

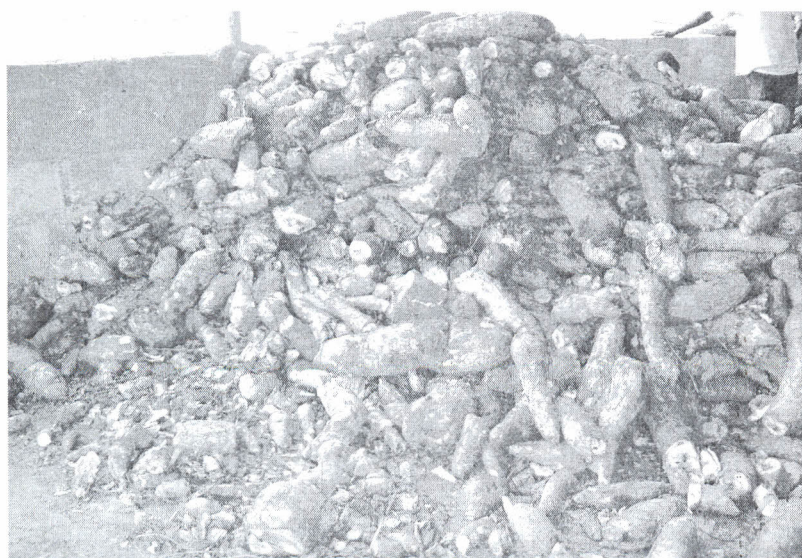
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**CSIR- FOOD RESEARCH INSTITUTE**  
( CSIR-FRI/RE/TC/2009/010)

UoG/NRI/C:AVA/CSIR-FRI PROJECT



**REPORT ON INITIAL TECHNICAL TRAINING ON HIGH QUALITY CASSAVA  
FLOUR PRODUCTION IN THE VOLTA, BRONG AHAFO AND GREATER ACCRA  
REGIONS IN GHANA**



By

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## EXECUTIVE SUMMARY

The Objective 2 of FRI-C:AVA program stipulates that by March 2010 at least ten medium to large scale processors (40% women) are strengthened with relevant skills to effectively and efficiently employ Good Manufacturing Practices and Quality Management System to profitably process and deliver 15.68 and 47.04 tonnes per month per medium and large scale processors respectively of HQCF. In order to accomplish the objective a Training Needs Assessment carried out from 4<sup>th</sup> to 21<sup>st</sup> May, 2009 for nine medium to large-scale cassava processors in the Volta, Brong Ahafo and Greater Accra Regions. The Training Needs Assessment was followed by Initial Technical Training on High Quality Cassava Flour (HQCF) on 16<sup>th</sup> September to 7<sup>th</sup> October, 2009. The training was based on a training plan for each location. Four cassava processors were trained in the Volta Region. These were Caltech Ventures located at Ho-Hodzo, Godsway Enterprise located at Agate-Have, Majestic Agribusiness Centre located at Hohoe and Marbert Limited located at Akrofu-Xeviope. In the Brong Ahafo Region three medium to large-scale cassava processors were trained. These three cassava processors were 1<sup>st</sup> Door Agro-processing Enterprise located at Atebubu, Cassacoxa Limited located at Sunyani-Chiraa, and Bredi Agricultural Enterprise located at Bredi. In the Greater Accra Region two medium to large scale medium processors were trained. The cassava processors were Amasa Agro-processing Company Limited located at Ayikai-Doblo and Afrimat Global Enterprise Limited located at Fiasie in the Greater Accra Region. The methods of training included presentations, teaching and hands on demonstration on all the unit operations. Generally, the training was well attended at every location and trainees were satisfied with the methodology and content of the training and expressed the desire for more of such trainings on locations. During the training, more females were trained than males, an indication that more women are involved in cassava processing activities in Ghana. Trainees were satisfied about the strategic plans developed with them to meet set targets and promised to work out their daily work plans to meet their set production targets.

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## CHAPTER 1

### GENERAL INTRODUCTION

#### 1.0 INTRODUCTION

The Initial Technical Training on High Quality Cassava Flour (HQCF) was carried out from 16<sup>th</sup> September to 7<sup>th</sup> October, 2009. The training was based on a Training Needs Assessment carried out from 4<sup>th</sup> to 21<sup>st</sup> May, 2009 for nine medium to large-scale cassava processors. In the Volta Region four cassava processors were trained. These were Caltech Ventures located at Ho-Hodzo, Godsway Enterprise located at Agate-Have, Majestic Agribusiness Centre located at Hohoe and Marbert Limited located at Akrofu-Xeviope. In the Brong Ahafo Region three medium to large-scale cassava processors were trained. These three cassava processors were 1<sup>st</sup> Door Agro-processing Enterprise located at Atebubu, Cassacoxa Limited located at Sunyani-Chiraa, and Bredi Agricultural Enterprise located at Bredi. In the Greater Accra Region two medium to large scale medium processors were trained. The cassava processors were Amasa Agro-processing Company Limited located at Ayikai-Doblo and Afrimat Global Enterprise Limited located at Fiasie in the Greater Accra Region. The training was based on a training plan developed for each location. The Initial Technical Training on HQCF is a requisite for Objective 2 of FRI-C:AVA program which stipulates that by March 2010 at least ten medium to large scale processors (40% women) are strengthened with relevant skills to effectively and efficiently employ Good Manufacturing Practices and Quality Management System to profitably process and deliver 15.68 and 47.04 tonnes per month per medium and large scale processors respectively of HQCF. The methods of training included presentations, teaching and hands on demonstration on all the unit operations.



## CHAPTER 2

### TRAINING ON HQCF PRODUCTION – HO AND HOHOE DISTRICTS (VOLTA REGION)

#### 2.0 MEDIUM TO LARGE-SCALE PROCESSORS TRAINED

The medium to large scale processors trained during the Initial Technical Training on HQCF in the Ho and Hohoe Districts (Volta Region) were:

1. Caltech Ventures
2. Godsway Enterprise
3. Majestic Agribusiness Centre
4. Marbert Limited

Each processor received two days training sessions. Day 1 training consisted of introduction to HQCF, its uses, requirement for its production and work ethics. This was followed by demonstration on unit operations for processing HQCF: selection of raw materials, peeling, washing, grating, dewatering, disintegration, drying, milling, sifting and packaging. Further training included equipment operation and maintenance, sources of quality equipment and proper records keeping. Day 2 training was on analytical methods for quality control including training on quality requirements for receipt of wet cake (moisture, taste and smell, colour, microbiological analysis, acidity, pH, extraneous matter, starch, average particle size, pasting temperature, cook paste viscosity and other factors impacting on quality. The training was concluded by conducting an evaluation of the training.

#### 2.1 TRAINING

##### 2.1.1 CALTECH VENTURES

Ten supervisors from the various sections of Caltech Ventures were trained. The sections are the farm, flour production factory, gari and dough, field, factory hand (peelers), security and operations. The supervisors were supposed to disseminate the knowledge acquired to their subordinates after the training. This arrangement was done in order not to interrupt the working schedules of Caltech Ventures. Caltech Ventures is involved in cassava plant multiplication, farming and processing. The company has installed a state-of-the-art processing plant which produces 1.5 tonnes of HQCF daily. Caltech Ventures has all the basic processing facilities for cassava processing: graters, screw presses, one hammer, one disc attrition mill, one bin dryer and

one sifter. The strategy developed with Caltech Ventures was to process 2.5 tonnes of raw cassava into 0.5 tonnes HQCF to supplement 1.5 tonnes of HQCF per day from the state-of-the-art processing plant (using flash dryer).

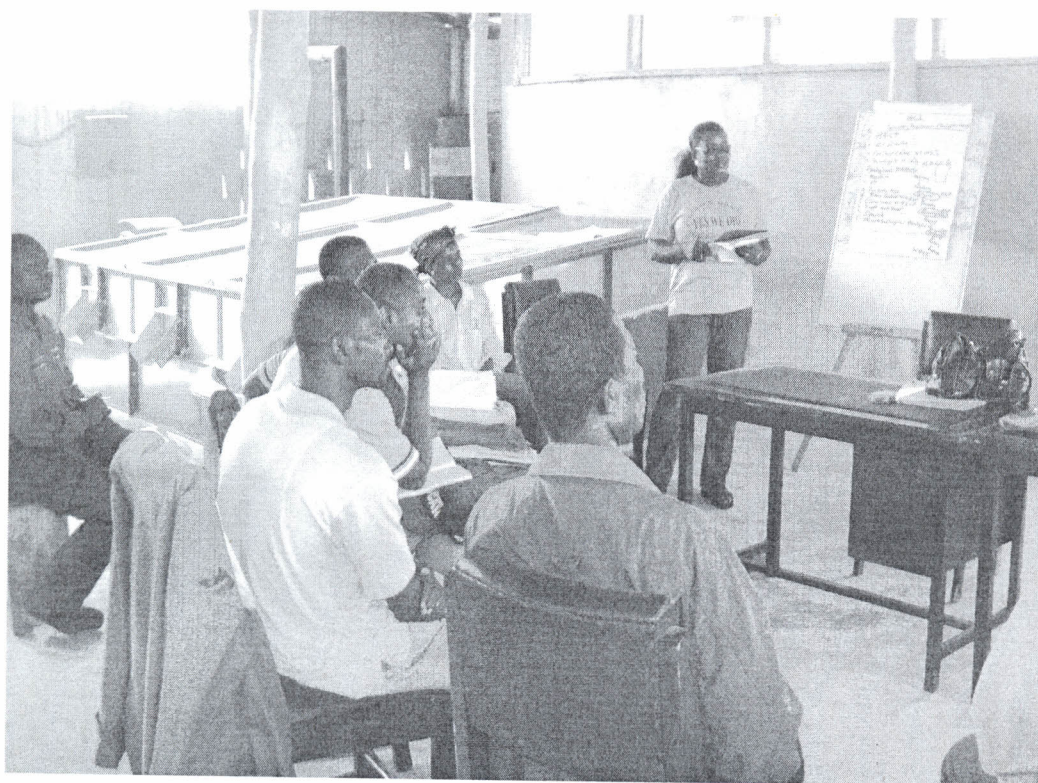


Fig. 1a. Training session at Caltech Ventures



Fig. 1b. A training session at Caltech Ventures

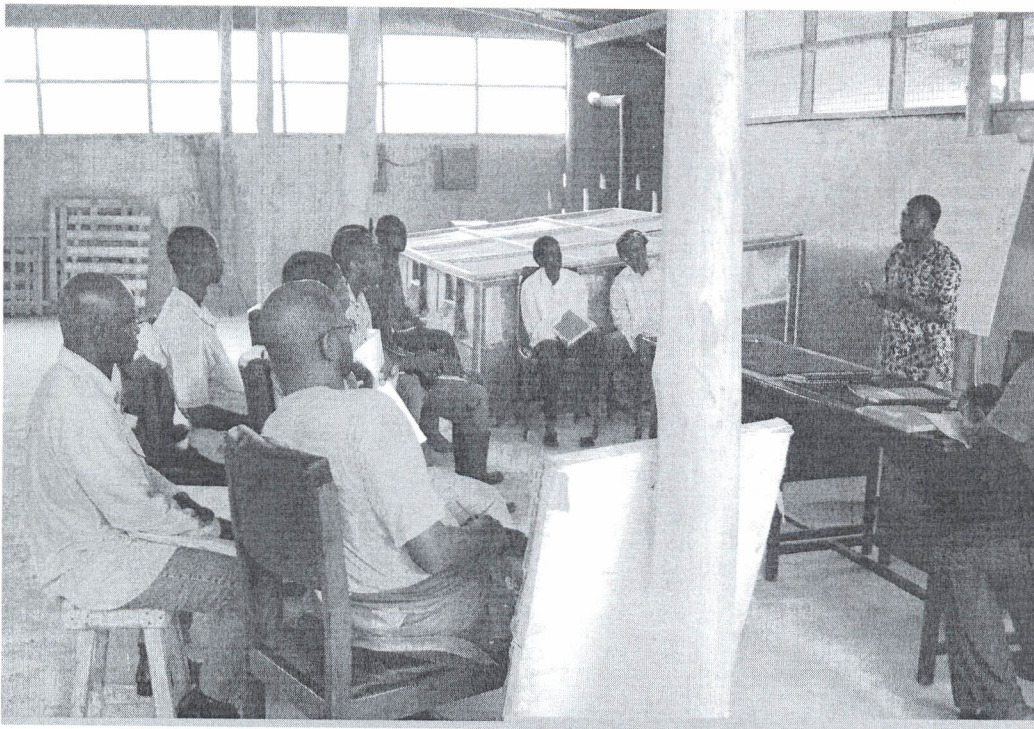


Fig 1c. A training session at Caltech Ventures

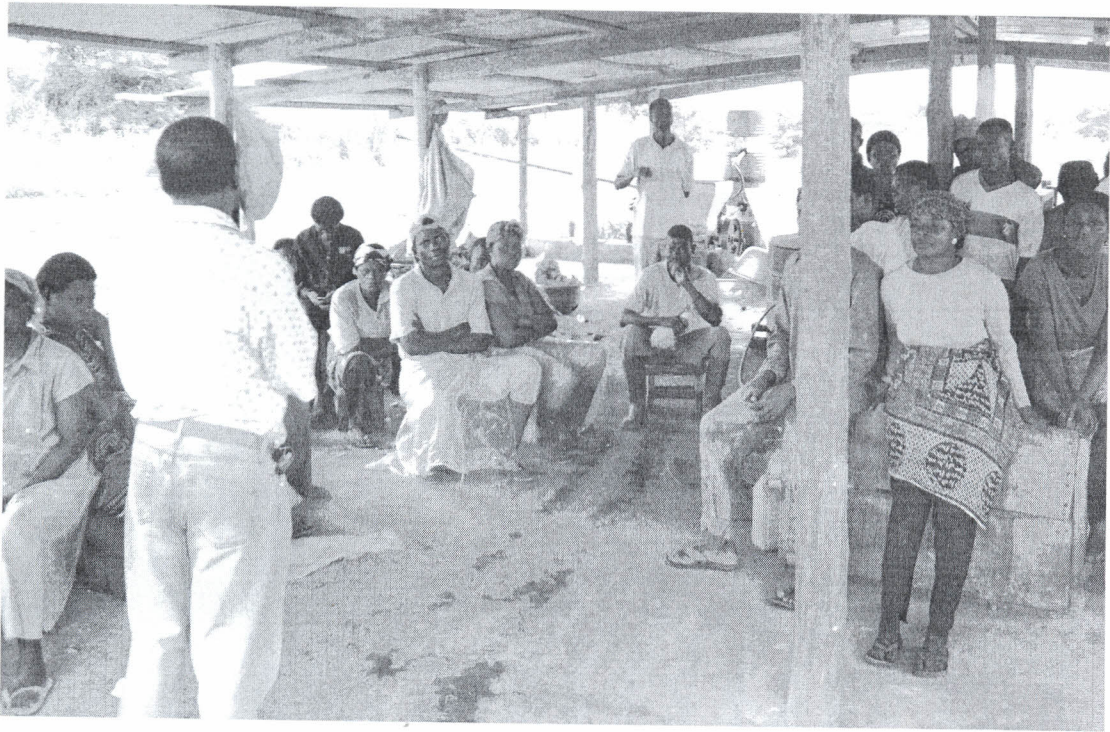


Fig 1d. A training session at Caltech Ventures



Fig 2. Peeling of cassava during training at Caltech Ventures



Fig 3. Grating of cassava during training at Caltech Ventures

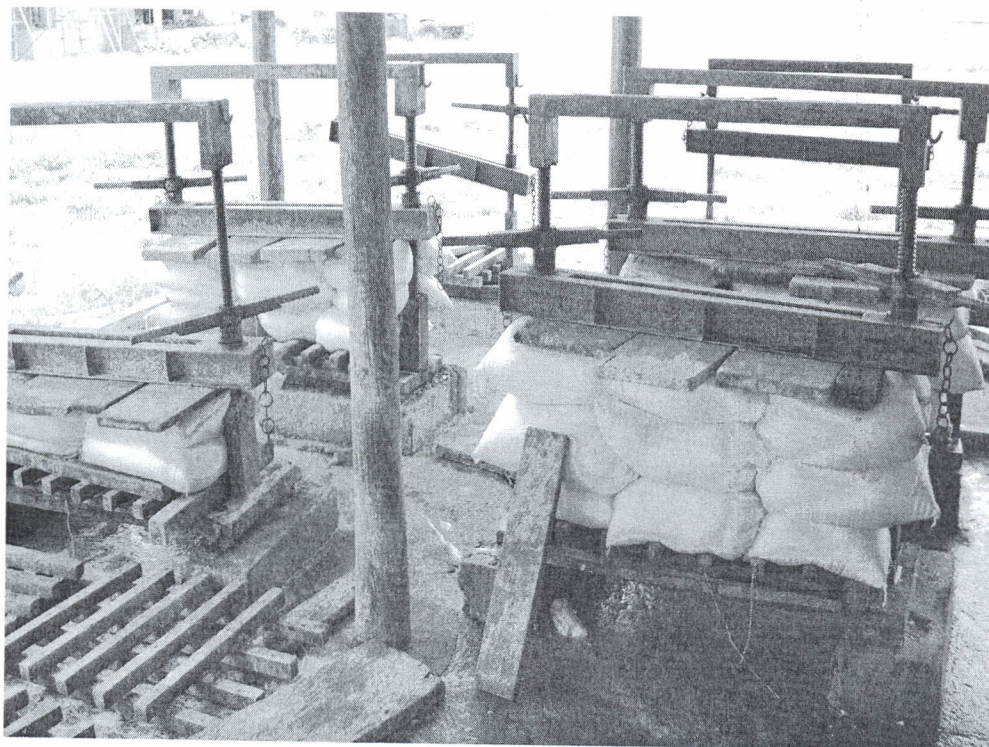


Fig 4. Pressing of cassava at Caltech Ventures

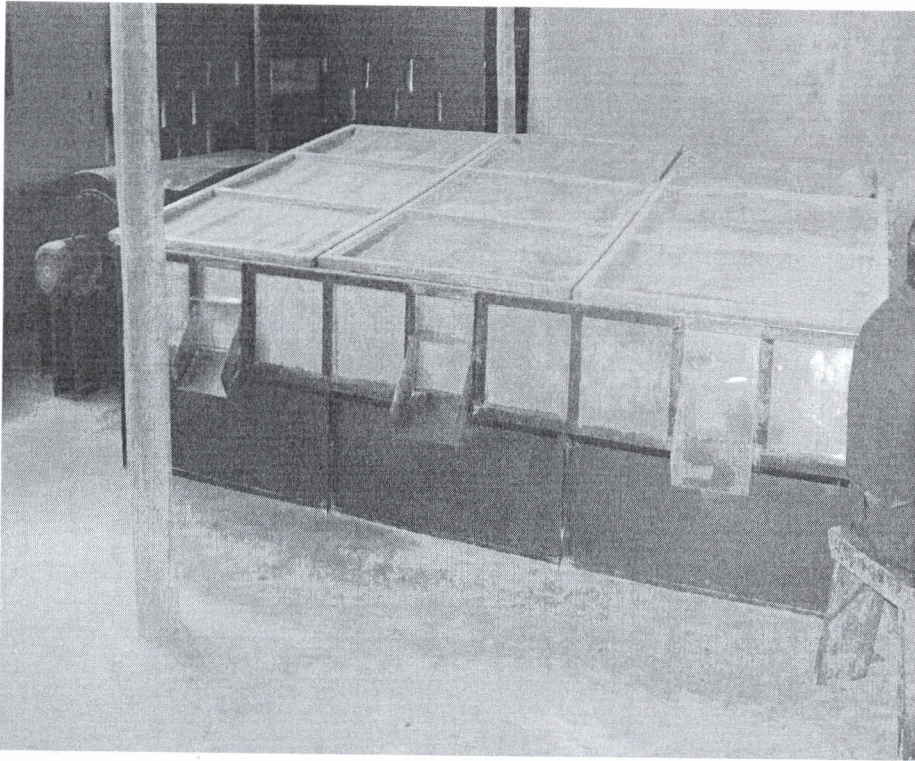


Fig 5. A mechanical bin dryer for cassava at Caltech Ventures

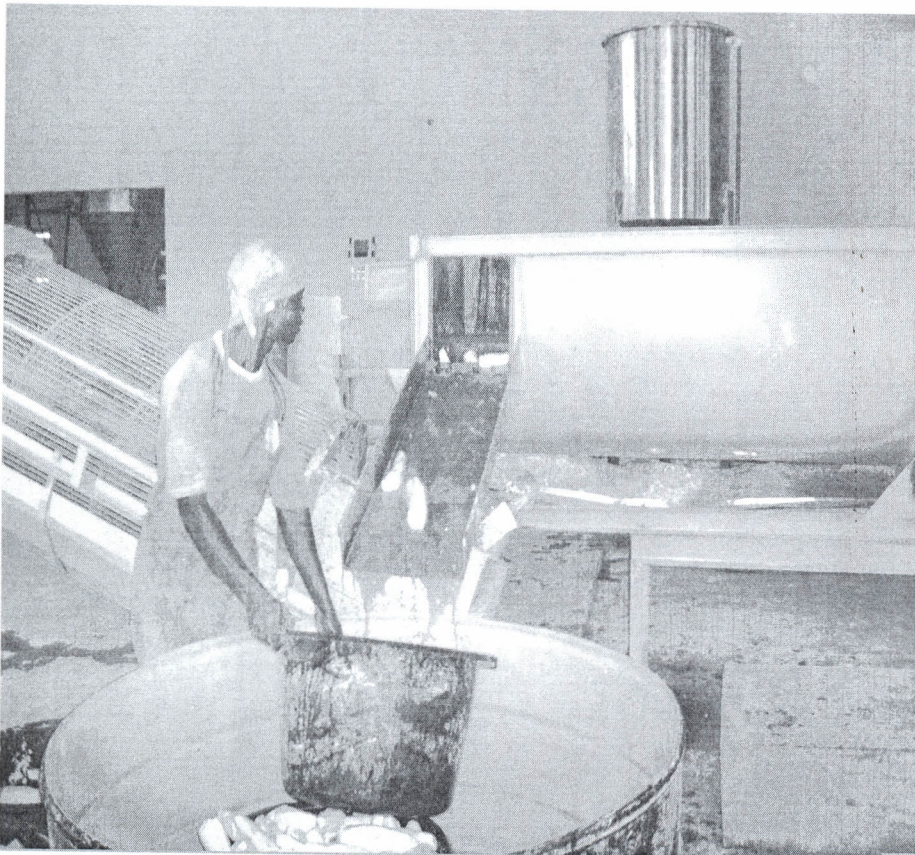


Fig 6. Washing of cassava at the Ultra-Morden Cassava Facility at Caltech Ventures

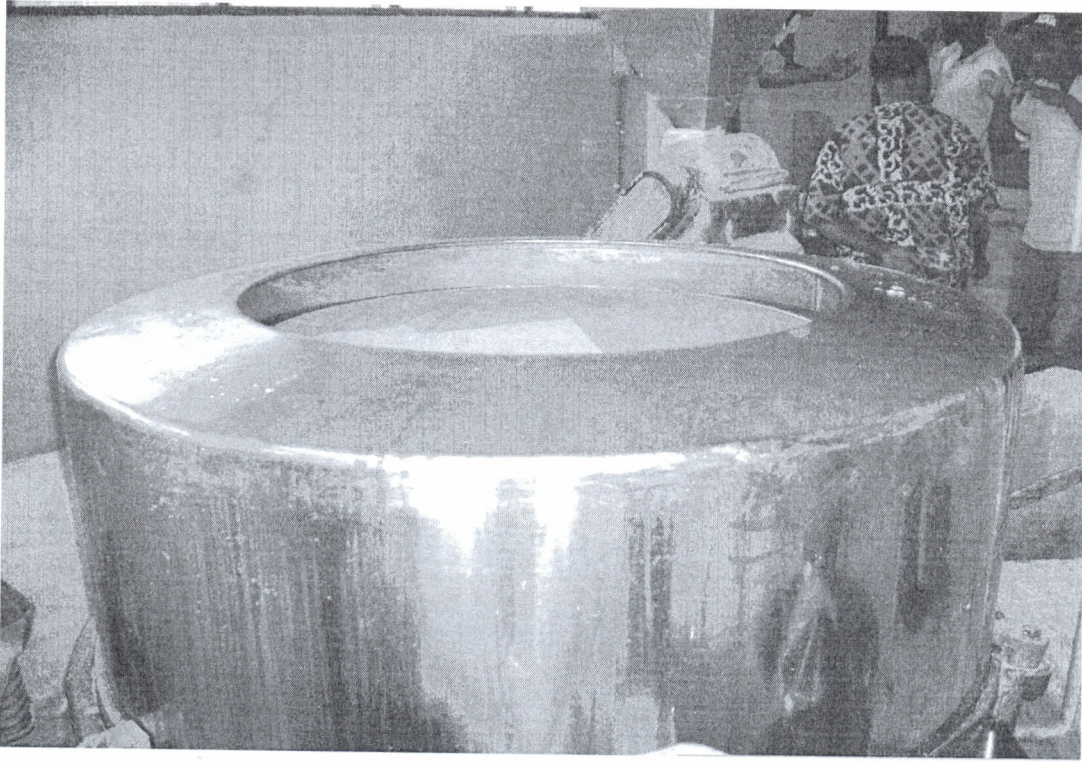


Fig 7. A centrifuge in operation at Caltech ventures

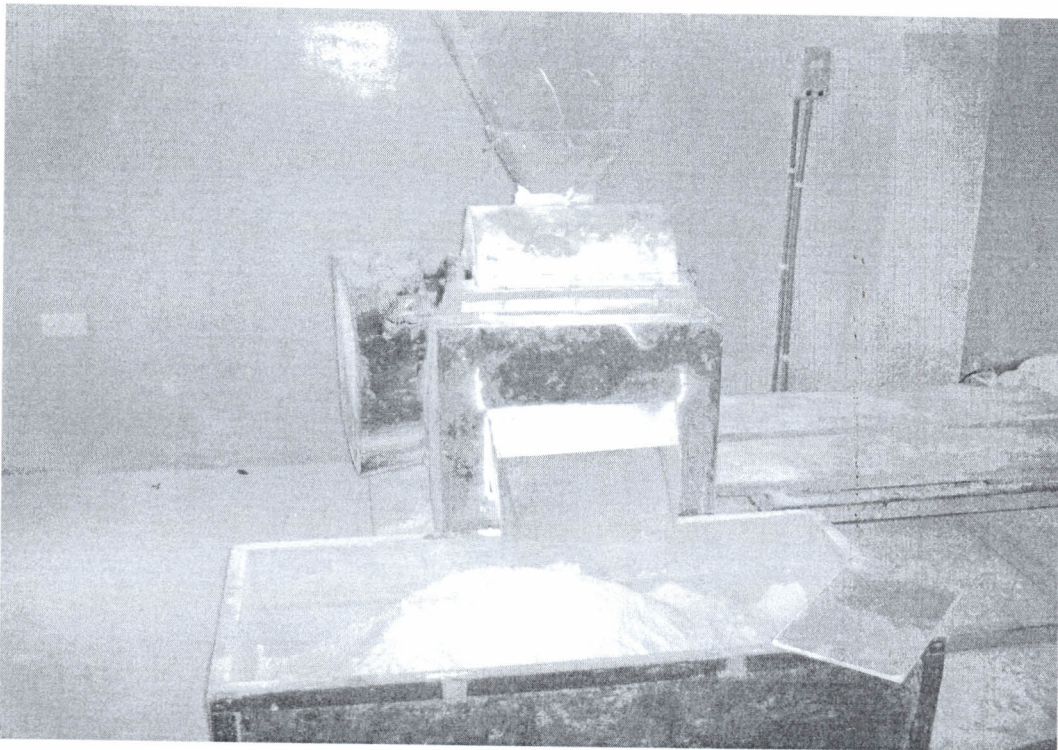


Fig 8. Disintegration of wet cake using a grater at Caltech Ventures



Fig 9. Bagging of HQCF in the Ultra-Modern facility at Caltech Ventures



Fig 10. Bagged HQCF in the Ultra-Modern facility at Caltech Ventures



### 2.1.2 GODSWAY ENTERPRISE

The Initial Technical Training on HQCF was conducted for 32 employees from Godsway Enterprise and Tonyeli Women Development Association. Tonyeli Women Development Association is a farmer processor group, which processes cassava into HQCF. Eight males and twenty-four females were trained on HQCF production. Godsway Enterprise owns one cassava grater, two cassava presses, one electricity gas bin mechanical dryer, one disc attrition mill and one charcoal oven for baking biscuits. The enterprise is currently constructing a new processing plant which is yet to be completed. In view of the capacity of the dryer, a strategic plan was developed and discussed for Godsway Enterprise. Godsway Enterprise is strategizing to process 2 tonnes of raw cassava per two shifts until the new processing plant is completed.



Fig 11a. A training session at Godsway Enterprise

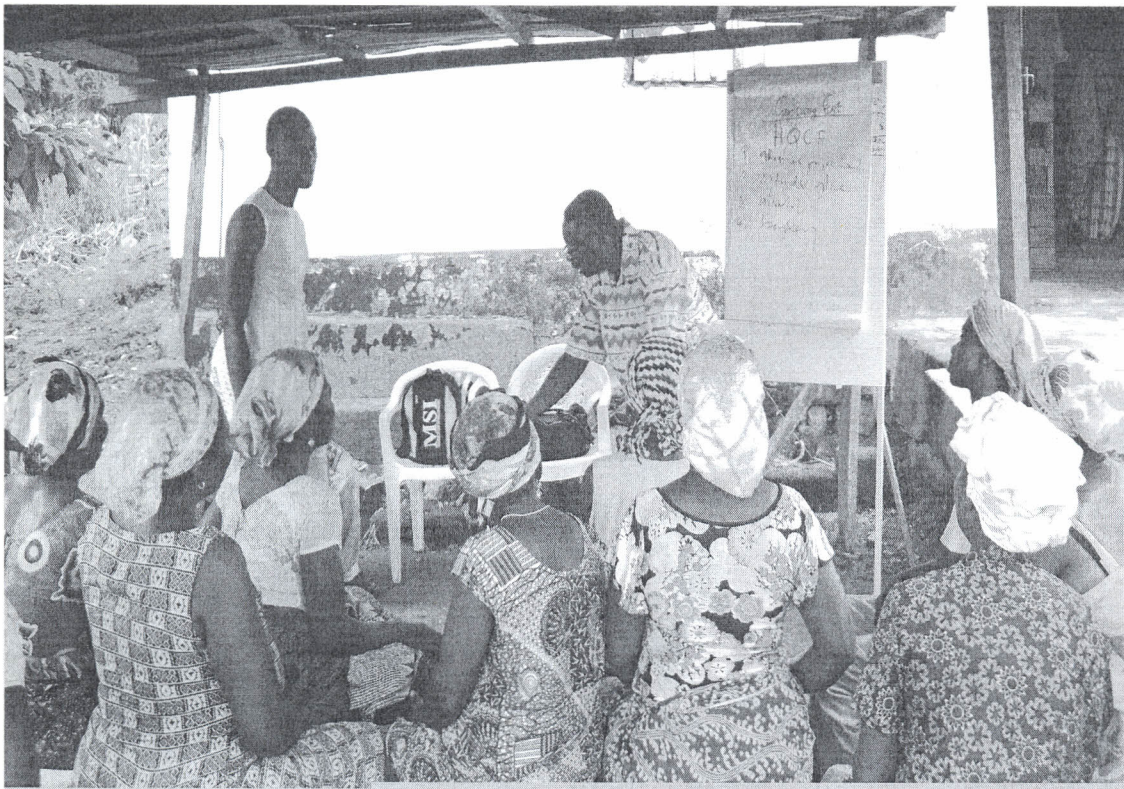


Fig 11b. A training session at Godsway Enterprise



Fig 11c. A training session at Godsway Enterprise



Fig 12. Peeling of cassava during training at Godsway Enterprise



Fig 13. Fungal damaged cassava at Godsway Enterprise



Fig 14. Washing of cassava during training at Godsway Enterprise



Fig 15. Grating of cassava during training at Godsway Enterprise



Fig 16. Pressing of cassava during training at Godsway Enterprise

### **2.1.3 MAJESTIC AGRIBUSINESS CENTRE**

The Initial Technical Training on HQCF was conducted for 9 employees from Majestic Agribusiness Centre. There were 2 females and 7 males. The centre was trained on HQCF production and the quality requirement for pressed cake as the company was scheduled to receive and process pressed cake into HQCF from farmer processors in the surrounding villages. Currently Majestic Agribusiness Centre owns one press, one grater, one bin dryer and one hammer mill. In view of the equipment present, two strategic plans were developed and discussed. The first was to receive a total of 2.5 tonnes pressed cassava cake twice daily with a moisture content of 40 - 45% for drying in two shift batches. The second strategy was to acquire an additional dryer of 2.5 capacity tonnes to facilitate the drying of 5 tonnes pressed cassava cake for one shift.



Fig 17a. A training session at Majestic Agribusiness Centre

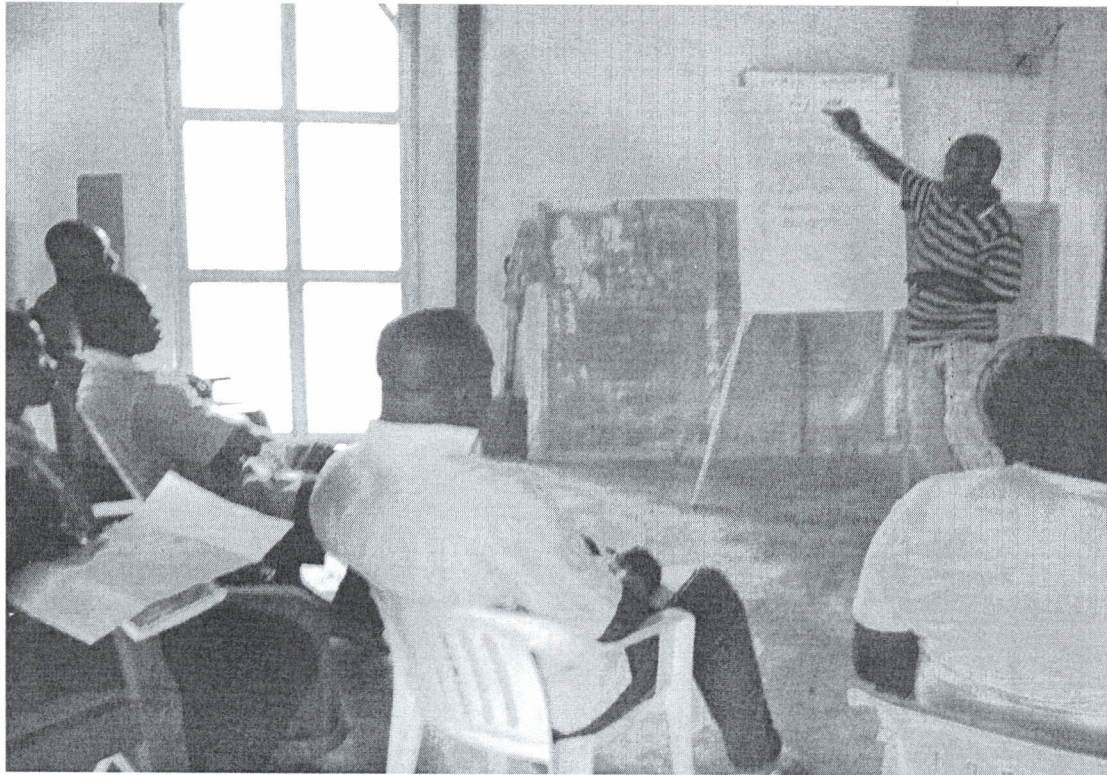


Fig 17b. A training session at Majestic Agribusiness Centre

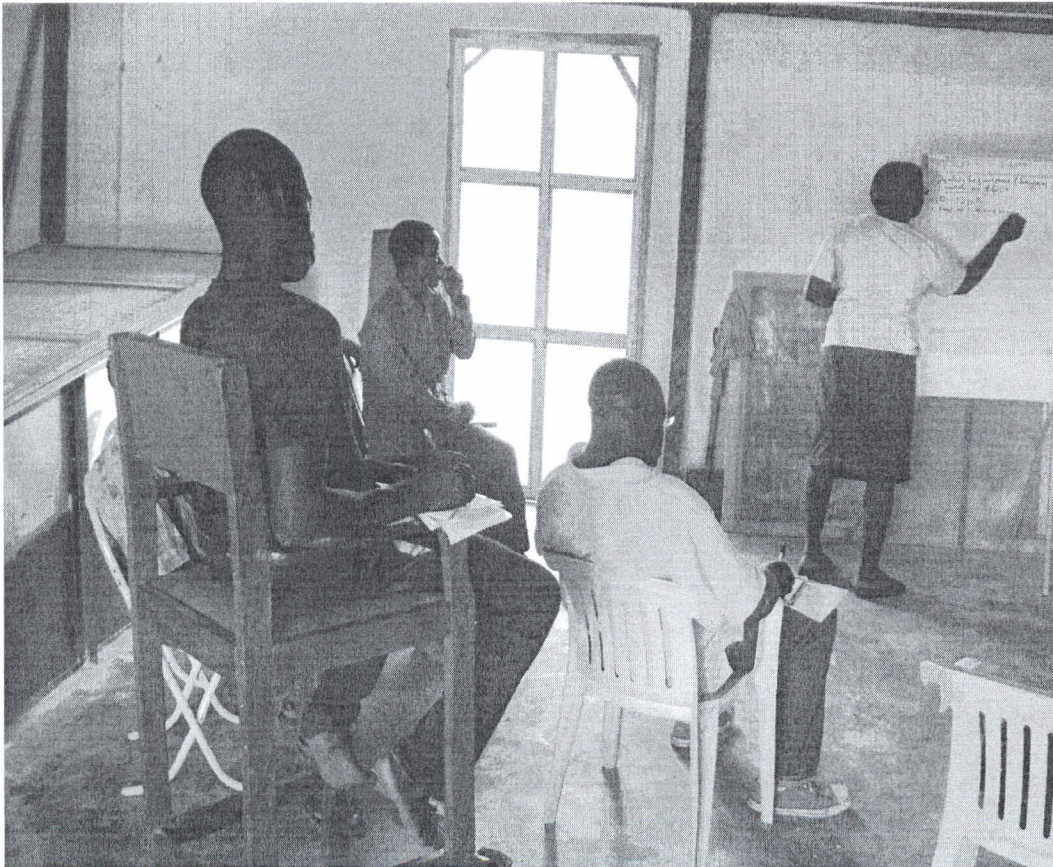


Fig 17c. A training session at Majestic Agribusiness Centre

#### 2.1.4 MARBERT LIMITED

Twelve employees of Marbert Limited were trained during the Initial Technical Training on HQCF. The employees were made up of 7 females and 5 males. Marbert Limited is scheduled to process its own HQCF from raw cassava, in addition to this, it will receive and process pressed cake into HQCF from farmer processors in the surrounding villages. The company was trained on HQCF production and the quality requirement for pressed cake. The company owns a cassava grater, plate attrition mill, 8-horse power diesel engine, six double screw presses (200 kg/half day) and a newly constructed 480 kg capacity wood-fuel-fired oven dryer (Djilemo oven). As a result of the production schedule allocated to Marbert Limited, two strategic plans were developed and discussed. The first was to receive a total of 2.5 tonnes pressed cassava cake twice daily with a moisture content of 40 - 45% for drying in two shift batches. The second strategy was to use sun-drying to facilitate the drying of 5 tonnes pressed cassava cake for one shift.

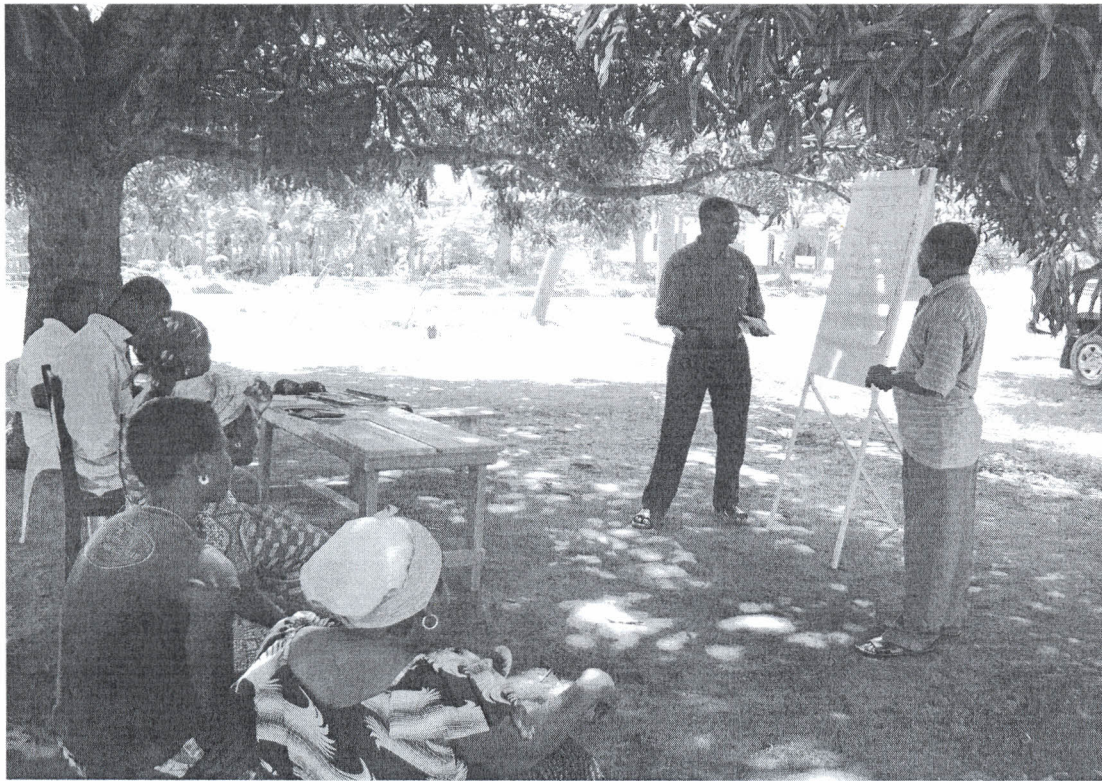


Fig 18a. A training session at Marbert Agribusiness Centre

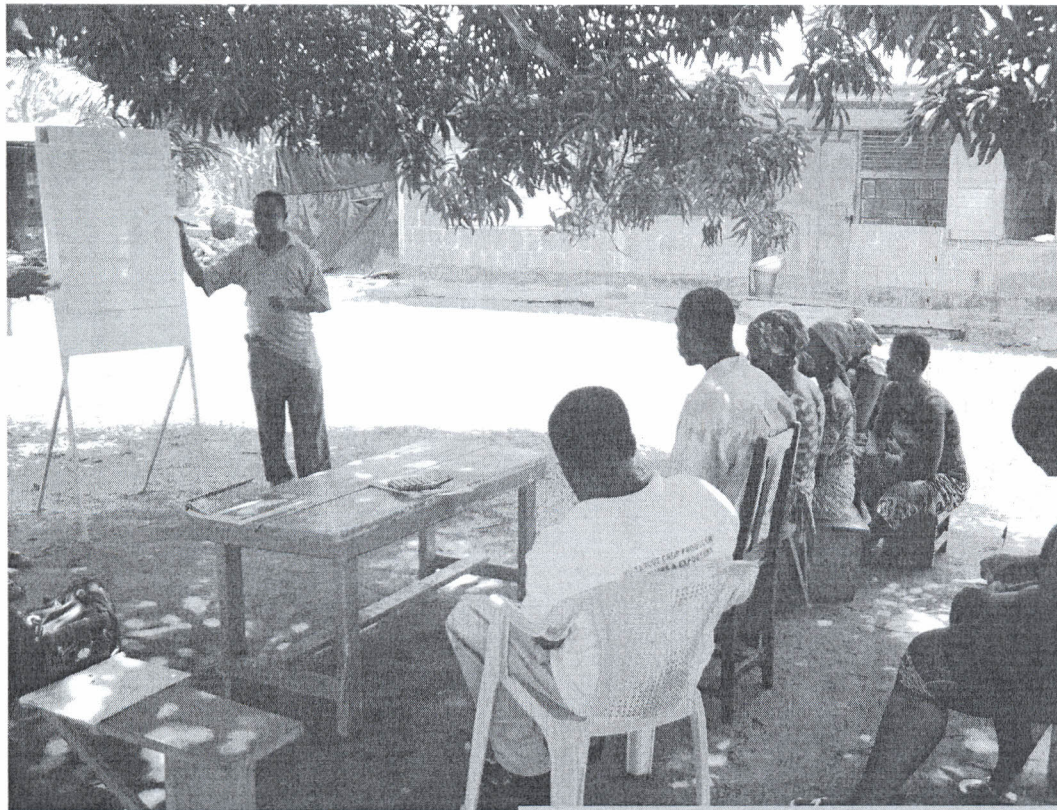


Fig 18b. A training session at Marbert Agribusiness Centre



## **2.2 GENERAL OBSERVATION**

The observation made during the Initial Technical Training suggested that the processors were conscious of their short-comings identified during the Training Needs Assessment. Lots of improvement had been made at all the processing sites visited. Most windows of the processing halls had been screened with mosquito nets to keep off flies and other contaminating agents such as lizards, rodents, insects and cockroaches. All the medium to large scale processors had improved on their equipment base. In relation to the Initial Technical Training, all trainees were satisfied with the training on HQCF production, personnel hygiene, and standard specifications for HQCF production.

## **2.3 CONCERNS OF THE MEDIUM AND LARGE SCALE PROCESSORS**

The entire medium to large scale processors scheduled to receive pressed cake from farmer processors complained about the poor linkages between them and the farmer processors. The intermediaries expressed fear about the farmer processors not meeting their demands of pressed cake in terms of quantity and quality. The medium to large scale processors expressed the need for additional equipment such as dryers to meet the vision set targets.

## **2.4 EVALUATION**

At the Initial Technical Training, the trainees were generally happy about the training and knowledge acquired on HQCF production and related areas. They expressed the desire for more of such training and pleaded that training sessions should be more than two days. Trainees expressed appreciation on the knowledge acquired as this will help them in meeting the requirements for the production of HQCF. All the processors were satisfied about the strategic plans to meet set targets and promised to work out their daily work plans to meet their set production targets. The trainees appreciated the mode of training. Drinks were served to trainees at the end of the second day of training.

## **2.5 CONCLUSION**

The Initial Technical Training in the Ho and Hohoe districts was successfully conducted. During the training, more females were trained than males, an indication that more women are involved in

cassava processing activities in Ghana. As a follow-up for the Initial Technical Training, a Technical Back-stopping programme is scheduled to take place in November/ December, 2009.

Table 1 shows the number of medium to large scale processors trained in Ho and Hohoe districts of the Volta Region.

**Table 1: Total number of medium to large scale processors trained in Ho and Hohoe Districts (Volta Region)**

Medium and large scale processor	Status	No. of Women	No. of Men
Caltech Ventures	Large-scale processor	2	8
Godsway Enterprise	Medium-scale processor	24	8
Majestic Agribusiness Centre	Medium-scale processor	2	7
Marbert Limited	Medium-scale processor	7	5
<b>Total no. of processors trained</b>		<b>35</b>	<b>28</b>

## 2.6 RECOMMENDATION

Recommendation for medium to large scale processors:

- Caltech Ventures should provide nose mask for employees on the flour production line.
- Godsway Enterprise should out-source for funds to complete the new processing plant in order to facilitate production of HQCF to meet their set target.
- Godsway Enterprise should acquire a grater, two additional presses and 2 tonnes capacity dryer to facilitate HQCF production.
- Majestic Agribusiness Centre should acquire a grater, two additional presses and 2 tonnes capacity dryer to facilitate HQCF production.
- Marbert Limited should acquire a grater and a 2 tonne capacity dryer to meet their set targets for HQCF production.
- Marbert Limited needs to be connected to the National grid and water facility.
- All four processors would need to construct an efficient effluent disposal system such as a man-hole.

- Generally it is recommended that Godsway Enterprise, Majestic Agribusiness Centre and Marbert Limited cultivate their own cassava farms.

## CHAPTER 3

### TRAINING ON HQCF PRODUCTION – ATEBUBU-AMANTIN, CHIRAA AND DUAYAW-NKWANTA DISTRICTS (BRONG AHAFO REGION)

#### 3.0 MEDIUM AND LARGE-SCALE PROCESSORS TRAINED

The medium to large scale processors trained during the Initial Technical Training on HQCF in the Atebubu-Amantin, Chiraa and Duayaw-Nkwanta Districts (Brong Ahafo Region) were:

1. 1<sup>st</sup> Door Agro-processing Enterprise
2. Cassacoxa Limited
3. Bredi Agricultural Enterprise

Each processor in the Brong Ahafo region received two days training sessions. Day 1 training consisted of introduction to HQCF, its uses, requirement for its production and work ethics. This was followed by demonstration on unit operations for processing HQCF: selection of raw materials, peeling, washing, grating, dewatering, disintegration, drying, milling, sifting and packaging. Further training included equipment operation and maintenance, sources of quality equipment and proper records keeping. Day 2 training was on analytical methods for quality control including training on quality requirements for receipt of wet cake (moisture, taste and smell, colour, microbiological analysis, acidity, pH, extraneous matter, starch, average particle size, pasting temperature, cook paste viscosity and other factors impacting on quality. The training was concluded by conducting an evaluation of the training.

#### 3.1 TRAINING

##### 3.1.1 1<sup>ST</sup> DOOR AGRO-PROCESSING ENTERPRISE

The Initial Technical Training on HQCF was conducted for 14 employees of the 1<sup>st</sup> Door Agro-processing Enterprise. The employees consisted of 12 females and 2 males. During the Training Needs Assessment, it was impressed upon the enterprise to install its cassava processing equipment. However, at the Initial Technical Training none of the cassava processing equipment had been installed. As a result of this the hands-on demonstration aspect of the training was not conducted. Two strategic plans were developed and discussed based on the acquisition of cassava processing equipment such as one grater, one press, one dryer, one milling machine and one sifter. The first plan was to receive a total of 2.5 tonnes pressed cake twice daily with a moisture

content of 40 - 45% for drying in two shift batches. The second strategy was to acquire an additional dryer of 2.5 tonnes capacity to facilitate the drying of 5 tonnes pressed cassava cake for one shift.



Fig 19a. A training session at 1<sup>st</sup> Door Agro-processing Enterprise

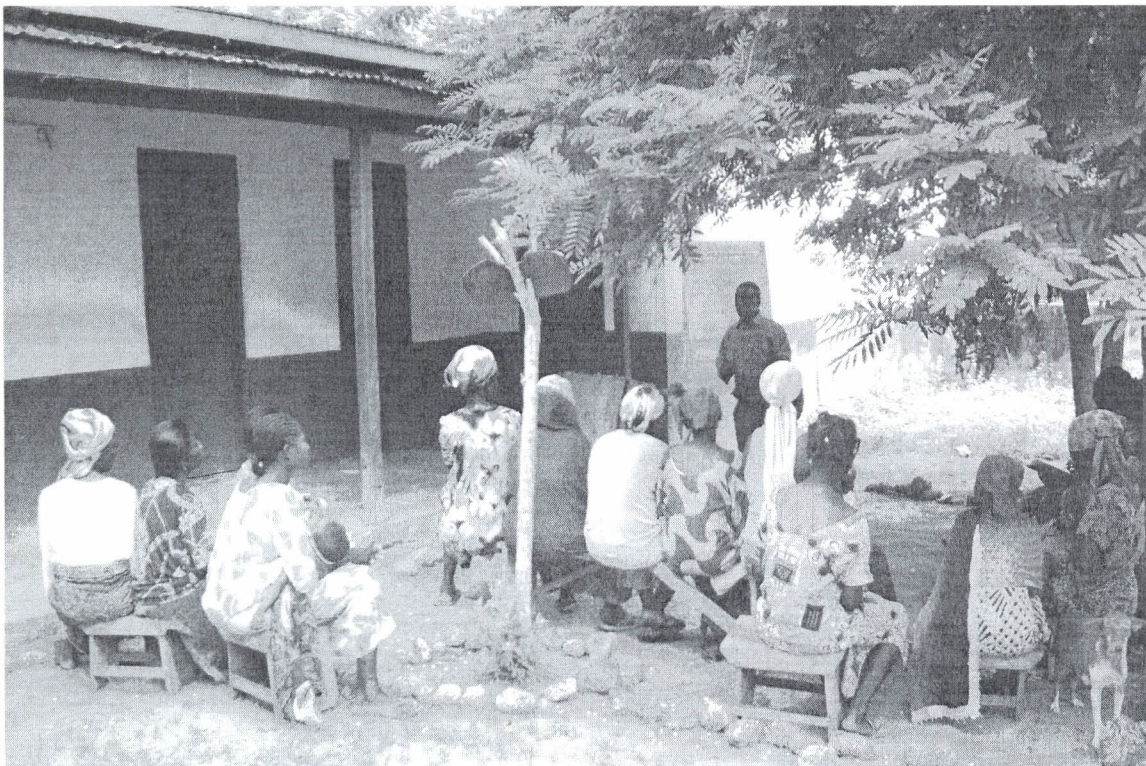


Fig 19b. A training session at 1<sup>st</sup> Door Agro-processing Enterprise

### 3.1.2 CASSACOXIA LIMITED

The Initial Technical Training on HQCF was conducted for 17 employees from Cassacoxia Limited. The employees were made up 11 females and 6 males. Ten of the females were cassava peelers and one female production officer. The males present during the training were the grater operator, two press operators, milling operator, sifter operator and a tractor operator. Cassacoxia Limited owns one cassava grater, one cassava press, three cassava slicers, one diesel powered mechanical dryer, one disc attrition mill, one sifter and a farm tractor to facilitate the carting of fresh cassava from farm to the processing centre. In view of the capacity of the dryer, the company is strategize to process 5 tonnes of raw cassava per two shifts or 5 tonnes of pressed cassava cake from the farmer processors per day.

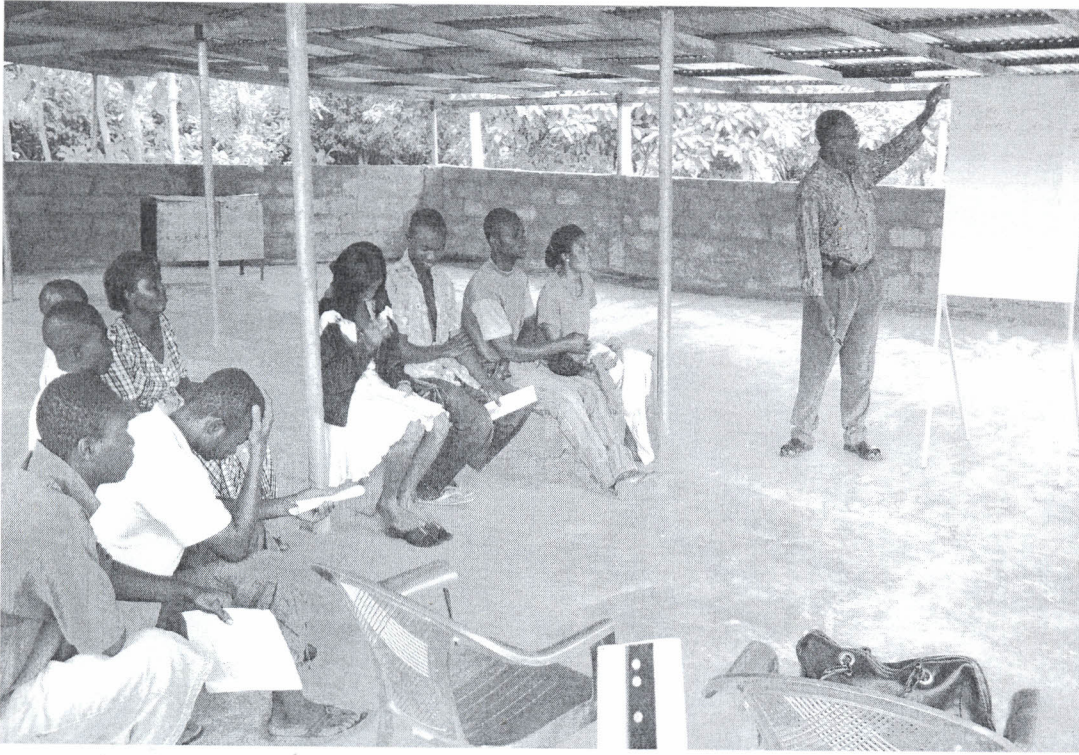


Fig 20a. A training session at Cassacoxa Limited

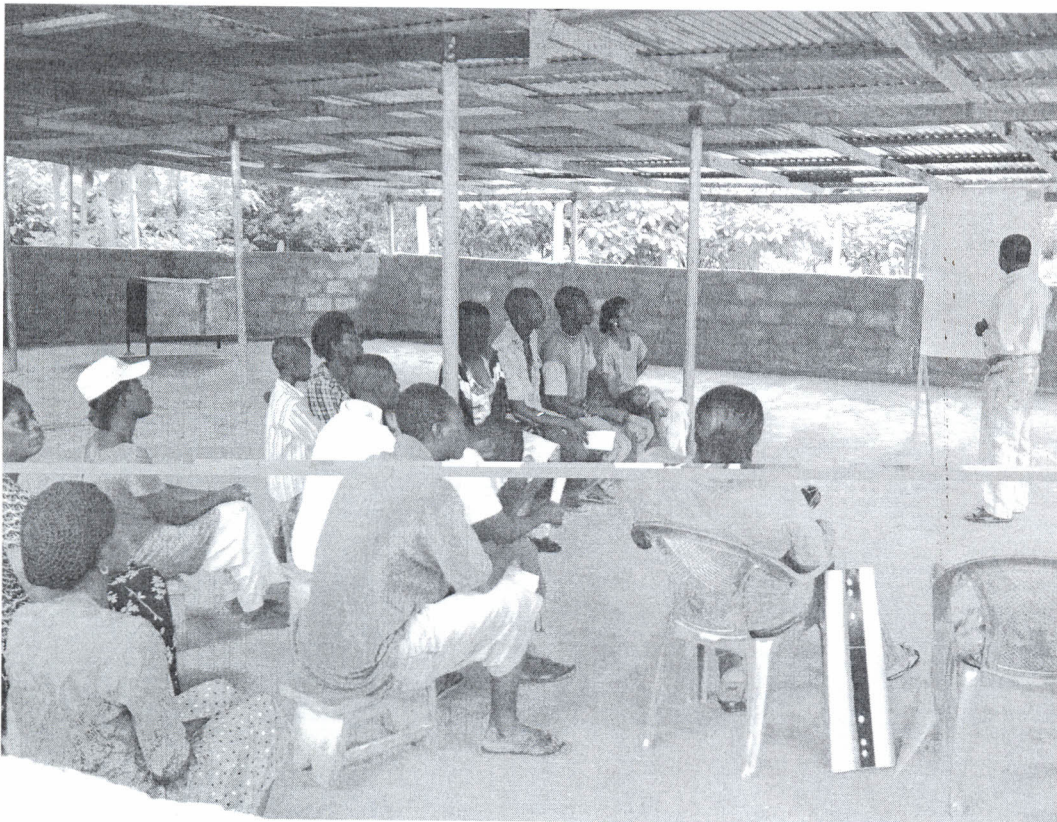


Fig 20b. A training session at Cassacoxa Limited

### 3.1.3 BREDI AGRICULTURAL ENTERPRISE

Twelve employees consisting of 3 males and 9 females of Bredi Agricultural Enterprise were trained during the Initial Technical Training on HQCF. Currently, Bredi Agricultural Enterprise owns two cassava graters, one cassava chipper, two double screw presses, one single screw press, one plate attrition mill, one hammer mill, one Djilemo oven, one solar tent dryer, wooden raised platforms for sun drying and one mechanical bin dryer. In view of the equipment present, two strategic plans were developed and discussed. The company is strategize to process 5 tonnes of raw cassava per two shifts or 5 tonnes of pressed cassava cake from the farmer processors per day.

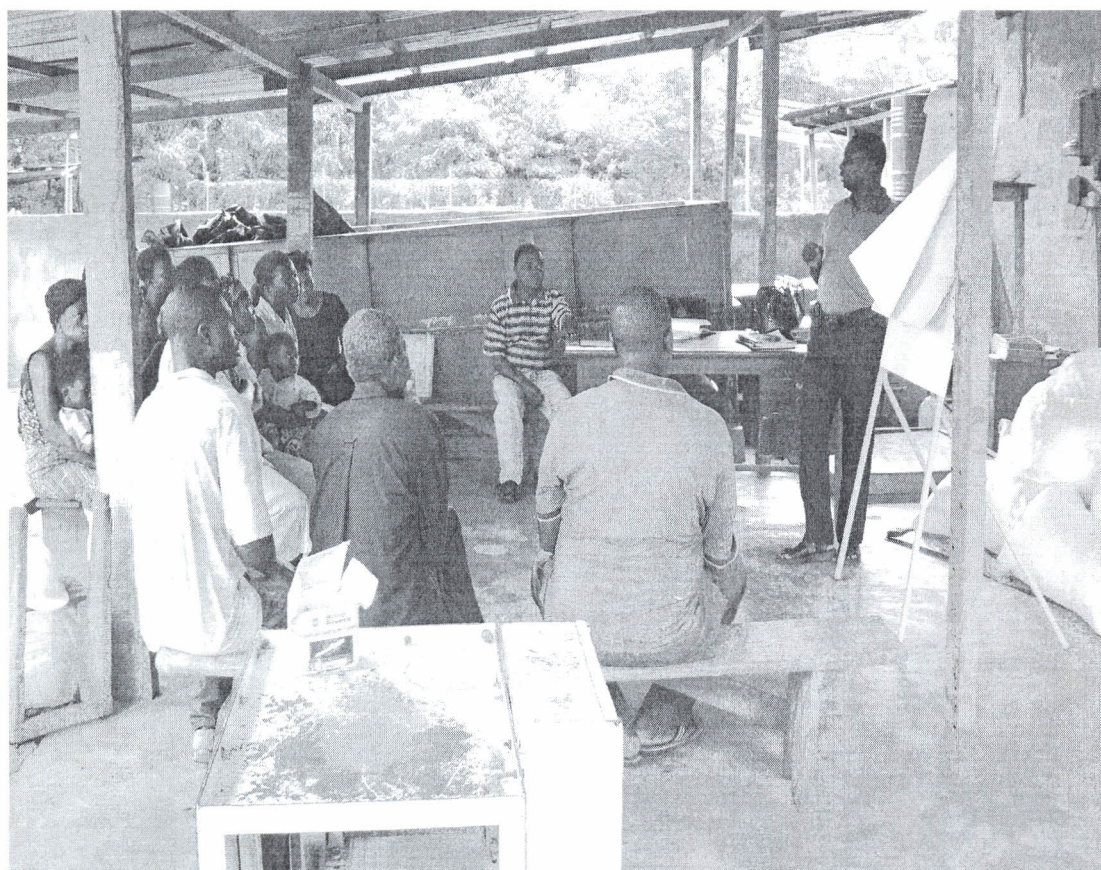


Fig 21. A training session at Bredi Agricultural Enterprise





Fig 22. Peeling of cassava during a training session at Bredi Agricultural Enterprise

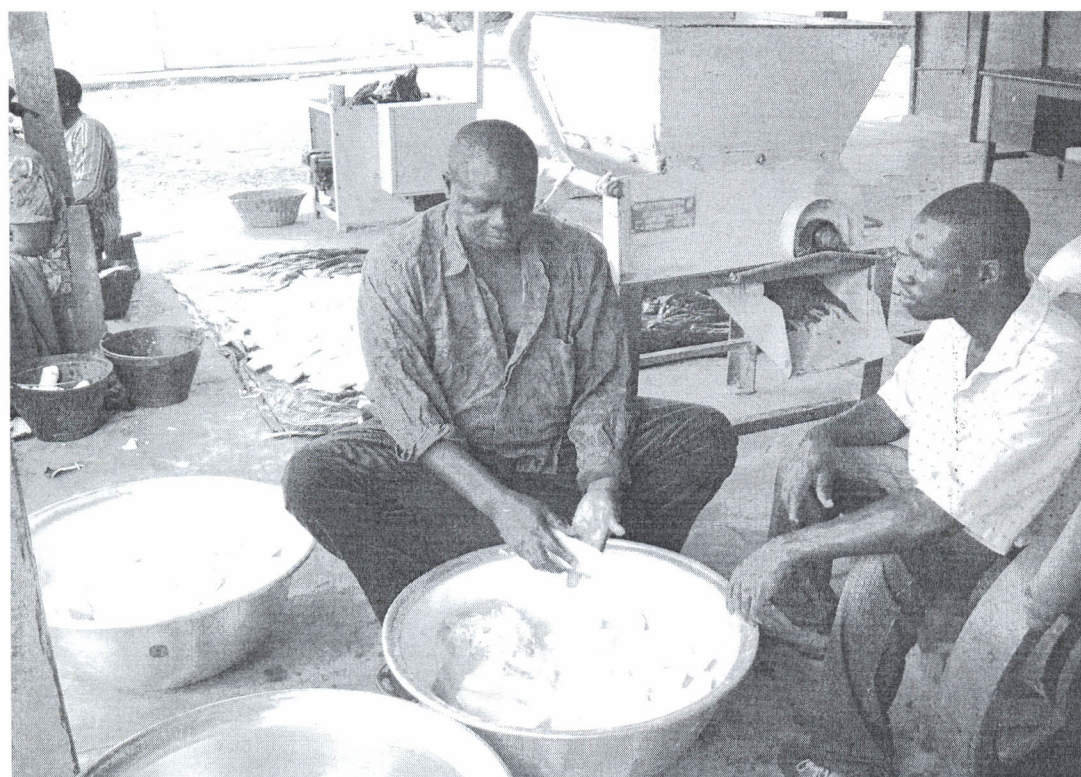


Fig 23. Washing of cassava during a training session at Bredi Agricultural Enterprise

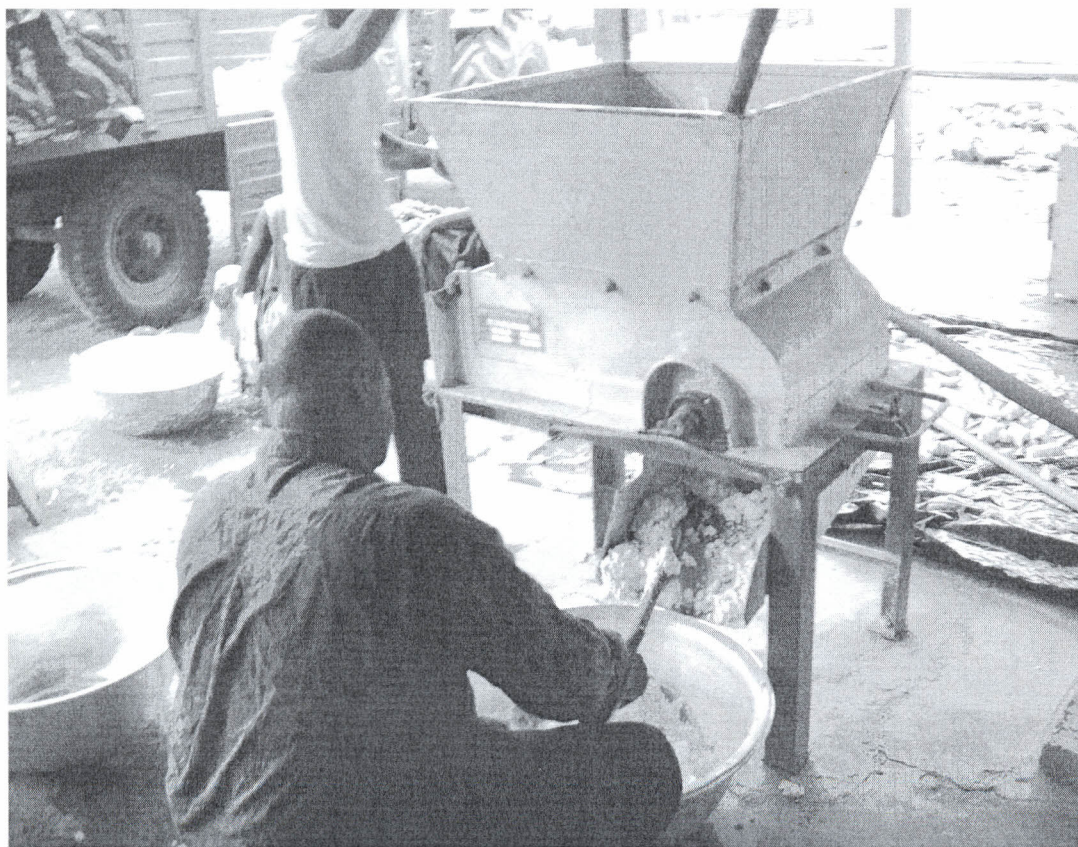


Fig 24. Grating of cassava during a training session at Bredi Agricultural Enterprise



Fig 25. Pressing of cassava during training session at Bredi Agricultural Enterprise

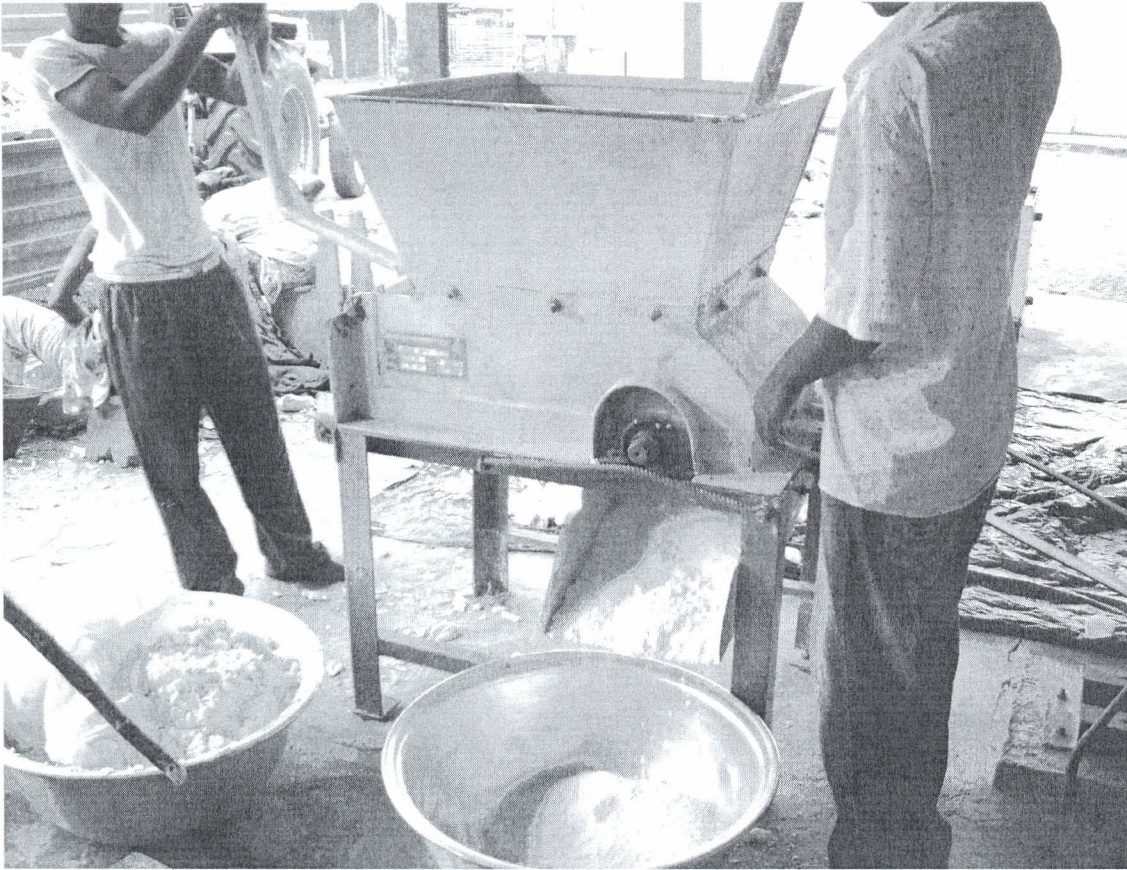


Fig 26. Disintegrating of wet cassava cake during training session at Bredi Agricultural Enterprise



Fig 27. Drying of cassava grits in a solar drying during training session at Bredi Agricultural Enterprise

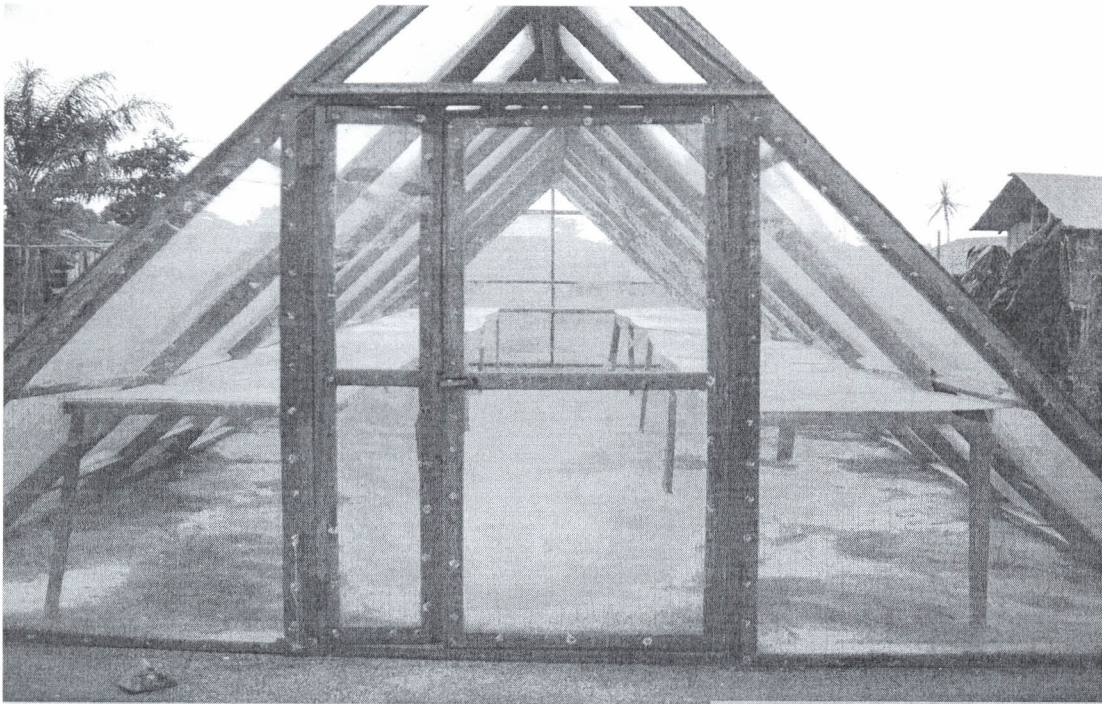


Fig 28. Solar Dryer at Bredi Agricultural Enterprise

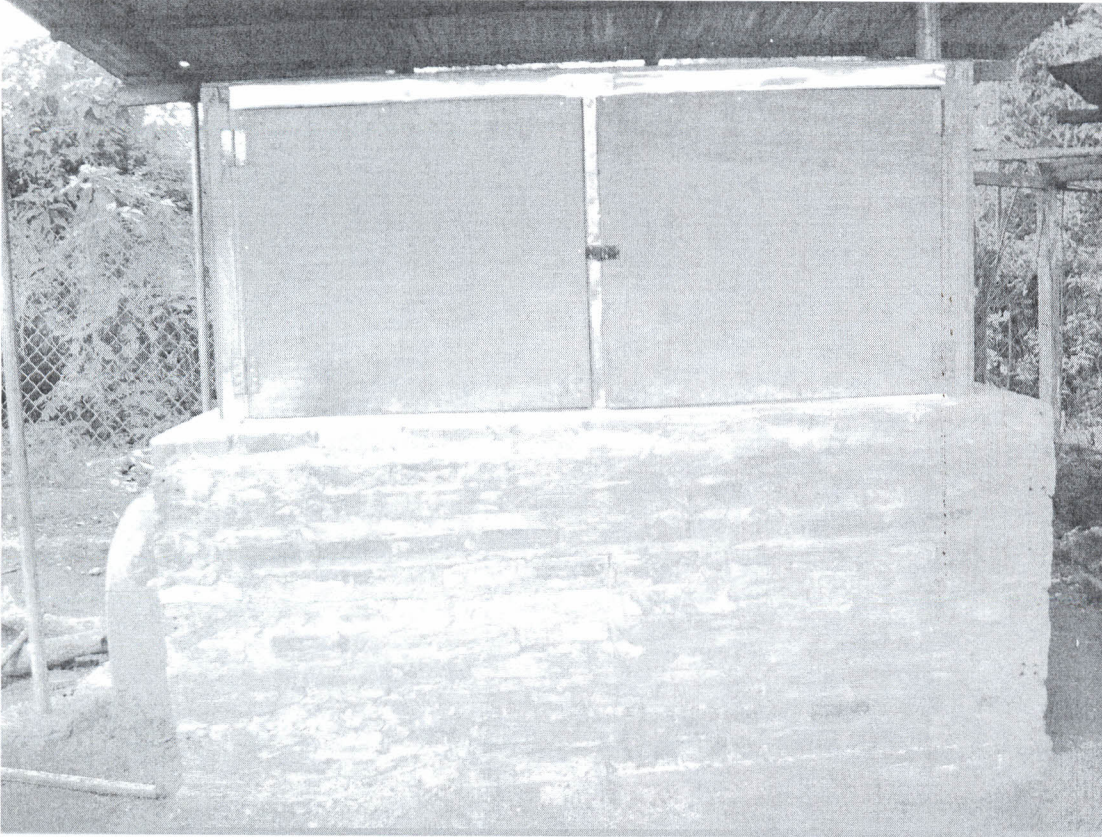


Fig 29. Djilemo oven at Bredi Agricultural Enterprise

### **3.2 GENERAL OBSERVATION**

The observation made during the Initial Technical Training suggested that the processors were conscious of their short-comings pointed out during the Training Needs Assessment. Lots of improvement had been made at all the processing sites. All the medium to large scale processors had improved on their equipment base except 1<sup>st</sup> Door Enterprise. At all the locations visited the trainees were satisfied with what they had been taught on HQCF production, personnel hygiene, and standards specifications for HQCF production. Cassacoxa Limited had constructed a new septic tank for waste disposal.

### **3.3 CONCERNS OF THE MEDIUM AND LARGE SCALE PROCESSORS**

The medium to large scale processors expressed the need for additional equipment such as dryers and presses to meet the vision set targets. Trainees expressed the desire to extend the duration of the training they had received on HQCF. The acquisition of raw cassava for processing at all the locations visited was a problem due to unavailability of raw cassava.

### **3.4 EVALUATION**

Trainees expressed appreciation for the two days training on HQCF as a knowledge acquisition experience. The demand for more of HQCF training was requested by the trainees. In addition they requested for a longer duration on the HQCF training. Trainees expressed appreciation for the knowledge acquired as this will help them in meeting the requirements for the production of HQCF. All the processors were elated about the strategic plans developed with them to meet set targets and promised to work out their daily work plans to meet their set production targets. The trainees appreciated the training methods employed. Drinks were served to trainees at the end of the second day of training.

### **3.5 CONCLUSION**

In the Brong Ahafo region, the Initial Technical Training on HQCF was successfully conducted. During the training, more females were trained than males, an indication that more women are involved in cassava processing activities in Ghana. As a follow-up for the Initial Technical Training, a technical back-stopping programme is scheduled to take place in November/ December 2009.

Table 2 shows the number of medium to large scale processors trained in Atebubu-Amantin, Chiraa and Duayaw-Nkwanta Districts (Brong Ahafo Region)

**Table2: Total number of medium to large scale processors trained in Atebubu-Amantin, Chiraa and Duayaw-Nkwanta Districts (Brong Ahafo Region)**

Medium and large scale processor	Status	No. of Women	No. of Men
1 <sup>ST</sup> Door Agro-processing Enterprise	Medium-scale processor	12	2
Cassacoxa Limited	Medium-scale processor	11	6
Bredi Agricultural Enterprise	Medium-scale processor	9	3
<b>Total no. of processors trained</b>		<b>32</b>	<b>11</b>

### 3.6 RECOMMENDATION

Recommendation for medium to large scale processors:

- 1<sup>ST</sup> Door Agro-processing Enterprise should immediately install cassava processing equipment for the production of HQCF.
- The linkages between 1<sup>ST</sup> Door Agro-processing Enterprise and farmer/village processors should be strengthened.
- In order to maximise the production of HQCF, it is recommended that Cassacoxa Limited processes 10 -12 months old fresh cassava.
- Improvement on netting of windows, doors and ceiling of the processing plant is recommended for Cassacoxa Limited.
- Bredi Agricultural Enterprises needs to provide potable water at the processing facility to enhance HQCF production.
- Bredi Agricultural Enterprise should acquire a grater and a 2 tonnes capacity dryer to meet their set targets for HQCF production.
- It is recommended that all the processors should have a good standing arrangement for consistent cassava delivery to processing sites.
- Generally, it is recommended that all processors cultivate their own cassava farms.

## CHAPTER 4

### TRAINING ON HQCF PRODUCTION – GA RURAL DISTRICT (GREATER ACCRA REGION)

#### 4.0 MEDIUM AND LARGE-SCALE PROCESSORS TRAINED

The medium to large scale processors trained during the Initial Technical Training on HQCF in the Ga Rural District (Greater Accra Region) were:

1. Amasa Agro-processing Company Limited
2. Afrimat Global Enterprise Limited

Each processor in the Greater Accra region received a two day training sessions. Day 1 training consisted of Introduction to the HQCF, its uses, requirement for its production and work ethics. Process flow for producing HQCF was taught: selection of raw materials, peeling, washing, grating, dewatering, disintegration, drying, milling, sifting and packaging. Further training included equipment operation and maintenance, sources of quality equipment and proper records keeping. Day 2 training was on analytical methods for quality control including training on quality requirements for receipt of wet cake (moisture, taste and smell, colour, microbiological analysis, acidity, pH, extraneous matter, starch, average particle size, pasting temperature, cook paste viscosity and other factors impacting on quality. The training was concluded by conducting an evaluation of the training.

#### 4.1 TRAINING

##### 4.1.1 AMASA AGRO-PROCESSING COMPANY LIMITED

The Initial Technical Training on HQCF was conducted for 16 employees of the Amasa Agro-processing Company Limited. The employees consisted of 7 females and 9 males. The employees consisted of the Business Development Officer, Group Director, Accounting Manager, Purchasing Officer, factory hands and one potential cassava grits supplier. The company owns one diesel dryer, one electric dryer and one cassava grater, two plate attrition mills, two hydraulic presses, two graters, one slicer, two sifting machines, one hammer mill, three drying patios, washing trough and fermentation troughs. The company owns a tractor and trailer for carting fresh

cassava from farms to processing site. Based on the capacity of the dryer of the company, two strategic plans were developed and discussed. The first strategy is to process 5 tonnes of raw cassava per two shifts or 5 tonnes of pressed cassava cake from the farmer processors per day.

#### **4.1.2 AFRIMAT GLOBAL ENTERPRISE LIMITED**

The Initial Technical Training on HQCF was conducted for 20 employees from Afrimat Global Enterprise Limited. The employees were made up of 8 females and 12 males. The employees were Marketing and Human Relations Manager, Engineering and Logistic Manager, Supervisor, Factory Hands, Account Clerks, Private Secretary, Manager, Deputy Engineering, Logistic Manager and Stock Taking Officer. Afrimat Global Enterprise Limited owns a cassava grater, a cassava single screw press, one mechanical bin dryer, one disc attrition mill, one hammer mill, one sifter, one solar tent dryer and one Djilemo oven Dryer. The company is strategized to process 5 tonnes of raw cassava per two shifts or 5 tonnes of pressed cassava cake from the farmer processors per day.

#### **4.2 GENERAL OBSERVATION**

During the Initial Technical Training it was observed that all the processors trained were conscious of their short-comings pointed out during the Training Needs Assessment. Improvement had been made in terms of equipment at all the processing sites visited. Trainees were satisfied with the Initial Technical Training taught concerning the HQCF production, personnel hygiene, and specifications on HQCF production with the various standards.

#### **4.3 CONCERNS OF THE MEDIUM AND LARGE SCALE PROCESSORS**

At all the locations visited the medium to large scale processors expressed the need for additional equipment such as dryers and presses to meet the vision set targets. Trainees expressed the desire to extend the duration of the training they had received on HQCF. Trainees expressed the need for pictorial presentation on HQCF production to help their illiterate employees. The acquisition of raw cassava for processing at all the location was difficult.

#### **4.4 EVALUATION**

Trainees expressed appreciation for the two day training on HQCF as a thought provoking experience and demanded for more of such HQCF training. In addition they requested for a longer



duration for the HQCF training. Trainees expressed appreciation on the knowledge acquired as this will help them in meeting the quality standards and set targets for the production of HQCF. All the processors were happy about the strategic plans developed with them to meet set targets, they promised to work out their daily work plans to meet their set production targets. The trainees appreciated the methods of training. Drinks were served to trainees at the end of the second day training.

#### 4.5 CONCLUSION

The Initial Technical Training was successfully conducted in the Greater Accra region for two medium to large scale cassava processors. As a follow-up for the Initial Technical Training, a technical back stopping programme is scheduled to take place in November/December 2009.

Table 3. Shows the number of medium to large scale processors trained in Ga Rural District (Greater Accra Region)

**Table 3: Total number of medium to large scale processors trained in Ga-Rural District (Greater Accra Region)**

Medium and large scale processor	Status	No. of Women	No. of Men
Amasa Agro-processing Company	Medium-scale processor	7	9
Afrimat Global Enterprise Limited	Medium-scale processor	8	12
<b>Total no. of processors trained</b>		<b>15</b>	<b>21</b>

#### 4.6 RECOMMENDATION

Recommendation for medium to large scale processors:

- Amasa Agro-processing Company needs to provide potable water at the processing facility to enhance HQCF production.
- Amasa Agro-processing Company needs to be connected to the national grid.

- Both Afrimat Global Enterprise Limited and Amasa Agro-processing Company need to improve upon their drying capacity.
- Good linkage should be made for both processors with farmer processors for the supply of pressed cake.
- It is recommended that all the processors should have a good standing arrangement for consistent cassava delivery at processing sites.
- Generally, it is recommended that all processors cultivate their own cassava farms.