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MOFA/CSIR-FRI RTIP PROJECT

**APPRAISAL OF THE PRODUCTION,
MARKETING AND UTILIZATION OF
SWEET POTATO (*IPOMEA BATATAS L.*)
IN TECHIMAN DISTRICT OF THE
BRONG AHAFO REGION IN GHANA**

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1.1 INTRODUCTION

The Food Research Institute Root and Tuber improvement Programme (RTIP) conducted a Participatory Rural Appraisal on sweet potato in the Techiman District of the Brong Ahafo Region between 22nd and 25th August, 2000. The scientists who conducted the PRA were:

Dr. Kwame Vowotor	-	Entomologist
Mr. Charles Tortoe	-	Microbiologist
Mrs. Wilhemina Quaye	-	Socio economist
Mrs. Patience Larweh	-	Home economist

The purpose of the PRA was to obtain quick, detailed qualitative information on the production, handling, storage, processing and utilization of sweet potato in the district. This information could be indigenous or knowledge transferred to the farmers through extension and practiced over the years. The PRA was also to help involve farmers in the district on the project as participants rather than end-users.

1.2 Techiman District

The Techiman district is among the 13 districts of the Brong Ahafo Region of Ghana. The district shares common boundaries with the Wenchi district to the

north and west, Kintampo District to the north-east, Nkoranza District to the south-east and Offinso District (in the Ashanti Region) to the south. The District covers an area of about 669.7km and comprises about 501 settlements including Techiman (the District capital), Tanoso, Tuobodom, new-Techiman and others.

The District has three main vegetation zones, namely: the guinea savanna woodland located in the north-east, the semi-deciduous zone in the south and the transitional zone which stretches from the south-east and west up to the north of the District. The Techiman District experiences both semi-equatorial and tropical conventional or savanna climates characterised by moderate to heavy rainfall annually and results in a bimodal pattern. The major rains start from April to July and the minor from September to October. The long dry season, which is highly pronounced in the savanna zone, starts in November and lasts till March.

1.3 Agriculture in Techiman District

Agriculture is the backbone of the local economy of the Techiman district in terms of employment and income generation. It employs about 62.8% of the working population in the district and contributes about 46.5% from food crops and 37.3% from livestock in terms of household income in the District.

The major food crops produced in the district in order of importance are cassava, yam, maize, cocoyam, plantain, vegetables such as tomatoes and garden eggs, which are mostly in the towns of Fiaso, Traa, Tuobodom, Nsuta, Sereso, Techiman and Tanoso. Industrial crops such cocoa, oil palm, cashew and teak are also produced, but not on large-scale as in the case of food crops for which the

Techiman District is well-known for. Sweetpotato which is not cultivated on large scale as the other crops (named above) in the District. The crop is grown in 2 towns of the District namely: Fiaso and Forikrom.

1.4 Towns visited during the PRA

Since sweetpotato cultivation is generally limited to the two towns of Fiaso and Forikrom, the PRA team decided to visit these two towns and concentrate on the PRA there.

2.0 METHODOLOGY

The following methods were employed in the collection of data during the PRA.

2.1 Secondary data

Secondary data on the district was obtained from the Ministry of Food and Agriculture District Development Office at Techiman. Information on the location of the towns, major agricultural activities of the inhabitants, major crops grown, production, marketing and utilization of sweetpotatoes as well as rainfall patterns of the towns in the district were gathered. Secondary data obtained did not provide useful information on sweetpotato, as a result the data was not further analyzed.

2.2 Semi- structured interviews

The Team also conducted guided interviews. Some of the questions and topics were predetermined but most questions arose from the interviews. The interviews appeared informal and conversational, but were actually carefully controlled and

structured. The team used a check-list to pose open-ended questions and probes topics as they arose. New avenues of questions were pursued as the interview developed. The team's PRA's check-list is found on page 25. Interviews were conducted during the late afternoon when the farmers had just returned from their farms.

2.3 **Transects**

The team constructed transects of the villages by walking through the length of the villages on the principal road with key informants. Features on vegetation (including tree species), soil, farms and major landmarks were observed. The team also asked questions, looked at interesting areas, identified different zones and sought problems and solutions. The findings were then mapped onto a vertical transect. This also provided the team an opportunity to interview 8 men constructing a yam storage structure. Farms were visited to observe similarities and differences in vegetation, topography and farming activities. Linkages between Fiaso and Forikrom were also identified.

2.4 **Crop calendar**

Crop calendar was constructed based on information obtained during the meetings and an interview granted by the assemblyman and key informants. It covered a period of 12 months and included the periods for land clearing, burning of bushes, removal of stumps, construction of mounds, planting of sweetpotatoes, weeding of

the farms, harvesting and storage on field, marketing as well as the gender of the people involved.

2.5 **Seasonal calendar**

Methods used for the seasonal calendar included interviews and group discussions to have an effective frame of reference. The seasonal calendar was represented by quantities and patterns of rainfall, soil moisture, crops, livestock activities, agriculture and non-agriculture labour, diet, food composition, prices, animal fodder, fuel, migration, pests, and diseases. Seasonal calendar was drawn in linear fashion with 12 months to illustrate changes within a year.

2.6 **Venn diagram**

The interaction of the main functional groups at the villages was captured during the group discussions and interviews with key informants. The information gathered was presented in a Venn diagram using circles to represent people, groups and institutions. These are arranged to represent degree of real overlap.

3.0 RESULTS

Location

3.1 Fiaso

The village is located 14km from Techiman on the Techiman/Nkoranza road. The town is inhabited by Brongs who are the landowners and settler farmers mostly Northerners: Sasali, Dagomba, Kokomba, Frafra, and Kusasi. Fantes, Asantes, Kwahus, Adas and Gas can also be found there.

Amenities at the village include schools (kindergarten, preparatory and junior secondary), 2 drinking bars, 2 KVIPs, 4 corn milling shops, churches (Presbyterian, Pentecost, Roman Catholic, Seventh Day Adventist, 3 mosques and 2 markets. The soil within and outside the village is loamy. Livestock including sheep, goats, pigs, chicken and duck are kept in most houses. Fiaso is represented by an assemblyman in the Techiman District Council. The head of the town is a male Chief. A diagrammatic representation, transect and the interactions of the main functional groups in Fiaso is depicted in Fig 1a, 2a and 3a respectively.

3.2 Forikrom

This village is 7km from Techiman on the Techiman/Nkoranza road. The composition of inhabitants is similar to that found at Fiaso. The village has a day care center, 2 primary schools and a junior secondary school, 4 drinking bars, 4 KVIPs, six corn milling shops, churches (Presbyterian, Pentecost, Roman Catholic, Seventh Day Adventist, 4 mosques and a market. The soil within and outside the town is loamy. Sheep, goats, pigs, chicken and duck are the livestock

Fig 1a. A DIAGRAMMATIC REPRESENTATION OF FIASO

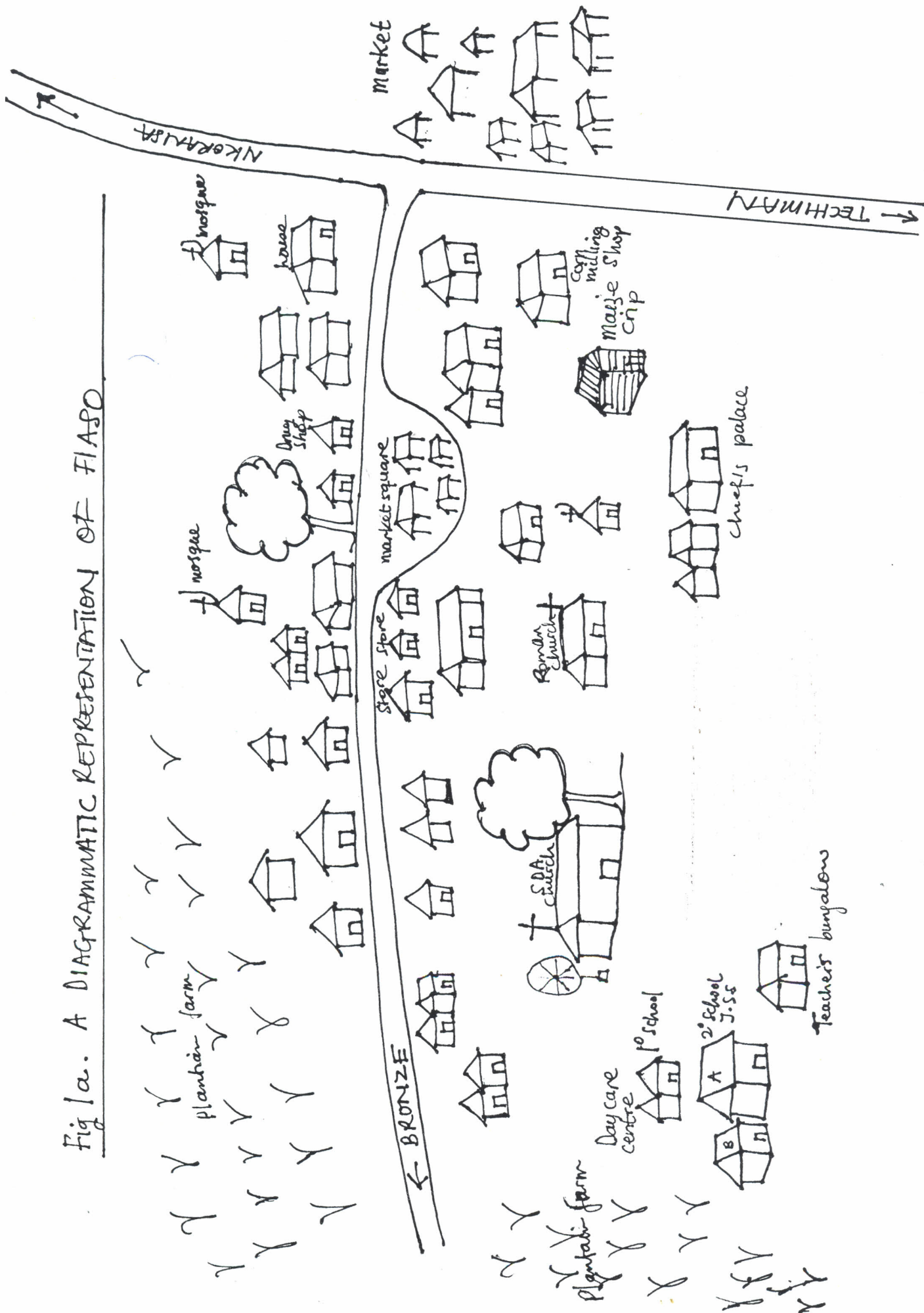
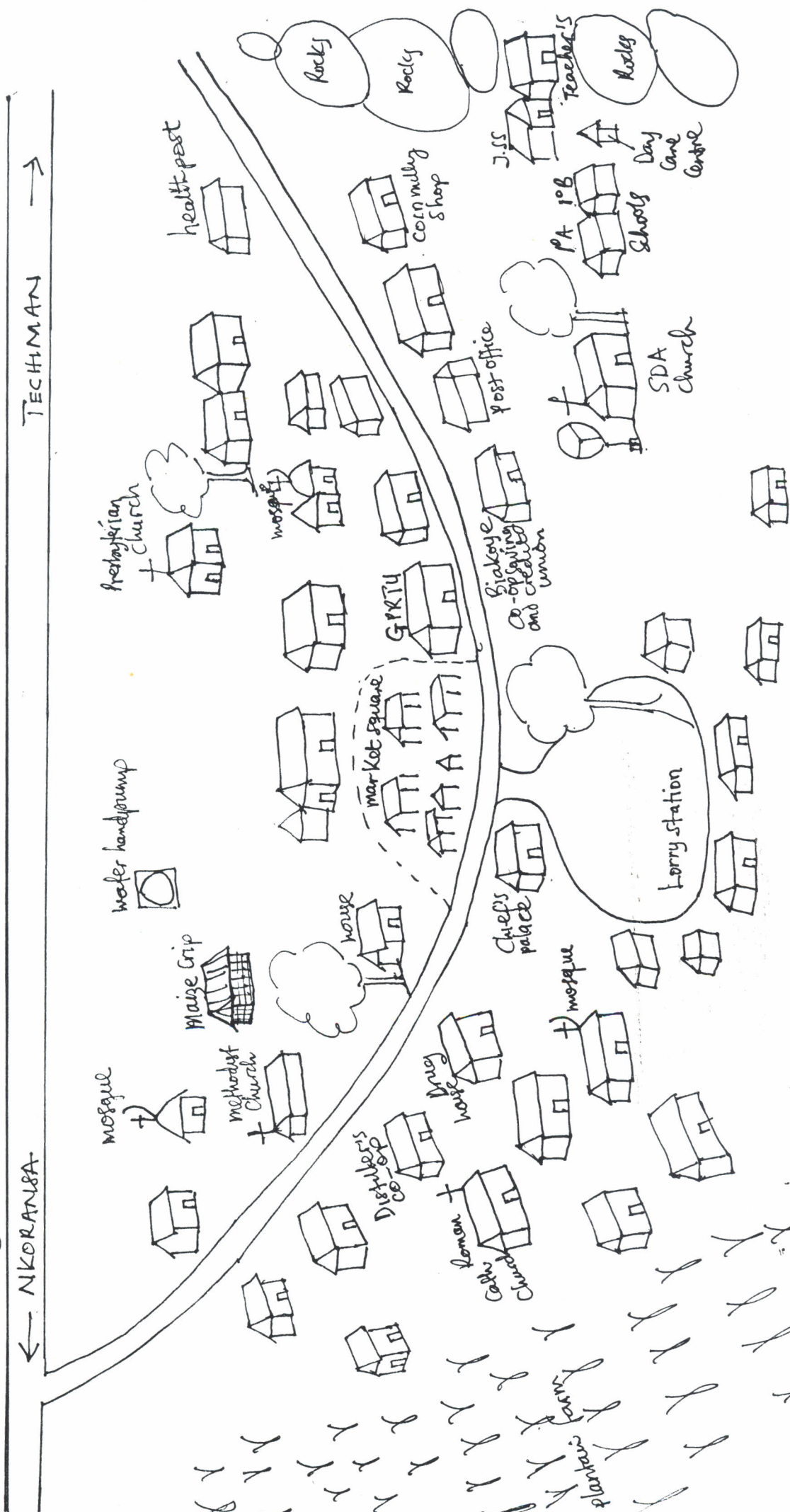


Fig 1b. A DIAGRAMMATIC REPRESENTATION OF FORIKROM



← NKORANSA

TECHIMAN →

ZONE	FOREST	FARMS	HABITATION	FARMS	FOREST
LAND USE	Afforestation	Yam Maize Sweetpotato	House Church Mosque Maize storage Stores Corn milling shops	Maize Yam Groundnut Sweetpotato	Afforestation
SOIL	loamy	loamy	loamy	loamy	loamy
TREES	Cassia sp. Acacia sp.	Ornamental trees	Ornamental trees Palm trees Neem trees	Ornamental trees	Cassia sp. Acacia sp.
LIVESTOCK		Cattle Pig Poultry Goats sheep	Sheep Pigs Ducks Goats Chicks chicken	Goats Cattle Pig poultry Goats sheep	
PROBLEMS	Deforestation bushfires	Pest and Disease of Crops	Erosion	Erosion of farmland Pest & disease Crops.	Deforestation bushfires

Fig 2a. Transect of Fiaso

ZONE	FOREST	FARMS	HABITATION	FARMS	FOREST
LAND USE	Afforestation	Yam maize	Houses Schools Churches mosque maize crop Stores Corn milling shops	Yam maize	FARMS
SOIL	loamy	loamy	loamy	loamy	loamy
TREES	Acacia sp. Casia sp.	Ornamental trees	Ornamental trees Palm trees Neem tree	Ornamental trees	Acacia sp. Casia sp.
LIVESTOCK		Pig poultry Cattle	Sheep Ducks Goats Chicken	Pig poultry Cattle	Pig Poultry Cattle
PROBLEMS	Deforestation	Pest and Disease of Crops	Erosion	Pest and Disease of Crops	Deforestation Erosion of farmlands

Fig 2b. Transect of Forikrom.

Fig 3a. INTERACTION OF THE MAIN FUNCTIONAL GROUPS AT FIASO.

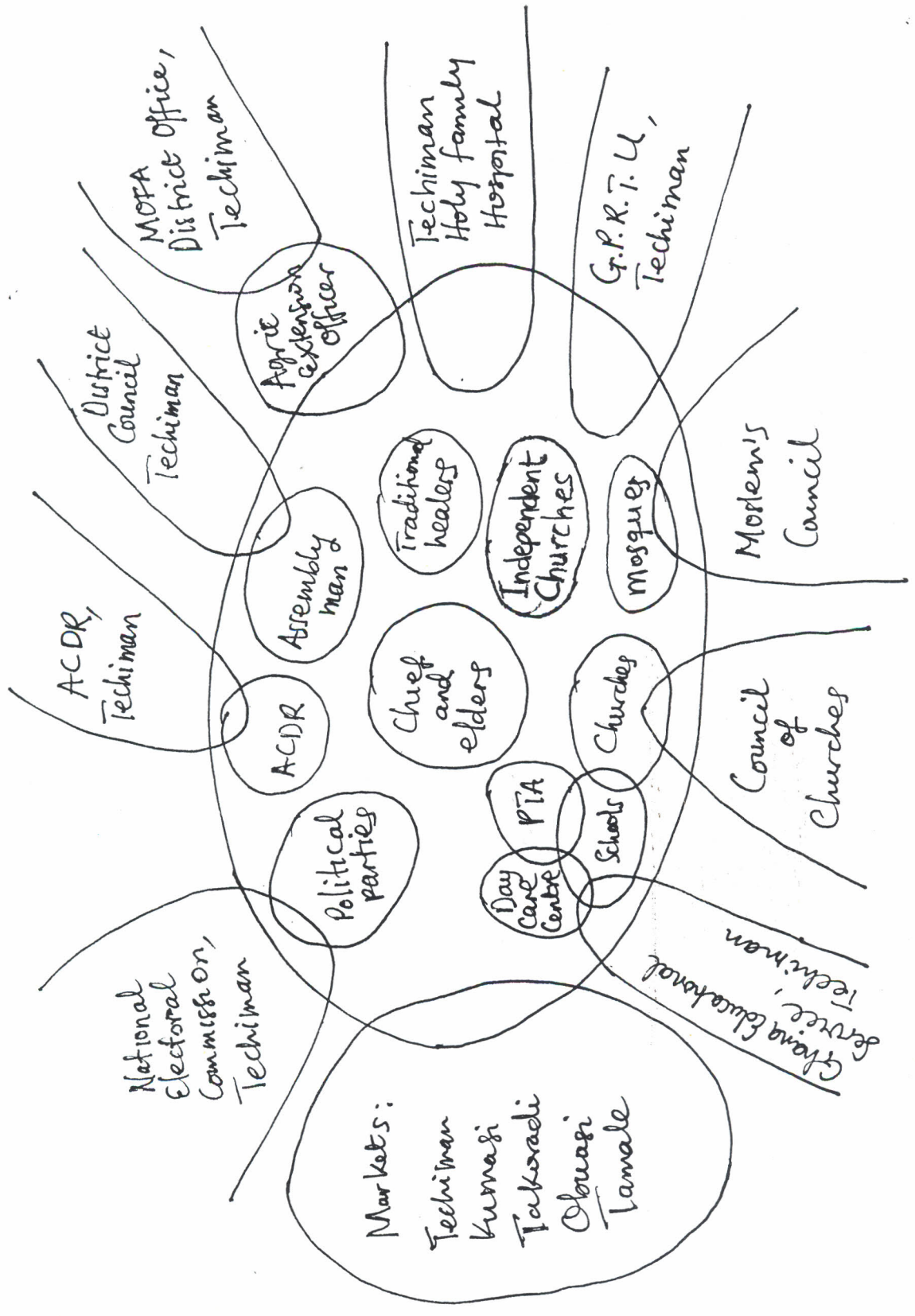
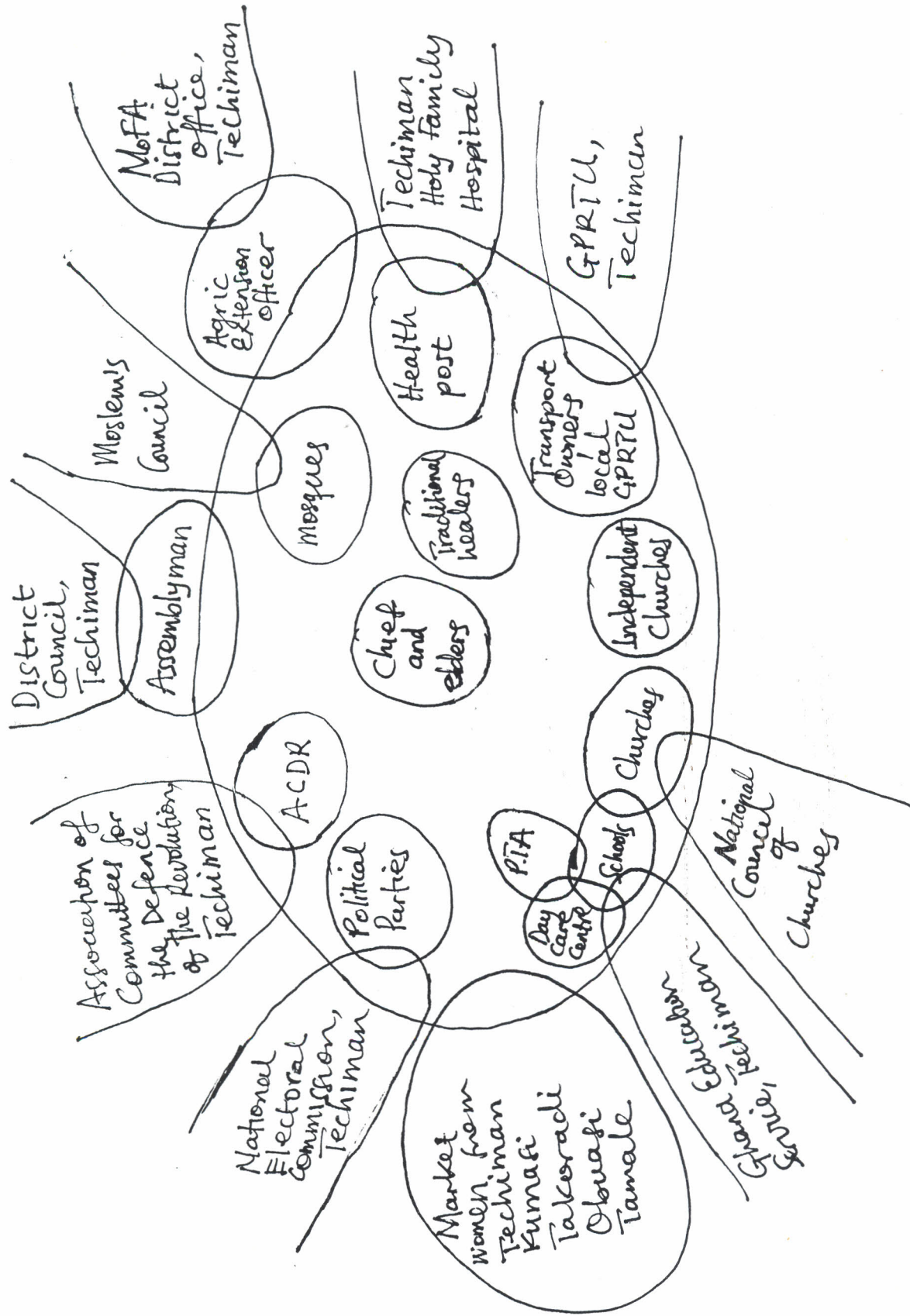


FIG 36. INTERACTION OF THE MAIN FUNCTIONAL GROUPS AT FORIKROM



kept in most houses. Forikrom is represented by an assemblyman in the Techiman District Council. A male Chief is the head of the village. A diagrammatic representation, transect and the interactions of the main functional groups in Forikrom is depicted in Fig 1b, 2b and 3b respectively.

3.3 Major activity of the inhabitants

Farming is the major activity of the inhabitants of Fiaso and Forikrom. Yam (*Dioscorea* spp.), maize (*Zea mays*), and cassava (*Manihot esculentum*) are the major crops cultivated. Sweetpotato is a minor crop cultivated by few farmers mostly settlers of Northern ethnicity.

3.4 Ethnicity and gender of farmers

The farmers are mainly Brongs who are the landowners and settler farmers mostly Northerners: Sasali, Dagomba, Kokomba, Frafra, Kusasi. Settler farmers who are Fantes, Asantes, Kwahu, Ada and Ga can also be found.

3.5 Other crops grown

Other crops grown are vegetables such as cabbages, groundnuts (*Arachis hypogea*), pepper (*Capsicum* spp.), tomato (*Lycopersicum esculentum*), okra (*Hibiscus esculentus*), onion (*Allium cepa*) and sunflower (*Helianthus annuus*).

3.6 **Seasonal Patterns**

Agriculture and livelihood activities in Fiaso and Forikrom are dominated by the bimodal rainfall pattern as shown in Fig 4, the major rains occurring between May and August and the minor rains in late September and October.

4.0 **SWEETPOTATO PRODUCTION**

4.1 **Location of farms**

Sweetpotatoes are cultivated on a variety of fields ranging from backyards to the upland farms. Newly cleared forest lands are not used since vegetative growth of sweetpotato is abnormally enhanced to the detriment of root production.

4.2. **Varieties**

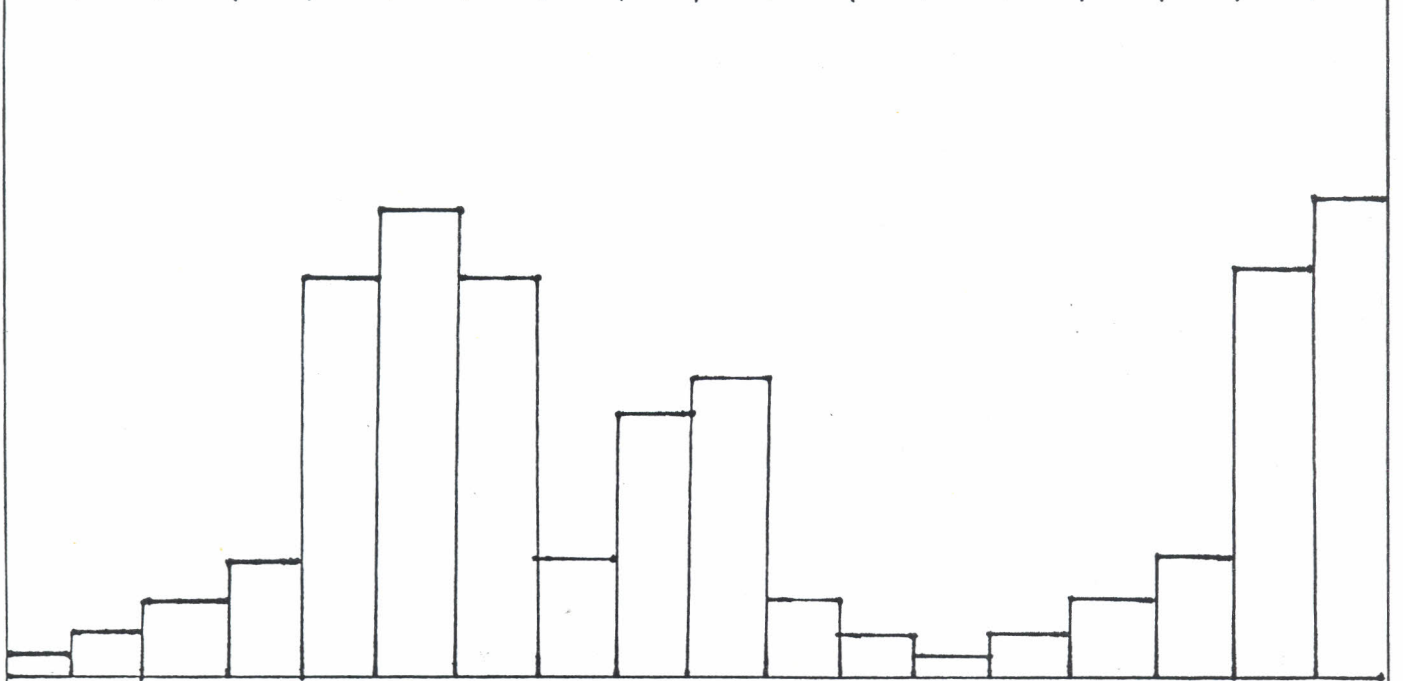
At Fiaso and Forikrom sweetpotato is called 'Dankari' or 'Aboagmaa'. Farmers at both villages identified 3 sweetpotato varieties (Dankari and Aboagmaa) based on the colour of the roots.

1. Red sweetpotato - red peel with white flesh
2. White sweetpotato - white peel with white flesh
3. Yellow sweetpotato - yellow peel with white flesh

The red sweetpotato variety is more preferred since it grows faster, yields better, stores longer and is more tasteful than the other varieties.

COMPOSITE SEASONAL CALENDAR : FIASO AND FORIKROM

JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC JAN FEB MAR APR MAY JUN



SWEETPOTATO

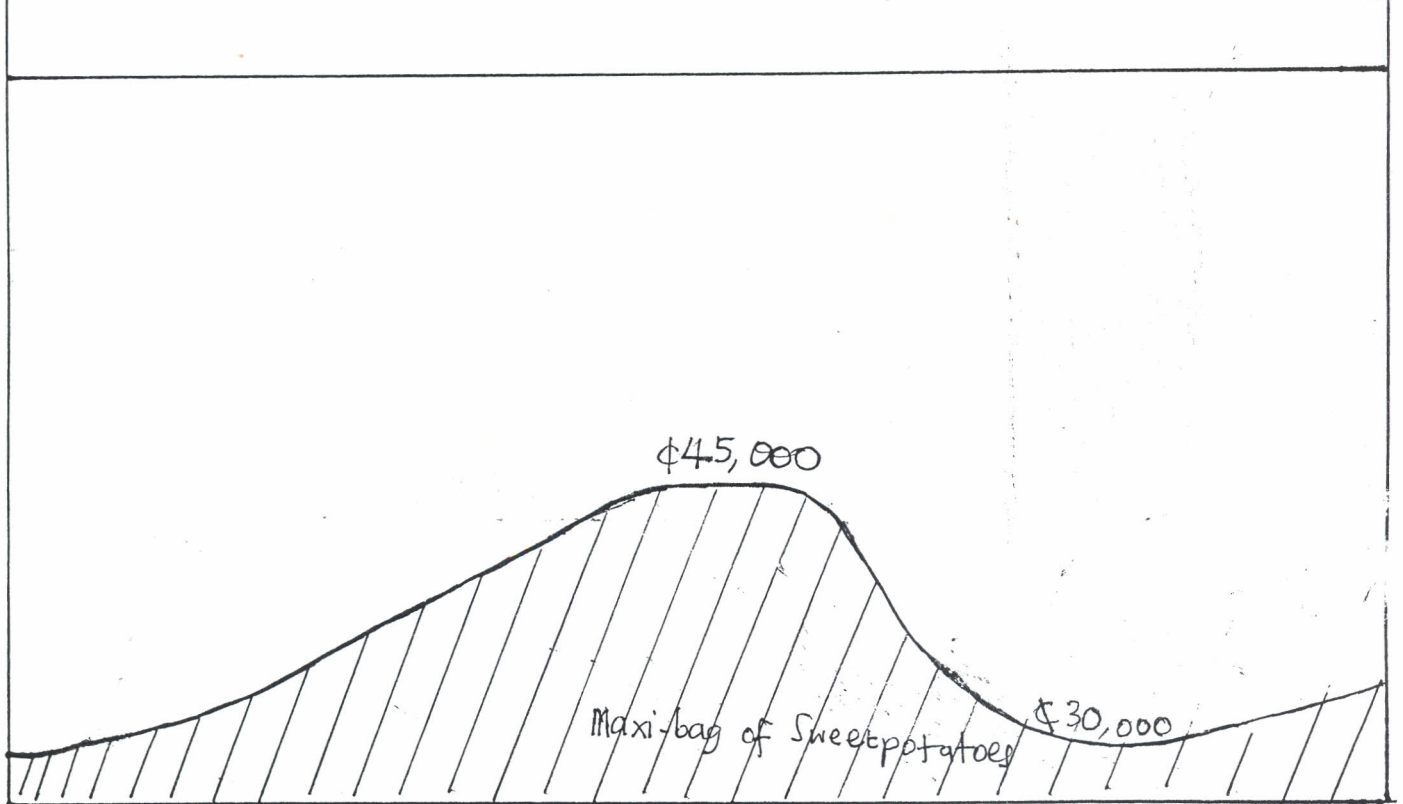


Fig 4

4.3. **Daily farming time schedule**

Male farmers start working on their farms in the mornings as early as 6.00 a.m. and close between 5:00 and 6:00p.m. The women attend to house duties in the mornings and evenings and therefore report to their farms between 9:00am and 10:00am and close earlier than the men, latest by 4:00pm.

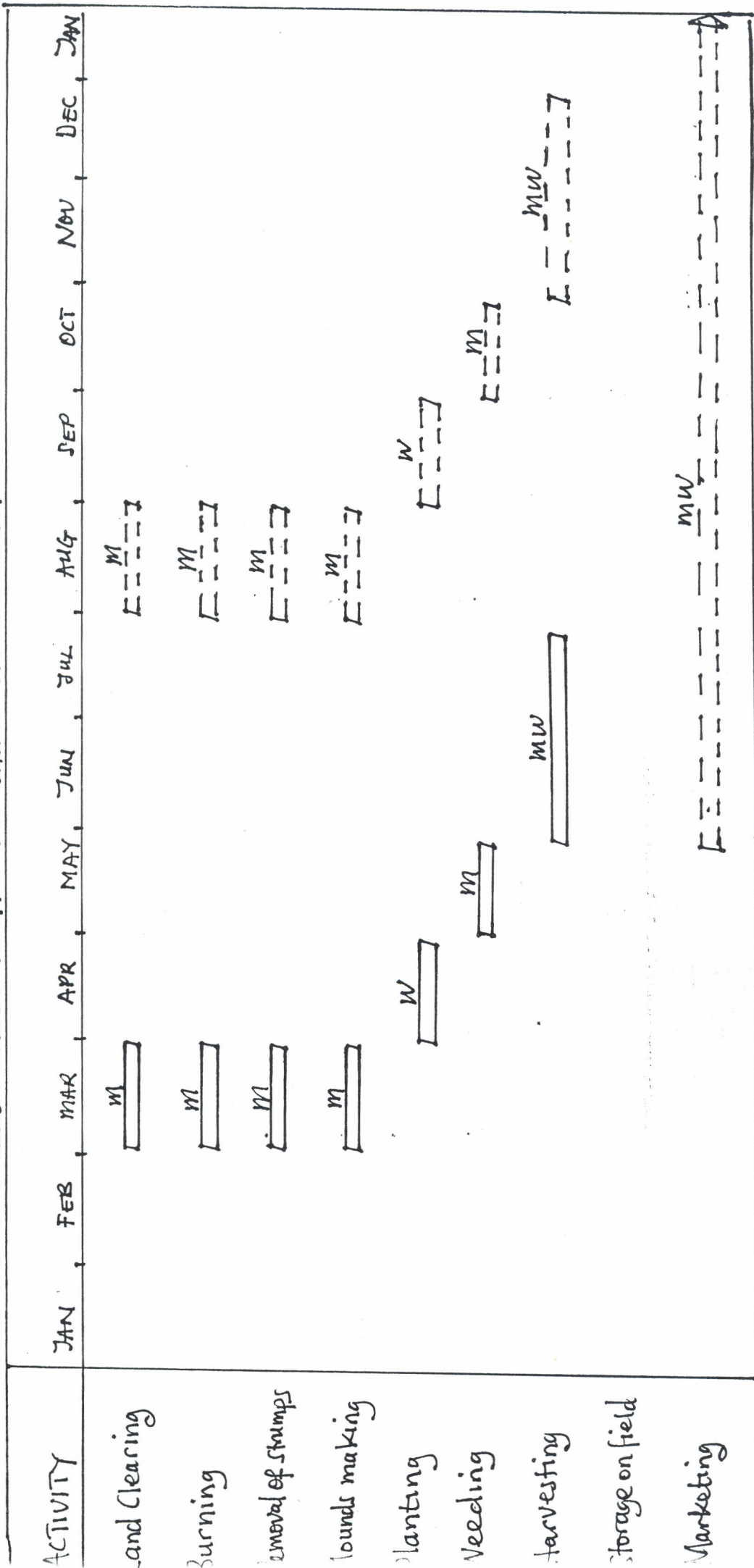
4.4. **Land Acquisition**

Land for farming is either through personal ownership, family or hired for cash and not for produce. Previously, hired land for produce was common and the produce was divided into two, a part each for the farmer and the landowner. Presently hired land for produce is not practiced either at Fiaso or Forikrom since farmers see this system of sharing of produce as cheating by the landowners. Land hiring is on yearly basis, normally up to one year or three years before renewal of the agreement. A one acre plot is presently hired between ₦40,000.00 and ₦100,000.00 at the two villages. Loans are not normally advanced by middlemen, rural banks or moneylenders for sweetpotato cultivation. Farmers do not grow sweetpotato on the same piece of land twice within a year. This is to prevent reduced yields.

4.5. **Land clearing**

Land clearing is done in March for the major cropping season and in August for the minor cropping season at both Fiaso and Forikrom as depicted in Figs.5a and 5b. Farmers cultivate 2 or more acres each depending on the resources of the

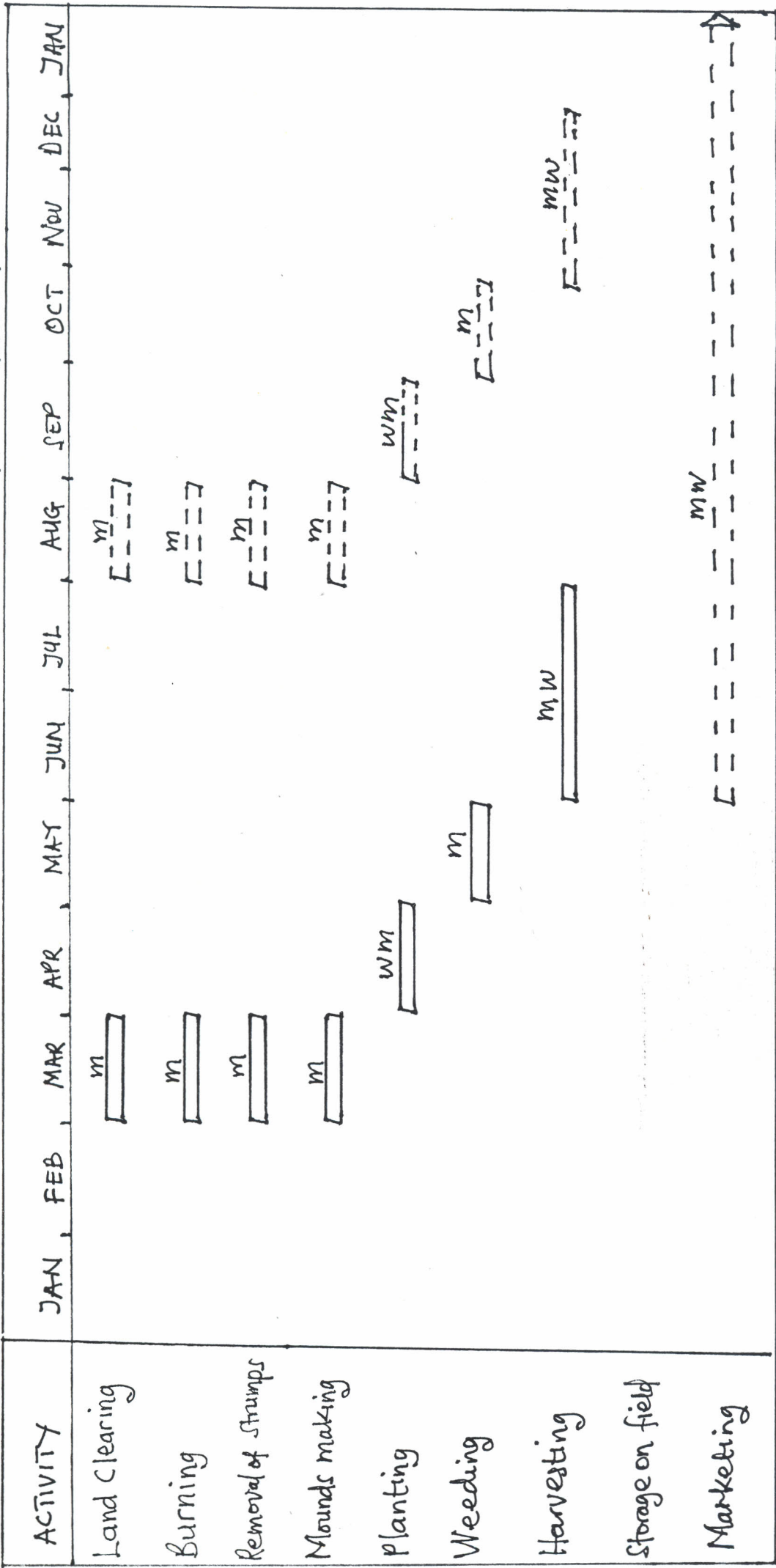
SWEETPOTATO PRODUCTION: CALENDAR OF ACTIVITIES AT FIASO



M - men
 W - women
 [] - major
 [-] - minor

Fig 5a

SWEETPOTATO PRODUCTION: CALENDAR OF ACTIVITIES AT FORIKROM



m - men
 w - women
 [] - major
 [] - minor

fig 5b.

farmer. Weeding implements are hoes and cutlasses. Males do the slashing and burning of the bushes, normally 2 weeks after land clearing. Tractor services for clearing the land are not available. Only males are hired to clear the land. Hired labour popularly called 'by day' costs ₦4,000.00 with food (lunch and supper) and ₦6,000.00 without food per day, and weeding implements are also provided. Land clearing takes 4 to 5 days depending on the nature of the soil. Hired labour costs between ₦40,000.00 and ₦50,000.00 per acre on 'contract'.

4.6. **Planting**

Only mounds as opposed to ridges are constructed at a cost of ₦80,000.00 per acre by hired labour for sweetpotato cultivation. The cost of constructing mounds is always twice the cost of weeding by hired labour. Construction of 100 mounds cost ₦4,000.00. Lunch and supper are also provided.

Planting materials are of two forms

1. vines left on the field after the previous harvest regeminate, trail on the ground, cut and used as planting material.
2. ratooning - sweetpotato roots which were purposely or mistakenly left in the soil after harvest germinate and serve as ratoon fields from which planting materials are collected for the next season.

During the first season cropping, farmers normally used vines that have been nursed in swampy or muddy areas and under big trees from the previous year's harvesting. Farmers sometimes experience theft of the vines from the nurseries.

Vines are sometimes very scarce during the first cropping season resulting in vines been sold between ₦3,000.00 and ₦5,000.00 per maxi-bag. By the minor cropping season, vines are abundant from the major cropping season. Planting materials are not exchanged for labour services as is done in some areas. Roughly, a nine-node vine is normally folded into 3 and planted on a mound. Three of the folded vines are planted per mound with three nodes of the vines buried in the soil. Farmers observed that this planting method results in better yields than unfolded vines. Planting of sweetpotato vines are predominantly done by women at Fiaso, however at Forikrom men take active part in this activity.

4.7 **Intercropping**

At Fiaso, cassava and maize is intercropped by the side of the mound and at Forikrom, cassava is the only crop intercropped for family use.

4.8. **Pest and Diseases**

At Forikrom, farmers apply ammonia to sweetpotato to prevent pest and diseases attacks. A bag of ammonia is sold at ₦100,000.00. Unfortunately few farmers are able to afford the cost of the ammonia. Farmers unable to afford ammonia leave their infested crops unattended to. Insects attack the leaves and roots. Weevils lay their eggs on the roots and the developing larvae feed on the roots. Farmers also mentioned observing centipedes on the developing roots and their activity causing rots of the roots. This is very common during the dry season and is reduced

considerably in the wet season. Rats feed on the roots and goats on the leaves as fodder.

4.9. **Weeding of Cultivated fields**

Two weeks after planting, the farms are weeded by hired labour at a cost of ₦40,000.00 per arce. A second weeding is done 6 weeks after planting depending on the nature of the soil. Labour charges are on 'by day' and 'contract' basis. 'By day' conditions are normally preferred and the labourer charges ₦4,000.00 in addition to the farmer providing food. In the case of contract workers, the labourer charges ₦40,000.00 per acre and is fed twice a day. The farmer also provides a hoe for weeding. Weeding of the cultivated farms are normally done by men.

4.10. **Coiling of Veins**

Coiling of trailing vines that is practised in other sweetpotato growing areas is not practised at Fiaso and Forikrom. Vines are left to trail on the ground until roots are harvested.

4.11. **Resting Period**

The months of May and October are observed as resting period for the major and minor cropping season, respectively.

4.12. **Maturity for harvest**

Blue-coloured flowers produced by the plant indicate maturation of the sweetpotatoes. Three months after planting mounds begins to crack and sweetpotato leaves turn yellowish brown indicating maturity of roots.

4.13 **Harvesting and Packaging**

Roots are harvested in June and November during the major and minor cropping seasons, respectively. Harvesting is normally done in stages at the request of middlemen. This could last for about 2 weeks. Harvesting implements are hoes and cutlasses or with the hands after heavy rainfall. The harvested roots are then heaped on the farm and covered with sweetpotato leaves. Three groups of hired labour are employed during the harvesting period. The first group is men who uproot the sweetpotato from the mounds onto the field. They are paid ₪40,000.00 per acre by the farmer. The second group is women who gather the harvested roots into heaps on the field. Each woman is paid between ₪3,000.00 and ₪4,000.00 per day by the middlemen. The third group is the women who load the roots into the maxi jute sacks provided by the middlemen. A member in this group is paid between ₪3,000.00 and ₪4,000.00 per day by the middlemen. Polyethylene sacks were previously used for bagging the roots but was stopped when middlemen realized that most of the roots were getting rotten on reaching their destination. Farmers were of the view that a total of 6 men and 6 women could harvest, gather and bag within 4 days yields from an acre farm.

At both villages, the roots are informally graded into:

1. Wholesome - big and medium size, smooth or rough rind, no blemish on rind. These are sold to middlemen for commercial centers.
2. Small roots - roots are small in size with smooth or rough covering rind, sold to customers for frying as snacks along streets.
3. Damaged roots - injuries caused by harvesting implements, pests (rodents, insects and moulds). These are left on the farm as manure.

Sweetpotato roots which are not harvested between 4 and 5 months after planting begin to rot.

4.14. **Yields**

A single crop may produce 3-4 large-sized roots or 5-8 small-sized roots. The yield per acre is between twenty-five and thirty maxi bags. Farmers from Forikrom said they could harvest 80 bags per acre depending on good soil and rainfall conditions. Yields from sweetpotato are very encouraging drawing in more farmers into its cultivation year after year. Farmers agreed that sweetpotato cultivation is more lucrative compared to yam, maize or vegetables cultivation.

5.0 **Storage**

There are no storage methods available for sweetpotato at the two villages. However at Forikrom a participant mentioned of a storage method that he learnt from a friend who hails from the Northern Region. He however had not tried the method to see its efficiency. The method consisted of a hole dug in the ground away from areas prone to flooding under big trees to provide shade. The hole is

lined on the floor and walls with 'poison' or DDT. Roots are heaped in the hole and covered with pieces of wood. The pieces of wood are the covered with semi-wet soil to the ground level. A space is always left between the heaped roots and the wood to prevent damage to the roots.

6.0. **MARKETING**

6.1 **Organization:**

Sweetpotato marketing is predominantly women activity with men only involved in farm gate sales and transportation. The market is dominated by a large army of medium scale private traders who handle about 90% of the marketed surplus. These traders are rarely specialized in one sort of trade but rather function as conglomerates. Sweetpotato is mainly harvested on demand due to lack of storage techniques and facilities. Farmers either wait for buyers from Techiman at the farm level or travel to Techiman in search of buyers before harvesting in order to reduce spoilage. Although there is a local rural market, sweetpotatoes were sold in large quantities to itinerant wholesalers from Techiman at the farm gate. Apparently, farm gate sale was preferred to sales at Techiman wholesale market due to high transportation cost and other marketing expenses. Farmers were also scared of occasional low prices caused by excess supply on the market and most importantly risk of lost through spoilage in transit.

6.2 Handling and Packaging

After harvesting and assembling, the damaged and small-sized roots are sorted out under the supervision of the traders. The selected roots are then packaged in jute sacks (maxi- bags). Handling charges were borne by the traders.

6.3 Transportation

Bagged sweet potatoes were headloaded from the farm to the road side for immediate transportation to Techiman by pre-arranged truck service. Transportation was regular and reliable because the road net working the area to the marketing center is motorable throughout the year. Transportation cost per maxi bag was about ₦2,000.00.

6.4 Distribution channels

The main channels used for distribution of sweet potatoes in the study area are outlined below;

i. Farmers _____ Itinerant buyers _____ Retailers _____

Consumers

Cross border export

ii. Farmers _____ Local retailer _____ Consumers

iii. Farmers _____ Traditional /home consumer

The first channel was the most popular channel used in the area for sweet potatoes. Large quantities of sweet potatoes (10-100 maxi-bags per trader) were wholesaled to itinerant traders who in turn resell to other middlemen at the Techiman wholesale market. Potato buyers who patronize the Techiman market usually come from Kumasi, Obuasi, Accra and surrounding towns.

It was also reported that considerable amount of sweetpotato was sold to traders who export to Cote d Ivoire and Togo in the milled form. Although there is cross boarder trade, no formerly organized sweetpotato exporting in Ghana exist. Thus the export market potential of the commodity is worth exploring.

The second channel was used to a lesser extent in the primary markets for distributing sweet potato in small quantities of less than a bag per trader. The farmers sell to the local retailers who normally boil for sale.

The third channel represents trade at the local collection level. Here, sweetpotato does not enter the main market but are either consumed directly by the farmers or sold at farm gate to consumers at the village level.

It was observed that both the second and third channels were used to dispose of small size and low quality roots rejected by the wholesalers.

6.5 Pricing and Market Information

Market information on sweet potato with regard to prices and commodity movement was unavailable. The reason being that information on sweetpotato in the area is not documented by MoFA. Since farmers were not organized, prices were mainly dictated by the buyers who seem to have fairly uniform price offer at both the farm gate level and the wholesale market. The marketing system was not competitive. Farmers only had control over pricing when supply is scarce and no consideration was given to the production cost structure in price determination. Though there were no price differentials with regard to variety and colour, there was a definite preference for red-peel variety by traders. Therefore farmers were particular about the buyers' taste when decisions on choice of variety had to be made. No formal grading and marketing systems were practiced. However, there was a price rebate of about 30 – 40% on damaged and small size roots.

6.6 Seasonality and Price Trends

Sweetpotato is highly seasonal. It is only available during the major and minor rainy seasons, which occur between June - August and November - December respectively, depending on the rainfall pattern. No dry season cultivation under irrigation is practiced in the area and therefore sweetpotato is hardly seen on the market between January and March. Seasonality is a marked reflection of price variability; with the minor harvesting season registering low prices. Since sweet potato can be stored *in situ* for a maximum of one month, prices start rising after

the major season harvesting, peaks in September (¢45,000.00 per maxi-bag) and falls again at the beginning of the minor season (¢30,000 per maxi-bag of sweet). The farmers claimed that there is excess supply in the minor season due to ready availability of planting material after the major harvesting season.

6.7 **Financing**

Marketing of sweet potato was self-financed. The farmers also sold on cash and carry basis. No credit considerations were given.

6.8 **Association**

Marketing of sweet potato is not formally organized. Both traders and farmers were not in any co-operative association and no group marketing approach was practiced.

6.9 **Marketing Constraints**

The underlisted constraints were identified:

1. Lack of storage techniques and facilities at all levels.
2. Lack of market information on prices and availability of sweetpotato.
3. Irregular availability of sweetpotato.

Other inherent weaknesses in the market chain are lack of uniformity in weight since measurement is by volume and lack of grading or standardization.

6.10 Future Prospects

On the supply side, farmers reported of a steady increase in their numbers as well as acreage of cultivation over the years. However, there was no empirical evidence in the form of production estimates or otherwise to support this assertion. Farmers attributed the involvement of other commodity farmers especially the young ones in the potato industry to the following reasons:

- i. Low total production cost (less capital intensive).
- ii. Less labor cost.
- iii. High market demand.
- iv. Relative high profitability.
- v. Possibility of cultivating sweet potato on marginal lands.
- vi. High yielding.

The study revealed that demand prospects have been quite encouraging especially among the Northern folks. Also indications at Techiman market through observation and reports by some traders showed that demand could outstrip supply in the near future if planting material is not made available to farmers. Appropriate strategies to expand utilization base should be put in place to boost demand for sweet potato. This will further encourage farmers who are already business minded and therefore plan cultivation activities according to the dictates of demand.

7.0 UTILIZATION

The major staples important in the diet of the people are maize, cassava and yam.

All these crops in addition to sweetpotato, were cultivated by farmers in the villages surveyed. The study revealed that although sweetpotato was produced on a moderately large scale in the villages, the utilization base was very narrow.

Sweetpotato was reported to be more popular with the immigrant households mainly of Northern origin than the natives.

7.1 Mode of Utilization

Sweetpotato was mainly boiled, roasted or fried and eaten as a snack in the communities surveyed. Its flour was also used as a sweetener and the leaves as vegetables. The main dishes prepared with sweetpotato are:

- i. Boiled sweetpotato (*akaw - Ashanti*): Sweetpotato was mainly boiled in the skin. The main reason given was that small and damaged roots which are normally consumed in the household were difficult to peel. Boiling in the skin also reduced the extent of water absorption during cooking and therefore prevents mashing. The sweetpotatoes are thoroughly washed to remove all dirt and put in a pan with just enough water to cover the potatoes. The pan is then covered tightly and the sweet potatoes allowed to cook slowly until done (soft). The boiled sweetpotatoes may be served with pepper sauce, but was mainly eaten without a sauce. Apart from being served in the household, some women, mainly the

Northerners sold sweetpotato *akaw* in the villages. This was highly patronized by the children in the communities.

- ii. Roasted sweetpotato: Roasting of sweetpotato was also done without peeling. The sweetpotato is roasted gently over low heat after washing. Roasting was either done on a rack over the fire or directly in the fire. They are turned continuously during cooking until well done. Roasting is preferably done in the skin because this prevented disintegration of the sweet potato when cooking on dry heat.
- iii. Fried Sweetpotato (*koliko*): As a fried food, the root was peeled, sliced and washed in salted water before frying in hot oil. The fried potato is well done when it turned golden brown in colour. Fried sweet potato was served mainly as a snack with or without pepper sauce. Although *koliko* was the most preferred sweetpotato dish it was often bought from food vendors than prepared in the households. The main reason given was that buying oil to fry at home was considered expensive as compared to than to buy just enough from the food vendor.
- iv. Sweetpotato as a sweetener: Sweetpotato flour was used as a sweetener in *fula*, by the Moslems in the communities especially during the yearly fasting period. *Fula* is a northern traditional beverage prepared from millet. The Moslems used it in breaking the fast during this period. The flour was prepared by chipping the root

thinly after peeling and washing before drying. The chips, which dry in a maximum of two days are then milled into a smooth flour. The flour is sweet because of the high sugar content of the red skinned variety produced in the village

- v. Sweetpotato Leaves as a vegetable: The sweet potato leaves were used as a leafy vegetable in the preparation of stews. This was popular with the Northerners only. Young and tender leaves are harvested and used in preparing a sauce similar to *palava* sauce.

It can be inferred from the study therefore that although sweetpotato is an energy rich root comparable to cassava and yam, it did not occupy the same importance in the diets of the people as compared to the other roots. This may be attributed to the relatively high sugar content ranging from trace to as much as 10% in the very sweet varieties. Sweetpotato was normally eaten without a sauce, suggesting that it is not considered a staple.

7.2 Frequency of intake

It was reported that sweetpotato was consumed frequently only when in season. Consumption was however, not daily even during the periods of high supply. Although sweet potato was not recognized as a staple, it was occasionally used as a food security crop during the hunger season when the important staples were in

low supply. Cassava was however considered to be a better security crop than sweetpotato.

7.3 Processing Potential

The processing of sweet potato into flour is a not new technology to the inhabitants of this community. This suggests that processing and the utilization of sweet potato flour in preparing traditional flour based snacks can be exploited in these villages.

RECOMMENDATION

The following recommendations have been made.

The team found out that since sweetpotato is not grown on large scale in the Techiman District, generally and also due to the long distance from Accra, it would be advisable to construct storage structures in the two villages of Fiaso and Forikrom.

REFERENCE

PRA CHECK LIST

Production

- Crops cultivated/cultivars
- Cropping pattern
- Major crops
- Minor crops
- Planting materials
- Yield/varieties
- Location/size of farms
- Harvesting
- Gender issues
- Labour requirements

Storage

- Methods
- Structures
- Problems

Marketing

- Pricing
- Marketing outlets
- Marketing agents
- Transportation