



Capacity Building For Agro Processors on Climate Smart Processing, Entrepreneurship and Renewable energy

Training Dates: 6th – 10th June 2026

Venue: Kaduna Business School, Kaduna



Implemented by : LUTAM FARMS & Consortium Partners

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Executive Summary

A five-day training on Vitamin A Maize Processing and Agribusiness Development was conducted from 6th – 10th June 2026 by Lutam farms in partnership with FAROF and other partners. The training aimed to strengthen the technical, entrepreneurial, leadership capacities and adoption of solar technology of small-scale maize processors.

A total of 20 maize processors participated in the program. The training combined classroom learning, practical demonstrations, case studies, and business development exercises. Participants were introduced to Vitamin A biofortified maize, renewable energy adoption, food safety practices, entrepreneurship development, marketing strategies, financial management, and leadership skills.

This Project was made possible through the financial contribution of **UNDP**, the **Islamic Development Bank (IsDB)**, **Islamic Solidarity Fund for Development (ISFD)**,” and co-funded by LUTAM FARMS and Dehydratorhub

co-funded by the **European Commission** Union (EU), the **Secretariat of the Organisation of African, Caribbean and Pacific States (OACPS)**, and the **Federal Ministry for Economic Cooperation and Development (BMZ)** under the Business Support Facility for Resilient Agricultural Value Chains, implemented by **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH**.

The program successfully improved participants’ understanding of value addition within the maize value chain and provided hands-on exposure to processing techniques. Participants also gained knowledge on market access, financial opportunities, and sustainable agribusiness practices.

Introduction

The Vitamin A Maize Processing and Agribusiness Development Training was organized to strengthen the capacities of maize processors in Kaduna State. The program focused on improving participants’ knowledge in Vitamin A maize processing, food safety, business development, and market access.

The training adopted a participatory approach that included lectures, group work, practical demonstrations, case studies, and field exposure. The objective

was to equip participants with both technical processing skills and entrepreneurial competencies necessary for business growth.

Training Objectives

- Improve participants' knowledge of Vitamin A biofortified maize and its nutritional benefits.
- Strengthen processing techniques and quality control standards.
- Build participants' entrepreneurship and agribusiness management skills.
- Enhance understanding of market access and distribution channels.
- Promote food safety practices and compliance with processing standards.
- Encourage leadership and gender inclusion in agribusiness.

Training Methodology

The training adopted a participatory learning approach including:

- Interactive lectures
- Group discussions
- Case studies
- Practical demonstrations
- Business pitch exercises
- Field exposure visits
- Participant presentations



Day 1 Summary

The training commenced with participant registration. Participants were introduced to the objectives of the program and the concept of Vitamin A maize.

A pre-training assessment was conducted to evaluate participants' baseline knowledge. Sessions focused on nutrition education, vitamins and their sources, and the importance of Vitamin A maize in addressing nutritional deficiencies. Later sessions focused on food safety and quality control including HACCP principles, aflatoxin prevention, carotenoid testing, and standard operating procedures. Participants also worked in groups to analyze a case study related to maize processing.



Day 2 Summary

Day two focused on entrepreneurship and business development. Participants discussed a case study titled “From Commodity Milling to Nutrition Enterprise”. Sessions covered entrepreneurship fundamentals, feasibility studies, and SME access to finance. Participants learned about market feasibility, financial feasibility, and technical feasibility. The Business Model Canvas was introduced to help participants understand business structure, value proposition, revenue streams, and cost structures. The day ended with business idea pitching exercises.



Day 3 Summary (Practical Session)

Day three involved a practical session at Faheez Foods Factory in Abakpa Kaduna. Participants were introduced to food safety protocols including the use of aprons, gloves, masks, and hair covers. Participants observed the processing of Vitamin A maize products including corn flour, pap, custard, corn starch, and corn grits. They also learned about ingredients such as calcium hydroxide and food coloring. The practical session provided hands-on exposure to processing equipment and production workflows.



Day 4 Summary

Day four focused on marketing, financial management, and business growth. Participants learned the principles of marketing including the 4Ps (Product, Price, Place, Promotion), branding, and customer segmentation.

Representatives from The Alternative Bank presented financial services and partnership opportunities available to agribusiness entrepreneurs. The final session covered costing, pricing, and financial management where participants learned how to calculate production costs and manage their businesses effectively.



Day 5 Summary

The final day focused on leadership development and Solar technology adoption. Participants learned about empathy, accountability, functionality, and effective feedback in business leadership.

A session on renewable energy adoption and MSME enterprise and growth for MSME processors which focused on how renewable energy solutions can help processors to reduce costs, improve productivity and grow their business.

A post-training assessment was conducted to evaluate knowledge gained during the training. Certificates were distributed to participants and the program concluded with feedback, group photographs, and appreciation to facilitators.



Key Outcomes

- 20 maize processors were successfully trained.
- Participants gained practical knowledge of Vitamin A maize processing.
- Participants improved their understanding of food safety and quality control.
- Participants strengthened their entrepreneurial and business management skills.
- Participants gained exposure to real-life processing facilities and equipment.

Challenges Encountered

- Limited space at the processing factory required participants to be trained in batches.
- Some sessions exceeded scheduled time due to high participant engagement.
- Minor delays occurred during transitions between sessions.

Recommendations

- Increase time allocated for practical training sessions.

- Provide post-training mentorship and follow-up support.
- Facilitate access to finance and equipment for processors.
- Encourage participants to conduct step-down training in their communities.

Conclusion

The training successfully strengthened the technical and entrepreneurial capacity of maize processors. Through a combination of theoretical sessions and practical exposure, participants gained valuable knowledge to improve product quality, expand their businesses, and contribute to improved nutrition within their communities.

Participant List (Sample Structure)

S/N	Participant Name
1	Participant 1
2	Participant 2
3	Participant 3
4	Participant 4
5	Participant 5
6	Participant 6
7	Participant 7
8	Participant 8
9	Participant 9
10	Participant 10
11	Participant 11
12	Participant 12
13	Participant 13
14	Participant 14
15	Participant 15

16	Participant 16
17	Participant 17
18	Participant 18
19	Participant 19
20	Participant 20

INTRODUCTION

The purpose of this report is to assess the effectiveness and outcomes of the capacity building on Vitamin A maize processing and entrepreneurship for agro processing with adoption of renewable energy technology. This evaluation report presents the outcome and feedbacks the capacity building held for processors from 2 LGAs in Kaduna State. In terms of methodology, the questionnaire is prepared as per Kirkpatrick's four levels of evaluation which is used comprised of brief structured questions on various aspects of the training which is circulated to the participants and questionnaire is consisting of closed, opened, multiples and scaled questions.

A 5-day capacity building training on Vitamin A maize processing and entrepreneurship was conducted for agro-processors to improve their knowledge and skills in value addition, nutrition, and agribusiness development. This report presents the evaluation findings of the training based on participant feedback, trainer observations, and post-training assessments.

Objectives of the Training

The main objectives of the training were to:

- Build participants' capacity in processing Vitamin A maize into value-added products.
- Increase awareness of the nutritional benefits of Vitamin A maize.
- Strengthen entrepreneurial and business management skills among agro-processors.
- Promote small-scale agribusiness opportunities using Vitamin A maize.
- Encourage adoption and commercialization of Vitamin A maize products.

Participants

The training was attended by 20 agro-processors. Participants were selected from different communities to ensure wider dissemination of knowledge and skills.

Pre-training Assessment

Master Trainer's selection verification exercise

As part of the implementation of the Capacity Building on Vitamin A Maize Processing and Entrepreneurship for Agro-processors project, a selection process was conducted from 10th to 20th May 2026 to identify qualified individuals to serve as Master Trainers. Master Trainers will play a critical role in cascading knowledge and skills to 180 agro-processors at community level.

To ensure the selection of competent trainers, a Master Trainers Selection Verification Form was used to assess candidates' qualifications, technical expertise, and facilitation experience.

Assessment Criteria

The eligibility of potential Master Trainers was assessed based on information provided in the verification form across the following key areas:

Trainer Background Information

This section assessed the trainer's demographic and professional information including:

- Gender and age
- Contact details
- Institutional affiliation
- Years of professional experience

This information helps confirm the trainer's background and professional engagement.

Technical Expertise in Vitamin A Maize Processing

Candidates were evaluated based on their technical knowledge and experience in areas such as:

- Knowledge of biofortified crops (Vitamin A maize)
- Practical experience in maize processing
- Experience in food safety and quality standards
- Knowledge of value addition and product development
- Experience in post-harvest handling
- Familiarity with processing equipment and maintenance

Candidates were also required to indicate the number of years of experience in maize processing and describe their relevant practical experience.

These competencies are essential to ensure that Master Trainers have adequate technical capacity to train agro-processors effectively.

Entrepreneurship and Business Development Experience

Because the training includes entrepreneurship and agribusiness development, candidates were assessed on their experience in:

- Agribusiness development
- Entrepreneurship training
- Business planning and financial literacy
- Market linkage development
- Cooperative or group business facilitation

These skills are important to ensure that Master Trainers can guide agro-processors not only in processing but also in developing profitable agribusiness enterprises.

Training and Facilitation Experience

The ability to effectively deliver training was another key eligibility criterion. The form assessed:

1. Number of years of experience as a trainer
2. Number of trainings facilitated in the last three years
3. Experience training adult learners
4. Experience developing training materials
5. Languages used for instruction
6. Availability of evidence of previous trainings conducted

Candidates with strong facilitation experience were considered better suited to deliver participatory and practical training sessions.

Eligibility Determination

Based on the information provided in the verification forms, candidates were considered eligible as Master Trainers if they demonstrated:

1. Adequate technical expertise in Vitamin A maize processing
2. Practical experience in value addition and post-harvest management
3. Relevant entrepreneurship and agribusiness training experience
4. Proven training and facilitation experience

5. Ability to effectively communicate with participants and deliver practical training.

Candidates who met the majority of these criteria were recommended for selection as Master Trainers.

Key Observations

The verification process revealed that:

1. Some candidates demonstrated strong technical expertise in maize processing and food safety.
2. Several candidates had experience in agribusiness and entrepreneurship training, which is critical for the business development component of the program.
3. Many candidates had previous experience training adult learners, indicating their readiness to facilitate community-level capacity building.
4. Practical experience in value addition and product development was identified as an important strength among eligible candidates.

Conclusion

The Master Trainers Selection Verification Form provided a structured approach to assessing the suitability of potential trainers for the capacity building program. The assessment ensured that selected Master Trainers possess the necessary technical knowledge, entrepreneurial expertise, and facilitation skills required to effectively train agro-processors on Vitamin A maize processing and business development. Selecting qualified Master Trainers will help ensure the successful dissemination of knowledge, improved processing practices, and sustainable agribusiness development among agro-processors.

Pre & Post training Assessment

A pre-test and post-test assessment was conducted during the training on Vitamin A maize processing and entrepreneurship to measure participants' knowledge before and after the capacity building exercise. The test aimed to assess understanding of key areas including Vitamin A maize benefits, processing techniques, food safety, and entrepreneurship.

A total of 20 participants completed both the pre-training and post-training assessments.

Summary of Test Results

Indicator	Average Score %
Average pre-test score	31.75

Average post-test score	68.30
Average improvement	36.55

Interpretation

1. Participants had relatively low baseline knowledge before the training.
2. After the training, the average score increased significantly to 68.3%.
3. This represents an average improvement of about 36.6 percentage points, indicating substantial learning.

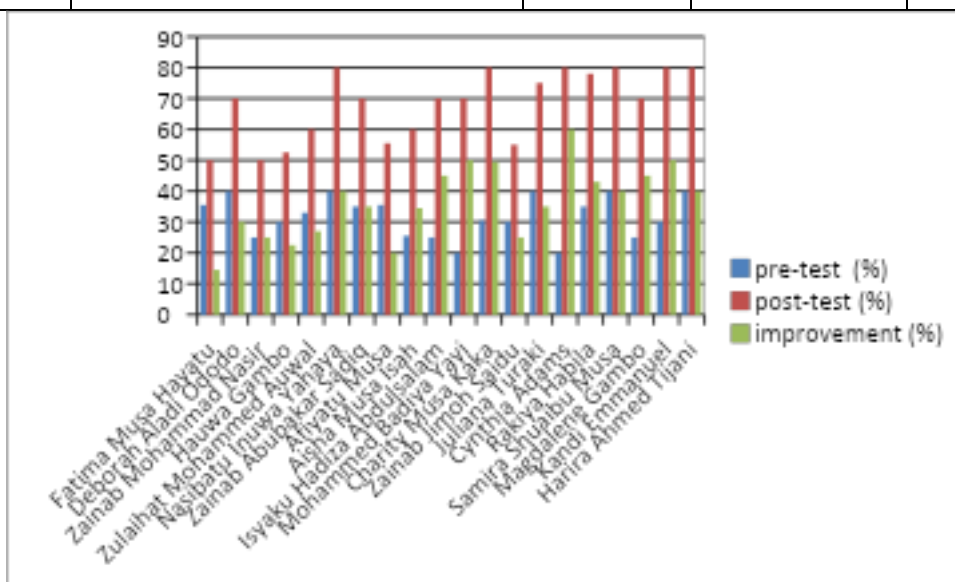
Performance Improvement

All participants recorded improvement in their post-test scores, demonstrating the effectiveness of the training.

Individual Performance Table

S/ N	Participant	Pre-test	Post-test	Improvement
1	Fatima Musa Hayatu	35.5	50	14.5
2	Deborah Aladi Ododo	40	70	30
3	Zainab Mohammad Nasir	25	50	25
4	Hauwa Gambo	30	52.5	22.5
5	Zulaihat Mohammed Auwal	33	60	27
6	Nasibatu Inuwa Yahaya	40	80	40
7	Zainab Abubakar Sadiq	35	70	35
8	Afiyatu Musa	35.5	55.5	20
9	Aisha Musa Isah	25.5	60	34.5
10	Isyaku Hadiza Abdulsalam	25	70	45
11	Mohammed Badiya Yayi	20	70	50
12	Charity Musa Kaka	30.5	80	49.5
13	Zainab Jimoh Saidu	30	55	25
14	Juliana Turaki	40	75	35

15	Cynthia Adams	20	80	60
16	Rakiya Habila	35	78	43
17	Samira Shuaibu Musa	40	80	40
18	Magdalene Gambo	25	70	45
19	Kandi Emmanuel	30	80	50
20	Harira Ahmed Tijani	40	80	40
20	Fatima Musa Hayatu	35.5	50	14.5



Participants with the Highest Improvement

Some participants recorded particularly strong improvements:

Participant	Improvement
Cynthia Adams	+60%
Mohammed Badiya Yayi	+50%
Kandi Emmanuel	+50%
Charity Musa Kaka	+49.5%
Isyaku Hadiza Abdulsalam	+45%

Magdalene Gambo	+45%
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Overall Knowledge Change

Before Training

Most participants scored between 20% and 40%, indicating limited prior knowledge of:

1. Vitamin A maize processing
2. Value addition techniques
3. Food safety practices
4. Agribusiness and entrepreneurship

After Training

Post-test scores ranged from 50% to 80%, showing improved understanding of:

- Processing Vitamin A maize products
- Nutritional benefits of biofortified crops
- Food hygiene and safe processing practices
- Business and marketing strategies for agro-processed products

Key Findings

1. Significant knowledge gain: the average score increased from 31.75% to 68.30%, demonstrating strong learning outcomes.
2. 100% participant improvement, every participant improved their score after the training.
3. Enhanced practical understanding; the higher post-test scores indicate that participants understood the processing techniques and entrepreneurship concepts taught during the training.
4. Training effectiveness; the difference between pre-test and post-test results confirms that the training effectively built the capacity of agro-processors.

Conclusion

The pre- and post-test analysis shows that the Capacity Building on Vitamin A Maize Processing and Entrepreneurship was highly effective in improving participants' knowledge and skills. The substantial increase in post-training

scores demonstrates that participants gained a better understanding of Vitamin A maize processing, value addition, food safety, and agribusiness development.

Training Observation Report

Purpose of the Observation

The purpose of this observation was to assess the quality, effectiveness, and delivery of the training session, with a focus on participant engagement, facilitation techniques, clarity of content, and overall learning outcomes.

Key Observations

4.1 Facilitation Skills

- The facilitator demonstrated good knowledge of the subject matter.
- Communication was clear and delivered in a language understood by participants.
- However, there were moments where the session became lecture-heavy with limited interaction.

Participant Engagement

- Participants showed interest, especially during interactive segments.
- Questions and contributions were encouraged, though only a few participants actively engaged.
- Some participants appeared hesitant to speak, possibly due to group dynamics or confidence levels.

Training Methods and Materials

- A mix of teaching methods was used, including verbal presentations and discussions.
- Visual aids and examples helped clarify key concepts.
- Limited use of participatory tools (e.g., group work, demonstrations) was observed.

Content Relevance and Clarity

- The training content was relevant to participants' needs and local context.
- Key messages on nutrition and agriculture were well linked.
- Some technical terms required further simplification for better understanding.

Time Management

- The training generally followed the planned agenda.
- Some sessions exceeded allocated time, reducing time for discussion and feedback.

Logistics and Organization

- The venue was conducive for learning.
- Training materials were available but could be improved in quantity and accessibility.

Areas for Improvement

- Increase use of participatory and interactive methods
- Improve time management to allow more discussion
- Simplify technical language for better comprehension
- Encourage broader participation from all attendees
- Provide more practical demonstrations and visual materials

Recommendations

- Incorporate group work, role plays, and demonstrations in future trainings
- Provide additional training for facilitators on participatory approaches
- Strengthen follow-up support to participants after training
- Ensure balanced time allocation between presentation and interaction

ANNEX

Pictures

