

# ***PARTICIPATORY TROPICAL FOREST DEVELOPMENT BY WOMEN IN INDIGENOUS COMMUNITIES***



**ITTO/FFC/DWM PROJECT PD 49/98 Rev. 1 (F)**

**PROJECT COMPLETION REPORT**

**MARCH 2005**

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# **PROJECT COMPLETION REPORT**

## **A. PROJECT IDENTIFICATION**

- a) Title: Participatory Tropical Forest Development By Women in  
Indigenous Communities
- b) Serial No: PD49/98 Rev.1 (F)
- c) Implementation Agency: 31<sup>st</sup> December Women's Movement in  
Collaboration with the Forestry Commission
- d) Host Government: Ghana
- e) Starting Date: 1<sup>st</sup> July 2000
- f) Actual Duration (Months): 36
- g) Actual Project Cost: US \$833,334

## **PART 1 : EXECUTIVE SUMMARY**

### **1) BACKGROUND INFORMATION ABOUT THE PROJECT**

#### **1.1 PRE- PROJECT SITUATION**

The forest resources of Ghana provide both direct and indirect benefits to the people of Ghana. The Forestry Sector accounts for over 6% of GDP and employs over one million people. However due to factors such as increase in population, excessive logging, bushfires, expansion of agricultural lands among others, the resources is under extreme pressure and local people are affected negatively by this dwindling trend. In addition to this, timber for feeding processing mills is gradually becoming limited and the establishment of plantations will certainly support the timber industry in Ghana.

The 31<sup>st</sup> December Women's Movement (31<sup>st</sup> DWM) together with the Forestry Department in previous years sought sponsorship from International Tropical Timber Organisation (ITTO) and organized a five-day workshop PD.19/91 Rev. (F) under the theme 'Women and Forest: A look at the African Experiences' in October 1992. This meeting provided an opportunity for consultation and exchange of views and experiences amongst women involved in the sustainable development of tropical forest in ITTO member nations. Among the recommendations was the need for specific country level, or a regional programme to provide women with training and logistics to facilitate sustainable management of forest.

As a result of this recommendation, the 31<sup>st</sup> December Women's Movement (31<sup>st</sup> DWM) submitted a project proposal to ITTO for sponsorship. The project code-named 'Women and Tropical Forest Development Programme' was consequently implemented from 1995 to 1999.

Under this project, activities such as training of women in nursery and plantation establishment, cultivation of non-timber forest products, production and dissemination of publicity and educational materials on nurseries and plantations and establishment of three central tree nurseries in the three ecological zones in Ghana were undertaken. The three nurseries were supposed to run on sustainable basis but sale of seedlings never picked up during and after the project period hence some of the seedlings remained in the nurseries. This motivated the 31<sup>st</sup> DWM to propose a succeeding project on plantation establishment to absorb the seedlings produced at the nurseries and to utilise the knowledge gained by the women as result of the project implementation. With this background and in pursuance of the objectives of sustainable management of the forest of Ghana for production and environmental protection for the benefits of all segments of society, the 31<sup>st</sup> DWM initiated Participatory Tropical Forest Development by Indigenous Communities (PTFDWIC), a project which seeks to involve local communities in rehabilitation and managing the forest on sustainable basis to provide livelihood for local communities, to alleviate poverty and enhance the socio-economic well being of the communities. Nine fringe communities around the Worobong South Forest reserve have been supported with financial assistance from the ITTO to rehabilitate degraded portions of the forest reserve.

The PTFDWIC is in line with the national forestry sector policy which aims at (i) managing industrial forestry production and export earnings in accordance with sustained yield policy (ii) promoting conservation and tree planting on farms to counteract fuelwood shortage and ecological degradation and deterioration, and (iii) strengthening the structural base of the sector and its institutions to enable them carry out the necessary policy reforms, increase revenue generation and improve protection and management of forest and wildlife resources. The Ministry of Lands and Forestry working through the Forestry Commission has prepared and re-

launched national industrial forest plantation development programme of which a target 20,000 hectares of degraded forest is to be rehabilitated in a year. The scheme apart from improving the tree cover of the country is envisaged to generate employment in the rural areas through plantation establishment as a poverty reduction strategy. The Ministry of Lands and Forestry has accelerated the implementation of private sector reforms under which private individuals and companies are allowed to establish their own plantations, rural communities could also rehabilitate degraded parts of the forest reserves which will serve as a means of employment generation to reduce rural poverty. The PTFDWIC project has contributed to the achievement of the national plantation target.

## 1.2 SPECIFIC OBJECTIVE AND OUTPUTS

The specific objectives and outputs of the project are as indicated below:

### SPECIFIC OBJECTIVE 1

To support the strengthening of community organisations and local institutions to achieve sustainable management of their forest.

#### Output 1.1

Management and administrative structure of 31<sup>st</sup> DWM and district Environmental Management Unit in the project area strengthened.

#### Output 1.2

Technical capabilities of DWM in Forest Management in the District Strengthened.

### SPECIFIC OBJECTIVE 2

To establish 700ha community plantation in a degraded forest area.

#### Output 2.1

200ha of Teak plantation in pure Teak and 100ha of *Cedrella odorata* established.

#### Output 2.2

400ha of agroforestry plantation with food crops of farmer's choice with *Senna siamea* and *Triplochiton scleroxylon* established

Output 2.3

5 Cassava Processing and 30 snail farming livelihood schemes established for income generation

### 1.3 STRATEGIES ADOPTED IN CARRYING OUT THE PROJECT

The implementation of the workplan for the project was achieved through the following strategies.

#### 1.3.1 Identification and Designation of the Project

The selection of staff detailed to manage the project conducted regular visits to the project site. The Plantation and Nursery Managers submitted quarterly reports to the Project Manager.

#### 1.3.2 Selection of Staff

The Project Implementation Committee selected staff for the management of the project. The Project Manager and the Forestry Commission project staff conducted regular visits to the project site. The Plantation and Nursery Managers submitted quarterly reports to the Project Manager.

#### 1.3.3 Project Management

A Steering Committee consisting of representatives from the Executing Agency, Forestry Commission and ITTO met on annual basis to monitor, evaluate and review the progress of the project. In addition to this, a Project Implementation Committee (PIC) consisting of all the organizations mentioned above with the exception of ITTO met on bimonthly basis to deliberate on issues concerning the project. The PIC gave recommendations and direction to the Project Manager in order to meet the project objectives. A number of field visits were also conducted by the PIC to the project site to encourage the local people to participate in the project and contribute towards its success.

Another strategy used in implementing the project was to plant agricultural crops together with timber tree species in order to obtain short-term benefits from the sale of the crops while waiting for the trees to grow to maturity.

#### **1.3.4 Reporting**

Progress reports were submitted in February and August as required by the ITTO Secretariat. In addition to this, yearly audited accounts were also submitted. It is upon compliance with these submissions that ITTO releases funds periodically for project implementation. Steering Committee meeting minutes were also forwarded to the ITTO Secretariat.

#### **1.3.5 Financial Management**

Funds received from ITTO were deposited at the Agricultural Development Bank and the Chairperson of the PIC and the Chief Executive of the Forestry Commission controlled spending of the funds. The ITTO guidelines for Procurement and Payment of Services and the Ghana Government financial regulations were used in procuring equipment, supplies and materials for the project.

#### **1.3.6 The project Planned Duration and Planned Overall Cost**

The project was planned to last for 3 years but it was extended to 4 years with the same budget cost. The overall cost of the project was US\$ 833,334 and US\$528,860 was received from ITTO while US\$ 243,800 was cash and in-kind contribution from the Executing Agency and the collaborating institution. An additional thirty thousand seven hundred and thirty four US dollars (US \$30,734) was for ITTO programme cost.



## **2.0 PROJECT ACHIEVEMENT**

### **2.1 OUTPUT ACHIEVED**

2.1.1 Selected members from the seven communities around Worobong South forest reserve received training in the following areas:

- Participatory Rural Diagnosis Methodologies
- Gender Sensitisation
- Record keeping, Conflict resolution, Team Building, Motivation and Leadership Skills
- Nursery establishment and management
- Plantation establishment and management
- Fire prevention and control
- Cassava processing and machine operation
- Snail farming
- Forestry laws, regulations and policies

2.1.2 Five (5) Community Forestry Committees (CFCs) were established and operationalised

2.1.2 One (1) Local Implementation Committee (LIC) was established and operationalised

2.1.3 Training material on Nursery and Plantation establishment and management were developed, printed and distributed

2.1.4 Three (3) local tree nurseries were established

2.1.5 Five (5) cassava processing machines and 64 snail farming units were established and operationalised

2.1.6 Socio-economic survey of the project area was conducted

2.1.7 A consultancy work on Agroforestry and Forest Extension was undertaken covering nine communities in the project area.

### **2.2 SPECIFIC OBJECTIVES ACHIEVED**

2.2.1 Five (5) Community Forest Committees consisting of 7 representatives each from five communities in the project area were formed. The aim was to protect the natural resources of the area and also support the local people to understand natural

resource issues. In addition to this, 21 member Local Implementation Committee was formed to organise meetings at the committee level to explain project objectives to the local people and also to communicate concerns and suggestions from the communities for the attention of project management. Training was conducted for 5 Community Forest Committees and 21 members of the Local Implementation Committee in Participatory Rural Diagnosis to assist the local people in the identification of natural resources problems and subsequently determine means of solving them.

2.2.2 One hundred and fifty (150) women and 60 men from the 7 communities participating in the project were trained in nursery establishment and management. The training covered areas such as nursery bed preparation, collection of seeds from mother trees, timing of seedling production and care of seedlings during transportation to planting site.

2.2.3 Three local nurseries were established at Peseator and Akoradarko to contribute to the seedlings required for planting on the site. Type of species raised included, *Triplochiton scleroxylon*, *Terminalia superba*, *Terminalia ivorensis*, *Cedrella odorata*, *Tectona grandis* and *Antiaris africana*. A total of 780,000 seedlings were produced during the project period however some of the seedlings were from 31<sup>st</sup> DWM existing nurseries.

2.2.4 Two hundred men (200) and 150 women were trained in plantation establishment and management. Participants were trained in techniques of pegging, planting and maintenance of plantations. They were also exposed to silvicultural operations such as pruning and thinning. Pruning and thinning becomes necessary when the plantations are being established for timber, telegraphic or electric poles. Practical sessions were

organised to demonstrate pruning and thinning operations in a plantation. Training materials in Nursery and plantation establishment were developed, printed and distributed for use by community members.

- 2.2.5 Five (5) cassava processing machines and 62 snail farming units were established in the seven communities. Eighty four (84) project participants received training in snail rearing and cassava processing. The Socio-economic study of the area revealed that large quantities of cassava were being cultivated in the area hence the decision to establish cassava processing units to add value to the cassava and consequently raise the income of the participating farmers. Snail rearing is also an alternative livelihood scheme that would generate income when the food crop season was over. The project participants were taught various snail farming techniques such as type of food eaten by snails and how the snail structures should be kept clean. The resource persons demonstrated the operation of the cassava processing machines and provided the participants with information on its maintenance. Such alternative livelihood schemes turn to support plantation establishment by providing short-term income since trees have a long gestation period.
- 2.2.6 A Gender Sensitisation workshop was organized for 60 project participants. This was aimed at creating awareness among the project participants that it was necessary to give equal chances to women to participate in project activities and decision making on issues relating to natural resources management.
- 2.2.7 Sixty (60) project participants were trained in record keeping, Conflict resolution, Team-building, Motivation, and leadership skills to strengthen their management skills. They needed to

work together and also understand and tolerate each other in order to effectively and efficiently implement the project and ensure its sustainability after project completion.

- 2.2.8 Fire management was a major risk in the area hence efforts were made to improve fire management skills of 164 project participants selected as fire volunteers. Training on fire prevention and control was therefore conducted for the 164 fire volunteers during the project period. The participants were taught the chemistry of fire, prevention, control of bushfires, physical exercises, field training on fire detection, combating and reporting. The volunteers were supplied with equipment such as bicycles, whistles, Wellington boots and cutlasses to assist them conduct their duties and also for motivational purposes. In order for the entire community to support fire management activities in addition to the volunteers, some incentives such as Wellington boots and rice were supplied to the communities during the fire season. Public address system was used to educate the communities on the negative effects of fire. Posters were also developed and distributed as part of the awareness creation and educational programme.
- 2.2.9 A Socio-economic Survey was conducted in the project area and it was revealed that there are about 488 households in the reserve area with a total population of 2,711 persons. Settlers predominantly occupy the area with the largest settler group being the Krobos who account for about 72% of the population. The survey also indicated that poverty levels in the area were high subsequently it was recommended in the Socio-economic survey report that livelihood schemes should be introduced to the farmers. The local people were therefore mobilized to participate in alternative livelihood ventures to improve their livelihood. The expected outcomes will be

higher incomes, increased well-being, reduced vulnerability and improved food security. It is envisaged that this will ultimately contribute to the sustainable use of the forest resource base. Five (5) cassava processing machines and 64 snail farming units were installed and managed.

2.2.10 Agroforestry and Forest Extension consultancy work was conducted in nine communities around Worobong South Forest reserve. The aim was to develop forestry and agroforestry strategies that will ensure the sustainability of tree growing activities after project completion. As part of this consultancy work, a training programme on Agroforestry and Forestry extension was conducted and appropriate Agroforestry practices and tree species to be used were recommended to the local people. Please refer to the main report for details on the survey and other aspects of the study.

2.2.11 The Local Implementation Committee met bimonthly to discuss and agree on how community members can be mobilised to work effectively. The LIC subsequently participated in the organisation of most of the field activities with guidance from technical people on the project. The LIC members also took part in all technical training organized by PTFDWIC in order to enable them supervise the work properly.

2.2.12 Six hundred and sixty hectares of community plantations were established in a degraded forest area in the Eastern Region of Ghana. The details are as follows:

- 210 hectares of pure *Tectona grandis* established
- 110 hectares of pure *Cedrella odorata* established
- 50 hectares of *Entandrophragma cylindricum*/*Khaya anthotheca*/*Antiaris africana*

*Cedrella odorata*

- 230 hectares of *Terminalia superba*/*Terminalia ivorensis*/*Cedrella odorata*
- 50 hectares of *Khaya anthotheca*/*Cedrella odorata*
- 10 hectares of *Triplochiton scleroxylon*/*Tieghemella heckilli*/*Cedrella*
- 10 hectares of *Mansonia altissima*/*Cedrella odorata*

### 2.3 CONTRIBUTION TO THE ACHIEVEMENT OF THE DEVELOPMENT OBJECTIVE

The number of people who participated in the project increased from 330 to 740 over the period of four years. Most project participants benefited from various training programmes conducted during the project period and they utilised the knowledge acquired in implementing the project. Some indicated that the knowledge acquired would benefit them in their private lives as well. Since most of the participants were illiterates as revealed by the Socio-economic survey, the training sessions were of practical nature in order to make it easier for participants to appreciate and absorb what was being taught. Participating farmers and Forestry Commission Staff benefited both directly and indirectly from the achievement of the project outputs.

The establishment of 5 cassava processing and 64 Snail Rearing units was accomplished. The local people received training in snail rearing, machine operation and book-keeping to facilitate the management of the schemes.

Educational materials on nursery and plantation establishment and management were produced and distributed. Fire volunteers were trained

in fire prevention and control and were equipped to efficiently and effectively manage fires.

Participants received training in management skills such as; Leadership, Group Dynamics and Gender Sensitisation. Agroforestry and Forest Extension practical training was conducted for participants and manuals were developed, published and disseminated.

The local people have gained knowledge and skills in natural resource management, participation and extension. The income levels of the local people have increased as a result of the sale of some of their farm produce and this can be verified through field visits and interviewing of project participants.

Field assessment of the plantations indicated that about 660hectares of degraded portions of the Worobong South forest reserve have been planted with various indigenous timber tree species together with food crops such as maize, cocoyam, plantain and other vegetables. Please refer to the attached map of the plantation. The local people continue to beat-up and maintain the plantations and grow food crops alongside the trees. The situation before the project period was such that the area was quite bare with a few scattered trees but this has changed whereby various tree species are now growing on the site. Please refer to figures 1, 2, 3 and 4 in Appendix 1.

### 3) **TARGET BENEFICIARIES INVOLVEMENT**

The target beneficiaries of the project were local women. The women were involved in all aspects of project implementation such as nursery establishment, movement of seedlings to the project site, clearing of project site for planting, pegging and planting of seedlings and tending of plantations. The women also participated in series of training programmes organized to equip them with skills to undertake the various activities mentioned. Although local women formed the target group, their male counterparts were equally involved in the implementation of project activities particularly site preparation and fire prevention and control.

Some men and women were selected as Local Implementation Committee members and were trained in leadership and other management skills to prepare them for organization and mobilization of the local people for the implementation of project activities.

Training in Agroforestry was conducted for the project participants and as a result of the training, it is envisaged that they will continue to grow crops on the plantations and by so doing maintain the plantations until maturity. The Local Implementation Committee will continue to organize the communities to continue tending of the plantations. The project was however undertaken in collaboration with the Forestry Commission which has the mandate to manage forest resources hence the Forestry Commission will continue to offer technical advice and possible support to the local people until maturity of the plantations.

#### 4) **LESSONS LEARNED**

##### 4.1 **DEVELOPMENT LESSONS**

##### **4.1.1 Aspects of Project Design Which most contributed to its success or failure in achieving the Development Objectives**

The project design was rational hence it was approved by ITTC. Subsequent to this funds were released from ITTO Secretariat and a Project Implementation Committee was formed to oversee the project. Membership was from the 31<sup>st</sup> December women's Movement, Forestry Commission and the Ministry of Lands and Forestry. This Committee met on bimonthly basis to ensure progress of the project. During the first meeting, the workplan, staffing and various allowances were discussed and approved.

A Steering Committee was also formed with an ITTO representative and the PIC members constituting the membership. The project lasted



for 4 years instead of 3 years and the project workplan was reviewed to include an output on livelihood schemes. This output became relevant because it was expected to generate income for participants before the maturity of the plantations and also to contribute towards the sustainability of the project.

**4.1.2 Changes in Inter-sectoral links which affected the Project's Success**

No changes in inter-sectoral links affected the project's success. The Forestry Commission detailed two technical staff to support the project and a strong linkage existed between the organizations as well as the ITTO. Although for a period of six months, release of funds from the ITTO secretariat delayed, it was as a result of another Forestry Commission//ITTO project failing to submit audited reports to ITTO as per the calendar of submissions. But for this particular occasion, release of funds, monitoring, review and evaluation of project activities received attention from ITTO accordingly. The relationship between the Executing Agency, Forestry Commission and ITTO should be maintained.

**4.1.3 Factors which will most likely affect Project Sustainability after Completion**

One of the factors that may affect the sustainability of the project is the high cost of maintenance of plantations. The participating farmers were encouraged to plant food crops alongside the tree crops to provide short-term income and to motivate them to tend the plantations. They were also encouraged to plant shade tolerant crops such as yam after canopy closure so that they will continue working on the plantations for a longer period.

Another fact that may affect the sustainability of the project is fire. The reason for setting fire in the area is basically attitudinal. It is however hoped that with the strong team of skilled and equipped fire volunteers, fires will be prevented or quenched in case of any incidence. It is interesting to note that virtually no fires were experienced in the plantations during the project period and it is envisaged that this record will be maintained.

## 4.2 OPERATIONAL LESSONS

### 4.2.1 **Project organization And Management**

All project staff namely; Project Manager, Plantation Manager, Nursery Manager and Field Assistants played exemplary roles during the implementation of the project. The Steering Committee and the PIC provided effective and efficient guidance in project implementation. The collaborating institutions also coordinated well towards the success of the project.

#### 4.2.1.1 Project Organisation System was as follows:

Project Steering Committee

Project Implementation Committee

Project Manager

Field Assistants

The Forestry Commission detailed two technical staff to support the project.

#### 4.2.1.2 Project Management Regulations

The project Management regulations and procedures were followed.

Project Activity Implementation

Project Financial Management

Project Assets Management

Project Monitoring and Evaluation

#### 4.2.1.3 Project Documentation

The project document was the project proposal with the number ITTO PD49/98 REV.1 (F). The following documents were produced during the project period.

- a) Socio-economic survey of Worobong South Forest Reserve
- b) Manual on Nursery Establishment and Management
- c) Manual on Plantation Establishment and Management
- d) Report on Workshop on Participatory Rural Diagnosis
- e) Proceedings on Workshop on Agroforestry and Forest Extension
- f) Report on Consultancy Work on Agroforestry and Forest Extension
- g) Manual on Agroforestry and Forestry Extension

A number of educational posters and 'T' shirts on fire prevention and control were prepared and distributed to project participants. A video documentary on the project was also produced. A copy each of the enlisted documents was sent to ITTO. Copies of the documents and general correspondence were also filed and retained at the project office.

#### 4.4.2 **Monitoring and Evaluation**

The Project Steering Committee met twice a year to review and examine the progress of the project. Discussions on key issues and decisions required for the successful project implementation were adopted and used. Field inspections were conducted to the project site and this provided the opportunity for members to appreciate the situation on the ground. During such visits, the Committee members interact with the project participants and they encourage them to continue performing their role in earnest. The PIC also conducts similar field visits to the site for the same purpose.

#### **4.4.3 Quality of Project Planning**

As part of the project report, a chart is completed to provide information on percentage target achieved for each of the planned activities. The workplan is reviewed at every Steering Committee meeting and an action plan is prepared to assist in accomplishing the task in the workplan. The monitoring and evaluation of the project was properly planned and coordinated with ITTO.

#### **4.4.4 Definition of Roles and Responsibilities of the Institutions Involved in the Project Implementation**

##### **4.4.4.1 The Role of ITTO**

The ITTO provided a total of US\$589,534.00 (United States Dollars five hundred and eighty nine thousand five hundred and thirty four only) towards the implementation of the project.

Monitoring and evaluation of the project was conducted by ITTO on half yearly basis to ensure the achievement of the set objectives. An additional amount of US\$ 30,734 (United State Dollars thirty thousand, seven hundred and thirty four only) was used to meet ITTO's programme cost.

##### **4.4.4.2 The Role of 31<sup>st</sup> DWM and Forestry Commission**

The 31<sup>st</sup> DWM collaborated with the Forestry Commission to implement the project under the supervision of a Project Steering Committee in accordance with ITTC Decision 2(X), Annex 2 paragraph 3. The 31<sup>st</sup> DWM and Forestry Commission contributed 243,800 which cover both cash and in-kind contributions. The Executing Agencies contributed tools, transport to convey seedlings, office space and technical support among others. In addition, Forestry Commission ensured the submission of progress reports, periodic financial statements, balances and audited accounts to the ITTO Secretariat according to the calendar of returns.

**4.4.5 Action taken to Avoid Variation Between Planned and Actual Implementation (Schedule, Cost etc)**

The ITTO Secretariat released funds based upon request and submission of required reports by the Executing Agency. For a particular period however, release of funds delayed for about six months but this was as a result of another Ghana/ITTO project failing to submit its reports. Materials required for the implementation of project activities were purchased on time.

**4.4.6 External Factors that Influenced the Project Implementation that could have been foreseen**

An issue on inadequate number of farmers to provide labour for planting the initial target of 1200hectares could not be foreseen but it influenced the project implementation. This partly caused the reduction of the planting target to 700hectares while a livelihood scheme aspect was added to the project outputs.

**4.4.7 External Factors that Influenced the Project Implementation that could not have been seen**

The Ghana-Cedis depreciated against the US Dollars during the project implementation period hence supplies and materials was prioritised for purchase and the less important once abandoned.

**5.0 RECOMMENDATIONS**

After four years of project implementation, the following recommendations could improve the effectiveness and efficiency of other similar projects.

- 5.1 On the use of the modified taungya system in establishing plantations: It is useful for the Executing Agency to provide the farmers with propagating material of food crops such as plantain, cocoyam and pepper to plant alongside the tree crops. This is because the cultivation of food

crops alongside tree crops serves as an incentive to encourage the farmers to work hard to increase productivity since it generates income and employment. This helps to maintain the plantation on a sustainable basis. In effect the community Forest users in addition to their potential future gains will have some immediate short-term economic benefits.

The local people recommended one way of ensuring that farmers continue to tend the plantation even after canopy closure and that was by using the trees as yam stakes to grow yams.

- 5.2 The Forestry Commission should endeavour to prepare contract agreement forms for the communities to sign their portion since this will build their trust in relation to benefit sharing.
- 5.3 It is important to tap and utilize the indigenous knowledge on species of plants needed for fire prevention and control and medicinal values and incorporate such knowledge in project implementation.
- 5.4 The involvement and Partnership with Forestry Commission has been of enormous benefit since technical inputs is provided at all levels of the project implementation.
- 5.5 The creation of awareness and sense of ownership that the Forest belongs to the people especially communities living around the reserve is recommended since it serves as a source of motivation and unites those participating in the project. Progressive Opinion leaders are motivated to advocate women's equal rights and participation through community meetings.  
In achieving this, an appropriate presence of women was made mandatory for women completing the quorum of any valid meeting of the Local Implementation Committee and Community Forest Committees of the project. Separate meetings were sometimes held with the women groups to understand their needs and priorities.
- 5.6 Most of the project farms are further away from the settlements therefore home gardens are recommended to be established close to the settlements. Tree species such as Albizia species and *Gliricidia sepium* should be incorporated in the home gardens to sustain soil fertility and

also increase productivity. This will provide food to the farmers at all times and in particular when one does not go to the main farms. Besides fertility, shade and good nitrogenous fodder could be obtained to feed livestock.

5.7 Processing units like the gari will demand a lot of fuelwood. Therefore, it is recommended that the local people should establish woodlots of *Senna siamea*, *Azadirachta indica* and *Gliricidia sepium* at fringes of farmlands outside the forest reserve. These woodlots would be able to support the gari processing units with fuelwood on continuous basis.

5.8 Knowledge gained through participation in training programmes organized by previous projects is having a positive impact on the PTFDWIC project because a woman who benefited from training conducted under the ITTO sponsored Women and Tropical Forest Development project is always using her skills gained in seedling production and plantation management to assist other project participants. It is therefore recommended that people who have gained knowledge in similar project should be identified to facilitate and assist in the implementation of new projects.

**B.PART 2: MAIN TEXT****1.0 PROJECT CONTEXT**

The project specifically relates to objectives (a), (c) and (f) of Chapter 1, Article 1 of ITTA.

- a) To provide an efficient framework for co-operation and consultation on all relevant aspects of the tropical timber economy through workshops on reforestation.
- b) To encourage tropical timber reforestation and forest management through support to community based and private sector tropical reforestation initiatives.
- c) In addition the project satisfies the criteria set out in Article 26 of ITTA. The project contributes to the industrial tropical timber (criteria a) and by supporting private and community-based reforestation will yield benefits to the timber industry in Ghana and its export markets (criteria b). The project related to ITTO action Plan and Priorities by establishing plantations and strengthening technical capabilities of women.

The project also relates to the forest policies and laws of Ghana. The Forest Policy of Ghana has been made people centered to encourage individuals into afforestation. Again, a number of laws notably the revised Forest Resources Management Act of 2001 and its Legislative instrument encourage individuals to plant and own trees. A Forest Plantation Development Fund Act has also given a boost to plantation development and a law has been proposed awaiting parliamentary approval which will make the continuous stay on forest reserve lands that have been rehabilitated by individuals till the harvesting of the tree resources legal.

The main objective of the PTFDWIC project was to strengthen community organizations and local institutions to achieve sustainable management of their forest, strengthen technical capabilities of 31<sup>st</sup> DWM women and to establish plantations. The rationale and relevant background of the



project indicates that forest forms an important part of Ghana's economy. Forest of Ghana has diverse uses including energy, environmental and provision of food and fodder. The timber resource base has been under immense pressure due to the increase in demand for wood which implies that it has become imperative to expand the resource-base through plantations and other practices.

The 31<sup>st</sup> DWM is involved in development programmes including health, education and forestry among other fields. In 1992, the Forestry Department in collaboration with the 31<sup>st</sup> DWM and ITTO organised a workshop, PD, 119/91 Rev.1 (F), Workshop on Women and Forestry: A look at the African Experiences in Sustainable Development of Tropical Forest. A number of recommendations were derived at this workshop. Based on one of the recommendations, the Forestry Department and the 31<sup>st</sup> DWM submitted a project proposal to ITTO for funding. This gave rise to the Women and Tropical Forest Development project PD27/94 Rev. 2 (F) which was implemented from 1995 to 1999.

A number of activities were undertaken during the implementation of the WTFD project all over the country. Some of the key achievements were; establishment of 3 central nurseries in three ecological zones of Ghana, West African sub-regional workshop on reforestation to share experiences with other women in the sub-region and increased awareness among women about the need to grow trees. The WTFDP also gave rise to the PTFDWIC which has been implemented from 2000 to 2004. Some of the major outputs accomplished by the PTFDWIC project are stated below:

- Selected members from the nine communities around Worobong South forest reserve received training in the following areas:
  - Participatory Rural Diagnosis Methodologies
  - Gender Sensitization
  - Record keeping, Conflict resolution, Team Building, Motivation and Leadership Skills

- Nursery establishment and management
  - Plantation establishment and management
  - Fire prevention and control
  - Team building, Motivation, and leadership skills
  - Cassava processing and machine operation
  - Snail farming
  - Forest Laws and Regulations and Policies
- Five Community Forestry Committees (CFCs) were established and Operationalised
  - One Local Implementation Committee was established and operationalised
  - Training material on Nursery and Plantation establishment and management were developed, printed and distributed
  - Three local tree nurseries were established
  - Five cassava processing machines and 64 snail farming units were established and operationalised
  - Socio-economic survey of the project area was conducted
  - A consultancy work on Agroforestry and Forest Extension was undertaken.

The required inputs for the project implementation were the personnel, financial resources provided by ITTO and the Executing Agency and equipment and tools for implementation of the project.

## **2.0 PROJECT CONTEXT**

The forest policy of the country as well as the Forest Development Plan 1996 – 2020 supports the increase of the forest cover of the country. This is because the forest resources are under intense pressure due to excessive logging, bushfires and expansion of agricultural lands among other factors. With this background, the current government has set a yearly planting target of 20,000 hectares and this commenced in year 2000.

In this context, the PTFDWIC project has contributed immensely to the achievement of the national plantation target. The nurseries established in the communities participating in the project will produce seedlings for planting at the project site in addition to seedlings supplied from existing nurseries established under WTFDP. Training programmes will also help the project participants acquire requisite skills and knowledge in plantation establishment. Ultimately, this will contribute towards the achievement of the government policy on plantations and also the conservation of the country's forest resources.

### **3.0 PROJECT DESIGN AND ORGANISATION**

#### **3.1 SOUND CONCEPTUAL FOUNDATION OF THE PROJECT**

The project concept covered a number of activities which include (a) establishment of 660ha of plantations of various species in Worobong South forest reserve (b) training in leadership skills, motivation, Gender sensitization, Record Keeping and Conflict Resolution (c) training workshop in snail farming and cassava processing (d) training in Participatory Rural Diagnosis (e) training in Agroforestry and Forest Extension (f) training in fire management (g) development and dissemination of educational materials on nursery and plantation establishment and management.

At the community level, men and women work together on farms hence the project did not cover only women, husbands and other male relatives supported the women on the plantations. All efforts were however made to ensure that the women were involved and that they benefited from all aspects of the project. It is expected that the established plantations will contribute to the alleviation of pressure on the remaining tropical forest and also improve the standard of living of women in the rural communities. A number of Government institutions assisted in the implementation of the project and this contributed to the attainment of the specific and development objectives of the project.

### 3.2 ADEQUACY OF TIME AND OTHER RESOURCES FOR PROJECT FORMULATION

The project was planned by the 31<sup>st</sup> DWM in collaboration with the Forestry Commission. The initial proposal was commented upon by ITTO and brought back to the Executing Agency for finalisation before formal submission to ITTO secretariat for ITTC's consideration. ITTC technical committee took a critical look of the project proposal and finally approved it for funding. The project commenced in July 2000 and ended in 2004.

### 3.3 UNDERSTANDING AND APPROPRIATENESS OF THE ROLES AND RESPONSIBILITIES OF THE INSTITUTIONS INVOLVED WITH THE PROJECT IMPLEMENTATION

The 31<sup>st</sup> DWM was responsible for the management of the project by carrying out the day to day administration and field extension work of the project. The project Manager was a member of the 31<sup>st</sup> DWM and her CV was submitted to ITTO for approval. The Forestry Commission provided the technical input to the project including technical training. Other agencies such as the Ghana Fire Services, Institute Of Renewable Natural Resources, Collaborative Forest Management Unit of the Forestry Commission and Ministry of Agriculture contributed immensely to the project implementation through training of fire volunteers. The Forestry Commission together with the 31<sup>st</sup> DWM managed the finances of the project and prepared and submitted requisite reports to ITTO. Funding was provided by ITTO funds wee released funds to the Executing Agency based on submission of biannual reports, financial and cashflow statements on the project. ITTO also designated a representative to serve on the Steering Committee which met on yearly basis to monitor and review the project activities. The various roles and responsibilities of the institutions as stated in the project document were followed.

#### **4.0 PROJECT IMPLEMENTATION**

##### **4.1 THE MOST CRITICAL DIFFERENCES BETWEEN PLANNED AND ACTUAL PROJECT IMPLEMENTATION**

The project was planned to last for 3 years but it was extended to 4 years. This was because after a socio-economic survey of the area, the project workplan was reviewed to incorporate livelihood schemes and reduce the planting target from 1200ha to 700ha. The aim was to reduce the pressure on the local people and to give them the opportunity to engage in alternative livelihood schemes in order to generate income before the maturity of the tree crop. This was also expected to contribute to the sustainability of the project.

##### **4.2 MEASURES AND ACTIONS WHICH COULD HAVE AVOIDED THESE VARIATIONS**

The variation above rather improved the project implementation.

##### **4.3 APPROPRIATENESS OF THE ASSUMPTIONS MADE AND CORRECT IDENTIFICATION OF THE RISK INVOLVED**

Fire was identified as the greatest risk to project implementation hence there was a major focus on fire management to ensure that virtually no fires were experienced in the plantations. As at the end of the project period, the incidence of fires was minimal.

##### **4.4 PROJECT SUSTAINABILITY AFTER PROJECT COMPLETION AS A RESULT OF PROJECT IMPLEMENTATION**

The project was implemented for 4 years instead of 3 years and although the original plan was to strengthen the capacity of the target group and the establishment of plantations, the workplan was altered to include the implementation of two livelihood schemes. Five (5) cassava processing units and 64 snail farming units were established to assist the project participants to generate income in order to support them in the maintenance of the plantations. The local people continue to grow food crops alongside tree crops on the plantation site and by so doing the plantations are also tended. Crops such as yam will continue to be grown

even after the canopy closure of the trees on the plantations. The knowledge and skills of the local people has been strengthened in plantation management, leadership skills, motivation, and gender sensitization among others. They are urged to use this knowledge acquired to manage the plantations during and after project implementation. The Forestry Commission is keen on plantation establishment and will therefore ensure that the local people maintain the plantations established during the project period. The modified taungya approach was adopted for the establishment of the plantations hence the Forestry Commission sharing agreement will be extended to the people when the plantation matures. The women will be encouraged to take up seedling production contracts from the Forestry Commission to contribute to the on-going National Forest Plantation Development Programme target of 20,000 hectares annual planting and by so doing sustain the tree nurseries at Peseator and Akoradarko.

#### 4.5 APPROPRIATENESS OF PROJECT INPUTS (QUALITY AND QUANTITY)

Project inputs were reasonable for the project implementation. The total funds expected from ITTO were released and the implementation agencies also contributed their quota to meet the expenses on the project. The Forestry Commission staff were keen to see to the success of the project and therefore provided the needed support as and when required. Generally, considering the overall inputs provided, implementation of the project can be considered as very rationale and appropriate in attaining set objectives.

### 5.0 PROJECT RESULTS

#### 5.1 SITUATION EXISTING AT PROJECT COMPLETION COMPARED TO THE PRE-PROJECT SITUATION

The planting site was degraded with the presence of grass and a few scattered trees before the commencement of the project. This condition has changed and currently tree species such as *Tectona grandis* and *Cedrella odorata* are growing on the site (refer to Section 2.2.12 of Part 1 of

this report). Figures 1, 2, 3 and 4 show areas planted with *Tectona grandis* and other species. Also enclosed is a map of the plantation area. There has been series of interactions between the 31<sup>st</sup> DWM, Forestry Commission and the communities which has improved the relationship among the organisations and also individuals involved in the project implementation. This facilitated co-operation and decision making on issues relating to natural resources. The level of awareness among the people on the need to grow trees has increased. During the pre-project period, skills and knowledge in nursery and plantation establishment and management was limited but this has improved remarkably. The project participants as well as Forestry Commission staff have gained knowledge in two alternative livelihood schemes and are currently operating 5 cassava processing and 64 snail farming units in the communities. Figures 5, 6, 7 and 8 shows snail farming and Cassava processing units. Knowledge and skills in Agroforestry and Forest extension was acquired and a manual was developed as reference material and also to guide others who did not have the opportunity to attend the training programme. Forestry Commission staff will also utilize such a manual to obtain extra knowledge on the subject. Project participants grew food on the plantations and they generated income from the products. This activity is on-going and will assist in the maintenance of the plantation. An end of project workshop was held to formally close the project but the local people were informed that the project activities will continue and there was the need to sustain it although funding has ceased. As part of this meeting, a meeting place constructed with project funds for use by all the project communities was commissioned. Please refer to figures 9 and 10 of Appendix 1 of this report for pictures of the meeting place.

#### 5.2 EXTENT TO WHICH THE PROJECT OBJECTIVES WAS ACHIEVED

The aspect of the project objectives on strengthening the technical capabilities of 31<sup>st</sup> DWM women has been achieved through training, facilitation and regular visits to the site to interact with the project

participants. Training was successfully conducted in Participatory Rural Diagnosis, Leadership skills, Motivation and Gender sensitisation among others. It is expected that the knowledge acquired will be put into use. In terms of the objectives on plantation establishment and management, series of theoretical and practical training was conducted for the people. A total of 700 hectares was planted but 40 hectares failed coupled with low survival in some parts of the plantation. The local people will however continue to maintain the plantations by replanting failed areas, weeding and preventing fires.

One hundred and sixty four (164) participants received training in fire management. They were supplied with equipment to facilitate their operations and also to motivate them to control fires.

It was reported through interviews that in some cases due to the benefits derived from the project in terms of increase in incomes, more children are now attending school as compared to the pre-project situation. Some participants have also acquired equipment and implements such as bicycle and boots to facilitate their work. This is an indirect achievement as a result of project implementation.

### 5.3 IMPACT OF THE PROJECT RESULTS ON THE SECTORAL PROGRAM, ON THE PHYSICAL ENVIRONMENT, ON THE TARGET BENEFICIARIES

As part of the sectoral program of Ghana, a target of 20,000 hectares of plantations is expected to be established on yearly basis. The project has therefore contributed towards the achievement of this target through the establishment of 660 hectares of plantations over the last four years.

These plantations will ultimately increase the country's land area under tree cover. It will also invariably impact on the wood industry. The project has strengthened collaboration between communities, the NGO and Forestry Commission in the management of natural resources.

On the physical environment, the presence of trees in the area will reduce soil erosion and improve the microclimate in the area.

The target beneficiaries have benefited through short term production of food crop and have increased their income levels. Their life styles have



improved and more children are now attending school. In addition to this, the project participants will benefit from the sale of wood products in the long term through the benefit sharing agreement put in place by the Forestry Commission.

#### 5.4PROJECT SUSTAINABILITY AFTER COMPLETION AS A RESULT OF PROJECT CONCEPTUALISATION MADE AND CONDITIONS PREVAILING AFTER COMPLETION

The project was implemented for four years and basically the outputs were achieved to a large extent. The project was conceptualized to build the capacity of project participants to enable them implement the project effectively and to utilize the knowledge acquired after project completion. This has been achieved through the commitment shown by the people in the implementation of the activities. The planting of food crops alongside trees has immensely contributed to the sustainability of the project and this activity will continue in earnest. The conditions after the project completion is such that income levels of the participants have increased and this has positive impact on their lifestyle in terms of number of children going to school and personal belongings acquired.

### **3 SYNTHESIS OF THE ANALYSIS**

#### **3.1SPECIFIC OBJECTIVES ACHIEVEMENTS**

Realised

#### **3.2OUTPUTS**

Ninety percent (90%) realized.

#### **3.3SCHEDULE**

The project was extended for one year.

#### **3.4ACTUAL EXPENDITURES**

As per request submitted to ITTO.

## **PART III: CONCLUSIONS AND RECOMMENDATIONS**

### **1.0 DEVELOPMENT LESSONS**

A strong linkage and co-operation between the 31<sup>st</sup> DWM, Forestry Commission and ITTO facilitated and enhanced the implementation of the project. The ITTO responded to various request from the Executing Agency and provided the requisite input when needed. The workplan was reviewed and an additional output on livelihood schemes was added to enhance the project.

The project staff, PIC and Project Steering Committees also worked effectively and efficiently throughout the project period and as at the end of the project period virtually all outputs were achieved.

### **2.0 OPERATIONAL LESSONS**

The project participants were involved in all aspects of decision making and implementation of the project. A Local Implementation Committee was formed to link the project team and the project participants. Regular meetings were held to discuss issues at the local level and also to pass on project information to the participants. Conscious efforts were made to ensure that women participate and contribute during meetings in order to cater for their special needs. The LIC provided a feedback of such meetings to the project team. This system provided a favourable environment for local knowledge to be incorporated in the implementation of project activities.

### **3.0 RECOMMENDATIONS FOR FUTURE PROJECTS**

#### **3.1 IDENTIFICATION**

Plantation project needs to be pursued and emphasis should be on fast growing indigenous and exotic species. After appreciable areas has been established, other important but relatively slow growing species can be established.

### 3.2 DESIGN

Such types of plantation project should be designed to involve the local people at all levels in order to win their support during and after the implementation phases. A particular reference is on fire management whereby the local people may live close to the resource and can ensure that no fires are set in the plantations and will put in all efforts to quench fire in case of any incidence. In addition to this, extensive consultations during project formulation will cater for almost all relevant activities required to be undertaken during project implementation. The needed manpower and financial resources required to meet the expected output should be incorporated in the design. A baseline survey to provide information on the number of possible participating farmers for determining the planting targets in relation to project period is recommended in future projects.

### 3.3 IMPLEMENTATION

In such community plantation establishment programmes it is recommended that a few people are permanently engaged as field assistants to supervise all field activities. People with training, exposure or experience in similar plantation projects are preferable. Strategies adopted for the implementation of the project should also cover all activities in order to ensure the success of the project.

### 3.4 ORGANISATION

Future projects should be organised with the involvement of all stakeholders through regular meetings and durbars to bring issues relating to the project to their notice. Regular visits to the site by the various project staff and committees also keeps the project participants focused on the job. As a form of motivation to the farmers on the field, the supply of items such as Wellington boots and cutlasses to the participating farmers is recommended. The 31<sup>st</sup> DWM

donated used clothing such as overcoats and trousers to the communities from time to time as incentives to boost their morale.

### 3.5 MANAGEMENT

The project team should link up with relevant organizations and obtain information on new applicable management tools and incorporate them in the project. This will further improve the efficiency and effectiveness of project implementation. The adoption of participatory approaches to advance the active participation of the local people in communities where we have forest reserves has to be intensified. This, when done, would reduce if not eliminate, the pressure on natural forests. The challenge, therefore, is to manage our forests together with the local people so that the resources can continue to satisfy the human needs on sustained basis.

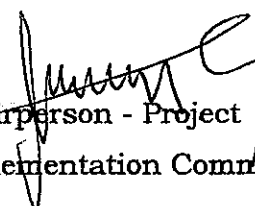
#### RESPONSIBLE FOR THE REPORT

REJOICE AHIABLE

  
PROJECT MANAGER

Endorsed BY:

Ms. Sherry Ayittey

  
Chairperson - Project  
Implementation Committee

MARCH, 2005

Annex 1

LOGICAL FRAMEWORK

NARRATIVE SUMMARY	VEIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
<p><b>Development Objects</b></p> <p>To support community based and private sector tropical reforestation of degraded forest lands in order to improve the living standards of rural women</p>	<p>Participatory forest management system implemented</p> <p>Improvements in the incomes of participatory indigenous community members</p>	<p>Progress reports</p> <p>Socio-economic survey of income levels</p>	<p>Government policy continues to encourage private and community involvement in forest management</p>
<p><b>Specific Objective 1</b></p> <p>To support the strengthening of community organizations and local institutions to achieve sustainable management of their forests</p>	<p>District Assemblies and December Women's Movement manage their forest resources</p>	<p>Consultation with District Assembly and DWM</p>	<p>DA and DWM will have sustained interest in forest management</p>
<p><b>Specific Objective 2</b></p> <p>To support the implementation of community plantation programmes in degraded areas</p>	<p>Community reforestation plan being implemented</p>	<p>Project progress reports</p>	<p>Community interests in forest management will be sustained</p>
<p><b>Output 1.1</b></p> <p>Management and Administrative Structure of DWM and District Environmental Management Units in the project area strengthened</p>	<p>Forest Communities of DWM and District Assemblies constituted with clear mandate</p>	<p>- Visits to communities within the project</p> <p>- Project progress reports</p>	<p>There is interest in forest management among the communities</p>
<p><b>Output 1.2</b></p> <p>Technical Capabilities of DWM in forest management in the Districts/Communities strengthened</p>	<p>- DWM provide support to the local communities</p> <p>- No. of women involved in afforestation</p> <p>- No. of agroforestry farms in the community</p>	<p>- Visits to the communities</p> <p>- Project progress reports</p>	<p>District Assemblies give priority status to forestry and environmental issues.</p>
<p><b>Output 2.1</b></p> <p>200ha of teak and 100ha of <i>Cedrella odorata</i> in pure stands</p>	<p>- Access of plantations established</p> <p>- Type of species planted</p>	<p>- Field Visits to project site</p> <p>- Reports and Records</p> <p>- ITTO Monitoring &amp;</p>	<p>Funds are available and local people provide active</p>

			participation
<b>Output 2.2</b> 400ha agroforestry plantation with food crops of farmers choice and with <i>Senna siamea</i> , <i>Obeche</i> , <i>Terminalia superba</i> , <i>Cedrella odorata</i> , <i>Khaya anthothenca</i> and <i>Antiaris africana</i> established	- Area of mixed stands of indigenous species - Area of exotic species	- Field Visits to project site - Progress reports - Project completion report	Funds are available and Government continues to support community participation in forest management Local people remain committed to managing the schemes
<b>Output 2.3</b> 5 Cassava Processing and 30 snail farming livelihood schemes established for income generation	- Number of Snail farming and Cassava processing units	- Reports - Field visits	Local people remain committed to managing the schemes
<b>Activities</b> 1.1.1 Training of indigenous DWM members and District Assemblies in participatory Rural Diagnosis Community Forestry practices.	- Training materials - No. of Trainees	- Progress report - Workshop report	Local people are interested in training in community forestry
1.1.2 Establishment of collaborative forest management groups for forest protection and management	No. of Groups established	Progress reports	Co-operation from local communities
1.2.1 Train District Assemblies and DWM members in plantation establishment and agroforestry system	No. of people trained Training materials	Training report	Communities interested in training
1.2.2 conduct workshop on Nursery practices	No. of workshop participants	Workshop reports	
2.1.1 Carryout a detailed soil-site survey of the project area	Laboratory results of soil test	Progress report	Sub-contractor accepts terms in conditions of contract
2.1.2 Clear site, including burning, aligning and pegging	Plantation site Land preparation	Field inspection Reports Maps	
2.1.3 Demarcate plantation blocks with different spacing and staking	Formation of plantation blocks	Field reports	
2.1.4 Raise 80,000 seedlings of Teak and 20,000 seedlings of <i>Senna siamea</i> from existing nurseries	Seedlings planted in nursery	Reports	Existing nurseries functioning properly
2.1.5 Purchase 22,000 seedlings of <i>Obeche</i> and develop and train communities on propagation techniques	Seedlings planted	Reports Field visits	Seedlings available to purchase
2.1.6 Maintain Plantation	Survival rate of planted seedling	Field visits	Viable and healthy seedlings were planted
2.2.1 conduct socio-economic survey around project area for needs assessment	Agroforestry systems being practiced by the communities	Field visits	
2.2.2 Demarcate 200ha for Agroforestry plantation	Formation of plantation blocks	Field visits	
2.2.3 Planting of seasoned agricultural food crops, <i>Obeche</i> and <i>Senna siamea</i>	Cultivation of food crops Increased income of local communities within the project area	Baseline survey Records Field visits	

APPENDIX 2: PTFDWIC PROJECT PICTURES



Fig.1 *Terminalia ivorensis* and *Cedrella odorata* plantation plantations



Fig. 2 *Tectona grandis* plantations at the project site.



Fig 3. *Terminalia superba* and *Cedrella odorata* plantations.



Fig 4. *Cedrella odorata* plantation in the Worobong South Forest Reserve





Fig. 5 Snail farming structure in one of the communities



Fig 6. Snails in one of the snail pits.

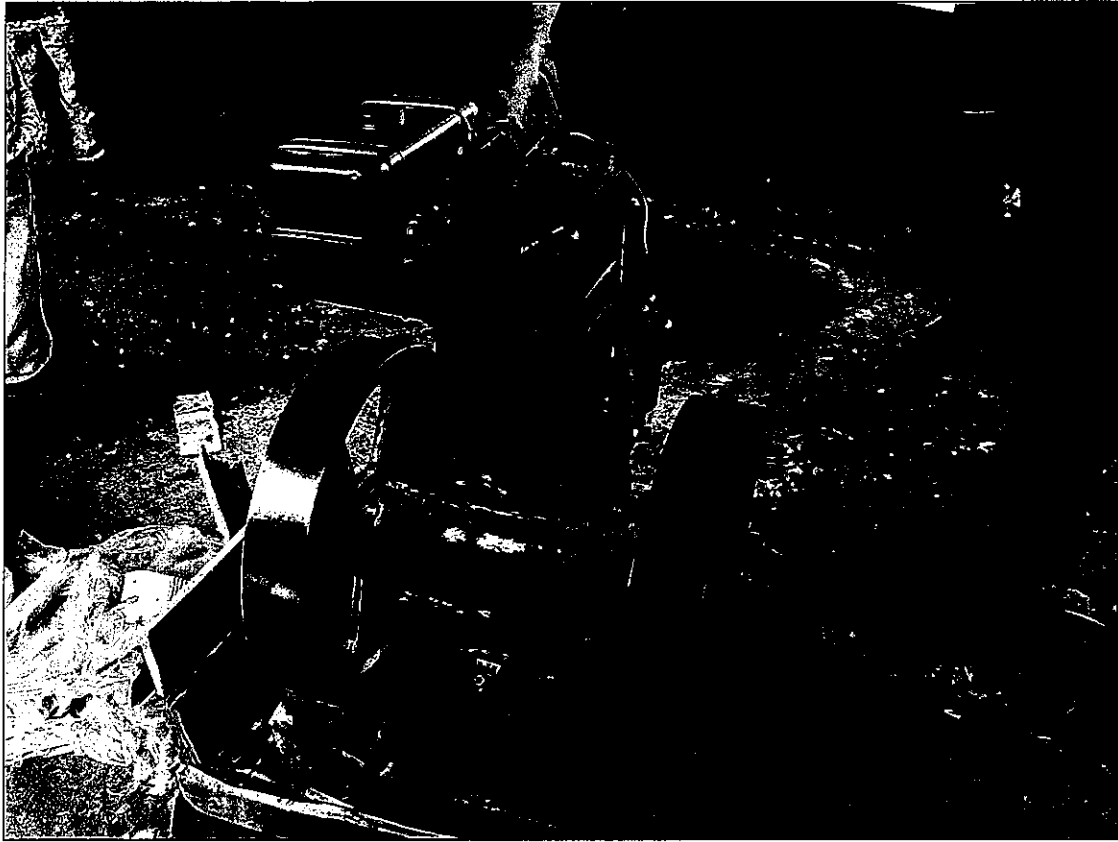


Fig. 7 Cassava Processing machine



Fig. 8 Cassava processing structure at Peseator Community

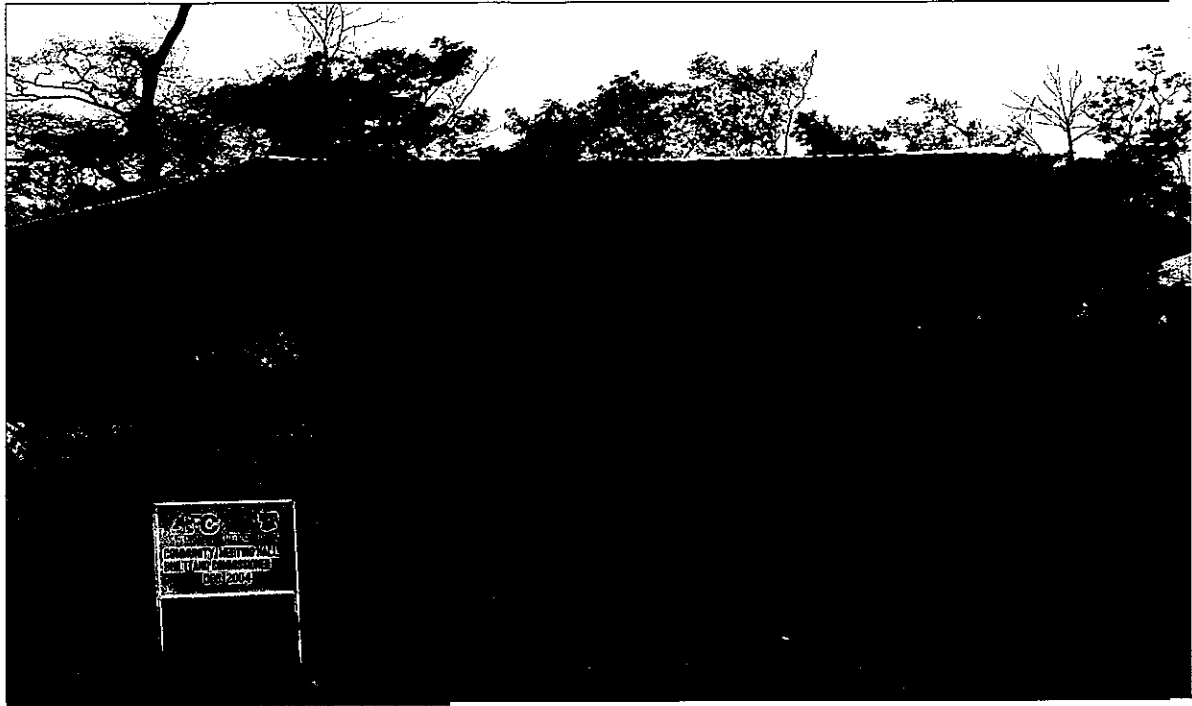


Fig. 9 A meeting for all the communities that was constructed with project funds



Fig.10 Local women participants at the end of project meeting