maps	2	5
10.	No. of soil sheets updated	1	3
11.	No. of sustainable land use technologies developed	1	2
12.	No. of biopesticides developed	3	4
13.	No. of biofortified varieties released	3	3
14.	No. of bio-control technologies for management of invasive weed species developed	2	2
15.	No. of fish stock assessments	1	1
16.	No. of technologies and innovations for market and industry	4	5
17.	Quantity (MT) of Early Generation Seed (EGS)	215	161.54
18.	No of Integrated pest and disease management packages developed	1	1
19.	Number of postharvest handling, processing and storage technologies developed	5	5
20.	Number of agro-machinery prototypes developed	5	5
21.	No. of bio-control options/products for management of pests and diseases developed	2	2
22.	No. of sustainable mycotoxin management technologies developed and promoted	1	1
23.	Number of PARIs with Agricultural research land secured	5	5
24.	Number of agricultural staff trained	100	168
25.	Number of staff trainings conducted	30	68
26.	Number of agricultural research laboratories equipped	4	5
27.	Number of PARIs integrating ICT precision agriculture	2	2
28.	No. of partnerships established	12	12



Achieved exceeds target



Achieved meets target



Achieved below target

KEY PERFORMANCE HIGHLIGHTS

OBJECTIVE 1: Increase production and productivity
enhancing agricultural technologies and innovations



COMPLIANCE TO NATIONAL AND INTERNATIONAL VACCINE MANUFACTURING STANDARDS



92643



General Certificate of Suitability of Premises for manufacturing Drugs

(Issued under Section 17 of the Act and Regulation 4(2) of the National Drug Policy and Authority Certificate of Suitability of Premises) Regulations 2014)

This is to certify that the premises named:

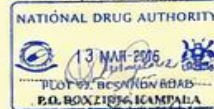
NATIONAL AGRICULTURAL RESEARCH ORGANIZATION

at the Physical Address: NAMULONGE NAKYESASA, NANSANA MUNICIPALITY
WAKISO DISTRICT
Postal Address: P.O. BOX 5704, KAMPALA UGANDA
TIN: 1000029757
with Supervising Pharmacist: KHAUKHA FARIDA
having Registration No: 583

are considered suitable for carrying on the business of
Manufacturing of Drugs

Premise No. NDA/PRE/PM/0089

Valid up to 08 March, 2029



This certificate must be prominently displayed in the
premises to which it refers

92644



License to Manufacture Drugs

Issued under Statutory Instrument No. 35 of the National Drug Policy and Authority (Licensing) Regulations 2014

This is to certify that the business trading under the name of

NATIONAL AGRICULTURAL RESEARCH ORGANIZATION

at the Physical Address: NAMULONGE NAKYESASA, NANSANA MUNICIPALITY
WAKISO DISTRICT
Postal Address: P.O. BOX 5704, KAMPALA UGANDA
TIN: 1000029757
with Supervising Pharmacist: KHAUKHA FARIDA
having Registration No: 583
and with Head of Quality Control: SSEKYANZI RICHARD
is authorised to carry out the following manufacturing activities for the corresponding dosage forms

No	Dosage form	Product category	Manufacturing activities
1	Small Volume Liquids in glass vials (aseptically filled)	Anti-Tick Vaccine	Complete Manufacture Of Finished Pharmaceutical Product (upstream, Downstream, Formulation, Filling, Primary And Secondary Packaging)

Premise No : NDA/PRE/PM/0089

Valid up to 08 March, 2029



This License must be prominently displayed in the
premises to which it refers

1



GMP COMPLIANT EQUIPMENT

installed, commissioned,
calibrated and
verified

2



60 STAFF TRAINED

in 33 GMP
short courses
to meet national
and international
standards for Vaccine
manufacturing

3



ACQUIRED LICENSE

to manufacture
drugs

4



ACQUIRED CERTIFICATE OF SUITABILITY

of premises to
manufacture drugs

Uganda Unveils Homegrown Anti-Tick Vaccine in Major Leap for Africa's Livestock Sector

30 April 2026 | H.E. President Yoweri Kaguta Museveni visits NARO



Commissioned Africa's first anti-tick vaccine factory

Annual production capacity: **36 million doses**



Launched NAROVAC-ATV1

A homegrown anti-tick vaccine for sustainable management of ticks and tick-borne diseases.



“The cow now kills the tick.”

“This is a durable solution against ticks.”



✓ State-of-the-art facility for world-class vaccine production



✓ Official launch and commissioning at NARO



✓ Driving livestock health and farmer prosperity



Effective protection against ticks and tick-borne diseases.



Healthier livestock, higher productivity, stronger livelihoods.



African innovation for African solutions.



Sustainable. Safe. Science-driven. Farmer-focused.



NARO – Advancing Science. Securing Livelihoods. Building a Stronger Africa.

From Uganda to Africa, for a tick-free future.



THE REPUBLIC OF UGANDA
Ministry of Agriculture,
Animal Industry and Fisheries

Production of Foot and Mouth Disease Vaccine



Produced
90 litres
of SAT-1 FMD Vaccine.



Raw material for production of
12 million doses
of the Quadrivalent
FMD Vaccine by MEVAC



Covers approximately
12 million
heads of livestock



**MEVAC FMD VACCINE –
QUALITY YOU CAN TRUST**



PRODUCED WITH PRECISION. DELIVERED WITH IMPACT.



**HIGH QUALITY
VACCINE PRODUCTION**



**SCIENCE DRIVEN
PROCESS**



**CONSISTENT QUALITY
& SAFETY**



**STRONGER IMMUNITY
HEALTHIER HERDS**



MEVAC – COMMITTED TO ANIMAL HEALTH, COMMITTED TO THE FUTURE.





FMDAlert

Foot-and-Mouth Disease Early Warning System - Uganda

9:41



FMDAlert



Uganda FMD Risk Overview

Next 6 Months Forecast

12

High Risk
Districts

25

Moderate Risk
Districts

109

Low Risk
Districts



- High Risk
- Moderate Risk
- Low Risk
- No Data



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Alerts



Reports



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9:41



District Details



📍 Kiruhura District

Western Region



Kiruhura

Select Month and Year



June



2026



Get Prediction



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Alerts



Reports



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Prediction Result



FMD Outbreak Risk

78%

High Risk

District: Kiruhura

Month: June

Year: 2026

Generated: 20 May 2026

Risk Interpretation

High probability of Foot-and-Mouth Disease outbreak in Kiruhura District in June 2026. Conditions are favourable for virus transmission.

Risk Level



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GENETIC IMPROVEMENT IN BEEF CATTLE

ANKOLE CATTLE BEEF IMPROVEMENT CROSSBREEDING PROGRAM

Improving growth through crossbreeding Ankole with Brahman, and enhancing meat quality by adding Angus or Limousine to develop the Anbragus composite.



PARAMETERS (AVERAGE)	BASE POPULATION (ANKOLE CATTLE)	SUPERIOR BREED CHOICE	FY 2023-2024	FY 2024-2025	FY 2025-2026	REFERENCE POPULATION (TARGET COMPOSITE BREED)
Birth weight	21 Kg	Brahman (30kg)	Stock assembly and initiation of breeding activities	22kg	24.3	25kg
Weaning weight (6-8 months weight)	120 kg	Brahman (200kg)	-	126	126.4	150kg
Average daily gain	270g per day	Brahman (500g per day)	-	287.5	290	380g per day
Mature weight and age	400Kg at 24months	Brahman (500kg at 18 months)	F1 crossbreeds still growing (12 - 14 months old)	Mature weight to be assessed at after 18 months (July 2026), Slaughter characteristics after 24 months		450kg at 18 months
Dressing percentage	49% - 50%	Brahman (52% - 55%)	-	-	-	50% - 55%
Meat: Bone ratio	3.4:1	Brahman (3.5:1 to 4:1)	-	-	-	4:1
Marbling score	2.1 on a scale of 1-5	Angus (4+ on a scale of 1-5)	-	-	-	3.5 on scale of 1-5
Tolerance to diseases score	Tolerant to tick borne diseases	Ankole	-	Tolerance to diseases score	Tolerant to tick borne diseases	Tolerant to tick borne diseases
Drought tolerance score	Tolerant to drought conditions	Ankole	-	Drought tolerance score	Tolerant to drought conditions	Tolerant to drought conditions



BETTER GROWTH
Higher weights in less time



IMPROVED MEAT QUALITY
Better yield & marbling



HEALTHY & RESILIENT
Retain tick and drought resistance of Ankole



HIGHER PROFITS
More meat, better quality, stronger returns



BUILDING A SUPERIOR BEEF FUTURE



Goat meat improvement-Crossbreeding Mubende and Red Kalahari

Parameters (average)	Base population of Mubende breed-(M)	Superior breed of choice is Red Kalahari (RK)	FY 2022-2023	FY 2023-2024	FY 24-25 F1 cross	FY 25/26 Backcross	Reference population (Target stabilized crossbreed)
					M x RK	M x RK	M x RK
Birth weight	2 to 2.3kg	Red Kalahari (2.5 to 3.3kg)	Assembly of the Red Kalahari flock and establishment of breeding and management infrastructure	Assembly of Mubende female stock and Acclimatization to environment	2.5kg	2.9kg	3kg
Weaning weight (4 months)	10kg	Red Kalahari (20kg)			12kg	15kg	18kg
6 months weight	15kg	Red Kalahari (30kg)			18kg	20kg	25kg
Average daily gain	45g/ day	Red Kalahari (62g / day)			45g/ day	50g/ day	55g/ day
Yearling weight	25kg	Red Kalahari (40kg)			The goats were still growing	Backcrosses still below 1 year and will be assessed for maturity at 18months	35kg
Twinning rate	30%	Red Kalahari (50%)					40%
Mature weight and age	40kg at 24 months	Red Kalahari (75kg at 18months)					50kg at 18 months
Dressing percentage	50%	Red Kalahari (52%)					52%
Meat: Bone ratio	4:1	Red Kalahari					4.5:1
Tolerance to diseases score	Tolerant to tick borne diseases	Mubende / Small East African			Tolerant	Being assessed	Tolerant to tick borne diseases
Drought tolerance score	Tolerant to drought	Small East African			Tolerant	Being assessed	Highly tolerant to drought



Goat meat improvement -Crossbreeding Small East African goat and Red Kalahari

Parameters	Base population of Small East African (SEA)	Superior breed choice is Red Kalahari (RK)	FY 24/25	FY 2025-2026 F1 cross	Reference population (Target stabilized crossbreed)
				SEA x RK	SEAxRK
Birth weight	1.2 to 2.0 kg	Red Kalahari (2.5 to 3.3kg)	Assembly of the small East African female flock and acclimatization to the environment and management infrastructure	2.0kg	2.5kg
Weaning weight (4 months)	9 kg	Red Kalahari (20kg)		9kg	12kg
6 months weight	12kg	Red Kalahari (30kg)		14.5kg	20kg
Average daily gain	36 g/day	Red Kalahari (62g / day)		38g/day	45g/day
Yearling weight	15kg	Red Kalahari (40kg)		18kg	25kg
Twinning rate	30%	Red Kalahari (50%)		30%	40%
Mature weight and age	30kg at 24 months	Red Kalahari (75kg at 18months)		Waiting to attain mature age 24 months	40kg at 18 months
Dressing percentage	45%	Red Kalahari (52%)			50%
Meat: Bone ratio	2.8:1	Red Kalahari			4:1
Tolerance to diseases score	Tolerant to tick borne diseases	Mubende / Small East African		Tolerant	Tolerant to tick borne diseases
Drought tolerance score	Highly tolerant to drought	Small East African		Tolerant	Highly tolerant to drought



Genetic improvement in indigenous chicken



G6 Chicken



Parameters	Sex	FY19/20 Foundation stock assembled	FY20/21 Gen. 1	FY21/22 Gen. 2	FY22/23 Gen. 3	FY23/24 Gen. 4	FY24/25 Gen. 5	FY25/26 Gen. 6	Desired attributes
 Av. growth rate/g per day	 Cocks	8 g	15 g	18 g	20 g	24 g	25 g	25 g	30 g
	 Hens	5 g	8 g	12 g	17 g	18 g	18 g	20 g	25 g
 Age at 1 st laying/ months	 Hens	8 to 12	8 to 10	7 to 9	6 to 8	6 to 7	4.5	4.5	4 to 5
 Av. no. of eggs per year	 Hens	90	100	105	120	125	140	150	200
 Market weight	Cocks	2.1 Kg	2.3 Kg	2.3 Kg	2.5 Kg	2.5 Kg	2.5 Kg	2.66 Kg	3.5 Kg
	 Hens	1.5 Kg	1.9 Kg	2.0 Kg	2.0 Kg	2.3 Kg	2.5 Kg	1.94 Kg	3 Kg
 Age at Market weight/ months	Cocks	12 to 18	12	12	10	10	8	6	5
	 Hens	18 to 24	14	13	10	10	10	6	6

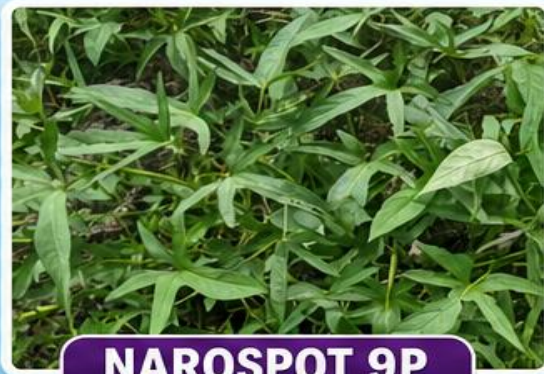


Release of the First Purple-Fleshed Sweetpotato Varieties

NAROSPOT 8P, NAROSPOT 9P, and NAROSPOT 10P



NAROSPOT 8P



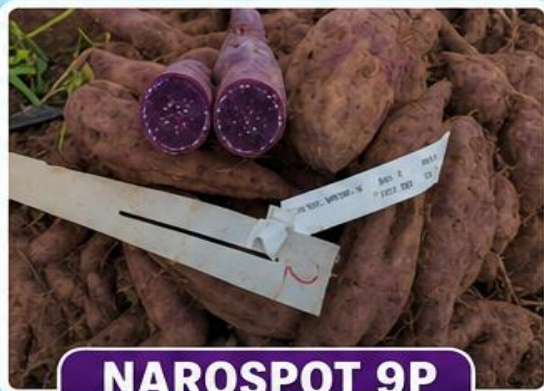
NAROSPOT 9P



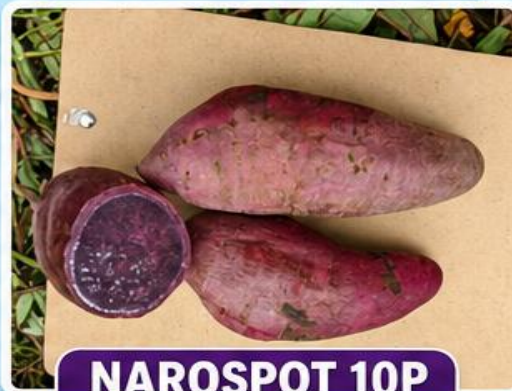
NAROSPOT 10P



NAROSPOT 8P

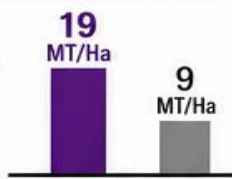


NAROSPOT 9P



NAROSPOT 10P

KEY FEATURES & BENEFITS

- 

1 **High yield of 19 MT/Ha** compared to 9 MT/Ha for Babari (local variety)
- 

2 **Rich in anthocyanins** critical in suppression of cancer and heart diseases
- 

3 **Can replace up to 40%** in wheat-based products
- 

4 **Suitable for making wines**
- 

5 **Tolerant to pests and diseases**



Nutritious. Productive. Profitable.
A Purple Revolution in Every Harvest!

High Yield  Nutrient-Rich  Value Addition  Farmer Prosperity  Food & Nutrition Security



Evaluation of Candidate lines-National Performance Trials



FY2025/26 HIGHLIGHTS



15 advanced lines across 6 strategic crop commodities entered National Performance Trials (NPTs).



NPTs were a critical milestone for evaluating broad **adaptability**, **yield stability** and **performance consistency** across Uganda.



Trials were conducted across diverse agro-ecological conditions in Uganda.

15 ADVANCED LINES ENTERED INTO NPTS IN FY2025/26



A total of 15 advanced lines across six strategic crop commodities were evaluated for national performance.



Research. Innovation. Impact.

Driving productivity and prosperity for Uganda

Submission to Variety Release Committee

During FY2025/26, NARO submitted the following varieties.

SORGHUM	FINGER MILLET	SESAME	SUNFLOWER	BRACHIARIA	ARABICA COFFEE	HIGHLAND MAIZE
3	2	1	2	2	3	2
						

Seed and planting-material systems reached meaningful production scale

80 MT

breeder and early-generation seed produced and distributed

76,544

potato tissue-culture plantlets generated

52.5 MT

harvested potato seed

Climate resilience embedded

10 MT climate-resilient rice foundation seed; 1.5 MT heat-tolerant wheat seed

Specialty markets supported

14 MT aromatic rice foundation seed produced for multiplication pathways

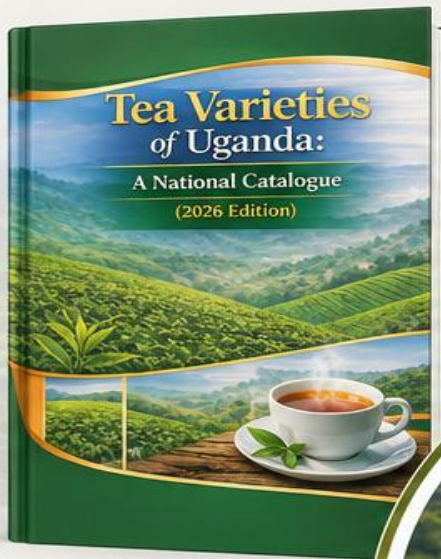
Vegetative systems expanded

100 acres cassava multiplication; ; 5 acres for sweetpotato seed

1

One National tea variety catalogue developed and registered.

The catalogue captures commercial clones and provides pictures and trait descriptions to support variety identification, traceability and certification.



Commercial clones



Pictures



Trait descriptions



Identification, traceability & certification

2

5 regional tea mother gardens established with 50000 clones comprising 5 commercial tea clones and 8 purple tea lines.



3

A smart/automated drip irrigation system established and evaluated

on mature tea clones under four irrigation regimes.



Data on tea growth, yield, quality, soil moisture, and canopy temperature generated.



Preliminary results indicate that canopy temperature can support irrigation scheduling.



Supplementary irrigation improves tea productivity and quality.



Smart Monitoring



Drip Irrigation



4 Irrigation Regimes



Data-Driven Decisions

4

2 new tea populations were introduced



TN 14/3



SC 12/28

5

1863

commercial tea clones were produced and distributed to farmers.



Production



Distribution



Farmers





VALIDATION AND COMMERCIALISATION OF **SKEEPON** CLIMATE-SMART BIO-STIMULANT TECHNOLOGY



Addressing Uganda's climate challenges

Prolonged dry spells, erratic rainfall, and rising temperatures are threatening agricultural productivity.



A collaborative solution

NARO through NaCRRRI, in collaboration with UNFFE and AC-Planta Japan, validated Skeepon under Ugandan farming conditions.



Officially approved

Skeepon is registered by MAAIF as a biostimulant and growth promoter and approved for commercial use in Uganda.



VALIDATED ACROSS 12 STRATEGIC CROP ENTERPRISES



MAIZE



TOMATO



COFFEE



SOYBEAN



CABBAGE



ONION



BANANA



SWEET PEPPER



LETTUCE



GROUNDNUTS



SWEET POTATO



PASTURE GRASSES



CONSISTENTLY PROMISING RESULTS

TOMATO

48-55%

increase in marketable fruit yield



MAIZE

23-28%

higher yield than untreated plots



SOYBEAN

5-15%

yield improvement with stronger establishment and moisture stress resilience



VEGETABLES & COFFEE

Improved leaf development, reduced heat stress symptoms in vegetables, and strong farmer interest in coffee under climate stress conditions.

MULTIFACETED AGRONOMIC BENEFITS



Improves water conservation and drought tolerance



Activates plant defence networks



Enhances root proliferation



Regulates osmotic balance



Enriches beneficial nitrogen-fixing soil bacteria

Designed for Uganda's variable and increasingly unpredictable climate.

COMMERCIALISATION IN MOTION



INITIAL IMPORTATION

2,000 litres of Skeepon being imported for market introduction and farmer promotion.



PRODUCT LAUNCH

Official launch at the upcoming Jinja Agriculture Show.



FARMER FOCUS

Promoting climate-smart solutions that boost yields, resilience and farm incomes.



BUILDING A SUSTAINABLE FUTURE



NARO and AC-Planta Japan are partnering to establish a local production factory for the commercial manufacture of Skeepon.

- Reduces import dependency
- Strengthens domestic supply of climate-smart inputs





GENETIC IMPROVEMENT AND SUSTAINABLE MANAGEMENT

for Strategic Tree Commodities

- 1** Developed a low-cost grafting protocol for jackfruit propagation



Affordable and easy to adopt



High success rate



Promotes rapid and uniform propagation

- 2** Developed a comprehensive pest and disease management manual for jackfruit



Integrated and eco-friendly approaches



Effective pest and disease control



Improved yield and quality

- 3** Established 2 gene banks with **600** accessions of elite macadamia



Conserving diversity



Supporting breeding programs



Building resilient varieties

2 GENE BANKS
600
ACCESSIONS
ELITE MACADAMIA

- 4** Established 2 gene banks with **700** accessions of elite cashew



Conserving genetic resources



Enhancing productivity



Promoting climate resilience

2 GENE BANKS
700
ACCESSIONS
ELITE CASHEW

- 5** Established 1 gene bank with **600** accessions of elite Hass Avocado



Preserving valuable germplasm



Enabling varietal improvement



Supporting sustainable production

1 GENE BANK
600
ACCESSIONS
ELITE HASS AVOCADO



**OUR
IMPACT**



Conserving Genetic Diversity



Strengthening Food Security



Improving Farmer Livelihoods



Building Climate Resilience



Sustainable Future for All



INNOVATING TODAY FOR A GREENER, STRONGER AND MORE PROSPEROUS TOMORROW

Tree resources strengthened both the green economy and future breeding

1,138,842

shade-tree seedlings for
coffee agroforestry

50,141

clonal eucalyptus
plantlets raised

8,350

Hass avocado plantlets
raised





Strengthened NACORI to meet the national coffee seed demand



A. ESTABLISHED FACILITIES

- 1 Weaning and hardening facility



- 2 Disease screening facility



- 3 Dedicated internet infrastructure



- 4 1 Greenhouse



- 5 2 Screen houses at NaCORI



- 6 Drought screening facility



- 7 Dedicated electricity power line



- 8 5 Screen houses at Coffee Farm Innovation Center



D. INNOVATIONS

- 1 Developed a phone-based app for coffee variety identification



- 2 Generated 77 new coffee populations (25 Arabica, 52 Robusta)



B. EQUIPPED FACILITIES

- 1 Coffee seed quality assurance lab



- 2 Coffee tissue culture laboratory



C. PRODUCED PLANTING MATERIALS

- 1 928,680 seedlings at NaCORI



- 2 Partnerships with private sector produced 6,070,000 seedlings



- 3 1,712,483 unrooted cuttings at NaCORI



TOTAL PLANTING MATERIALS GENERATED

8,711,163



Innovating today for a sustainable coffee future



Enhanced capacity



Stronger partnerships



Sustainable impact



Empowered farmers

1

Coffee seedling weaning facility



2

Screen house



3

Disease screening facility



4

Green house





Supporting national coffee seed system

Strengthening PARIs to deliver quality coffee planting materials for a productive and sustainable coffee sector

WHAT WE STRENGTHENED



SCREEN HOUSES

Improved facilities for raising healthy seedlings



MOTHER GARDENS

Established and expanded gardens to conserve elite coffee varieties



SEEDLINGS

Quality seedlings produced to supply farmers

PARI PERFORMANCE SNAPSHOT

PARI	 Screen houses	 Mother gardens (acres)	 Seedlings
Ngetta	4	3	40,000
MuZARDI	3	7	650,000
Rwebitaba	2	4	30,000
KaZARDI	2	4	20,000
Buginyanya	2	2	150,000
AbiZARDI	1	1	40,000
MbaZARDI	2	10	20,000
Bulindi	2	6	250,000
NaFORRI	2	2	762,536
TOTAL	18	39	1,962,536

KEY HIGHLIGHTS



18

Screen houses strengthened



39 acres

Mother gardens established and expanded



1,962,536

Quality seedlings produced



Stronger PARIs, stronger seed system, stronger coffee sector



Quality seeds today, productive coffee tomorrow.
Together, we grow the future.



Development of Biopesticides and Fungicides

Research intervention for crop protection and biological control



PURPOSE OF THE INTERVENTION

- 1** Biopesticide against sweet potato weevil



- 2** Biopesticide against nematodes



- 3** Fungicide against sorghum anthracnose



- 4** Fungicide against black sigatoka



Biological solutions for sustainable crop protection



WHAT WAS DONE

1



Identified 6 fungal strains



2



Evaluated efficacy of 3 strains on survival of sweet potato weevil



3



Evaluated efficacy of 2 strains on banana black sigatoka



4



Evaluated efficacy of 2 strains on sorghum anthracnose



Eco-friendly solutions



Protecting crops, boosting yields



Safer for people, animals and the environment



Science-driven innovation

Boosting fish seed supply to farmers

233,000

fish fingerlings delivered

Quality tilapia and catfish fingerlings supplied to fish farmers

Distributed through NARO hatcheries and zonal institutes

Strengthens fish production, incomes and household nutrition



WHY IT MATTERS

Reliable access to quality fish seed remains a key constraint to aquaculture growth.

Local feed innovation tackles aquaculture's largest production cost

8

specialized feed concentrates and formulations

10 MT

quality fish feed produced



FORMULATIONS INCLUDE

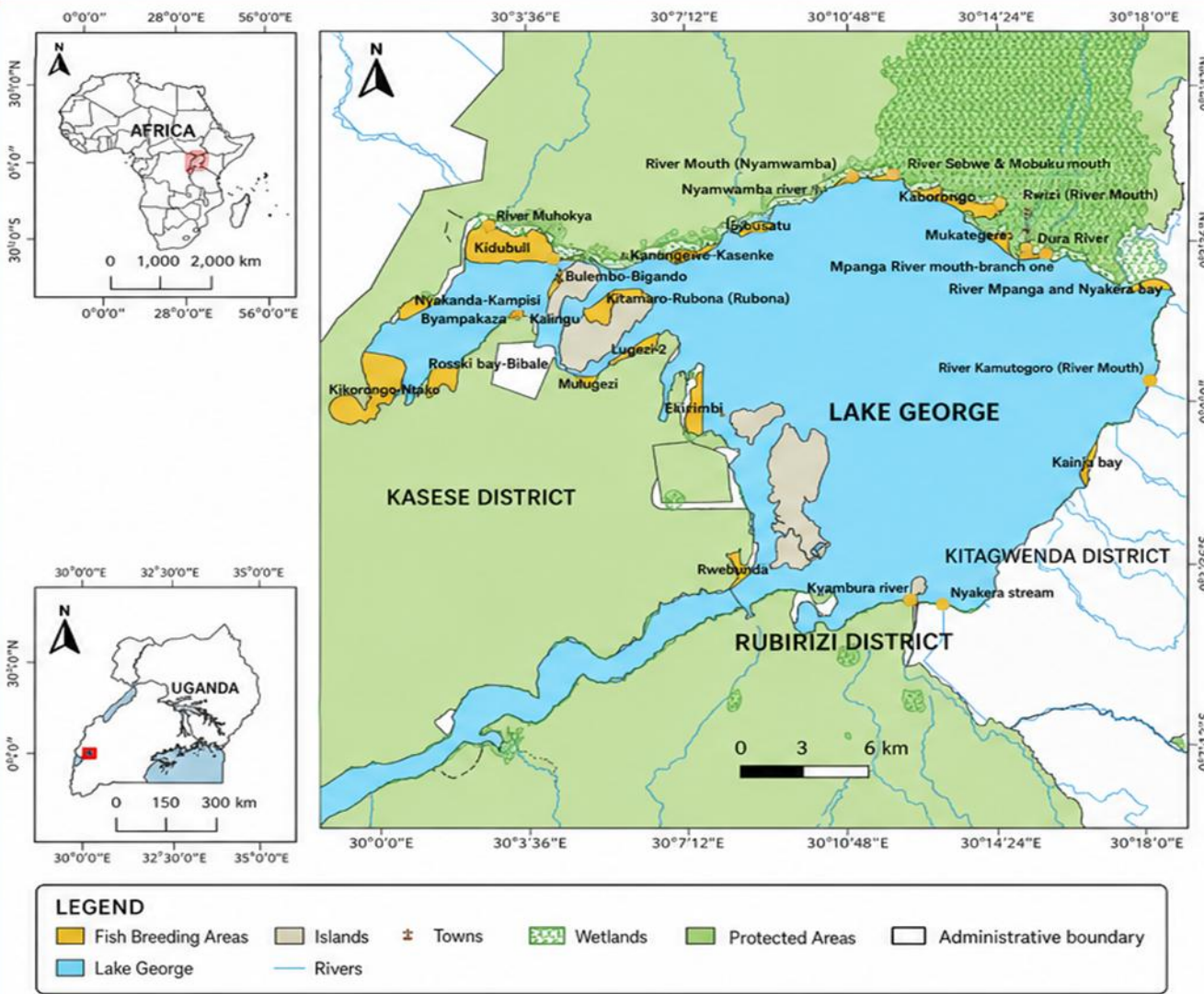
Tilapia

starter, grower, finisher and broodstock feeds

African Catfish

starter, grower and finisher feeds

Fish stock assessments on major Lakes of Uganda



1 Assessment coverage

Conducted fish stock assessments on **70 fish breeding areas** on L. George and L. Kyoga.



2 Key findings

The assessment generated critical information to support protection and sustainable management of important fish spawning and nursery habitats for major commercial fish species.



NARO estimated Maximum Sustainable Yield (MSY) and sustainable fishing levels for key commercial fish species.



Findings confirmed severe overexploitation of several fish stocks and indicated the need to restore fish productivity and ecological sustainability.

Reduce fishing effort by **25–60%**



3 Recovery framework

Based on the findings, a comprehensive fisheries recovery framework was developed focusing on habitat protection, restoration of breeding areas, ecosystem-based monitoring, climate-resilient livelihood diversification, and strengthened community-based fisheries governance.



Habitat protection



Restoration of breeding areas



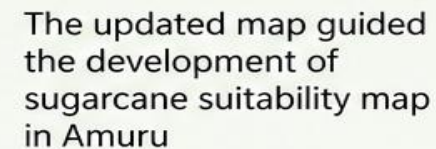
Ecosystem-based monitoring



Climate-resilient livelihood diversification



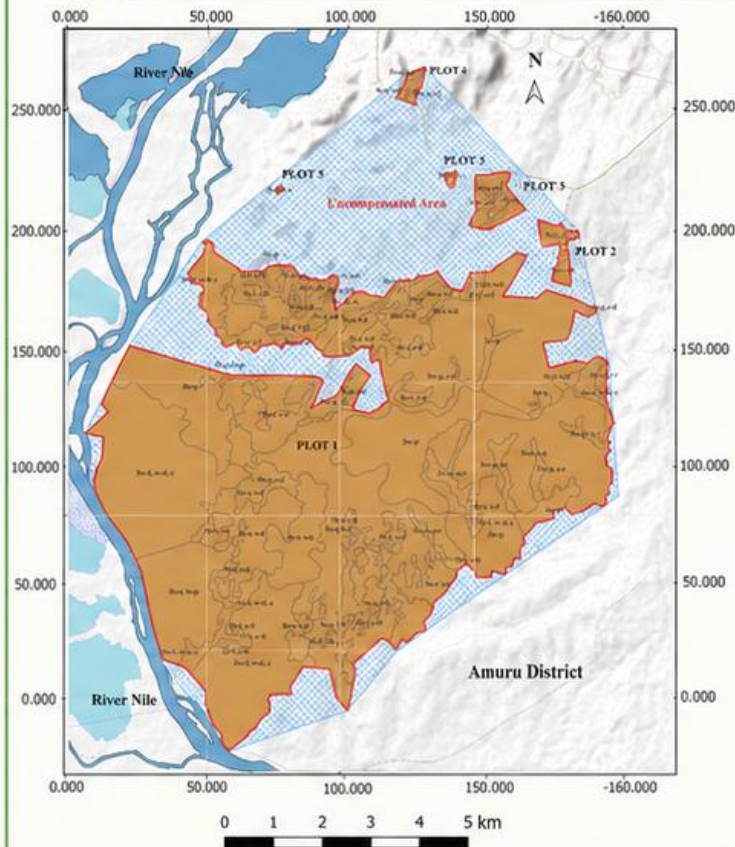
Strengthened community-based fisheries governance



Supporting Private sector in land use planning



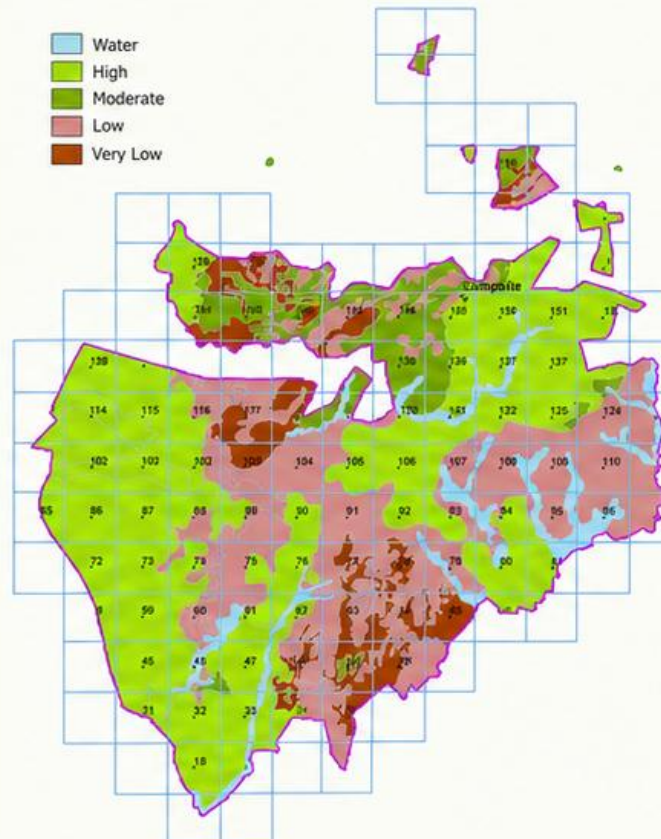
Developed soil capability map for Amuru project site to guide land use



Capability maps are essential for agricultural planning, soil conservation and resource management.



Developed a land-use for Amuru project site



Land use maps maximise agricultural productivity, minimise environmental degradation and mitigate climate change risks.

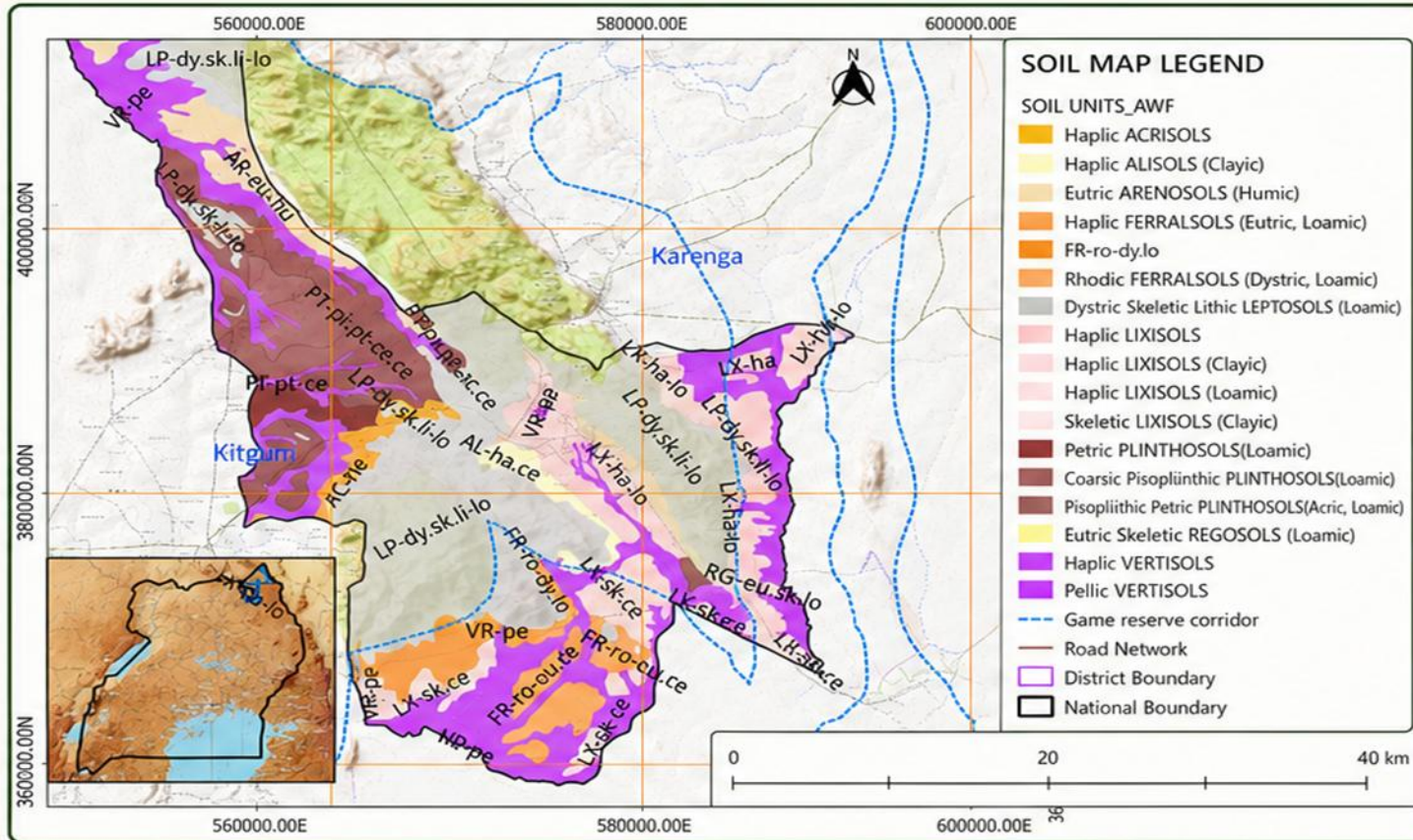
Guiding sustainable soil and water management in Kidepo landscape



Updated soil map
of Orom-East
subcounty in
Kitgum district



Updated soil map
of Lobalangit
sub county in
Karenga district



The maps
generated
information to
guide crop
selection, nutrient
management, yield
prediction, soil
conservation and
land use planning.





KEY PERFORMANCE HIGHLIGHTS



2

OBJECTIVE 2: Increase quality-enhancing and loss-reducing harvest and post-harvest technologies and innovations





DEVELOPMENT OF SMALL-HOLDER AGRO-ENGINEERING SOLUTIONS



1



Designed 1st prototype of
animal drawn planter

2



Developed and evaluated 2nd prototype of the
motorized wet coffee pulper



PULPING EFFICIENCY
98.9%



OUTPUT
850 kg/hr.



BREAKAGE
0%

3



Designed 2nd prototype of the
low horsepower motorized bean thresher

4



Designed 1st prototype of
food grade tomato pulper

5



Developed and evaluated 1st prototype of
hybrid solar-biogas dryer for drying fruit



DRYING TIME
14 HOURS
vs 20 hours for
conventional dryers



VITAMIN C RETENTION
5.7–9.4 mg/100g
vs 5.2–9.0 mg/100g
using conventional drying



KEY PERFORMANCE HIGHLIGHTS



OBJECTIVE 3: Increase market and industry responsive value-added products and services

AFLATOXINS MANAGEMENT FOR IMPROVED TRADE AND HUMAN HEALTH



Equipped and accredited the aflatoxin mitigation research and production facility at **Nakyesasa**



ANNUAL PRODUCTION CAPACITY

2,152 METRIC TONS
OF AFLASAFE

ADEQUATE TO COVER
OVER

538,000
ACRES OF FARMLAND



OVER

500

METRIC TONS OF
AFLASAFE HAVE BEEN
PRODUCED AND MADE
AVAILABLE TO FARMERS



AFLASAFE PRODUCT DEMONSTRATED
EFFECTIVENESS OF

98%

IN ELIMINATING
AFLATOXIN
CONTAMINATION



NARO-led Joint registration of AflasafeUG1 in Uganda



PROTECTS
HUMAN & ANIMAL
HEALTH



IMPROVES CROP
QUALITY AND
YIELDS



ENHANCES TRADE
OPPORTUNITIES AND
MARKET ACCESS



PROMOTES SUSTAINABLE
AND CLIMATE-SMART
AGRICULTURE



TENDERING TOUGH/HARD BEEF

Science-driven solution for tender, quality beef.



THE PROBLEM

80% of cattle meat on the Ugandan market is tough.



80%
TOUGH
MEAT



OUR SOLUTION

We developed an **organic** tenderizing product composed of a mixture of plant-derived enzymes.



Easy to use.
Simply apply and let nature do the work.

PROVEN RESULTS



40%

REDUCTION IN
MEAT HARDNESS

in just 30 minutes



85%

CONSUMER ACCEPTANCE

Meat tenderized by the product was rated at 85%.



**TENDER.
JUICY.
ACCEPTED.**

Better eating experience.
Higher market value.



Mobile App for Shelf-Life Determination

Science. Innovation. Better Quality, Longer Shelf-Life.

1 Problem

Lack of tools to monitor shelf-life of fruits, vegetable oils and confectionery products



No quick, reliable and portable method to determine and monitor shelf-life.

2 Solution

NARO developed a phone-based app that integrates wet chemistry and near-infrared reflectance to determine and monitor shelf-life based on primary oxidative biomarkers.

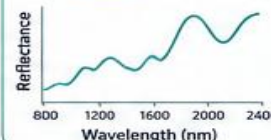
WET CHEMISTRY
(Reference Testing)



- ✓ Peroxide Value
- ✓ p-Anisidine Value
- ✓ Free Fatty Acids
- ✓ Others



NEAR-INFRARED
REFLECTANCE (NIR)



SHELF-LIFE ANALYSIS

Accurate • Rapid • Non-destructive • Portable

3 Benefits



Market segment

Monitor shelf life of agricultural products on shelves



Transporters

Monitor shelf life of products during transportation



Consumers

Determine product quality before buying and consumption

1 PRODUCTS

Fruits, oils, confectionery



2 SAMPLE & SCAN / TEST

Collect sample and analyze using app-integrated methods



3 APP ANALYSIS

App integrates data and predicts shelf-life



4 SHELF-LIFE RESULT

Clear, actionable and scientific output



5 BETTER DECISIONS

Improved quality, reduced waste, more value for all



Science-Based



Accurate & Reliable



Supports Food Safety



Fast & Portable



Value for Everyone

KEY PERFORMANCE HIGHLIGHTS



OBJECTIVE 4: Enhance access and sustainable utilization of improved agricultural technologies and innovations





Commercialization of NARO Technologies



10

technologies
licensed for
commercialization
signed



12

plant variety
license agreements
signed with
seed companies



FICA Seeds, Kabale Irish Potato Agribusiness,
Okeba Seeds, Perlex Enterprises,
Tabid Farm Seeds Africa, Ujamaa,
CADCA, Sterling Seeds, Syova Seeds,
Hope Organic, A2Z, MISECO



1 Aflasafe commercialization
agreement signed with
NHL as licensees

CROPS COVERED



Maize



Beans



Groundnuts



Wheat



Potato
varieties

4

Intellectual
Property
Rights filed



1 patent:

compositions and
methods of using
Cymbopogon nardus
extraction seed treatment
for the control of
parasitic weeds



3 trademark
applications

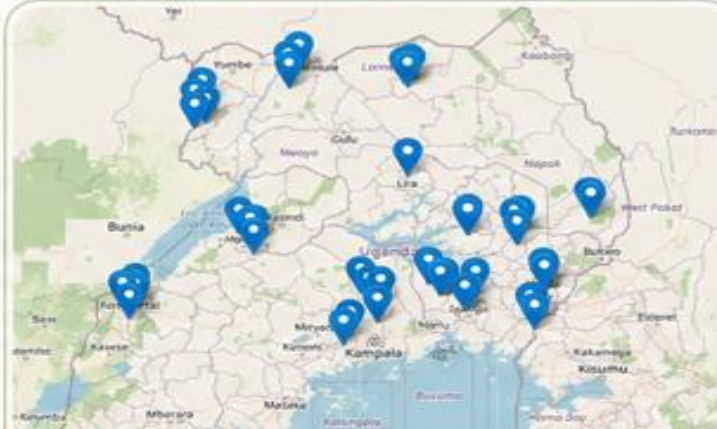


Technology Promotion and Outreach

*Innovating. Demonstrating. Training. Reaching Communities.
Building a stronger, more productive agricultural future.*



Promoting innovations and technologies through exhibitions and engagement



Outreach across Uganda – expanding knowledge, skills and technologies



Hands-on farmer trainings to build capacity and drive adoption



Established
48
adaptive trials



Established
131
demonstrations



Conducted
72
farmer trainings



Reached
161,028
beneficiaries



Trained
106
extension workers



Developed a digital information hub
(1030 IECs)
to support e-extension



Access at
<http://naroinfohub.naro.go.ug/repository>

25 Knowledge sharing webinars,
1316 participants



INNOVATE
Solutions for resilient agriculture



DEMONSTRATE
Proven technologies that work



TRAIN
Building skills and confidence



OUTREACH
Reaching communities, transforming lives





RICE

39.21 MT



MAIZE

81.3 MT



VEGETATIVE

67 MT



GNUTS

18.2 MT



BEANS

39.89 MT



SORGHUM

24 MT



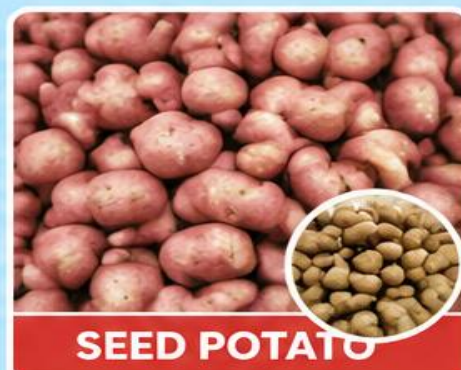
SOYBEAN

22.7 MT



WHEAT

30 MT



SEED POTATO

106 MT



TOTAL

428.3
MT

VEGETATIVE SEED PRODUCED



CASSAVA CUTTINGS
(BAGS)

450



ASSORTED
FORAGE SEED
(MT)

67



NAPIER CUTTINGS
(BAGS)

400

Additional data needs from ZARDIs

1

Success stories

Top 3 success stories, each with statistics and high-quality photos

2

Technology demos & adaptive trials

How many, what commodities, where, and how many people trained

3

Stakeholder training

Numbers per stakeholder category, gender disaggregation, training topics

4

LSB / MSCP support

How many, what commodities, how many people supported

5

Seed production

Seed volume per commodity, where distributed, acreage planted or farmers reached

6

Publications

How many of each of the different publication types

Study to determine NARO's contribution to Uganda's economic development



National Agricultural
Research Organisation

*Advancing Agriculture,
Improving Livelihoods*

1

STUDY COVERAGE



Conducted in the
**4 regions of
Uganda**

covering all
**9 agro-ecological
zones**

2

TARGET GROUP

Adopters of
selected NARO
technologies



Non-adopters of
selected NARO
technologies



TIME SCOPE

2015

2025



NDP II and NDP III periods



OBJECTIVES



Impact of
NARO technologies
on **agricultural
productivity**



Impact of
NARO technologies
on farmer
household
food security



Impact of
NARO technologies
on farmer
household
income



SURVEY REACH

3,111 households
reached

97.2% response
rate



RESEARCH • INNOVATION • IMPACT • PROSPERITY



Impact of NARO technologies on agricultural productivity and household income: An econometrics Approach

Impact evaluation results simplified from econometric analysis



WHAT THE STUDY FOUND



1. NARO technologies increase income and productivity.

Farmers using NARO technologies earn more and get higher yields.



2. Strongest gains for cassava and coffee.

These crops show the biggest improvements in income and yield.



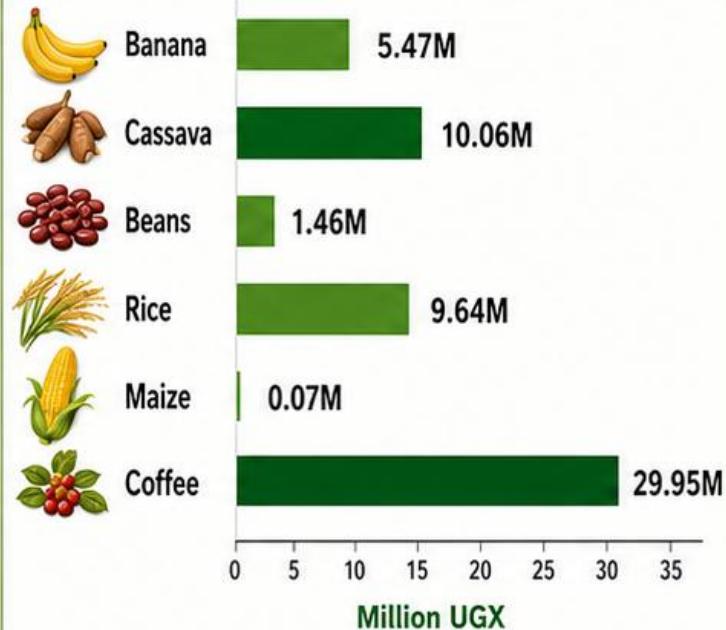
3. Positive effects for banana, beans and rice.

Clear income and productivity benefits for farmers.



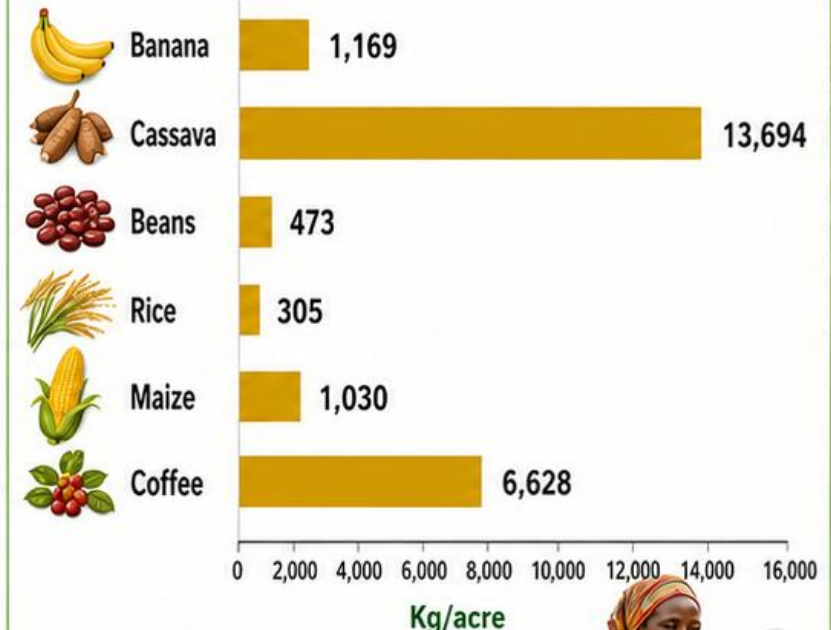
INCOME IMPACT (UGX)

Average impact estimate



PRODUCTIVITY IMPACT (Kg/acre)

Average impact estimate



Stronger technologies. | Higher yields. | Better incomes. | Better lives for Ugandan farmers.



Source: Impact evaluation using Propensity Score Matching (PSM) and Endogenous Switching Regression (ESR). Values simplified for communication.



Impact of NARO Technologies on Household Food Security

Simple econometrics findings from rural Uganda



ADOPTED

NARO technology



VS

DID NOT ADOPT



1

MORE DIVERSE DIETS



HDDS

(Household Dietary Diversity Score)

ADOPTERS

4.60

NON-ADOPTERS

0.84



Families using NARO technologies ate a wider variety of foods.

2

SLIGHTLY BETTER FOOD CONSUMPTION



FCS

(Food Consumption Score)

ADOPTERS

3.85

NON-ADOPTERS

3.47



Adopters had somewhat better overall food consumption.

3

FOOD INSECURITY EXPERIENCES



FIES

(Food Insecurity Experience Scale)

ADOPTERS

1.56

NON-ADOPTERS

0.42



Households reported different food access experiences.



NARO technologies were linked with better household food security, especially more diverse diets and improved access to food.



KEY PERFORMANCE HIGHLIGHTS



OBJECTIVE 5: Strengthen institutional capacity to undertake and coordinate agricultural research





Strengthened Agricultural Research Infrastructure



Modern Infrastructure. Stronger Research. Better Lives. 



Vaccine Production Facility – A Milestone for Animal Health



1

Completion of vaccine production facility



2

Renovation of 3 staff accommodation at Buginyanya



3

Established perimeter wall fence and main gate at NAROSEC



4

Rehabilitation of Regional Cassava Centre of Excellence at NaCRRRI



5

Establishment of 1Km Perimeter wall and gate at NaCRRRI



6

Rehabilitation of Nabuin research infrastructure



7

Renovation of livestock nutrition laboratory at Nakyesasa



8

Renovation of livestock biotechnology laboratory at Nakyesasa



9

Renovation of Mosquito research laboratory at Nakyesasa



10

Renovation of Buckstud and bullstud at Nakyesasa



Securing agricultural research land

FY 2025/26 ACHIEVEMENTS

LAND TITLED



2
titles completed
(8.421 hectares)

5 titles near
completion
(358.612 hectares)

BOUNDARY OPENING



759.149
hectares

DEED PLANS



7
deed plans
completed
(367.033 hectares)

3 deed plans
still in process
(279.946 hectares)

LAND SURVEYED



646.979
hectares
completed

approx.
43.9
hectares in progress

LAND VERIFIED



334
hectares
verified

512
hectares
verification
in progress

FENCED



917.23
meters
fenced

4.4km
fencing in
progress

APPLICATIONS FILED



21
applications
filed



MINISTRY OF AGRICULTURE,
ANIMAL INDUSTRY AND FISHERIES

Securing land.
Empowering research.
Feeding the future.





Strategic Partnerships established in FY 2025/26



 Partner	 Strategic Focus
1 World Food Program	Delivering Agriculture and Market Support Interventions
2 Bukoola Agricultural Chemicals Limited	Commercialisation of NARO Technologies and Market-Oriented Agricultural Innovation
3 Namunkekera Farm Service Center	Support to Agriculture Technology Transfer and Adoption through the Rural Farm Service Centers
5 NARO Holdings / KARLO	Research and Training on Aflatoxin Management Initiatives
6 Directorate of Agricultural Research of Ministry of Agriculture and Food Security- South Sudan	Capacity Building of the Rice Seed Systems in South Sudan
7 PELUM Uganda	Rooted in Diversity: Partnerships for Food Security and Livelihoods
8 Uganda Forum for Agricultural Advisory Services	Strengthen research–extension–farmer/market linkages and improve performance of AEAS systems
9 Heritage Farm Kirema	Livestock Improvement, Crop Husbandry, Training, Demonstration, Technology Transfer and Community Outreach
10 AC-Planta	Research, innovation, skills transfer, extension education, value-chain development and enterprise incubation
11 Jiangsu Academy of Agricultural Sciences	The China Uganda Joint Laboratory for Sustainable and High Efficiency Premium Tea Production Project
12 African Power Initiative Limited	Agriculture, Climate Change and Environment





Strengthened research governance and management



Cabinet Minister of MAAIF appointed and inaugurated a new NARO Council



New staff structure of 1242 staff was approved against 1180



Implemented the following strategic reforms;

1



Relocation of Banana Program from NaRL to NaCCRI

2



Established and Launched Mbarara center of Excellence

3



Repositioned NaRL as a national reference laboratories

4



Established NVPC as the 18th NARO Department with establishment of 32 staff



Operationalisation of the National Sugar Research Institute at Bulindi



01

Staff Structure Approved

Ministry of Public
Service approved the
NSRI staff structure.



02

Market Intelligence Study

Conducted to determine
preferences and
challenges across sugar
industry segments.



03

122 Sugarcane Accessions Evaluated

Assembled and
evaluated as a basis
for future breeding.



04

Spacing Regimes Developed

Developed appropriate
spacing regimes for Natal 14
commercial sugar variety.





Compliance and Rating

NARO Performance Highlights

1

Equal Opportunities Commission

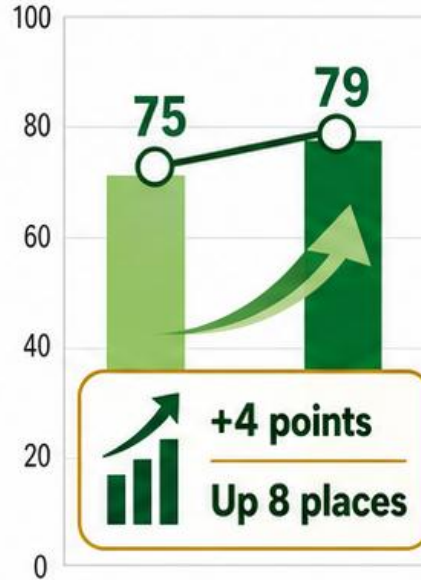
FY2025/26

Score

75

Position

22nd
of 149



FY2026/27

Score

79

Position

14th
of 149

2

Office of the Auditor General



NARO received
unqualified accounts
from Auditor General's
report 2024/25

3

National Recognition

Recognized as Best
Government Agency during
the Jinja Agricultural Show



Jinja Agricultural Show Recognition



HUMAN CAPACITY DEVELOPMENT

Performance of NARO during FY2025/26

FUNDED BY UCSATP



MSc

22



PhD

40



SUPPORTED BY NARO



MSc

2



PhD

42



59

Short-term
trainings
conducted



1,408

Participants
reached

TRAINING AREAS



Scientific
Writing



Environment
& Social
Safeguards



Management of
African Swine
Fever



Report
Writing

...and
others

PARTICIPANTS INCLUDED



NARO
Scientists



University
Staff



Extension
Agents



Farmers



Students

Building skills. Strengthening capacity. Driving agricultural innovation for impact.

Key highlights under UCSATP



24

NARO advertised, evaluated, and awarded 24 projects.



22

PhD and **40** Masters students were awarded scholarships under UCSATP.



Developed designs for assorted Agricultural Research infrastructure.



Initiated seed multiplication for priority commodities across ZARDIs.

Subsector	No. of Projects	Total Budget (USD)
Crop	8	1,998,719
Livestock	5	1,232,077
Fisheries and Aquaculture	6	1,490,787
Beneficial insects	2	493,344
Crosscutting	3	740,686
Total	24	5,955,613



Process to award an additional **46** projects is underway.

