



Technical Brief

Cassava Farmers Training



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1. Introduction

The GIZ Pro-Poor Growth and Promotion of Employment in Nigeria Programme – SEDIN supports processes that lead to improvement in the access of farmers to market and business opportunities through the development of agricultural value chains, notably, rice, potato, and cassava. In addition, the SEDIN Programme aims at promoting the sustainable development of MSMEs to access new profitable marketing channels and to ensure the regular supply at the right quality and quantity. It operates in Niger, Plateau, and Ogun State.

Nigeria is considered the largest producer of cassava, though not patronized by major industrial buyers. This is because of the poor-quality cassava produce and the below-average production process of its value chain. In addition, the production process of cassava does not meet up with international standards. The lacking knowledge in cassava production has limited the growth and development of the cassava value chain and thereby limits the capacity for increased income.

In Nigeria, there is an increase of smallholder farmers, largely farming on a subsistence level, with farm sizes of five hectares or less. The lack of technical knowledge of improved ways of cassava production has been a critical challenge to the cassava value chain in Nigeria.

The majority of processing takes place at the village level, with micro millers and food processors providing services without taking ownership of raw materials or finished products. There is little or no knowledge about new technology towards improving productivity. With this traditional approach to farming, the result is low productivity and low margins across the value chain actors.

Considering the abovementioned, SEDIN seeks to encourage sustainable practice of cassava production for farmers. It has been at the forefront of promoting the cassava sector with respect to up-scaling in technology and agronomic practices while supporting increased quality and quantity of the cassava production in Ogun State. Thereby, it aims to ensure the competitiveness in local and global markets for the cassava farmers.

There are also other areas of support given by the programme to the cassava value chain, such as the strengthening of local small- and medium-scale cassava processors (ranging from cottage to medium sized industries); improving market linkages along the value chain; supporting an enabling environment for cassava cultivation, processing and exports; advising on possible value chain finance solutions for the cassava sector; and identifying new products and markets for the value chain. In furtherance of the

abovementioned objectives of supporting the cassava value chain, SEDIN implemented seven trainings for cassava farmers in Ogun State between 2016 and 2017.

2. Overview of the Seven Trainings

The seven trainings held for cassava farmers facilitate growth and development of cassava farming enterprises. The trainings are *Sustainable Practice in Agriculture*, which is also referred to as *Sustainable Agricultural Code*; *Cassava Stem Multiplication*; *Farmer Business School*; and *Farmers' Group Formation*. Others are *Weed Management Control and Safe Use of Herbicides*; *High Quality Cassava Peel Meal*; and *High Quality Gari and Fufu Production*. Below are some insights into the training concepts, objectives, methodologies, training modules, training materials, average costs of the trainings, lessons learnt and recommendations.

2.1 Sustainable Practice in Agriculture

Value-added production capacities are significant elements to the success of a cassava farmer. For farmers to turn around their farming enterprises, they must be disposed to adopting and adapting to sustainable agricultural practices that will guarantee improvement in their incomes. GIZ SEDIN and UNILEVER supported the development of a training manual for sustainable practice in cassava production within the framework of the Sustainable Agricultural Code (SAC). It was used to train the farmers in Ogun State.



Group work in class

To train cassava farmers, in line with the concept of SAC, a training of trainers (ToT) was organised to build the capacities of designated lead farmers in Ogun State. Thereby, trainers acquired the necessary capacity to conduct the training for the cassava farmer groups.

Training Objectives

The specific objectives of the SAC training are:

- To strengthen trainers' capacities to train smallholder cassava farmers;
- To select appropriate resources to train farmers;
- To learn how to design, conduct and evaluate training sessions on SAC;
- To strengthen capacities for presenting and delivering training sessions;
- To demonstrate a range of training skills and participatory techniques and their application;
- To learn how to apply sustainability principles to the production of cassava tubers;
- To develop environmentally conscious, economically viable and socially acceptable manners of approaches to cultivate cassava.

Training Methodology

From the beginning, the trainer is expected to clarify the purpose and objectives of each activity. A variety of activities and approaches that kept participants engaged, was used. Using the training manual, action learning and participatory training methodology was employed in carrying out the training. This comprised of discussion, group exercises, role plays, experience-sharing, games and so forth.

However, for the ToT, an addition of simulation exercises, participant observations, trainer learning groups, questions and answers as well as visual aids (posters) to help reinforce learning, are utilised.

The master trainer/facilitator introduces the modules ahead of the simulation exercise but does not actively participate once the structure is set. He observes the knowledge gained and then subsequently evaluates the trainees. Discussions about trainers' roles and responsibilities in simulation exercises were done for trainers so as to make them adequately prepared for the training of the farmer groups. After every exercise, a feedback session helps to evaluate the simulation based on strengths and required improvements.

Training Modules

The training manual, with 29 modules, was used as the tool for the delivery of the training. The modules for the SAC are as follows:

- Selection of the correct planting time;
- Knowledge of buyers and price of cassava produce;

- Measurement units needed to know;
- Choice of the good plot of land;
- Choice of the right variety to plant;
- Buying good cassava stem cuttings and quality fertiliser;
- Good land preparation and clearing of land manually/mechanically;
- Health and safety use of pesticides;
- Buying adequate pesticides;
- Clearing of land with herbicides;
- The recording on pest survey, pesticides application and disease control;
- Techniques to prepare soil properly and control of soil erosion;
- Selecting healthy cassava stem cuttings;
- Proper planting modes of cassava stem cuttings;
- First manual weeding;
- First fertilising with Nitrogen, Phosphorus and Potassium, 15:15:15;
- Intercropping systems in cassava;
- Management of cassava pests and control of diseases;
- Chemical weeding;
- Second manual weeding;
- Second fertilising with murate of potash;
- Proper harvest handling procedures;
- Transportation & selling the tubers;
- Managing money daily;
- Determining money made from sale of cassava;
- Saving after sales; payment of necessary expenses; and
- Doing sustainable practice.

Evaluation Criteria

The participants' facilitation of the sessions was the major tool designed to evaluate each participant. Evaluation was carried out by the master trainers, and the participants also assessed and gave feedbacks to their peers on the facilitation of their sessions. A weighted average score was then computed as the final performance rating of each participant.

A complete package of evaluation criteria was applied to assess the participants. The criteria involve the following:

- Evaluation of the participants by the trainers with emphasis on punctuality, active participation, quality of contribution and volunteering;
- Evaluation of the performance of the participants during facilitation of sessions;
- Peer assessment of facilitation skills (participants individually assessed their colleagues);
- An effective feedback system from the participants through daily evaluation and rounds of quizzes was applied to monitor the progress of the training.

2.2 Stem Multiplication

The training titled *Rapid Multiplication of Cassava Stem (RSM)* was held in Ogun State for lead farmers. The composition of participants focused on experienced cassava farmers. The first two days were for class presentations and exercises while the third and final day was for farm demonstrations.

The high demand for cassava tubers for local and industrial usage required the conduct of the rapid stem multiplication training. The demand has exceeded the supply capability of the cassava farmers because of a low multiplication ratio of cassava stems. Another limiting variable that had weighed down the farmers is the poor storage of cassava cuttings during the off season. For supply to equate demand, it is suggested that cassava farmers adopt a technology that would guarantee rapid multiplication of cassava stem cuttings. The combination of the above constraints reinforced the need for the training.

Training Objectives

The stem multiplication technology was developed to increase the availability of clean planting materials to address the shortage in the cassava production system. It was anticipated that the yield of roots would improve for cassava farmers.

The Training of the Trainers was meant to teach farmers on the following:

- The principles of rapid multiplication;
- How to prepare ministem cuttings;
- Sprouting ministem cuttings in nursery beds;
- Sprouting ministem cuttings in polythene bags;
- Land preparation for field planting;
- Transplanting, maintenance and harvesting of ministem cuttings;
- Storage and distribution of stem cuttings.

The objective for the training of the cassava farmers are as follows:

- To support cassava farmers in the establishment of primary multiplication sites for improved cassava varieties in order to meet up with the huge demand for high-yielding and disease-resistant planting materials;
- To develop capacity of farmers for rapid multiplication of cassava planting material;
- To develop effective and sustainable systems of delivery of improved cassava varieties by farmers for processing.

Training Methodology

The training session featured power-point presentations, discussions on key topics for the first and second day of the training exercise and farm demonstration on the third day.

The first two days of the training session afforded the participants the opportunity to learn how to **prepare mini-stem cuttings**. The stem with hardwood will require two buds on the cuttings, the semi-mature and tip-shoot of a cassava stem will require four to six buds and six to ten buds respectively before planting. Emphasis was placed on using sharp tools to ensure the ends of the stem are smooth and clean. Another area of concentration was the ideal **planting medium** to use. The ministem cuttings generated from the cassava stem can either be planted in nursery beds, black polythene bags filled with topsoil, or in transparent polythene bags.



Sprouting of cassava stems in polythene bags

The topics for day two of the training comprised of **land preparation**, which is essential for maximum plant population and good growth. This is followed by **transplanting** that can be preferably done when the soil is moist. The field must be irrigated and planting done early in the morning or late in the evening in order to avoid the sun-scorching of the young tender sprout during the dry season.

Field maintenance is another topic where farmers were told to ensure good weed management. Hoe weeding at three, six and ten weeks after planting was recommended as sufficient. Agro-chemicals were also recommended for the control of weeds and the replacement of missing stands was thought essential for maximum plant population.

The beauty of rapid multiplication technology is in the **harvesting** as two or more harvests can be achieved with good field maintenance. Six to seven months after transplanting, the cassava stems would be ready for harvesting. When harvesting, the stem should be cut with a sharp machete 25cm-30cm above ground

level. That will allow the stumps to later sprout and produce more stems.

The **storage** of cassava was the last topic discussed on day two of the training. Long storage of cassava stem is impossible because stems dehydrate fast. Cassava stems can be stored in three different ways: Stems can be stored horizontally under a tree with good shade. Stems tied into bundles can be stored upright in a well-ventilated shed or under a tree with a good canopy.

The third day featured field demonstrations on some of the topics of discussion, which included cutting of mini-stem, bed construction, and mini-stem treatment, planting and spacing in nursery bed and planting in transparent polythene bag.



Farm Demonstration (practical component)

Training Materials

The materials used to deliver the training included assessment forms, training manual, knapsacks, agrochemicals, posters, flip charts, banners, black polythene bag, transparent bag, and rope.

2.3 Farmer Business School (FBS)

For the cassava farmers to attain a level of sustainable income and employment generation, there must be a considerable improvement of their business skills. This necessitated the introduction of the *Farmer Business School (FBS)* to cassava farmers.

Identified lead farmers were trained for six days on the concept of FBS through the ToT, Team Learning Group (TLG) - a group made up of trainers facilitating a class; and Pair Learning Group (PLG) – two trainers facilitating a class. During the PLG and TLG, the prospective trainers facilitated the concept with the other farmers under the supervision of the Agrofarm Lead Trainer. The TLG exposed trainers to the approach and methodology of training farmers using FBS concepts as a team and the use of PLG to further strengthen the trainers' facilitation skills.

Training Objectives

The objective of the training was to develop the business and management skills of selected lead farmers using the FBS training material developed by GIZ. The specific objectives of the training were:

- To make farmers see farming as a business and not just a practice for survival;
- To make farmers realize the importance of record keeping;
- To make farmers learn how to know if they are doing good business or not;
- To demonstrate a range of training skills and participatory training techniques and their application to cassava production.

Methodology

The Farmer Business School ToT was conducted using participatory action learning methodology, which allowed the participants to understand the content of the manual as well as to get opportunities for demonstrating the acquired knowledge. Adult learning principles were sufficiently used to transfer knowledge.

The participants were taught how to use different exercises during the facilitation. The participants were also taken through simple and easily understood ten-steps training rules which are the basis of their assessment. The master trainers facilitated all modules on days one to four to provide participants with a comprehensive overview of the concept.



FBS Training Group Work

Day five was for TLG, where participants were put in teams to simulate different modules to foster interrelation and test how well they understood the FBS content. Day six was for PLG, which required participants to work in pairs to facilitate the modules.

Training Materials

Flex banner print, key messages from cartoon illustrations, assessment forms, smiley charts, FBS manual and other materials for record keeping like the cashbook.

Training Modules

The training manual has twelve modules:

1. Is farming a business?
2. Know your units to know your assets;
3. Manage your farm for enough food;
4. Money out, money in – know whether you are doing good business;
5. Decisions for doing good business;
6. Opportunities to diversify production for more income throughout the year;
7. Managing your money throughout the year;
8. How to get good financial services;
9. Making more money with quality cassava;
10. Benefits from membership in farmer organisations;
11. Good business with good agricultural practices; and
12. Becoming an entrepreneur in practice.

2.4 Group Formation Introduction

One of the identified constraints the cassava farmers are faced with, is either the absence of farmer groups or the presence of weak farmer groups, particularly the unorganised pursuit of common goals. This limitation hinders the cassava farmers of getting desired support from government and non-governmental organizations.

The SEDIN Programme promoted the formation of new farmer groups and the strengthening of existing ones, using a well-developed training manual for group formation.

It was in line with the relevance of farmer groups' formation to the promotion of crop or farm development, and other common agricultural development concerns of communities, that the ToT was organised. Its aim was to develop the capacities of selected lead farmers, who in turn, would conduct group development trainings for farmer groups based on the developed training manuals.

Training Objectives

The objective of this assignment is to develop the capacities of selected lead farmers in conducting group development trainings for farmer groups based on existing training material.

Training Methodology

The three days training required participants to be fully engaged in in-class and out-of-class assignments. Action learning and participatory training methodology was employed in carrying out the training.

Training Modules

1. **Introduction to farmer groups** that emphasizes the benefits of working in groups, how to work in groups, efficient management of groups, and participation in groups.
2. **Basics of farmer groups** with highlights on the characteristics, rules and regulations of operating

groups and the rights and responsibilities of group members.

3. **Farmer group organisation, leadership and members relations** that centres on organisational structure and group representation. Also, the roles of the leaders were discussed.
4. **Effective farmer group management** highlighting the importance of group meetings and the organised and effective conduct of meetings.
5. **Basic financial management** for farmer groups such as good record keeping, internal records, external information that is needed to be kept by farmer groups, and group budget.
6. **Services offered by farmer groups**, including contract farming, group marketing, marketing and the essence of contract negotiation through the use of a role play called 'The Power of Negotiation'.
7. **Action planning** which allows farmer groups to effectively deploy resources towards achieving their set goals in a timely manner.

2.5 Weed Management and Safe Use of Herbicide in Cassava Production

Cassava grows poorly in weedy environment and as a result produces fewer and smaller storage roots. For full expression of its genetic potential and improvement in yield, one of the main operations in cassava production is effective weed management and control. Cassava farmers do practice weeding using cultural methods or the use of

herbicides which can also have detrimental effects such as environmental pollution and health hazards.

Training Objectives

- To develop the capacity of 30 selected participants, 15 lead farmers and 15 extension officers in delivering training on effective weed management and control and safe use of herbicides in cassava production to farmer groups;
- To enhance the capacity of cassava farmers on weed management and the safe use of herbicides;
- To facilitate food security and self-sufficiency in Ogun State;
- To increase cassava yields incomes, and the generation of casual labour employment.

Training Methodology

The training was delivered using both theoretical and practical approaches. There was also a video session on the 'Six Steps to Cassava Weed Management' extension toolkit. The theoretical aspects focused on principles of weed control in cassava production and also some sessions on reflections with focus on the work done by the Cassava Weed Management Project (CWMP)/African Cassava Agronomy Initiative (ACAI). There was also extensive teaching on cassava agronomy and weed identification.

Training Modules

1. Good Agricultural Practices (GAP): Harnessing Experiences/Results from ACAI/CWMP (Focus on cassava agronomy, etc.);

2. Video on Six Steps to Cassava Weed Management;
3. Sprayer Calibration and safe use;
4. Herbicides Safety, Fertilizer Application, and Record Keeping;
5. Demonstrations on the farm.

2.6 Production of High-Quality Cassava Peel (HQCP)

With the steady increase in cassava production, averaging 3% per annum since 1995 in Africa and Nigeria, animal feed generated from cassava peels (a processing by-product) holds enormous potential. Due to its affordability, ease of storage and resilience to climate change, this growth rate is expected to continue, bringing annual cassava production in Nigeria to approximately 150 million tonnes.

Training Objectives

The objectives of the training are:

- To strengthen the capacity of 42 selected participants, in delivering training on the production of HQCP.
- To enhance capacity of 200 farmers through a step-down training on the production of HQCP;
- To boost cassava food production and productivity, increase the income of the farmers and processors and create more jobs for women and youths.
- To utilize cassava tubers by-product (waste), and thereby help reduce level of environmental pollution from cassava processing.

- To enable the private sector to independently drive increased uptake of related technologies and cassava waste by-product uses.

Training Methodology

The training created participatory, active and cooperative learning opportunities for the farmers. It also introduced participants to the benefits of converting cassava peels to high quality cassava peels (HQCP) thereby reducing cassava peels wastages which could enhance income generation.

Theoretical sessions and practical sessions were held to complement each other.

Training Modules

- **Introduction to High Quality Cassava Peel (HQCP) Meals Production:** Here the various steps followed in processing peels into HQCP mash were briefly described to the participants. The processes discussed with the participants were: sorting, grating, pressing, pulverizing and sieving cassava peel cake, and drying or toasting.
- **Cassava Products for Animal Feeding:** Participants were introduced to different types of cassava products that can be used for feeding livestock. The following products were discussed: cassava chips, broken roots, pellets, cassava meal, cassava residual pulp, cassava grits, cassava foliage (leaves and stems), and cassava

peel (fresh, dried, boiled or ensiled).

- **Introduction to the Business of Cassava Based Animal Feeds:** Participants were introduced to HQCP production as a proper business venture and the relevance and importance of Cassava-based animal feeds. The factors to be considered when making cassava-based feeds and the challenges faced by the value chain actors were also considered.
- Participants were further trained on general principles of the cassava business venture with focus on the importance of a business plan, farm budgeting and sources for funds for their businesses (funds mobilization) to ensure that they have a viable business using HQCP.

Highlights of what was taught during the above-mentioned session are as follows:

- What makes a successful entrepreneur?
- Components of a business plan;
- Benefits of business plan;
- Resources needed to start;
- Cassava based Animal Feeds Production Business;
- Animal Feeds Production Enterprises;
- Challenges in the Cassava Feed Sector;
- Farm Budgeting;
- Uses of a Farm Budget;
- Steps for the preparation of Farm

Budgets

- Understanding the Marketing Concept.

2.7 Processing of Cassava into Gari and Odourless Fufu

Current practices processing cassava create problem in product quality consistency. Finished product safety is not usually guaranteed because of the non-availability of modern equipment, processing standards, poor product packaging and storage, and low productivity.

Gari Processing: Gari is a granulated cassava product. The materials and equipment required for the processing of cassava into gari were introduced to the participants. Afterwards, the process was discussed which include: sorting, peeling, washing, grating, fermenting, pressing, cake breaking/sifting or sieving, toasting/roasting/ “garifying,” cooling, sieving, packaging, labeling and storing.

Odourless Fufu Processing: Odourless fufu is a fine wet/flour produced from wholesome freshly harvested cassava (10-12 months after planting) and rapidly processed roots. Odourless fufu is unfermented, smooth, odourless, white or creamy flour, bland with no gluten. Commercial production of odourless fufu is relatively new in Africa. As a result of increase in the price of odourless fufu in domestic and international market, it is imperative to follow laid down standards in the processing of fufu.

In this training, the materials and equipment required for processing odourless fufu was discussed. The processing steps included: sorting, peeling, washing, grating, pressing, cake breaking or pulverizing/sifting or sieving, soaking, sieving, pressing, cake breaking or pulverizing/sifting or sieving, drying, milling, packaging, labeling, storing.

Processing Environment: Both trainings stressed the need for maintaining a clean processing environment, product safety and the enhancement of public health.

3. Costs Implication of the Trainings

Training	Total Cost (NGN)	Cost per participant (NGN)
Sustainable Agricultural Code	16,288,000	8,144
Cassava Stem Multiplication	25,757,230	12,878.62
Group Formation	25,757,230	12,878.62
FBS	25,757,230	12,878.62
HQCP	5,400,000	22,314.05
Fufu and Gari Processing Training	7,162,800	119,380
Weed Management Training	3,688,750	6,959.91

4. Lessons Learnt

- The selection of participants, who were primarily lead cassava farmers, for the ToT was good because it made the participants more

comfortable as they were trained by their fellow cassava farmers;

- The trainings are timely interventions that would continually help cassava farmers improve on their farming businesses;
- Many cassava farmers have been having problems with the business aspect of their farming activities. Hence, they saw the FBS training as an intervention that would help them run their farming enterprises more effectively and efficiently;
- The success recorded from the trainings could be attributed to the nature of the training, conducive learning environment, literacy level and experience of the participants;
- Nursing cassava stem cuttings in polythene bags is the best because of the several advantages it has over nursing them in nursery beds. It is cheaper, more convenient and quicker;
- When sprouting is done in transparent polythene bags without soil, damage to sprouted mini-stem is minimal;
- The level of growth of the cassava stem determines the kind of agro-chemical to use;
- The use of vernacular for the trainings generated much feedback from participants and facilitated the effective transfer of knowledge;
- Using visual aids enhances learning and helped the farmers to better understand the issues discussed;
- Farmer self-organisation is of utmost importance with regards to accessing

business services; access to input and output markets; creation of strong and viable farmer groups and achieving adequate supply to off-takers;

- Forming farmer groups has been of benefit to farmers because they were able to negotiate better prices, achieve economies of scale, and provide assistance to one another;
- However, some cassava farmers, who have not attended the trainings in the same breadth as others, have to a large extent, underperformed when compared with those who attended the trainings more than once.

5. Results

Some of the cassava farmers are strong believers in the idea and husbandry/management of SAC, RSM and FBS as there is evidence that shows that they have put into practice what they had learnt in the trainings. Specifically, they now avoid bush burning, practice farm mechanisation, use scientifically improved higher yielding cassava varieties, keep records to some extent and apply fertiliser according to crop needs so as to maximise yields.

All SEDIN capacity building interventions discussed above are the reasons behind the higher yields, the increased income and employment generation recorded by cassava farmers. Indirectly, the trainings led to the reduction of poverty among the cassava farmers in Ogun State.

These trainings were done repeatedly in some of the LGAs and the affected farmers were able to adapt and use the knowledge to improve their agronomic and management practices.

Most of the cassava farmers are small scale farm holders with an average farm size of 2.54 hectares of land. The average cassava yield per hectare was 16.61 tonnes/ha in 2016, while an average of 19.98 tonnes/ha was recorded in 2017. That is a 20.29% increase in the yield of cassava per hectare. The mean income of cassava farmers was ₦390, 800 in the year 2016 and ₦591,454 in 2017, which is a 51.34% increase in average income for cassava farmers.

In the case of employment generated, a marginal increase was observed in the number of workers employed in 2017 and 2018 relative to 2016. Overall, cassava farmers employed an average 3.9 workers in 2016, 4.3 workers in 2017 and 5.1 workers in 2018. This is a 10.26% increase from 2016 average employment by cassava farmers but when compared with the 2016 figure, the 2018 employment average is 30.77% higher, which shows an impressive progression in average employment by cassava farmers. The trainings would indirectly lead to the reduction of poverty among the cassava farmers in Ogun State.

From the above, it can be concluded that farmers who have rigorously applied improved agronomic / cassava husbandry and management practices, such as avoiding bush burning, practicing farm

mechanisation, using scientifically improved higher yielding cassava varieties, and applying correct dosages of fertiliser to maximise cassava yield has resulted in higher cassava crop performance.

6. Recommendations

General

- Trainings such as SAC, RSM, FBS and Group Formation should be repeated in LGAs with low cassava yields to enable farmers to improve their performance;
- Farmers should be encouraged to form groups amongst themselves to achieve economies of scale and to encourage peer learning;
- Future activities need to continue capacity building trainings such as SAC, RSM, FBS and Group Formation to enable farmers to fully incorporate the practices into their farming husbandry and management practices;
- Data collection of cassava yields, sales, income and employment should be done yearly for proper documentation, to monitor trends and assess cassava farmers' performance;
- It is critical that the lessons learnt are disseminated and acted on by GIZ and partners in the cassava value chain.

Group Formation

- The trainings for cassava farmer groups should be consistently monitored by SEDIN to preserve the quality and content of training;

- The trainings of farmer groups should commence immediately after the ToT to enhance the drive of the trainers;
- Trainers should be given printed training materials few days before the commencement of the training for cassava farmers to help them have better understanding of the concept;

Sustainable Agricultural Code

- There should be periodic refresher training for the participants.

Farmer Business School

- Pairing trainers with one another will ensure better understanding of training concepts;
- It is recommended that the cluster training approach be adopted in the training of FBS, bringing together farmers from the same location;
- Farmers should be encouraged to keep good physical and financial records and GIZ should endeavour to a module on physical and financial record keeping include in all their trainings.

Rapid Stem Multiplication

- The stem multiplication technology should be encouraged because of its capacity to increase the availability of clean planting materials to address the shortage in the cassava production system.

Weed Management

- GIZ-SEDIN should assist the trained trainers with training materials (e.g. ABC of weed management manual, handbills containing the 6 steps of weed management) to be handed over to the farmers to be trained during the step-down trainings.
- SEDIN should monitor how the trainers are doing, in terms of training farmers in their communities.
- SEDIN can work with ACAI/CWMP to reproduce training materials for farmers at the village level (e.g. manuals in local languages).
- There is the need for SEDIN to consider establishing field level demonstrations to enhance better learning by farmers in local communities.

High Quality Cassava Peel

- There is a need for this training to be done for more farmers and processors in the state since the HQCP will create more employment and increase the income of farmers;
- GIZ should collect the data of those who have started the HQCP business in 6-months' time;
- GIZ should collaborate with ILRI- (International Livestock Research Institutes, IITA) for marketing of HQCP;
- Beneficiaries of this training should also be supported with low cost fabricated equipment for HQCPM.

Processing of Cassava into Gari and Odourless Fufu

- GIZ should provide training materials for the step-down training;
- The training should be step down to other women in other rural communities;
- There should be sponsorship and available logistics to implement the much-gained knowledge on gari and fufu processing;
- There should be follow-up trainings by GIZ and the Ministry of Agriculture;
- There is need for the trained women to be supported by modern equipment for processing gari and fufu;
- GIZ should liaise with the state government in terms of providing processing equipment for the women processors.

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