

# INTERNATIONAL TROPICAL TIMBER ORGANIZATION

## ITTO

### PROJECT DOCUMENT

TITLE	SMALL-SCALE PRIVATE MIXED PLANTATIONS DEVELOPMENT PLUS NUTRITION PROMOTION: THE CASE OF SIX RURAL COMMUNITY WOMEN'S GROUPS IN THE EASTERN AND ASHANTI REGIONS OF GHANA: PHASE II
SERIAL NUMBER	PD 534/08 Rev.1 (F)
COMMITTEE	REFORESTATION AND FOREST MANAGEMENT
SUBMITTED BY	GOVERNMENT OF GHANA
ORIGINAL LANGUAGE	ENGLISH

#### SUMMARY

This three-year Phase 2 Project seeks to creatively empower six rural women self-help groups to continue to create wealth by cultivating small-scale individually-owned mixed plantations of popular commercial indigenous timber species of *Wawa* (*Triplochitons scleroxylon*), and *Ofram* (*Terminalia superba*), in combination with *Moringa oleifera*. The women beneficiaries will utilize very degraded local land legally allotted to them individually by their respective traditional clan heads.

As a further incentives factor, the target women will be trained to process a short list of 33-vitamin nutrient-rich, and demand-driven Moringa products. Such individual village-level small-scale processing activity will enable the target women to significantly improve upon their own household vital body vitamin food intakes, as well as contribute remarkably towards rural poverty alleviation through profit sales of the nutrient-rich Moringa products, while contributing to rehabilitate degraded forest lands in Eastern and Ashanti Regions of Ghana. The implementation strategy will emphasize a "Team-Working Approach".

EXECUTING AGENCY Pitris Consult

COOPERATING GOVERNMENTS ---

DURATION 36 MONTHS

APPROXIMATE STARTING DATE TO BE DETERMINED

BUDGET AND PROPOSED SOURCES OF FINANCE	Source	Contribution in US\$	Local Currency Equivalent
	<b>ITTO</b>	<b>424,837</b>	
	Pitris Consult/ Gov't of Ghana	214,512	
	<b>TOTAL</b>	<b>639,349</b>	

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## **The Meaning of Abbreviations Used**

<b>AfDB</b>	African Development Bank
<b>CIDA</b>	Canadian International Development Agency
<b>DED</b>	<i>Deutscher Entwicklungsdienst</i> (German Development Service)
<b>DFID</b>	Department for International Development (UK)
<b>EU</b>	European Union
<b>FC</b>	Forestry Commission (Ghana)
<b>FORUM</b>	Forest Protection and Resource Use Management Project
<b>FORIG</b>	Forestry Research Institute of Ghana
<b>FSD</b>	Forest Services Division (of the Forestry Commission, Ghana)
<b>GEF</b>	Global Environmental Facility
<b>GTZ</b>	<i>Deutsche Geseiischaft fur Technische Zusmmenarbeit GmbH</i> (German Agency for Technical Co-operation)
<b>ITTO</b>	International Tropical Timber Organization
<b>KfW</b>	<i>Kreditanstalt fur Wiederaufbau</i> (German Bank for Reconstruction & Development)
<b>KNUST</b>	Kwame Nkrumah University of science & Technology
<b>NEDA</b>	Netherlands Development Agency
<b>NGO</b>	Non governmental Organization
<b>NTFP</b>	Non-Timber Forest Product
<b>NRMP</b>	Natural Resources Management Project
<b>PLA</b>	Participatory Learning & Action
<b>PRA</b>	Participatory Rural Appraisal
<b>PSC</b>	Project Steering Committee
<b>WB</b>	World Bank

## Part I: Context

### 1. The Origin of the Project

The core theme of this **three-year Phase 2 Project** can be stated as follows: **“Self-Motivated Rural Women Small-Scale Private Mixed Plantation Development can go successfully with self-grown and self-made nutrition promotion”**. The Pilot Project (2007-2008) was first suggested by a group of three village young women in the Eastern Region of Ghana during a post-natal clinic-discourse on **“Good Health and Sustainable Poverty Alleviation”** organized by the Ghana Ministry of Health in the 1990s. A facilitator from **“Pitris Consult”** (the **Project Executing Agency**) had gone to a village mothers group to have a heart-to-heart chat on the multiple nutritional values of **“Oleifera Moringa”** and how to effectively promote it at the village level.

The newly delivered baby mothers wondered why a simple community reforestation project could not be organized to marry the **short-term nutrition needs** of young village mothers with **medium and long-term social security concerns** of rural women **through the promotion of precious and fast growing commercial timber species** like Ofram, Wawa, or Teak. **“I can picture myself far, far, better off 10 to 15 years from now if I vigorously take part in such a program”**, exclaimed one seriously undernourished young mother. **“What can beat creative home-made nutrition plus social and economic security for ourselves and our children?”** The concern was later shared by other nearby village, and that was the starting point of the formation of the nucleus nursing mothers’ groups through the facilitating efforts of a serving community health nurse from the Ashanti Akim South District Assembly. After a series of representative women’s group meetings, the following rural communities decided to organize the initial pilot project (2007-2008):

- (a) **Enyiresi Community** (noted for its wooden craftsmanship) in the Eastern Region of Ghana.
- (b) **New Jejeti Community** (and its three satellite villages) in the Eastern Region of Ghana.
- (c) **Asankare** (and its two satellite villages) in the Ashanti-Akim South of the Ashanti Region.
- (d) **Adansi** (and one satellite village) in the Ashanti-Akim South of the Ashanti Region.

**That is how the Pilot Phase Project (2007-2008) was born!** The women further suggested that creative community initiatives should be initiated so that (along with *Pitris Consult*, the Project Executing Agency) effective promotion of the **local cultivation and use** of fast-growing *Oleifera Moringa* nutritious plant could be undertaken so as to **practically, cheaply, and permanently** help improve household nutrition, as well as assist in alleviating rural poverty in the target area.

**During the Phase 2 Project Period (2009-2011), TWO MORE COMMUNITIES** (attracted by the multiple benefits of the program) have voluntarily applied to the **Original-Group-of-Four** to join the Phase 2 period so as to make a new total of **SIX MAIN COMMUNITIES**. The new additions are **Abekoase Community** in the Eastern Region, and **Bompata Community** in the Ashanti Region of Ghana. This Phase 2 Project is therefore a natural follow-up to the Pilot Phase (2007-2008). The **EMPHASIS** of this Phase 2 Project therefore is on:

- (a) The cultivation of small-scale women-owned mixed plantations of **Wawa and Ofram**, as well as **pure teak plantations** boarded by mixed *Wawa* and *Ofram* holdings. These are all previously locally-tried and successful tree species.
- (b) The small-scale processing of selected **Moringa-based** and **demand-driven Moringa products** NOT covered during the Pilot Phase Period (specifically demand-driven nutritious staple local food recipes,

Moringa soft drinks, Moringa condiments, and rich hair foods made from the leaves of the nutrient-rich *Moringa Oleifera* plant-vegetable (NTFP), whose cultivation was successfully promoted during the ITTO-supported **Pilot Phase** of the project (2007-2008).

## 2. Forest Sector Policies In Ghana In Perspective:

(a) *“The future of the forest industry in Ghana depends on the expansion of forest resources through plantation development”*. (Mr. J. A. Kufuor, then President of Ghana, Daily Graphic, Monday October 20, 2008, Accra, Ghana).

(b) *“But there is the need to begin now, as well as consolidate the gains of the immediate past. There is still some appreciable level of goodwill among the rural forest fringe population for capable stakeholders and partners who want to assist in saving and improving local forests”* Ghana Minister of Lands and Forestry, Accra, 2007.

The International Tropical Timber Organization (ITTO) has been one of the major development partners in the development of useful forestry policies in Ghana. Since 1994, forest sector policies in Ghana have enjoyed support from the highest levels of government in the country. Sub-sections of overall Ghana forestry policy include:

- Forestry and wildlife environmental law revisions, awareness raising, and education.
- Forestry, wildlife, and environmental institutional capacity building.
- Natural resources planning, data building, and documentation.
- Co-management and struggles to ensure the sustainability of natural resources.
- Increasing acreages under commercial timber plantations.
- Fair sharing of benefits.
- Greater respect for indigenous knowledge regarding forestry and environmental questions.
- Cooperation between state forestry institutions and industry in promoting wood products.

Essential state-backed sector policies and legislative reforms further include:

- (a) *The restructuring and strengthening of all forest sector state institutions under the umbrella of the Ghana Forestry Commission.*
- (b) *The introduction of the 1994 Forest and Wildlife Policy.*
- (c) *The drafting in 2004 of a Comprehensive National Wildfires Policy, geared towards an effective coordination and management of wild fires in the country.*

The 1994 Forest and Wildlife Policy is very central to Ghana’s forest development endeavors. The aim of this (1994) Policy Document is the conservation and sustainable development of Ghana’s forest and wildlife resources so as to ensure adequate environmental quality and perpetual flow of optimum benefits to all segments of society. Among other objectives, the 1994 Policy seeks to:

- Manage and enhance Ghana's permanent estate of forest and wildlife resources so as to ensure the preservation of vital soil and water resources, conservation of biological diversity, as well as a sustainable production of domestic and commercial produce.
- **Local NTFPs:** Promote the development of viable and efficient forest-based industries, particularly in secondary and tertiary processing, so as to fully utilize timber **and other non-timber forest products (NTFPs) including health and wildlife resources that satisfy both domestic, local, national, and international demand at competitive prices.**
- Promote public awareness and active involvement of rural people in forestry and wildlife conservation so as to maintain life-sustaining systems, preserve scenic areas, enhance the potential for recreation, tourism, and wealth creating opportunities.

The major policy issues currently confronting the forest and wildlife sector therefore can be summarized as follows:

- (a) Natural resources protection to ensure their sustainability.
- (b) Rehabilitating, enriching, or developing the resources (through, for example, plantation development and enrichment planting in forestry).
- (c) Optimizing revenue and other benefits that flow from the resources so as to alleviate, especially within resource-owning communities.

### 3. Programs and Operational Activities

In response to the above challenges, the country has undertaken a mixture of complementary measures and programs aimed at realizing the objectives and goals of sector policy. Recent reforms that have been backed by legislative enactments include:

- Ensuring an equitable distribution of natural resource benefits to communities, resource owners, and farmers (among others) as a way of facilitating qualitative and effective participation of all relevant stakeholders in the sustainable management and development of resources.
- Transparent and efficient allocation of timber resources through competitive bidding and controls against over-exploitation of timber.
- Appropriate pricing of timber and other forest-based products in order to increase revenue, and thus address the problem of under-pricing of forest resources.
- Review of the Annual Allowable Cut (AAC) as a transitional measure in order to salvage valuable timber being destroyed in off-reserve timber utilization contract areas.
- Mobilization of chainsaw operators into alternative productive ventures, and the control of illegal chainsaw logging and lumbering operations.
- Rationalization of the timber industry and the adoption of fiscal as well as market-based incentives that improve the efficiency of the industry while at the same time encouraging down-stream processing of wood products.
- The development of an extensive forest plantation program so as to bridge the wood deficit in the timber industry and while improving upon general environmental quality.
- Improved incentives with respect to the co-management of forest resources so as to ensure sustainability.

**The Ghana National Forestry Development Master Plan** was inaugurated in 1996 so as to help implement some of the above reforms. The Master Plan was followed by a 10-year **Natural Resources Management Program (NRMP): 199 – 2008**. The NRMP did not cover the Volta Region where this project is based. The said NRMP supports resource management initiatives in five different components, namely:

- High Forest Resources Management.
- Savanna Resource Management.
- Wildlife and Wetlands Resources Management.
- Biodiversity Conservation.
- Environmental Management Co-ordination.

Instead of the NRMP, the Volta Region (where this project is located) enjoys support from a GTZ-KfW-Ded-Government of Ghana project called “**Forest Resource Use Management Project**” (FORUM), with its initial improvement and reforestation emphasis on selected Volta Region forest reserves, woodlot establishment, as well as buffer-zone co-management initiatives.

There are some **ITTO-funded** projects currently in the Ashanti Region of Ghana, especially in the area of precision woodworks. The ITTO had also previously funded several important workshops on forest improvement and collaborative forest management with multiple divisions of the Ghana Forestry Commission.

#### **Other Relevant On-Going Projects In Ghana**

Other on-going projects in Ghana (as a whole) being funded by other donors include:

- (a) “The Northern Savannah Biodiversity Project” with financial assistance from World Bank (WB) and GEF.
- (b) “The Community Forestry Management Project” with assistance from the African Development Bank (AfDB).
- (c) “The Land Administration Project” with joint funding from the World Bank, FAO, GTZ, DFID, KfW, and CIDA, among others.
- (d) “The High Forest Biodiversity Conservation Project”, funded by GEF and the World Bank.
- (e) “The Participatory Forest Management in the Transitional Zone Project” with assistance from JICA of Japan.
- (f) “The Wildfire Management Project” and “The Wildlife Division Support Project” with funding from the Royal Netherlands Government.

## Part II: The Project

### 1. Project Objectives

#### 1.1 Development Objective:

Locally tested and fast-growing commercial timber base provides attractive incomes and revenue for local sales and exports on a sustainable basis. Furthermore, promoting and consolidating gains, at no extra cost to the ITTO, a highly nutritive non-timber forest product, *Moringa Oleifera*, (successfully introduced by rural women beneficiaries during the Project Pilot Phase, 2007-2008) thus providing handy, qualitative, and affordable household nutrition on a sustainable basis.

#### 1.2 Specific Objective:

Very significant increase in the availability of highly regenerative cultivable inputs of precious fast-growing forest timber species like *Wawa and Ofram in mixed stands*, as well as *teak*), along with widespread rural household use of nutritive forest plant resources (specifically, *Moringa oleifera*).

### 2. Justification

#### 2.1 Problem To Be Addressed

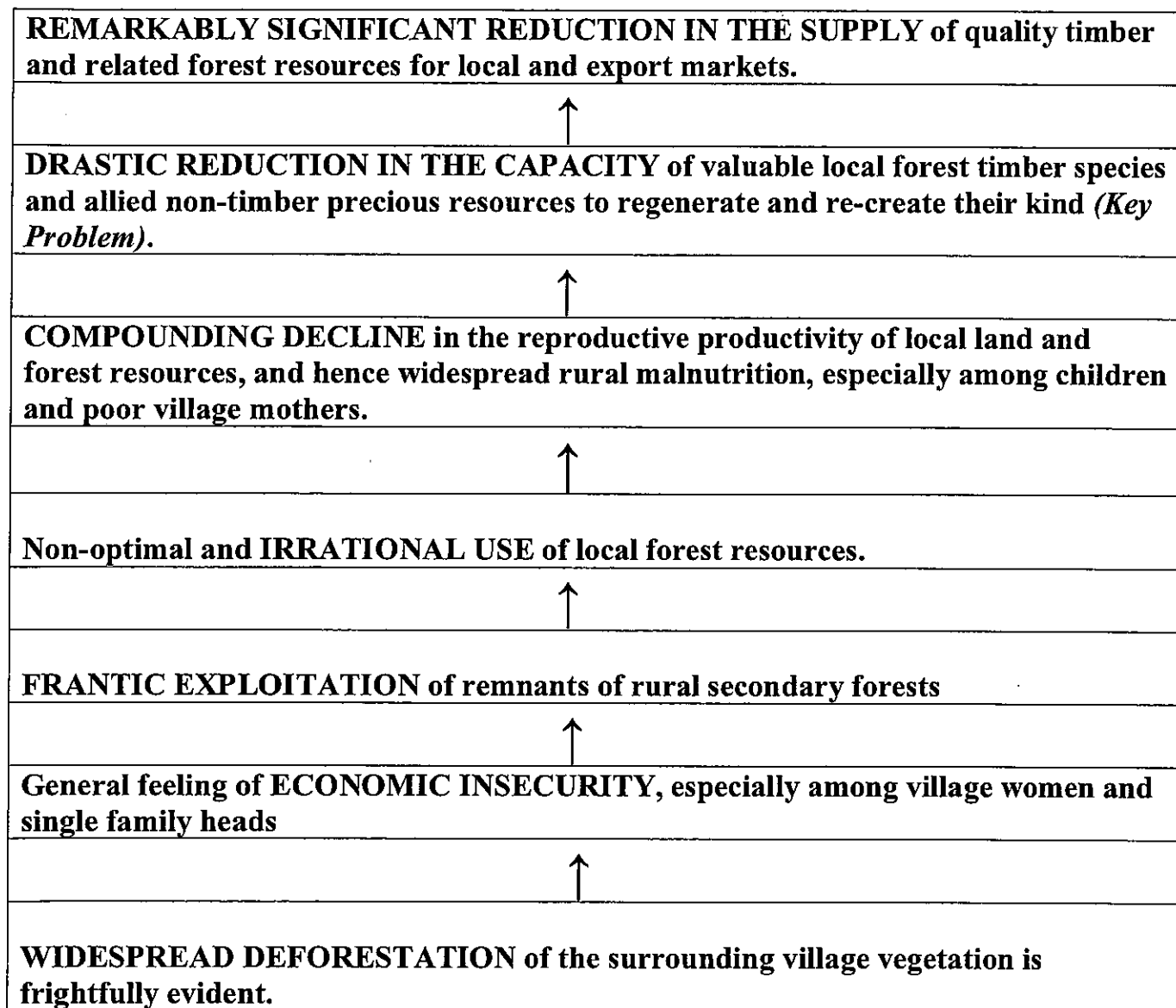
The following chart helps the reader to understand the local rural context that contribute to create the land degradation problems.

Socio-Cultural Dimension	Brief Details
(a) Main Participating Communities:	(a) Enyiresi, New Jejeti, and Abakoase (and their small satellite cottages in the Eastern Region of Ghana); (b) Asankare, Adansi and Bompata (in the Ashanti Region of Ghana). <b>Total = 6 villages.</b>
(b) Ethnicity:	Akan-speaking generally.
(c) Demography:	(a) Fairly homogenous in terms of ethnicity. (b) Approximately <b>18,600 overall population</b> (i.e. all four communities combined) according to the <b>AD 2000 Ghana Population Census</b> . (c) Population growing at the rate of 2.3% annually. (d) Women constitute <b>52.1%</b> of the total population, with a very high child dependency rate. (e) Average household size = <b>6 people</b> . (f) High rural-urban migration rate partly as a result of depleted local natural resources, and high local unemployment and underemployment rate.
(d) Major Occupations and Average Income:	(a) Peasant farmers = 62%; (b) Petty traders = 18%; (c) Public servants = 2%. (d) Petty artisans & others = 18%. Average disposable incomes per head range from \$350 - \$500 per year.
(e) Land Titles, and Present Status of Local Secondary Forests	A mixture of <b>allodial title and customary free-holdings (55%)</b> , Family land (35%) and individual holdings (10%). The secondary forest has been devastated and heavily degraded.. Local village chiefs and their elders have agreed to provide all the project land.



The **PROBLEM TREE** below helps the reader to understand clearly the reasons **WHY** it is important to undertake the second phase of this project. The main problem to be addressed relates to **the drastic reduction in the capacity** of valuable fast-growing local forest timber species and allied non-timber precious resources to regenerate and re-create their kind in the target local forest.

### 2.1.1 THE PROBLEM TREE



**Other aspects of the problem relate to** a vicious circle of village-level malnutrition (thriving partly on local ignorance that places undue emphasis on expensive Western-made essential food supplements, coupled with extreme poverty that makes local people to resort to ruthless exploitation of remnants of local forest. This (Phase 2) Women's Project partly aims at:

- (a) **Continuing with an effective and affordable solution** of the problem of mother-child malnutrition by further popularizing a local fast-growing plant, the *Moringa Oleifera*, that has recently been scientifically proved to contain at least **33 vitamins and essential nutrients**. The details on this can be seen in the **Technical and Scientific Section** below.
- (b) Effectively solving, as well as confidently showing the way to solve an extensive proportion of participating village mothers' medium and long-term economic insecurity, poverty, and hopelessness by promoting **individual women cultivation of easily managed and fast-growing (demand-driven) precious timber species like Ofram, Wawa in mixed stands**, as well as *Teak* (in pure stands further boarded by mixed *Wawa* and *Ofram* trees)

The **OBJECTIVES TREE** described below provides a vivid picture of the **FUTURE** when specified project problems will have been solved. What is useful about the objectives tree is that, it enables *a verification* of relevant issues in *a hierarchical* form as well as a *"means-end relationship"* in the form of a flow chart.

### 2.1.2 THE OBJECTIVES TREE

<b>Sustainable increase in the local supply of quality mixed timber resources for local and export markets</b>
↑
<b>Increase in the regenerative capacity of cultivable inputs of commercial fast-growing mixed forest timber species and allied locally self-sponsored nutritive plant resources</b> <i>(Key Objective).</i>
↑
<b>Increase in the creative productivities of local land and forest resources</b>
↑
<b>Optimal and rational use of mixed local forest resources in line with sustainable use practices.</b>
↑
<b>Attendant participatory and collaborative forest and plantation management at community and sub-district levels.</b>
↑
<b>General resurgence of economic security especially among village women and single mothers who are head of families.</b>
↑
<b>Participatory village-level (mixed plantation) reforestation action by self-motivated interest groups put in place.</b>

The above **Objectives Tree** helps us to narrow down on crucial and relevant issues that enable us (project formulators and other stakeholders) to, in a participatory manner, adopt a feasible **PROJECT STRATEGY** that maximizes outputs, minimizes implementation risks and hazards, as well as minimize operational costs.

## 2.2 Intended Situation After Project Completion

Dimension Improved Upon	Brief Explanation
(A1) Ecology & Forestry	<p>(1) Participatory ownership and management of <b>150 acres</b> (in the aggregate) of <i>mixed Wawa and Ofram plantations</i> to yield ecological and economic needs of young mothers.</p> <p>(2) <b>150 acres</b> (aggregate) of fast-growing economic pure stands <i>teak trees</i> (boarded by a minimum of two rows of <i>Wawa and Ofram</i>) to alleviate future rural female poverty.</p>
(A2) Biological & Biodiversity	<b>Floral:</b> The promotion of a famous multiple nutrient tropical NTFP by self-financed women growers.
(A3) Economic	<p>(a) <b>FROM TREES:</b> Flush, village-based plantations of <b>young</b>, precious, fast-growing, demand-driven, and (in future), exportable tropical mixed wood, namely <i>Ofram, Wawa and Teak</i> to alleviate the poverty of local disadvantaged young mothers in the <b>SIX</b> target communities.</p> <p>(b) <b>FROM New Moringa Processed Products:</b> Vital and varied vitamin supplements and new Moringa products locally made for self-use and for profit sales.</p>
(A4) Agricultural Dimension	<p>(a) <b>Many local farmers, schools, hospitals, Churches, and the Police</b> have taken advantage of the self-financed promotion of Moringa and its vitamins.</p> <p>(b) Several self-financed flourishing private outreach <i>Moringa Oleifera</i> plantations in the target area since it takes only five months to start providing prolific leaves and green pods that are very rich in vitamins.</p>
(A5) Socio-Cultural	(a) Proud that a <b>33-nutrient self-financed plant-vegetable</b> can be so effectively grown near the village that rivals western-made vitamin supplements.
(A6) Health & Medical	Better health for local lactating mothers and their children as a result of the abundance of self-financed nutritious <b>Moringa</b> powder food supplements.
(A7) Local institutional capacity building for participating local institutions, e.g. Four local project women groups, and the implementing agency: <i>Pitris Consult.</i>	<p>(a) Enhanced management and reforestation capacity of implementing institutions appreciably improved.</p> <p>(b) Greater self confidence for the six local target women groups</p>

## 2.3 Project Strategy

To ensure an effective and participatory implementation of the project, the project formulators and other relevant stakeholders have discussed and adopted a **strategy** that has many dimensions, aimed at achieving **optimal results**. These strategy dimensions include:

- **Organizational Strategy.**
- **Timber Cultivation Strategy in terms of land preparation, seedlings procurement and seedlings production, seedlings planting, as well as plantation maintenance, both during and after the project period.**
- **Strategy To Promote Self-Financing of *Moringa oleifera* Cultivation.**
- ***Moringa* (New Products) Part-Processing and Management Strategy.**
- ***Moringa* (New Products) Products Promotion, Marketing, and Sales Strategy.**
- **Project Benefits Sharing, Conflict Prevention & Conflict Mediation Strategy.**
- **Project Dissemination Strategy.**
- **Overall Community Participation In Implementation Strategy.**

Collective efforts will be made to achieve a relevant and practical mosaic of active participation that is as comprehensive and as effective as possible. The objective is to ensure bottom-up appreciation and active involvement in decision-making by stakeholders, thus leading to greater local actor commitment, more responsible behavior, and the sustainability of the interactive operations and outputs. **The details of these diverse aspects of project strategy are described below.**

### 2.3.1 Organizational Strategy

In each of the six communities, the chosen women's groups **already exist** as thriving social, religious, entertainment, or small business operating groups with their own by-laws, management structures, and sets of meeting times. The project will only strengthen and enrich these useful and committed old ties to the socio-economic advantage of the members. In each of the six villages, the 30 target women group members (per group, making a total of 180), will operate two types of plantations:

**The first type of plantation will be a (previously-project-registered and trained) INDIVIDUALLY-OWNED SMALL-SCALE WOMEN MIXED PLANTATION of *Wawa* and *Ofram* fast-growing (locally) popular timber species. The second type of plantation will be individually-owned women teak plantations (in pure stands) immediately boarded by *Wawa* and *Ofram in mixed stands*. Along with hired labor, (as the occasion demands) the women members will work and own these plantations with technical direction from the project.**

### 2.3.2 *Timber Trees Cultivation Strategy*

**The initial land clearing and preparation function** will be through project-hired labor. All such hired labor will be drawn from the local community at large. Seedlings will come from three sources: namely, (a) FORIG in Kumasi, especially for *Wawa* and *Ofram*; (b) the project's own village seed nurseries; and (c) FSD-approved private local or nearby nursery operators. **Seedlings transplanting and maintenance** will be carried out by a combination of hired local labor and target women's own labor as far as possible with technical advice from the project. The philosophy is learning by doing, having in mind post-project maintenance period. A special group self-savings maintenance account will be nurtured (that has its roots in the Pilot Phase, 2007-2008).

### 2.3.3 *Moringa Parts Processing and Management Strategy*

During the pilot phase (2007-2008) the strategy under this section was functional at **TWO** levels. **The first level** involved the target women's group members as a learning entity with sustainable self-help profit-seeking interests. Management and financial controls were group-oriented. **The second level** concerned individual women owning *Moringa* farms, and being trained to process *Moringa* parts for self-use or for sale as a private small business affair. During this Phase 2 project, this individual aspect will continue on self-financing (*Moringa* cultivation) basis. A small ITTO budget (that is, **10 per cent** of the total ITTO budget) will only be used to train the individual women members on how to process new demand-driven *Moringa* products like nutritious staple (local) food recipes, *Moringa* soft drinks, *Moringa* condiments, and rich hair foods which were **NOT TAUGHT** during the ITTO-supported **Pilot Phase** of the project (2007-2008). **IN OTHER WORDS, *Moringa* cultivation costs** will be borne entirely by the beneficiary women, and **NOT** the ITTO.

### 2.3.4 *Moringa Products Promotion, Marketing, and Sales Strategy*

Owing to the fact that *Moringa oleifera* is a very rich plant-vegetable that can directly or indirectly help the entire village community, the Phase 2 project will actively teach, train, and promote a list of **NEW nutrient-rich *Moringa* products** at both group and private group member levels (that is, new demand-driven *Moringa* products like nutritious staple (local) food recipes, *Moringa* soft drinks, *Moringa* condiments, and rich hair foods and *Moringa* body soap which were **NOT TAUGHT OR PROMOTED** during the ITTO-supported **Pilot Phase** of the project (2007-2008). The new products will be promoted through attractive packaging, labeling, and Open Day Promotions. These activities will be done with professional guidance from project officials, as well as with appropriate

professional certification from the Ghana Food & Drugs Board. The products will be partly for self-use and partly for sale to the public at a profit for the women beneficiaries.

### 2.3.5 PLANTATION BENEFITS SHARING: Who Will Enjoy The Projects' Benefits?

In order to ensure grassroots commitment in Phase 2 Project implementation, all benefits of the individual mixed plantations (including the teak plantations) will be shared as follows: (a) **90 per cent** of all plantation benefits go to the individual women members who own the land (as individuals), and (b) **10 per cent** to the allodial land-giving family.

### 2.3.6 Conflict Handling Channels

The Project Steering Committee remains the project's advisory board as well as the organ that will mediate among project stakeholders in all cases of project disputes and conflicts.

### 2.3.7 The Project Dissemination Strategy

Effective Phase 2 Project implementation also implies effective listening, communication, public relations, promotion, public education, and exchange of ideas and findings. The project will therefore apply a rich dissemination strategy described in the chart below.

#### 2.3.7.1 Project Dissemination Strategy Chart

The following strategy and action plan shall guide project implementation with regard to communication:

Type of Information	Target Audience	Communication (Media & Method)
(1) General information about the project area environment.	<ul style="list-style-type: none"> <li>The general public</li> <li>Chiefs and elders</li> <li>Local opinion leaders</li> <li>Farmers, land owners</li> <li>Women, Collaborative Forest Management Committees</li> <li>District Assembly Officers</li> </ul>	<ul style="list-style-type: none"> <li>Whole-community general open meetings..</li> <li>Traditional <i>gong-gong</i> beaters who provide dawn messages verbally and loudly from vantage points.</li> <li>Local FM Radio.</li> </ul>
(2) Pre-Project information to the general community.	As above, plus District-level Forestry, Agriculture, and Health Ministry Officials.	As Above, plus popular local newspaper written insets and official invitation letters to public officials.
(3) Specific Project-Related Production, Management, Technical, and Collaborative Forest Management Information.	<ul style="list-style-type: none"> <li>Women's group members</li> <li>Other 1<sup>st</sup> and 2<sup>nd</sup> level project stakeholders as might be found relevant.</li> </ul>	<ul style="list-style-type: none"> <li>Use of project animation personnel on house-to-house missions; Planned meetings,</li> <li>On-the-job information dissemination &amp; Bill Boards.</li> </ul>
(4) Project Animation, Promotion, Early Warning, Good News, and Replicable Information.	As Above, plus Other non-project local women, local farmers, migrant workers, local Churches, mosques, and Schools.	- Ditto -
(5) Wild (Bush) Fire Information.	<ul style="list-style-type: none"> <li>The whole Community.</li> </ul>	<ul style="list-style-type: none"> <li>Gong-gong beaters.</li> </ul>

### 2.3.8 Overall Community Participation Strategy

The concept of active participation is central in our discussion on women's empowerment in rural project implementation (Kindly see details from pages 53 to 59). To prevent unnecessary repetition of important implementation issues, this proposal discusses the concept of women's empowerment IN GREAT DETAIL in PART III (Operational Arrangements) of the document in relation to the diverse but re-enforcing strategies of the various implementing bodies and agencies. To ensure the active participation, interest, and commitment of all segments of the community therefore, a strategy will be adopted whereby useful contributions will come from a judicious use and blend of diverse participation sub-strategies and tactics, namely:

- Active participation, especially among target group members, landowners, and project co-managers.
- Friendly consultations and advisory services involving relevant stakeholders.
- Training, human resource development, and capacity building roles.
- Direct materials supports (for example, free seedlings to registered private out-growers).
- Relevant information sharing roles especially between project implementing beneficiary target groups, technical forestry and advisory officials, as well as relevant community non-project segments of the local community.

Since the active involvement of the local community in project implementation is very crucial for good results, the project formulators have found it necessary to spell out details of community participation in the form of a chart below. The principles shown in this chart will guide Phase 2 Project implementation work.

### 2.3.8.1 Details (in the Form of a Chart) on Community Participation Strategy

Issues and Aspects of Community Participation	1 <sup>st</sup> Level Participators	2 <sup>nd</sup> Level Participators	Practical Implementation Action Expected
<b>(a) Community's Active Participation in the Initial Community Animation and Awareness Raising on Depletion of Local Forest Resources</b>	<b>(a)</b> The entire community including the small group of immigrant farmers.	<b>(a)</b> Local chiefs. <b>(b)</b> Women's group executives. <b>(c)</b> The Executing agency. <b>(d)</b> Local Forestry and Agriculture Officers.	A Series of Open Discussion Meetings: <ul style="list-style-type: none"> <li>• Open, free, fair.</li> <li>• Identification and discussion of conflicts and common interests.</li> </ul>
<b>(b) Collective problem identification, discussion, and agreement on intervention issues</b>	<b>(a)</b> The entire community including the small group of immigrant farmers.	<b>(a)</b> Local leaders/Chiefs. <b>(b)</b> Women's Leaders. <b>(c)</b> land owners. <b>(d)</b> Local farmers, migrants, & other land users <b>(e)</b> Legal officers and surveyors. <b>(f)</b> Local public officers.	General agreement and permission for the project to begin: <ul style="list-style-type: none"> <li>• Ground rules.</li> <li>• Limits.</li> <li>• Compromises.</li> <li>• Conflict mediation channels</li> <li>• The Dos and the Don'ts</li> </ul>
<b>(c) Community Participation in the Determination of project objectives, targets, constraints, options, monitoring and evaluation issues.</b>	<b>(a)</b> The women's group as a whole. <b>(b)</b> The Executing Agency. <b>(c)</b> Local land owners. <b>(d)</b> Local forestry and agricultural Ministry officials.	<b>(a)</b> Regional and district forestry officials. <b>(b)</b> Nutrition officers. <b>(c)</b> ITTO country contact	<ul style="list-style-type: none"> <li>• Discussions.</li> <li>• Agreements.</li> <li>• Commitments.</li> <li>• Compromises.</li> <li>• Project plans.</li> <li>• Minutes</li> </ul>
<b>(d) Community Participation in Site Selection, Surveying, Preparation of Indentures, Demarcations &amp; Site Mappings</b>	<b>(a)</b> The women's group as a whole. Surveyors. <b>(b)</b> The Executing Agency. Lawyers. <b>(c)</b> Local land owners. <b>(d)</b> Local forestry and agricultural Ministry officials.	<b>(a)</b> Local leaders. <b>(b)</b> Regional and district forestry officials. <b>(c)</b> Nutrition officers. <b>(d)</b> ITTO country contact	<ul style="list-style-type: none"> <li>• Field visits.</li> <li>• Discussions.</li> <li>• Agreements.</li> <li>• Reporting.</li> <li>• Recording decisions.</li> <li>• Outputs</li> </ul>



***Continuation of Practical Community Participation in Implementation***

<b>Issues and Aspects of Community Participation</b>	<b>1<sup>st</sup> Level Participators</b>	<b>2<sup>nd</sup> Level Participators</b>	<b>Practical Implementation Action Expected</b>
<b>(e) Community Participation in Discussions and Agreements on Land Tenure and Distribution of Project Benefits and Costs</b>	<p>(a) The entire community.</p> <p>(b) The women's group as a whole. Surveyors.</p> <p>(b) The Executing Agency. Lawyers.</p> <p>(c) Local land owners.</p> <p>(d) Local forestry and agricultural Ministry officials.</p>	<p>(a) Village Collaborative Forest Management Group Members.</p> <p>(b) Non-participating farmers.</p> <p>(c) Relevant clan chiefs.</p>	<p>A Series of Open Discussion Meetings:</p> <ul style="list-style-type: none"> <li>• Open, free, fair.</li> <li>• Identification and discussion of conflicts and common interests.</li> <li>• Documented agreements</li> </ul>
<b>(f) Community participation in land preparation, hole digging, cutting of pegs.</b>	<p>(a) The women's group as a whole.</p> <p>(b) The Executing Agency.</p> <p>(c) Local land owners.</p> <p>(d) Hired local workers.</p> <p>(e) Local forestry and agricultural Ministry officials.</p>	<p>(a) Local leaders/Chiefs.</p> <p>(b) Other interested parties</p>	<ul style="list-style-type: none"> <li>• Land clearing using paid local labor.</li> <li>• Hole digging using women's groups and hired local labor.</li> <li>• Making specifications for pegs, pegs cutting, and pegs buying</li> </ul>
<b>(g) Community participation in seed nursery making, buying of seedlings from FORIG and other approved suppliers</b>	<p>(a) The women's group as a whole.</p> <p>(b) The Executing Agency.</p> <p>(c) Forestry advisor and <i>Moringa</i> expert.</p> <p>(d) Local forestry and agricultural Ministry officials.</p>	<p>(a) Regional and district forestry officials.</p> <p>(b) FORIG Officers</p> <p>(c) Local FSD private seedlings sellers.</p>	<ul style="list-style-type: none"> <li>• Discussions.</li> <li>• Agreements.</li> <li>• Commitments.</li> <li>• Compromises.</li> <li>• Seeds procurement, and seedlings purchases</li> </ul>
<b>(h) Participation in planting, beating up, weeding of planted plots, and field advice to out-growers on their farms</b>	<p>(a) The women's group as a whole.</p> <p>(b) The Executing Agency. Out-growers.</p> <p>(c) Local hired labor</p> <p>(d) Local forestry and agricultural Ministry officials.</p>	<p>Other interested community participants</p>	<ul style="list-style-type: none"> <li>• Field visits.</li> <li>• Planting.</li> <li>• Beating up</li> <li>• Early Weeding</li> <li>• Inspections</li> <li>• Reporting</li> </ul>

***Continuation of Practical Community Participation in Implementation***

Issues and Aspects of Community Participation	1 <sup>st</sup> Level Participators	2 <sup>nd</sup> Level Participators	Practical Implementation Action Expected
<b>(i) Participation in plantation tending and maintenance</b>	<p>(a) The women's group as a whole.                      (b) The Executing Agency. Out-growers.                      (c) Local hired labor                      (d) Local forestry and agricultural Ministry officials.                      (e) Local community's fire-prone groups</p>	<p>(a) Local land owners.                      (b) Local hired labor.                      (c) Local Collaborative Forest Management Committee.                      (d) District assembly.</p>	<ul style="list-style-type: none"> <li>• Weeding.</li> <li>• Pruning.</li> <li>• Thinning.</li> <li>• Interrelated fire prevention activities.</li> <li>• Anti-wild fire campaigns.</li> <li>• making and maintaining anti-fire strips.</li> </ul>
<b>(j) Community's Active Participation in Wild Fire Prevention and Control</b>	<p>(a) The whole community, especially fire-prone groups like hunters and palm-wine tapers and herders.                      (b) The women's group as a whole.                      (c) The Executing Agency. Out-growers.                      (d) Local hired labor                      (e) Local forestry and agricultural Ministry officials.</p>	<p>(a) Local leaders/Chiefs.                      (b) Women's Leaders.                      (c) land owners.                      (d) Local farmers, migrants, &amp; other land users                      (e) District Assembly's Environmental Committee.                      (f) Local public officers like the National Fire Service and Ghana Police.</p>	<ul style="list-style-type: none"> <li>• Interrelated fire prevention activities.</li> <li>• Anti-wild fire campaigns.</li> <li>• Maintaining anti-fire strips.</li> <li>• Anti-Fire Workshops.</li> <li>• Legal prosecutions.</li> <li>• Payment of fines</li> </ul>
<b>(k) Community participation in the maintenance of private out-grower farms</b>	<p>(a) Executing Agency.                      (b) Registered project community out-growers.</p>	<p>(a) District forestry officials.                      (b) The project's Nutrition officers.</p>	<ul style="list-style-type: none"> <li>• Out-growers reports.</li> <li>• Agreements.</li> <li>• Commitments.</li> <li>• Compromises.</li> <li>• Making of out-growers plan</li> </ul>
<b>(L) <i>Moringa</i> nutritional properties promotion; plus the socio-economic security aspects of local timber cultivation.</b>	<p>(a) The women's group as a whole. Out-growers.                      (b) Executing Agency.                      (c) Local land owners.                      (d) Local forestry and agricultural Ministry officials.</p>	<p>(a) Local leaders.                      (b) The local news media.                      (c) Nutrition officers.                      (d) Social security officers.                      (e) Forest Services Division</p>	<ul style="list-style-type: none"> <li>• Participation in Project Open Day Activities through initial participatory planning.</li> <li>• Newsletter contributions.</li> </ul>

***Continuation of Practical Community Participation in Implementation***

Issues and Aspects of Community Participation	1 <sup>st</sup> Level Participators	2 <sup>nd</sup> Level Participators	Practical Implementation Action Expected
<b>(m) Community Participation in Project Monitoring &amp; Evaluation</b>	(a) The women's group as a whole. (b) The Executing Agency. Out-growers. (c) Local hired labor (d) Local forestry and agricultural Ministry officials. (e) Local community's fire-prone groups (f) Land owners. (g) Collaborative Forest Management Committee	(a) Local chiefs and opinion leaders. (b) Local migrant farmers. (c) Local farmers not participating in the program directly. (d) District assembly elected members in the community.	<ul style="list-style-type: none"> <li>• Contributions to formal project evaluation discussions.</li> <li>• Presentation of minority reports.</li> <li>• Making of concrete suggestions.</li> </ul>
<b>(n) Community's Active Participation in Project Impact Assessments.</b>	As Above	As Above	<ul style="list-style-type: none"> <li>• Contributions to formal project impact assessments.</li> <li>• Discussions and suggestions..</li> <li>• Presentation of minority reports on impact assessments.</li> </ul>
<b>(o) Community participation in the benefits of the Project</b>	As Above	(a) The chieftaincy stools that donated project land. (b) District assembly Officials.	<b>Women's group members, family heads</b> who give land, as well as <b>chieftaincy stools</b> to benefit directly from project outputs. <b>Out-growers</b> also benefit directly.. Community forests improve and are enjoyed by <b>all residents</b> .
<b>(p) Project termination</b>	As Above	(a) Local leaders. (b) The local news media. (c) Other interested parties	Evaluation, Documentation for future reference, Assets Distribution and Re-Distribution.

### **2.3.9 Concluding Comments On Community Participation In The Project's Implementation**

Planning and implementing this kind of social participatory forestry project is **an interactive process among first, second, and third-level stakeholders**. The final product, if fair and useful, is usually a constructed compromise, politically and socially acceptable, financially, technically and managerially feasible, with interconnected sets of activities, institutions, benefits, and costs. The poor and socially marginalized segments of the village community often have different interest structures from those of richer, well-placed, and more powerful groups in society. The community poor are often (but not always) motivated by food, jobs availability, warmth from project managers, respect, fairness, and dignity! The degree of community voluntary participation therefore **DEPENDS** on the type of market and non-market incentive **PACKAGES** of the project. Where the people are convinced that they will get **MORE OUT** of the reforestation project, than they put in, in terms of time, effort, risk, and resources, they tend to give active participation real meaning.

**In our chosen project implementation approach therefore, the Project Leader is not considered to have his or her “followers” in the traditional sense. Rather, the leader of our empowered ITTO Rural Women’s Project Team is a leader of leaders. This point is further illustrated in detail in the “Operations Arrangements Section” of this proposal. Empowering the project’s target rural women collectively as a group and individually as active and focused stakeholders is the bed-rock or the cornerstone of this Phase Two Project’s operational arrangements. Project target rural women’s empowerment therefore is the process of persuasively encouraging project staff and the women beneficiaries at all levels to become actively involved in project planning and project decision making activities that affect their work and their lives. By giving project members more responsibility, and letting them play a more meaningful and active role, the project can expect the women to become more enthusiastic, happily motivated, reflective, and cooperative, thus taking pride in their work and consistently perform well in line with planned targets.**

**When we talk of women’s empowerment in terms of effective reforestation implementation programs, we must also discuss the following multiple dimensions of the subject, namely:**

- **Individual and the group’s active involvement and participation.**
- **Recognition and respect for rural values and cultural bonds.**
- **Promotion of self-reliance (in terms of reliance on your individual self and local resources).**
- **Promotion of community justice and social fairness.**
- **The ensuring of local ecological balance in the sense that, environmental resources are utilized in full awareness of the potentials and limits of the local ecosystem with a mind also on the needs of future generations.**

## 2.4 Target Beneficiaries

It is useful to read this part of the proposal along with **Sections 2.3.8** above.

Specific Beneficiary Target Groups	Products Or Results That The Beneficiaries Will Use	How Will Project Information & Experience Be Disseminated To Stakeholders?
<p><b>Local self-organized village young mothers' (or women's groups) in SIX rural communities, namely:</b></p> <p><b>(1a) New Jejeti &amp; (1b) Enyiresi (1c) Abakoase (in Ghana's Eastern Region); plus (1c) Asankare &amp; (1d) Akyem Adansi Village (1c) Bompata in the South Asante Akim District of the Ashanti Region of Ghana. Each village women's group has a total of 30 members (making 180 women in all), plus their children, dependants, and husbands. Most group women have therefore five other people in their household.</b></p>	<p><b>(a) Project-Processed <i>Moringa oleifera</i> products:</b> for example, new demand-driven <i>Moringa</i> products like nutritious staple (local) food recipes, <i>Moringa</i> soft drinks, <i>Moringa</i> condiments, and rich hair foods and <i>Moringa</i> soap. The target women will process these for use by their families as well as for sale.</p> <p><b>(b) Teak, <i>Wawa</i>, and <i>Ofram</i> poles &amp; timber</b> for household construction, furniture, and for sale</p> <p><b>(c) Fuel wood</b> when the mono-culture timber plantations trees are being pruned or the plantations are being thinned.</p>	<p>Through, for example:</p> <ul style="list-style-type: none"> <li>• House-to-house project community animators.</li> <li>• Group meeting sessions.</li> <li>• Group training sessions.</li> <li>• Whole community meetings where relevant forestry, timber, and forest resource products are discussed.</li> <li>• Local school assemblies.</li> <li>• Local church assemblies.</li> <li>• Local mosque meetings.</li> <li>• Through planned Project Open Days.</li> <li>• Project's own newsletter.</li> <li>• Local FM radio.</li> <li>• Local new papers.</li> <li>• Local traditional gong-gong information disseminators</li> <li>• Through local Ministry of Agriculture and Forestry Officials</li> </ul>
<p><b>(2) Local project village and nearby rural citizenry in general</b></p>	<p style="text-align: center;">- As Above -</p>	<p style="text-align: center;">- As Above -</p>
<p><b>(3) Environmental Researchers, Nutrition Researchers and Scientists</b></p>	<p><b>(a)</b> The project's documented scientific, technical, and economic results.</p> <p><b>(b)</b> <i>Moringa</i> products as listed above in this chart.</p>	<p style="text-align: center;">- As Above -</p>

## 2.5 Technical and Scientific Aspects

### 2.5.1 *Triplochitons scieroxylon* (Wawa)

“...already, 50 per cent of existing (Ghana private commercial) production consists of *Triplochitons scieroxylon* (Wawa), a pale-colored medium density wood, while the rest consists of more valuable but denser species. The high demand for these attributes of wawa reflects significantly the preferences in the market place.” Said by G. A. Symes, 1997: Plantation Establishment in Off-Reserve Areas in Ghana. Speech delivered during an ITTO-sponsored workshop in Ghana.

*Wawa* (along with *Ofram*) will be planted alongside the project’s plant-vegetable (*Moringa oleifera*) in a professionally mixed manner.

*Triplochitons scieroxylon* (known in local Ghanaian language as *Wawa*) grows naturally in the original high forest and secondary vegetation in the project area. Before the present massive deforestation in the project zone, *Wawa* grew side by side with other forest species like *Milicia exelsa*, *Alstonia boonei*, *Ficus* spp., *Ceiba pentandra*, *Terminalia ivorensis*, *Albizia zigia*, *Morinda* L., *Antiaris Africana*, *Celtis* spp., *Sterculia tragacantha*, *Tarrietia* u., *Khaya ivorensis*, *Cola cordifolia*, *Trema guineense*, *Lonchocarpus sericeus*, *Anogeissus leiocarpus*, and others.

The public sector technical officers and range supervisors of the Forest Services Division of the Ghana Forestry Commission are very well versed with the technical and silvicultural needs of *Wawa* as well as local farmers. Top-quality *Wawa* seedlings can be easily purchased from the Forest Research Institute of Ghana in Kumasi. Mean annual rainfall in the project area is above 2600 mm, with soil texture alternating from light loamy soil, through medium loamy, to light clayey.

**Planting and Spacing (for *Wawa* and *Ofram*):** *Wawa* seedlings shall be planted at distances of 3m x 6m. The seedlings will be planted early in the year to allow for maximum supply of rain water. A survival count shall be undertaken after six weeks. Weeding shall be carried out monthly to protect the young trees.

**Diseases of *Wawa*:** *Wawa* is relatively disease resistant assuming good quality soil, regular weeding, and protection from wild fires. Early pruning is advisable for the two species (*Wawa* and *Ofram*), when necessary. Recommendation for final harvesting will vary from 15 to 25 years. **Wawa produces medium-density wood** with high market value in Ghana and overseas. They are used as construction material, poles and posts, veneer and

plywood inputs, carvings and turnery, versatile packaging material, as well as furniture inputs.

**Useful Plantation Experience Already:** Four of the six targeted women project groups have valuable experience (from the Pilot Project Phase 2007-2008) in the nursing of *Teak*, *Wawa*, and *Ofram* seedlings and their transplanting and maintenance on larger plantation plots.

### 2.5.2 *Terminalia superba* (Ofram)

*Ofram*, *Wawa*, and *teak* rank as the top three timber species that Ghana exports most to Europe, America and Asia. *Ofram* therefore is a very popular tree type to have on a Ghanaian plantation at present. *Ofram* will be planted alongside *wawa* and the project's plant-vegetable (*Moringa oleifera*) in a **professionally mixed manner**. *Terminalia superba* (known in local Ghanaian language as *Ofram* (like *Wawa*) grows naturally in the original high forest and secondary vegetation in the project area. Before the present massive deforestation in the project zone, *Ofram* grew side by side with other forest species like *Milicia exelsa*, *Alstonia boonei*, *Ficus spp.*, *Ceiba pentandra*, *Terminalia ivorensis*, and *Albizia zigia*, *Morinda*, among others. Field officers of the Ghana Forestry Commission are very well versed with the technical and silvicultural needs of *Ofram*. At present, top-quality *Ofram* seedlings can be easily purchased from the Forest Research Institute of Ghana in Kumasi. Planted seedlings survival rate for FORIG's *Ofram* inputs have been reported to average 85 per cent provided they are planted in May or June. Mean annual rainfall in the project area is ideal for *Ofram* cultivation. Mean annual rainfall is above 2600 mm, with soil texture alternating from light loamy soil to medium clayey.

**Planting and Spacing:** Owing to the presence of the *Moringa oleifera* plant vegetable which shall be interspersed with *Ofram* (and *Wawa*), seedlings shall be planted at distances of 3m x 6m. The seedlings will be planted early in the year to allow for maximum supply of rain water. A survival count should be undertaken after 6 to 7 weeks. Beating up should be undertaken within seven weeks of initial planting.

**Diseases of *Ofram*:** *Ofram*, like *Wawa*, is relatively disease resistant assuming good quality soil, regular weeding, and protection from wild fires. However, some minimal level (less than 8 per cent of examined quantities) of branch dieback, bark necrosis, and sapwood staining have been discovered in *Terminalia ivorensis* (*Emire*) and *Terminalia superba* (*Ofram*) near the Ghana-Ivory Coast border, about 350 kilometers from the project area. recently. Well-informed experts however think that these disease occurrences could be due to wild fires, drought, and soil nutrient deficiencies in the study area.

**General Tolerance:** *Ofram* plantations are known to be drought hardy, moderately frost resistant, and tolerant to brief seasonal water-logging. The tree is however light demanding. Early pruning is advisable for *Ofram*. Recommendation for final harvesting will vary from 15 to 25 years. *Ofram* produces medium-density wood with high market value in Ghana and overseas. They are used as:

- Construction material;
- poles and posts;
- veneer and plywood inputs;
- carvings and turnery; and
- versatile packaging material.

### 2.5.3 **TEAK: Experiences Regarding Teak Cultivation in Ghana**

Ghana's natural forests will soon no longer be able to supply 2006/2007 levels of tropical hardwood demand. Steps are therefore being taken to find alternative sources of hardwood supply. The Government of Ghana recognizes the severity of the problem, and is creating the required enabling environment to encourage private sector investment in TEAK plantations, especially.

**TEAK** (*Tectona grandis Linn.f*) is a very popular tropical hardwood among both people who process it as well as among users of the end product. In eak growing, **BEST PRACTICE** is the application of superior technical, managerial, and financial know-how to satisfy the goals of the grower, without causing damage to the environment or to society. The Forest Research Institute of Ghana (FORIG) located at Fumesua-Kumasi, has developed superior *plus* teak trees and seedlings. The seedlings are available to the public at reasonable prices.

**Planting And Spacing: Plant 1,110 teak trees per ha (3m x 3m).** Plant sufficiently early in the year to allow full growing potential in the first year. Do not plant after the month of June as a general rule.

**Survival Count:** Carry out a survival count one month after planting. Replant where mortality surpasses 10 per cent and is randomly distributed. Replanting (or beating up) should be done as early as possible in the growing season..

**Weeding** should be carried out every two or three months depending on vegetation growth and growth of unwanted weeds. Weeding (where grass is scraped away from the young teak plant) can make dramatic favorable results. Grass causes problems for the young teak plant in terms of survival and fast growth.

**Diseases:** Teak is relatively disease-free. However, stem rot can occur, through poor soil selection or from bush fire.

**Early pruning of teak** is advisable to improve wood quality and increase the merchantable height on the best teak trees. **Thinning** is one other activity that should be carried out on time and adequately! Carry out thinning by all means before the 7<sup>th</sup> or 8<sup>th</sup> year. Carry out first thinning when the stand is about 12 m. Remove 50 per cent of the trees and leave about 500 trees only per hectare.

**The Rotation:** Recommendations for final harvesting will vary from 20 to 30 years depending on the fertility of the soil.

**Teak has a reputation for excellent wood quality.** Teak wood properties include:

- Strength and lightness.
- Dimensional stability.
- Non-corroding properties.
- Ease of working and seasoning.
- Termite, fungus, and weather resistant.
- Relatively straightforward machining properties.



**Useful Plantation Experience Already:** Four of the six targeted women project groups have valuable experience (from the Pilot Project Phase 2007-2008) in the nursing of *Teak*, *Wawa*, and *Ofram* seedlings and their transplanting and maintenance on larger plantation plots.

#### 2.5.4 Moringa Oleifera

In just under **FIVE MONTHS** of planting from **seeds, seedlings, or stem cuttings**, *Moringa oleifera* grows up to five meters and produces prolific volumes of **fresh leaves** and (after nine months, **green edible pods**) that are very rich in the vitamins named below. The plant can grow well in **ALL** the ten regions of Ghana, **particularly** in the target project areas where the vegetation is lush secondary tropical forest. *Moringa* tolerates a wide range of soil conditions, but prefers a neutral slightly acidic (pH. 6.3 – 7.0) well-drained sandy or loamy soil. Minimum annual rainfall requirements are estimated at 250 mm with maximum at over 3,000 mm. In water-logged soil, the roots have a tendency to rot. In areas with heavy rainfall, trees can be planted on small hills to encourage water run-off. The presence of a long taproot makes it resistant to periods of drought. *Moringa* seeds have no dormancy period, so they can be planted as soon as they are mature. The seeds retain their ability to germinate for up to one year. Seed germination occurs within 5 to 12 days. Left alone, a *Moringa* tree can eventually reach 12 meters in height with a trunk 30cm wide. However, the tree can be annually cut back to one meter from the ground. Within three years, a tree will yield 400 – 600 pods annually. For intensive *Moringa* production, plant the tree every 3 meters in rows 3 meters apart.

#### 2.5.4 Vitamins And Essential Nutrients Found in *Moringa Oleifera* Fresh Leaves, Fresh Green Pods, or Dried Leaf Powder

Scientifically Proven Concentrated Vitamins	Other Scientifically Proven Minerals	Essential Amino Acids
(1) Vitamin A ( <i>Beta-carotene</i> )	(8) Protein	(23) Arginine
(2) Vitamin B ( <i>Choline</i> )	(9) Iron	(24) Cystine
(3) Vitamin B1 ( <i>Thiamin</i> )	(10) Calcium	(25) Histidine
(4) Vitamin B2 ( <i>Riboflavin</i> )	(11) Phosphorus	(26) Leucine
(5) Vitamin B3 ( <i>Niacin</i> )	(12) Magnesium	(27) Isoleucine
(6) Vitamin C ( <i>Ascorbic acid</i> )	(13) Potassium	(28) Lysine
(7) Vitamin E ( <i>Tocopherol acetate</i> )	(14) Zinc	(29) Methionine
	(15) Sodium	(30) Phenylalanine
	(16) Sulfur	(31) Threonine
	(17) Light Vegetable Fat	(32) Tryptophan
	(18) Light Carbohydrates	(33) Valine
	(19) Fiber	
	(20) Copper	
	(21) Selenium	
	(22) Oxalic acid	
<b>Total Number of Vitamins &amp; Nutrients in Moringa Plant = 33</b>		

**2.5.5 Sufficient Moringa Seed Supply Available: *PITRIS CONSULT*, the Project Executing Agency has enough Moringa Seeds to supply ALL the six project communities up to the end of the Phase 2 Project in 2011 without any extra cost to the ITTO.**

## **2.6 Economic Aspects**

All the figures provided in this section are based on actual revenue and sales figures of recently (that is, 2008) sold *Wawa*, *Ofram Teak*, and *Moringa* products. The economic benefits and advantages of the project can be quantitatively and qualitatively described and assessed in different ways, forms, and levels as follows.

### **2.6.1 Economic Benefits From The Project's Timber Products**

**Long-Term Economic Benefits: *Wawa*, *Ofram*, and *Teak*,** rank as the leading sawn timber types in Ghana's export trade at present (according to a Forestry Commission Newsletter, "*The Ghana Gazette*". The same applies to sliced and rotary veneer, flooring wood, furniture parts, plywood, machined timber, moulds, and profiled boards. Between January and September 2007, for example, Ghana received **\$74,474,000 revenue from such external trade**. Within the next 25 to 30 years, the project's timber outputs will surely contribute to Ghana's external trade in the financial proportions indicated by the above export figures.

**Faster Short Term Benefits** from the project's *teak*, *Wawa*, and *Ofram* (for the women's groups and the community (especially after plantations are pruned or thinned) include:

- Construction poles or young timber materials.
- Building poles, Village roofing wood
- Fuel wood, Propping poles.
- Wood for essential furniture parts, among others.

### **2.6.1 Economic Benefits from the Phase 2 (NEW) Moringa Products to be Promoted**

<b>Moringa Product</b>	<b>Planned Production Quantities and Sales</b>	<b>Expected Yearly Revenue</b>
<b>Moringa Soft Drink</b> <i>(with multiple vitamins)</i>	20,000 (0.75 liter) plastic containers per quarter @ 1 US\$ each	US\$60,000 (All six communities together)
<b>Local Moringa Soup Recipes</b>	To be promoted as popular household staples. Six thousand usage packs per community yearly	US\$36,000 (approximately) (All six communities together)
<b>Moringa Hair Foods</b>	2,000 packs every quarter @ \$1 each	US\$6,000 (All six communities together)
<b>Moringa Body Soap</b> <i>(with excellent nutrient properties)</i>	10,000 packs per quarter @ US\$ 0.5 each	US\$15,000 (All six communities together)

## 2.6.2 The Project's Economic Contributions Viewed From Rural Poverty Alleviation Angles

Based on the project principles of **LIVELIHOOD APPROACH**, people (or specifically targeted village women and their nucleus families) are at the center of the reforestation effort. The project's economic benefits described above therefore contribute to the development of the rural villages' target resources in terms of:

- **Local human capital;**
- **Local natural capital.**
- **Local social capital; and**
- **Local financial capital.**

**Local human capital** represents the skills, knowledge, and good health of rural people to labor, improve, and prosper. **Local social capital** refers to project-related networks and relationships of trust that are nurtured and developed which form the enhanced basis for present and future individual, group, and societal advancement. **Local natural capital** refers (in our context) to natural resource stocks like non-timber forest products (NTFPs) and precious timber resources, from which other useful benefits and services emerge. **Local financial capital** refers to project-related savings, regular money income flows, and useful petty credit possibility networks that open up for the four village women groups and their communities at large. *These help to inject a useful level of confidence and stability into their lives.*

## 2.6.3 How Will Plantation Maintenance Costs Be Met After The Project?

After the initial hired local labor for tough bush clearing after which seedlings are transplanted, the second, third, fourth, fifth, and sixth plantation weeding will be done with **HOES AND PAID FOR BY THE PROJECT**. The idea is to **EASE** future weeding burdens. After the sixth weeding, all subsequent weeding will be performed very easily and promptly by the target women's group members themselves with supervision from **Pitris Consult**, the local executing agency. A special membership maintenance savings account has already been started at the local community rural bank during the Pilot Phase of the project (preceding this Phase 2 Project) to ensure smooth maintenance particularly in the immediate post-project era..

## 2.7 Environmental Aspects

Although it can be academically argued that such a small project contributes to environmental improvement **in principle**, it is a bit of an exaggeration to attribute significant environmental gains to small reforestation projects like this one. **At the**

**environmental front however**, the project's promotional slogan perhaps ought to be taken seriously: namely, *“several little drops of well-planned and well-implemented community mixed plantation programs can surely make a mighty ocean in the aggregate!”*

## **2.8 Social Aspects**

**The Social Context:** All the four project communities are Akan-speaking communities. The Akan language group is the largest ethnic group in Ghana (almost 43 per cent of the entire population). The population of the four communities is approximately 11.8 million people, and fairly homogenous. This means that, less than 5 per cent of the people are non-Akans, mainly settled farmers from other parts of Ghana. Land title therefore remains firmly in the hands of the indigenous Akan people. Most of the people are Christians or traditional belief holders. Traditional power is in the hands of local chiefs and sub-chiefs. Social organization comes in the form of extended families, sub-clans, clans, villages and towns. Society is basically male-dominated, with women being heavily overshadowed in most societal relation by men. Most segments of society are now convinced that, women should be emancipated in both social and economic aspects. It is mainly for this reason that a local decision was taken to institute this reforestation project in favor of local women. All the four women's groups are already old, thriving socio-cultural units with multiple objectives aimed at improving upon the socio-economic interests of their members.

**In Ghana, interest in land originates from three main sources:**

- (a) Ghanaian traditional and customary law;
- (b) Parts of English Common Law assimilated into Ghana Common Law; and
- (c) The 1992 Ghana National Constitution and related promulgated laws.

Title to land in Ghana could be one of **four types**: namely (1) allodial title (which is the highest land title existing in the country); (2) freehold interest (which could be either customary freehold or common law freehold); (3) leasehold (which could be short or long-term, **as all the allotted project lands for this project are long-term leaseholds**); and (4) lesser customary share-cropping land tenancy agreements.

### **2.8.1 Local Land For This Specific Project**

Individual land to be used by the women's groups will be conflict-free 49-year period free leaseholds (not Stool lands), granted by bona fide clan heads who are the rightful allodial land title holders. Since all the women **beneficiary owners** are resident indigenous

citizens in their communities, the leased lands (of average 2 – 5 acres) by their respective authoritative clan heads or family heads *constitute a hefty local contribution in an otherwise male-dominated society*. The **SPECIFIC SIZE of land that each woman beneficiary will utilize** has therefore already been indicated on project documents, **SIGNED** by each woman beneficiary and **ATTACHED to the appendix to this project proposal**. Appropriate indentures will be made to all relevant project stakeholders by the end of the first year of the Phase 2 project period.

**Land, Land Use And Land Tenure In The Project Area:** Compared to the national average regarding population versus available arable land, the selected four villages can boast of far above average land availability statistics. In the four selected villages, fertile secondary forest still exists uncultivated and stretch literally over very vast areas uncultivated although visibly depleted in terms of precious commercial timber species. Immigrant farmers are very few in the area: about 5 per cent of the population.

Where secondary land has been cultivated, they are often by indigenous dependants of family members who are lawful successors of customary freehold title holders. They are legally free to use the land for as long as they please.

**Land Use Patterns:** Most land in the project area is used for the cultivation of subsistent crops like cassava, maize, vegetables, oil palm, and to a lesser extent, cocoa, a tree cash crop that reached its cultivation heydays in the 1960s and has since been on a persistent decline.

### 2.8.2 Sharing Of Project Benefits

The project will have two types of project plantations in each of the six villages. There will be a **mixed plantation of *Wawa* and *Ofram* indigenous tree species (50 per cent), as well as *teak* in single stands (50 per cent)** boarded by a minimum of two rows of *Wawa* and *Ofram* mixtures. The project stakeholders at the village level have agreed to share the benefits as follows:

**Project Plantation Plots' Ownership Shares (in %)**  
(These percentages apply to all the 6 target villages)

Village Stakeholder	Percentage Owned
<b>(a) The individual village woman in whose name the land has been allocated</b>	<b>90%</b>
<b>(b) The land-giving family</b>	<b>10%</b>
<b>TOTAL</b>	<b>100%</b>

**The Idea of Co-Management Is Well-Grounded:** The local community institutions are therefore the owners, willing implementing partners, major co-decision makers, as well as the main beneficiaries of the project. The idea to undertake the **Phase 2 Project** fundamentally originated from the target women groups developed during the **Pilot Phase (2007-2008)**. Socially therefore, the project will make a **SIGNIFICANT** contribution in terms of:

- Confidence building in self-management strategies.
- Team building competence development.
- Multiple gains in terms of mother-child reproductive health and nutrition.
- Guaranteed social and economic stability in target rural communities where only about **5 per cent** of the population are members of the State Social Security system (**SSNIT**). Even a hundred surviving *Ofram, Wawa, or Teak* trees provide better socio-economic security prospects than the State can ever provide to the women members of the project groups, and their families!

#### Other Important Social Context Statistics

Socio-Cultural Dimension	Brief Details
<b>(f) Land conflicts and litigation:</b>	These are very minimal in the area partly as a result of the homogeneous nature of the population. The council of local elders normally mediate among parties in cases of conflict. This point is good news for the project.
<b>(i) Religion and Culture:</b>	Seventy per cent of the people are Christians; 20 per cent are believers in traditional religion; and 10m per cent are Moslems. The <i>Odwira</i> (or Stool purification) festival is very popular in all the project areas. The project plans to take advantage of the festival period to promote environmental conservation and forest improvement, including the multiple nutrients of the <i>Moringa</i> plant.
<b>(j) Relationship of the people with local tropical forests and their remnants</b>	At least 75 per cent of the people have in recent surveys admitted to enjoying direct or indirect NTFP benefits emanating from the local forest. The project plans to capitalize constructively on this local awareness. <b>“Our forests are truly our life”</b> , said by a local women’s group leader.

## 2.9 Risks

During the execution of the project, the management will try as far as possible to eliminate project risks, or minimize their effect to the advantage of stakeholders.

Risk	Implementation Assumption	Planned Project Action To Eliminate Or Minimize Risk
<p><b>2.9.1 Changing and erratic rainfall pattern in Ghana (of late).</b></p>	<p>That minimal rainfall patterns necessary for the good growth of <i>Wawa</i>, <i>Ofram</i> and <i>Teak</i> will continue during the project period and after.</p>	<p>The project is lucky in terms of rainfall. For, while yearly rainfall patterns are drastically declining in some parts of Ghana, the actual yearly rainfall volume in the project area is <b>INCREASING!</b> Early planting of seedlings will therefore be the rule</p>
<p><b>2.9.2 Destructive Wild Bush Fires (especially in the Asankare, Adansi, and Bompata project areas)</b></p>	<p>That wild bush fires in the project area can be prevented, minimized, or completely eliminated.</p>	<p>(a) Preventive community education, especially for fire risk groups, e.g. hunters, NTFP collectors, palm-wine tapers.  <b>(b)</b> Border planting, using fire-resistant evergreen scrubs and trees.  <b>(c)</b> Construction of fire-belts around target plantations to prevent fire outbreaks, and facilitate dry-season fire patrols.  <b>(d)</b> Motivating implementing communities to aim at 100 per cent anti-fire regimes.</p>
<p><b>2.9.3 Withdrawal of community's partnership support and interest before the end of the project.</b></p>	<p>That the collaborative implementing support of the communities (especially moral support from the local traditional chiefs) will endure throughout project implementation</p>	<p>Always ensuring a genuine active participation of all local partners in all aspects of the project cycle (i.e. project identification, project formulation, project decision, and project implementation). Project <b>benefits</b> will be fairly shared among the women participants.</p>
<p><b>2.9.4 Petty litigation over portions of the external project boundaries.</b></p>	<p>That all land-owning traditional leaders will stick to their initial pledges to give land for the demonstration plantations.</p>	<p>Ensuring an effective <b>legal documentation</b> of the project <b>land</b> as well as <b>legal rights</b> and responsibilities from <b>YEAR ONE</b> of the Project. These will be tackled as a matter of priority.</p>

### 3. Outputs

#### 3.1 Specific Objective:

Very significant increase in the availability of highly regenerative cultivable inputs of precious fast-growing forest timber species like *Wawa and Ofram in mixed stands*, as well as *teak*), along with widespread rural household use of nutritive forest plant resources (specifically, *Moringa oleifera*).

##### Output 1.1

Established and thriving **INDIVIDUAL WOMEN MIXED PLANTATIONS** of popular, indigenous, and commercial trees of *Wawa and Ofram* professionally nurtured, and **totaling 150 acres in the aggregate** in the **SIX** target rural communities (together), **OWNED**, and **MANAGED** by the respective village women members within the context of a thriving local network that ensures sustainability of functions.

##### Output 1.2

Established and thriving **INDIVIDUAL WOMEN PLANTATIONS** of commercial teak (in single stands) with each of such plantations boarded by a minimum of two rows of mixed *Wawa and Ofram trees* professionally nurtured, and **totaling 150 acres in the aggregate** in the **SIX** target rural communities (together), **OWNED**, and **MANAGED** by the respective village women members within the context of a thriving local network that ensures sustainability of functions.

##### Output 1.3

Established and thriving **SMALL-SCALE Moringa products processing** (rural women's) **INCOME EARNING BUSINESS** (e.g. Moringa soft drinks making, Moringa condiments/recipes making, Moringa hair foods, and Moringa body soap making and sale) **that significantly augments the current pre-project average yearly per head income of US\$350 per member**, professionally managed by the respective village women members, within the context of a thriving local network that ensures sustainability of functions.



## 4. ACTIVITIES

4.1 Output 1.1	Inputs and Remarks
Established and thriving <b>INDIVIDUAL WOMEN MIXED PLANTATIONS</b> of popular, indigenous, and commercial trees of <i>Wawa and Ofram</i> professionally nurtured, and <b>totaling 150 acres in the aggregate</b> in the <b>SIX</b> target rural communities (together), <b>OWNED</b> , and <b>MANAGED</b> by the respective village women members within the context of a thriving local network that ensures sustainability of functions.	Women members' labour, <i>Wawa, Ofram, and Teak</i> seedlings and other financial inputs
<b>Activity 1.1.1: Participatory LAND SECURING</b> , site selection, site surveying, demarcation, indenture preparation, and pillaring.	Labour and pillaring wooden pegs
<b>Activity 1.1.2</b> Preparation of appropriate individual site maps and ownership site plans.	Labour from the women group members, implementing agency staff, and local traditional land owners and chiefs who give out the land.
<b>Activity 1.1.3</b> Major seeds collection (e.g. <i>Wawa, Ofram</i> ), extraction, drying, purchasing, testing and storage	Labour, and financial inputs. <b>Kindly Note:</b> All Moringa seeds cost will be borne by the local Executing Agency (& NOT ITTO)
<b>Activity 1.1.4</b> <b>Establishment</b> of 6 small <i>Wawa, Ofram, and Teak</i> seed <b>NURSERIES</b> (one in each village) to produce needed seedlings to complement supplies from FORIG . These include land preparation, sowing, fertilization, watering, shading, purchasing of polythene bags, and seedling bagging.	Trained women's group labour, plus seeds and financial resources
<b>Activity 1.1.5</b> Adequate preparation of the main field plots for plantation planting activities i.e. pegging, hole digging, etc.	Wooden pegs and digging implements.
<b>Activity 1.1.6</b> <b>MAJOR RAIN SEASON TRANSPLANTING</b> of seedlings and (follow-up) beating up.	Labour and adequate water.
<b>Activity 1.1.7</b> Making of borderline anti-fire strips (where necessary)	Women's groups. Sub-contracted local male labour.
<b>Activity 1.1.8</b> <b>MAINTENANCE</b> of <b>PLANTATIONS</b> (e.g. Weeding, tending, spraying, pest control, further beating-up, and other professional activities as advised by project management and FORIG.	Guided labour.

4. **ACTIVITIES** *(continued)*

4.1 Output 1.2	Inputs and Remarks
Established and thriving <b>INDIVIDUAL WOMEN PLANTATIONS</b> of commercial teak (in single stands) with each of such plantations boarded by a minimum of two rows of mixed <i>Wawa and Ofram trees</i> professionally nurtured, and <b>totaling 150 acres in the aggregate</b> in the <b>SIX</b> target rural communities (together), <b>OWNED</b> , and <b>MANAGED</b> by the respective village women members within the context of a thriving local network that ensures sustainability of functions.	Women's group labor
<b>Activity 1.2.1</b> <b>Establishment</b> of 6 small <i>Wawa, Ofram, and Teak</i> seed <b>NURSERIES</b> (one in each village) to produce needed seedlings to complement supplies from FORIG . These include land preparation, sowing, fertilization, watering, shading, purchasing of polythene bags, and seedling bagging.	Women's group labor
<b>Activity 1.2.2</b> <b>Actual TRANSPLANTING</b> , followed by field inspection and beating up where necessary.	Seedlings, plus labour.
<b>Activity 1.2.3</b> Construction of borderline anti-fire strips where appropriate.	These help plantation patrol groups to function effectively.
<b>Activity 1.2.4</b> <b>MAINTENANCE of PLANTATIONS</b> (e.g. Weeding, tending, spraying, pest control, further beating-up, and other professional activities as advised by project management and FORIG.	Women's group labor, plus seedlings.

4. **ACTIVITIES** (continued)

<b>Output 1.3</b>	<b>Inputs and Remarks</b>
Established and thriving <b>SMALL-SCALE Moringa products processing</b> (rural women's) <b>INCOME EARNING BUSINESS</b> (e.g. Moringa soft drinks making, Moringa condiments/recipes making, Moringa hair foods, and Moringa body soap making and sale) <b>that significantly augments the pre-project average yearly per head income of US\$350 per member</b> , professionally managed by the respective village women members within the context of a thriving local network that ensures sustainability of functions.	The target groups here are basically local women groups in the target area, namely: New Jejeti, Enyiresi, Abakoase, Asankare, Adansi-Akim and Bompata communities implementing the program.
<b>Activity 1.3.1</b> General information provision and discussion forums with the women's groups and the assembling of necessary equipment and inputs in the respective 6 villages.	Trained implementing agency staff. Effective communication of meeting times, venues, and dates.
<b>Activity 1.3.2</b> Organization of several " <b>Learning-By-Doing</b> " training workshops where participants actually learn to process, make, manufacture, pack, label and sell new and (Phase 2-selected) Moringa products.	Fresh and dried Moringa leaves and green pods from old project and private plantations, as well as from registered out-growers. The project has some equipment and machines (from Phase One Project) to process the raw materials using expert resource persons.
<b>Activity 1.3.3</b> Periodic organization of formal <b>NETWORKING and training WORKSHOPS, Open Days, Moringa Promotion Days</b> for the target groups.	Trained implementing agency staff. Invited resource persons from other relevant institutions including Agricultural, Nutrition, and Health Institutions and Organizations.
<b>Activity 1.3.4</b> Arranging planned field visits to institutions that have relevant services to offer <b>the Phase 2 project in terms of OUTPUT 1.3</b> , for example, the Food and Nutrition Departments of the Universities of Ghana (Legon) and KNUST (Kumasi).	These visits help the rural women's plantation development and Moringa processing groups to build professional <b>NETWORKS</b> and function effectively as professional profit-making concerns.
<b>Activity 1.3.5</b> Promoting other target area private seedlings producers (that is, private nurseries) that are professionally sound enough to supply approved seedlings for targeted fast-growing timber species like <i>Ofram</i> , <i>Wawa</i> , or <i>Teak</i> .	Such private nurseries must have been trained by FORIG or FSD in the District.
<b>Activity 1.3.6</b> Organization of a <b>Project Monitoring Exercise</b> along with the participating groups and ITTO officials.	Transport & Accommodation

## 5. Logical Framework Worksheets

Project Elements	Indicators	Means of Verification	Assumptions
<p><b><u>Development Objective:</u></b>            Locally tested and fast-growing commercial timber base provides attractive incomes and revenue for local sales and exports on a sustainable basis. Furthermore, promoting and consolidating gains, at no extra cost to the ITTO, a highly nutritive non-timber forest product, <i>Moringa Oleifera</i>, (successfully introduced by rural women beneficiaries during the Project Pilot Phase, 2007-2008) thus providing handy, qualitative, and affordable household nutrition on a sustainable basis.</p>	<p>Ashanti and Eastern region's forestry sector potential products' contribution in Ghana's inter-regional domestic and export trade expands by at least 3% yearly from 2018.</p>	<p>Periodic official publications from the Economic &amp; Markets Bureau of the State Ministry of Food and Agriculture (MOFA), and the Ghana Statistical Services.</p>	<p>That Ghana's forest sector policies and enabling factors' promotion programs are maintained with emphasis on collaborative forest management, participation of rural women, forest fringe-populations, and sustainable forest growth and development.</p>
<p><b><u>Specific Objective</u></b>            Very significant increase in the availability of highly regenerative cultivable inputs of precious fast-growing forest timber species like <i>Wawa and Ofram in mixed stands</i>, as well as <i>teak</i>), along with widespread rural household use of nutritive forest plant resources (specifically, <i>Moringa oleifera</i>).</p>	<p>Published sector and Ministerial level information from the Ghana Forestry Commission, the Ministry of Agriculture, the Ministry of Health, and the Departments of Nutrition of the University of Ghana and KNUST in Kumasi</p>	<p>Periodic state-of-the-arts reports at Government Ministerial levels.</p>	<p>That the Ghana Forestry Commission, the Ministry of Food and Agriculture, and the Ministry of Health pursue and strengthen the policies of sustained rural development program (with emphasis on good nutrition and preventive medicine).</p>

## 5. Logical Framework Worksheets (Continued)

Project Elements	Indicators	Means of Verification	Assumptions
<p><b>Output 1:</b> Established and thriving <b>INDIVIDUAL WOMEN MIXED PLANTATIONS</b> of popular, indigenous, and commercial trees of <i>Wawa and Ofram</i> professionally nurtured, and <b>totaling 150 acres in the aggregate</b> in the <b>SIX</b> target rural communities (together), <b>OWNED</b>, and <b>MANAGED</b> by the respective village women members within the context of a thriving local network that ensures sustainability of functions.</p>	<p>(a) Targeted areas of mixed plantations of indigenous <i>Wawa and Ofram</i> professionally established with good quality seedlings or cuttings stock.</p>	<p>(a) Guided field visits.  (b) Project progress reports.</p>	<p>a) That planned and approved project funds are released on time. b) That required project inputs are made available, especially <i>Wawa</i> seeds. c) That the interest of all implementing partners are sustained. d) That wildfires are kept under control.</p>
<p><b>Output 2:</b> Established and thriving <b>INDIVIDUAL WOMEN PLANTATIONS</b> of commercial teak (in single stands) with each of such plantations boarded by two rows of mixed <i>Wawa and Ofram trees</i> professionally nurtured, and <b>totaling 150 acres in the aggregate</b> in the <b>SIX</b> target rural communities (together), <b>OWNED</b>, and <b>MANAGED</b> by the respective village women members within the context of a thriving local network that ensures sustainability.</p>	<p>Targeted mono-culture stands of professionally planted teak, boarded by virile rows of <i>Wawa and Ofram</i> in mixed stands.</p>	<p>(a) Guided field visits.  (b) Project progress reports.</p>	<p>- As above -</p>
<p><b>Output 3:</b> Established and thriving <b>SMALL-SCALE Moringa products processing</b> (rural women's) <b>INCOME EARNING BUSINESS</b> (e.g. Moringa soft drinks making, Moringa condiments/recipes making, Moringa hair foods, and Moringa body soap making and sale) that <b>significantly augments the pre-project average yearly per head income of US\$350 per member</b>, professionally managed.</p>	<p>Published information from the Ghana Ministry of Women and Children's Affairs and the Department of Social Welfare (District and Regional Offices).</p>	<p>(a) Forest Services Division's Progress Reports. (b) Officially published reports from the Forestry Research Institute of Ghana (FORIG). (c) Project Progress Reports.</p>	<p>That complementary (and enabling factors' promoting) policies are vigorously followed at relevant State Ministerial levels, particularly those that encourage sustainable collaborative forest management and rural forest improvement.</p>









**7. BUDGET:**

**7.1 OVERALL PROJECT BUDGET BY ACTIVITY (USA Dollars)**

	Budget Components						Grand Total	
	10 Project Personnel	20 Sub- Contract	30 Duty Travel	40 Capital Items	50 Consumable Items	60 Miscel- laneous		Quarter Year
<b>OUTPUT: Land Securing/Preparation for Mixed Plantations of Indigenous Commercial Timber Species (<i>Wawa</i> and <i>Ofram</i>) &amp; (Separately, Teak In Pure Stands, Boarded by Two Mixed Rows of <i>Wawa</i> and <i>Ofram</i>): (300 Acres in the aggregate):</b>								
<b>Activity 1.1:</b> LAND SECURING: Land Entry, Surveying, Demarcation, Legal Indentures Making, Initial Stakeholders' Training.	3,500	2,400	1,800	47,411	1,200	950	In Quarters 1 & 2 Yearly	57,253
<b>Activity 1.2:</b> Preparation of a participatory master mixed reforestation plan based on findings of Activity 1.1.1 above	2,800	1,560	1,000	600	3,000	1,050	-Ditto-	10,010
<b>Activity 1.3:</b> Train Women on Responsibilities, Rights, & Skills	1,400	5,600	1,000	2,400	2,400	1,500	-Ditto-	17,300
<b>Activity 2.1:</b> Seeds collection (Right quality and Quantities) Seeds & testing; purchasing (To plant 300 acres)	3,400	5,750	960	300	1,700	1,100	-Ditto-	13,210
<b>Activity 2.2</b> Make Six Community Nurseries: i.e. Beds preparation & black soil topping; seeding; sprouts and shoots nurturing; watering, transferring into poly bags. (Enough to plant 300 acres)	1,800	7,230	1,245	1,480	4,265	3,100	-Ditto-	19,120
<b>Sub-Total</b>	<b>12,900</b>	<b>22,540</b>	<b>6,005</b>	<b>52,191</b>	<b>12,565</b>	<b>7,700</b>		<b>116,893</b>

**7.1 OVERALL PROJECT BUDGET BY ACTIVITY (USA Dollars)/Continued**

	Budget Components							Grand Total
	10 Project Personnel	20 Sub- Contract	30 Duty Travel	40 Capital Items	50 Consumable Items	60 Miscel- laneous	Quarter Year	
<b>OUTPUT: Land Securing/Preparation for Mixed Plantations of Indigenous Commercial Timber Species (<i>Wawa</i> and <i>Ofram</i>) &amp; (Separately, Teak In Pure Stands, Boarded by Two Mixed Rows of <i>Wawa</i> and <i>Ofram</i>): (300 Acres in the aggregate):</b>								
Activity 2.3: Further Continuous Nurturing of the Six Community Nurseries (After the first major transfer of seedlings for planting)	1,350	1,150	820	2,650	2,000	980	Q1, & Q2, Yearly	8,950
Activity 3.1: MIXED PLANTATION ESTABLISHMENT: Land clearing & preparation, pegging, hole digging, seedlings transplanting, replanting or beating up, pest control.	2,400	7,700	2,800	3,225	12,600	650	- Ditto -	29,375
Activity 3.2: Workshop Training on skills, rights & responsibilities	2,880	3,450	1,200	4,170	3,650	900	-Ditto-	16,250
Activity 4.1: MIXED PLANTATION PROTECTION & MAINTENANCE: Quarterly weeding, tending, cultivation of effective (anti-fire) green belt, fire prevention, pests detection and control, thinning.	5,800	5,250	1,000	6,000	3,100	2,400	All year round	23,550
Activity 4.2: Meetings	1,200	2,300	560	2,400	1,200	850	-Ditto-	8,510
<b>Sub-Total</b>	<b>13,630</b>	<b>19,850</b>	<b>6,380</b>	<b>18,445</b>	<b>22,550</b>	<b>5,780</b>		<b>86,635</b>

**7.1 Overall Project Budget By Activity (In US Dollars)/Continued**

	Budget Components						Quarter Year	Grand Total
	10 Project Personnel	20 Sub- Contract	30 Duty Travel	40 Capital Items	50 Consumable Items	60 Miscel- laneous		
<b>OUTPUT: Land Securing/Preparation for Mixed Plantations of Indigenous Commercial Timber Species (<i>Wawa</i> and <i>Ofram</i>) &amp; (Separately, Teak In Pure Stands, Boarded by Two Mixed Rows of <i>Wawa</i> and <i>Ofram</i>): (300 Acres in the aggregate):</b>								
<u>Non-Activity Based Expenses:</u>								
1. Project Land Value					117,000		Year 1 – Y3	117,000
2. Fuel for project vehicle					9,000		Year 1 – Y3	9,000
3. Office Stationery & Supplies					6,450		Year 1 – Y3	6,840
4. Electricity					5,400		Year 1 – Y3	3,000
5. Spare parts for vehicle					6,000		Year 1 – Y3	4,000
6. Auditing					3,600		Year 1 – Y3	3,000
<b>Sub-Total</b>					<b>142,840</b>		<b>Year 1 – Y3</b>	<b>142,840</b>
<b>Sub-Total (ITTO TOTAL)</b>							<b>Year 1 – Y3</b>	<b>346,368</b>
<b>ITTO Monitoring &amp; Review Costs</b>								<b>45,000</b>
<b>ITTO Program Support Costs</b>								<b>31,309</b>
<b>Sub-Total (Executing Agency/Host Government Contribution)</b>							<b>Year 1 – Y3</b>	<b>214,512</b>
<b>GRAND TOTAL (US\$)</b>							<b>Y1 – Y3</b>	<b>637,189</b>

**7.2 CONSOLIDATED YEARLY PROJECT BUDGET (In US\$)**

No	Component	Unit	Quantity Per Year			Unit Cost	Year 1	Year 2	Year 3	ITTO	Executing Agency	TOTAL
			1	2	3							
10	<b>PROJECT PERSONNEL</b>											
11	<b>NATIONAL EXPERTS</b>											
	11.1 Project Coordinator	36 Months	12 Months Yearly		450	5,400	5,400	5,400	1,800	14,400	16,200	
	11.2 Training & Moringa Processing Manager (for the new Moringa nutrition products approved for Phase 2)	36 Months	12 Months Yearly		360	4,320	4,320	4,320	12,960	-	12,960	
	11.3 Community Animators (Two Positions)	36 x 2 Months	12 Months Each Yearly		360	8,640	8,640	8,640	25,920		25,920	
	11.4 Nursery Officers (Two Positions)	36 x 2 Months	12 Months Each Yearly		360	8,640	8,640	8,640	25,920		25,920	
12	<b>Administrative Staff &amp; Manual Plantation Workers</b>											
	12.1 Administrative Accountant	36 Months	12 Months Each Yearly		360	4,320	4,320	4,320	12,960		12,960	
	12.2 Project Secretary	36m	12 Months Yearly		300	3,600	3,600	3,600	10,800		10,800	
	12.3 Project Driver	36 Months	12 Months Yearly		250	3,000	3,000	3,000	9,000		9,000	
	12.4 Manual Plantation Laborers On Daily Wages (2 per community)		5 months in each year (Rain & work season determines)		600 per community	3,600	3,600	3,600	10,800		10,800	
19	<b>Component Total</b>					41,520	41,520	41,520	110,160	14,400	124,560	

**7.2 CONSOLIDATED YEARLY PROJECT BUDGET (In US\$) /Continued**

No	Component	Unit	Quantity Per Year			Unit Cost	Year 1	Year 2	Year 3	ITTO	Executing Agency	TOTAL
			1	2	3							
20	SUB-CONTRACT		100 acre	100 acre	100 acre							
21	Initial tough (degraded) forest bush clearing	300 acres in the aggregate	100 acre	100 acre	100 acre	6,500 per year aggregate	6,500	6,500	6,500	19,500	19,500	
22	Pegging and transplanting of timber species seedlings	300 acres in the aggregate	100 acre	100 acre	100 acre	3,000 per community	6,000	6,000	6,000	18,000	18,000	
23	Programmed Professional Plantation Cultivation Workshops (Ran by Experienced Forestry Professionals) for Women's Groups	Four Modules	2	1	1	1,500	3,000	1,500	1,500	6,000	6,000	
24	Plantation Maintenance Weeding	300 acres in the aggregate				2,000	4,000	4,000	4,000	12,000	12,000	
29	Component Total						19,500	18,000	18,000	55,500	55,500	

**7.2 CONSOLIDATED YEARLY PROJECT BUDGET (In US\$) /Continued**

No	Component	Unit	Quantity Per Year			Unit Cost	Year 1	Year 2	Year 3	ITTO	Executing Agency	TOTAL
			12m (Y1)	12m (Y2)	12m (Y3)							
30	DUTY TRAVEL											
31	Daily Subsistence Allowance (National)											
	31.1 Project Coordinator	Mm	12 Times Yearly			500	6,000	6,000	18,000			18,000
	31.2 Training & Moringa Processing Manager (New Products)	Mm	12 Times Yearly (Minimum)			180	2,100	2,100	6,300			6,300
	31.3 Nursery Officers (2)	Mm	As regularly as necessary to the two other communities where the nursery officer does not live in.			150	3,600 (for two)	3,600 (for two)	10,800			10,800
	31.4 Community Animator (Two Positions)	Mm	As regularly as necessary to the two other communities where the nursery officer does not live in.			100	2,400 (for two)	2,400 (for two)	7,200			7,200
	31.5 Driver	Mm	One driver working 12 months yearly			50	600	600	1,800			1,800
39	<b>Component Total</b>						<b>14,700</b>	<b>14,700</b>	<b>44,100</b>			<b>44,100</b>

**7.2 CONSOLIDATED YEARLY PROJECT BUDGET (In US\$) /Continued**

No	Component	Unit	Quantity Per Year			Unit Cost	Year 1	Year 2	Year 3	ITTO	Executing Agency	TOTAL
			1	2	3							
40	<b>CAPITAL ITEMS</b>											
41	Project Land (300 acres: Estimated Current 2007 Value)				130 per acre	39,000	39,000	39,000	-	117,000	117,000	
42	Project Equipment, Tools & Accessories											
	42.1 Project Pickup Vehicle (e.g. Toyota)	1	1		35,000	35,000			35,000		35,000	
	42.2 Locally-built Moringa Leaf DRYING Machine	6			1,000	6,000			6,000		6,000	
	42.3 Nursery equipment & accessories	2 sets			600	1,200			1,200		1,200	
	42.4 Cutlasses	300			7	700	700	700	2,100		2,100	
	42.5 Hoes	300			8	800	800	800	2,400		2,400	
	42.6 Shovels	48			6	144		144	288		288	
	42.7 Plastic drums	30			12	360			360		360	
	42.8 Large silver bowls	30			13	300	90		390		390	
	42.9 Large silver pots	24			40	800	160		960		960	
	42.10 Metal Charcoal burners (for Moringa soap making)	18			100	900		900	1,800		1,800	
	42.11 Wooden frames for shaping Moringa soap	30			100	500	500		1,000		1,000	
Page Total						85,704	41,250	41,544	51,498	117,000	51,498	

**7.2 CONSOLIDATED YEARLY PROJECT BUDGET (In US\$) /Continued**

No	Component	Unit	Quantity Per Year			Unit Cost	Year 1	Year 2	Year 3	ITTO	Executing Agency	TOTAL
			1	2	3							
	<b>Capital Items (Cont.)</b>											
42	<b>Project Equipment, Tools (Continued)</b>											
	42.12 Hand Megaphones	6			90	540			540		540	
	42.13 Wheel barrows	12			130	1,040	520		1,560		1,560	
	42.14 Wellington Boots	240 pairs			15 per pair	2,000	1,600		3,600		3,600	
	42.15 Watering cans	30			16	400		80	480		480	
	42.16 Garden weighing scales	6			50	150		150	300		300	
	42.17 Garden lines	60			5	150	150		300		300	
	42.18 Measuring tapes	6			20	120			120		120	
	42.19 First Aid Boxes (Stocked with medicines)	6			150	500	400		900		900	
	<b>Page Total</b>					<b>4,900</b>	<b>2,670</b>	<b>230</b>	<b>7,800</b>		<b>7,8000</b>	





**7.2 CONSOLIDATED YEARLY PROJECT BUDGET (In US\$) /Continued**

No	Component	Unit	Quantity Per Year			Unit Cost	Year 1	Year 2	Year 3	ITTO	Executing Agency	TOTAL
			1	2	3							
50	Consumables											
51	Raw Materials											
	51.1 High provenance seeds of selected indigenous timber species that are natural to the project area					3,000	2,000	2,000	7,000		7,000	
	51.2 Pesticides and Fungicides (Spraying)					2,000	2,000	2,000	6,000		6,000	
<i>Page Totals</i>												
						5,000	4,000	4,000	13,000		13,000	

**7.2 CONSOLIDATED YEARLY PROJECT BUDGET (In US\$) /Continued**

No	Component	Unit	Quantity Per Year			Unit Cost	Year 1	Year 2	Year 3	ITTO	Executing Agency	TOTAL
			1	2	3							
51	<b>Raw Materials</b> <i>(Cont'd)</i>											
	51.3 Wooden pegs	300000 (min.)				1,500	1,500	1,500	4,500		4,500	
	51.4 Nursery poly bags					1,200	1,200	1,200	3,600		3,600	
	51.5 Vital Moringa Products Processing Ingredients	6 villages				1,300	1,300	1,300	3,900		3,900	
	51.6 Preservatives for Edible Moringa Products					1,000	1,000	1,000	3,000		3,000	
	51.7 Packaging Materials for New Moringa Products					1,200	1,200	1,200	3,600		3,600	
	51.8 Promotion & Publicity for New Moringa Products					1,200	1,000	1,000	3,200		3,200	
52	<b>Consumables:</b> <i>(Cont'd)</i>											
	<b>52 Spare Parts</b>											
	52.3 Vehicle spares	1				1,000	1,500	1,500	4,000		4,000	
<b>Page Totals</b>						8,400	8,700	8,700	25,800		25,800	

**7.2 CONSOLIDATED YEARLY PROJECT BUDGET (In US\$) /Continued**

No	Component	Unit	Quantity Per Year		Unit Cost	Year 1	Year 2	Year 3	ITTO	Executing Agency	TOTAL	
			1	2								
53	Consumables: (Cont'd)											
	53 Fuel (Transport)											
	53. Cost of Fuel for Running Transport											
	53.1 Running Cost of 1 Project Pickup					3,000	3,000	3,000	9,000		9,000	
54	Office Supplies											
	54.1 Computer Printer Cartridges	3			280	340	250	250	840		840	
	54.2 Simple Office Furniture (Six Community Meeting Places)	6			500	3,000			3,000		3,000	
	53.3 Reports & Office Use Stationery					1,000	1,000	1,000	3,000		3,000	
	54.4 Electricity					1,000	1,000	1,000	3,000		3,000	
					<i>Page Totals</i>							
						8,340	5,250	5,250	18,840		18,840	
59	<b>Component Total</b>					<b>21,740</b>	<b>17,950</b>	<b>17,950</b>	<b>57,640</b>		<b>57,640</b>	

**7.2 CONSOLIDATED YEARLY PROJECT BUDGET (In US\$) /Continued**

No	Component	Unit	Quantity Per Year			Unit Cost	Year 1	Year 2	Year 3	ITTO	Executing Agency	TOTAL
			1	2	3							
60	Miscellaneous											
	61 Auditing					1,500	1,500	2,000	5,000		5,000	
	62 Steering Committee Meetings		2	2	2	1,500	1,500	1,500	4,500		4,500	
	63 Sundries					500	600	600	1,700		1,700	
69	<b>Component Total</b>					3,500	3,600	4,100	11,200		11,200	
70	Executing Agency Management Cost: <i>15 per cent of Total of Overall Project Budget by Activity</i>									83,112	83,112	
	<b>SUB-TOTAL (1):</b>								348,368	214,512	562,880	
80	ITTO Monitoring, Evaluation, & Admin.											
	81. Monitoring & Review Costs (for 3 years @ \$10,000 per year).					10,000	10,000	10,000	30,000		30,000	
	82. Final Project Evaluation Costs							15,000	15,000		15,000	
	<b>SUB-TOTAL (2)</b>								393,368		607,880	
	83. Programme Support Costs (i.e. 8 % of Sub-Total 2 above)											
90	Refund of Pre-Project Costs (if any)								31,469		31,469	
100	<b>GRAND TOTAL (US\$)</b>								424,837	214,512	639,349	

**7.3 Yearly Project Budget By Source: ITTO**

Budget Components/Annual Disbursements		TOTAL	Year 1	Year 2	Year 3
10	Project Personnel	110,160	36,720	36,720	36,720
20	Sub-Contract	55,500	19,500	18,000	18,000
30	Duty Travel	44,100	14,700	14,700	14,700
40	Capital Items	69,768	59,674	4,920	5,174
50	Consumable Items	57,640	21,740	17,950	17,950
60	Miscellaneous	11,200	3,500	3,600	4,100
	<b>SUB-TOTAL (1)</b>	<b>348,368</b>	<b>155,834</b>	<b>95,890</b>	<b>96,644</b>
80	<u>ITTO Administration, Monitoring &amp; Evaluation:</u>				
81	ITTO Monitoring & Evaluation & Review	45,000			
	<b>SUB-TOTAL (2)</b>	<b>393,368</b>			
83	Program Support Costs: (8% of Sub-total 2)	31,469			
90	Refund of Pre-Project Costs	-			
	<b>ITTO TOTAL (In US\$)</b>	<b>424,837</b>			

**7.4 Yearly Project Budget By Source: Executing Agency/Host Government**

	Budget Components/Annual Disbursements	TOTAL	Year 1	Year 2	Year 3
10	Project Personnel	14,400	4,800	4,800	4,800
20	Sub-Contract	-	-	-	-
30	Duty Travel	-	-	-	-
40	Capital Items	117,000	39,000	39,000	39,000
50	Consumable Items	-	-	-	-
60	Miscellaneous	-	-	-	-
70	Executing Agency Management Costs: (15% of Overall Project Budget By Activity)	83,112	27,704	27,704	27,704
<b>TOTAL: Executing Agency/Host Government</b>		<b>214,512</b>	<b>71,504</b>	<b>71,504</b>	<b>71,504</b>

### Part III: Operational Arrangements

*“You are NOT born as a woman in today’s terms. You have been MADE into a woman by today’s societal and patriarchal interests. WHO will help today’s rural woman in developing countries?”*

Said by a Female Resource Person during the Pilot Phase Project (Asankare, Ghana, 2007).

#### **RURAL WOMEN EMPOWERMENT: The Bed-Rock of the Operational Arrangements**

**In our project implementation model, the leader is not considered to have his or her “followers” in the traditional sense. Rather, the leader of our empowered ITTO Rural Women’s Reforestation Project Team is a Leader of Leaders. Empowerment is a PROCESS.**

**Empowering the project’s target rural women collectively as a group and individually as active and focused stakeholders is the bed-rock or the cornerstone of this Phase Two Project’s Operational Arrangements. Project target rural women’s empowerment therefore is the process of persuasively encouraging project staff and the rural women beneficiaries at all levels to become actively involved in project planning and project decision making activities that affect their work and their lives. By giving project members more responsibility, and letting them play a more meaningful and active role, the project can expect the women to become more enthusiastic, happily motivated, reflective, cooperative, and contributive, thus taking pride in their work and consistently perform well in line with planned targets, objectives, and goals.**

**How does the project stand to benefit from target women empowerment?**

**Apart from the increased productivity and performance of the individual or the collective women’s group, empowered project staff and members can also bring the entire ITTO Women’s Project closer to the rural communities, to other project stakeholders, and to project customers by improving service, ensure continuous resourcefulness and innovation, and thus help gain wider recognition and competitive advantage. Women’s empowerment in project implementation therefore has individual, group, economic, social, cultural, and environmental connotations. There is therefore no way a progressive women’s project (like this ITTO-Women’s Reforestation Project) can effectively discover the beneficiary members’ needs and meaningfully adapt to them WITHOUT the empowering participation of the women, in shaping and re-shaping relevant implementation issues.**

**Women’s empowerment with regard to an effective reforestation implementation program therefore has multiple dimensions, namely:**

- **Individual and the group’s active involvement and participation.**
- **Recognition and respect for rural values and cultural bonds.**
- **Promotion of self-reliance (in terms of reliance on your individual self and local resources).**
- **Promotion of community justice and social fairness.**
- **The ensuring of local ecological balance in the sense that, environmental resources are utilized in full awareness of the potentials and limits of the local ecosystem with a mind also on the needs of future generations.**



In summarizing the above introduction on women's empowerment strategies in project implementation, we can say that, rural reforestation work takes place in symbolically mediated and constructed institutional settings. In our context, rural Ghanaian women (in the Ashanti and Eastern Regions of the country) are traditionally marginalized and disadvantaged. How do we give them a level play field in their continuous interaction with high-placed formal sector forestry institutions, professionals, and administration officials, including project executing agency staff, with the intention of planting and managing mixed indigenous plantations and teak, that eventually lead to individual, group, community, and environmental advantages? This is the challenge. Women's empowerment therefore implies the creation of effective project working relationships by adopting and applying (among other things), the following key skills:

- (a) Keeping always in focus, a simple set of project aims and specific objectives.
- (b) Application of transparent financial accountability strategies that are simple and responsive to suggestions and revision.
- (c) Effective interactive communication where each actor has equal access to speech and receive respect and good consideration for project suggestions made.
- (d) Genuine stakeholder commitment and participation at all levels, especially the individual project woman's level.
- (e) Learning, Training, Instructing, Listening, Coaching, and Facilitating Strategies that are all-inclusive.
- (f) Positive information feed-back loops that are transparent and seen to be truly functional.
- (g) Equitable and just motivational and rewarding systems that are all-inclusive.
- (h) Truly participatory project decision-making processes, including participatory monitoring, action reviews and evaluation strategies.

#### **Project Advisory Bodies and Their Specific Empowering Mechanisms**

All the above (women's skill) empowering strategies will be creatively put in practice by (a) Pitris Consult, the Project's Executing Agency, (b) the Project Steering Committee (PSC), the Forestry Research Institute of Ghana (FORIG), and the Ghana Forestry Commission, especially the Forest Services Division (FSD) in their various capacities as Project Advisory Bodies, through their various specialty and professionally-qualified intervention areas as follows:

**Project Advisory Bodies and Their Specific Empowering Mechanisms**

<b>Project Advisory Body</b>	<b>Empowering Intervention Mechanisms, Processes, &amp; Specific Strategies</b>
<p>(a) <u>The Forestry Research Institute of Ghana (FORIG),</u></p> <p style="text-align: center;"><i>and</i></p> <p>(b) <u>The Ghana Forestry Commission (especially Forest Services Division, FSD)</u></p>	(a) Advice on Sites Selection: FORIG and FSD will provide adequate advice to the women project beneficiaries on appropriate sites for the indigenous plantations (as well as teak plantation) in the communities.
	(b) Advice on the Women’s Project Planning: Including advice on NTFP selection at village level.
	(c) Forestry Research Information Sharing: FORIG has a wealth of relevant knowledge to share on the indigenous species ( <i>Ofram &amp; Wawa</i> ) selected for planting
	(d) Providing Virile & Subsidized Seeds and Seedlings: Especially for the project’s indigenous tree species.
	(e) Reforestation & Empowerment Training: FORIG and FSD will provide experienced personnel as Resource Persons for project’s reforestation and empowerment training sessions.
	(f) Helping to provide adequate Project Monitoring & Evaluation Resources and Facilities: e.g. Chairmanship, ICT, and Stenography resources and conference room facilities during quarterly Project PTC Meetings.
	(g) Assisting in Project Promotion and Publicity: e.g. Using the Newsletters, journals, and other publicity media available to FSD and FORIG.
	(e) Include This ITTO-women’s Project in Extension Service Delivery: Particularly field services executed by the Forest Services Division (FSD).

**Project Advisory Bodies and Their Specific Empowering Mechanisms (Continued)**

<p align="center"><b>Project Advisory Body</b></p>	<p align="center"><b>Empowering Intervention Mechanisms, Processes, &amp; Specific Strategies</b></p>
<p><b><u>The Project Steering Committee (PSC)</u></b></p>	<p><b>(a) Advice on Project Policy Determination and Broad Goal Setting:</b> The PSC will use its broad-based composition to do this work. The PSC members include Project Women's Executives, Queen Mothers, Chiefs, Local Land-Owners, FSD Technocrats, local politicians, District Assembly Officials, and selected Executing Agency Staff.</p>
	<p><b>(b) An Important Player in Project-Related Conflict Handling:</b> The PSC will play the role of arbiter in all project-related conflicts. Conflict prevention is an enviable women's empowering ideal. Conflict mediation is however (often) the obvious practical avenue towards effective project implementation.</p>
	<p><b>(c) Help Establish Social and Technical Links and Project Development Networks:</b> Especially among all project stakeholders (social, political, economic, professional, technical and international).</p>
	<p><b>(d) Appoint an Independent Financial Auditor:</b> who will audit the books of project management for on-ward submission to the PTC, the PSC, and the ITTO.</p>
	<p><b>(f) Helping to provide adequate Project Monitoring &amp; Evaluation Resources and Facilities:</b> e.g. Chairmanship, ICT, and Stenography resources, conference room, and restaurant facilities during quarterly Project PTC Meetings.</p>
	<p><b>(g) Assisting in Project Advertisement and Open Day Celebrations at the Local and District Levels:</b> e.g. Using the PSC's broad-based reputation, and access to multiple local publicity media, including traditional methods of effective local communication.</p>

**Project Executing Agency and Its Specific Empowering Mechanisms (Continued)**

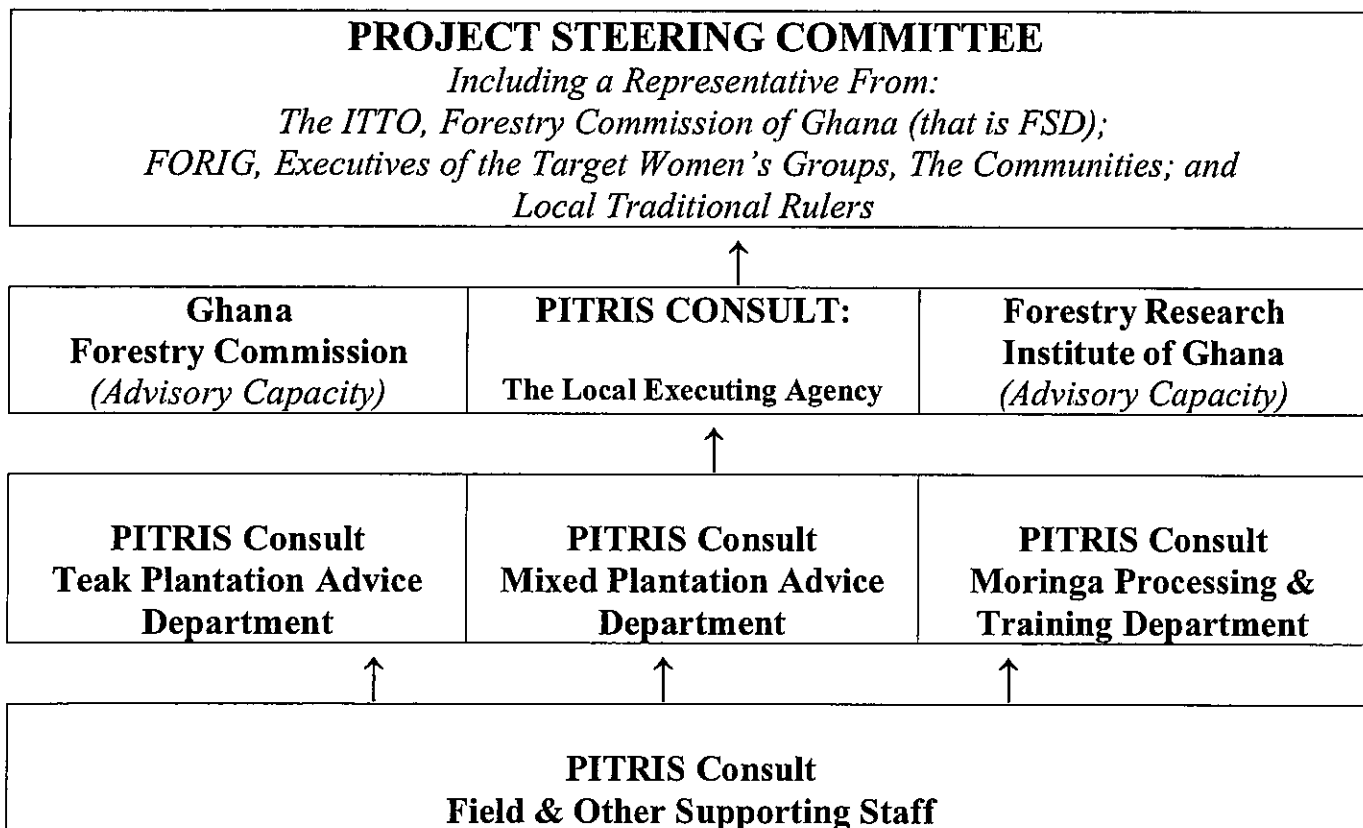
<p><b>Project Executing Agency</b></p>	<p><b>Empowering Intervention Mechanisms, Processes, &amp; Specific Strategies</b></p>
<p><b><u>Key Staff of Pitris Consult and Six (6) Women to represent each of the six groups of women to be involved in the project implementation</u></b></p>	<p><b><u>(a) Participatory project implementation with the women beneficiaries in central position through the establishment a Special Unit for Project Management composed of key project staff and six women from the six groups of women involved in the project implementation.</u></b></p> <p><b>(b) Advice and participatory decision-making on indigenous tree species selection.</b></p> <p><b>(c) Advice and participatory decision-making on suitable project sites selection with the participating women, land-owners, their executives, and District-level FSD officials</b></p> <p><b>(d) Participatory installation of important reforestation and empowerment training schemes and modules with the advice of the Women Groups, FORIG &amp; FSD.</b></p> <p><b>(e) Participatory sites demarcation and documentation.</b></p> <p><b>(f) Participatory seeds collection, and seedlings nurseries making with technical and indigenous knowledge advice from the target communities, FORIG, and FSD.</b></p> <p><b>(g) Participatory and cost-effective land clearing, land preparation, pegging, hole digging, and seedlings transplanting.</b></p> <p><b>(h) Participatory and cost-effective beating-up strategies, plantation maintenance, tree tending, and fire prevention.</b></p> <p><b>(i) Participatory installation of selected Moringa products training workshops as well as empowerment training modules on effective packaging, advertisement, publicity, and marketing of the Moringa products, including the organization of Local Project Publicity Open Days.</b></p> <p><b>(j) Arranging periodic participatory community-level meetings, PSC Meetings, and PTC Meetings.</b></p> <p><b>(k) Ensuring the Supply of Adequate Project Monitoring &amp; Evaluation Resources and Facilities: e.g. Chairperson, ICT and stenography resources, as well as adequate conference room facilities for Project PTC Meetings.</b></p> <p><b>(l) Ensuring the participatory production of qualitative Yearly Plans and Project Progress Reports for the ITTO.</b></p> <p><b>(m) Help appoint an Independent Financial Auditor: who will audit the books of project management for on-ward submission to PTC Meetings, the PSC, and the ITTO.</b></p>

Finally, in rural projects that empower their target beneficiaries (like this ITTO Women’s Rural Reforestation Project seeks to do), the leader (or the Executing Agency for that matter), works for her target rural women, keeping them on the right track, motivating them to be analytical, reflective, resourceful, and creative, supporting them, empowering them, and providing them with the opportunities and resources to meaningfully contribute towards the achievement of the objectives and success of the project.

**The Executing Agency’s Project Management Team:**

The project management team will include the project coordinator (who will be an experienced and well seasoned community forester), a Moringa Processing and Training Manager, nurseries officers (with experience from the Ghana Forestry Commission, an administrative accountant, a part-time auditor, and two experienced community animators. The project’s financial procedures and transactions shall be subjected to the scrutiny of a qualified external auditor at least once every year, and it shall be obligatory for all project related staff to submit their documents for such independent audit.

**Organizational Chart**



**2. Monitoring, Reporting, and Evaluation**

Project reporting, monitoring, and evaluation shall be in-built and participatory as far as possible. Emphasis will be on both **summative** and **formative** evaluations. **Summative evaluations** help project partners to be aware of what has happened and the reasons **WHY** they happened. **Formative evaluations** assist stakeholders in making qualitative choices regarding the way forward.

## 2.1 Monitoring, Reporting, and Evaluation Schedules

Description	Dates
1 <sup>st</sup> Disbursement Request	As soon as the Project Contract is signed hopefully in September 2009.
1 <sup>st</sup> Yearly Plan of Operation	September 2009
1 <sup>st</sup> Progress Report	February 2010
2 <sup>nd</sup> Progress Report	August 2010
2 <sup>nd</sup> Yearly Plan of Operation	September 2010
3 <sup>rd</sup> Progress Report	February 2011
1 <sup>st</sup> Annual Financial Audit Report	March 2011
4 <sup>th</sup> Progress Report	August 2011
3 <sup>rd</sup> Yearly Plan of Operation	September 2011
5 <sup>th</sup> Progress Report	February 2012
2 <sup>nd</sup> Annual Financial Audit Report	March 2012
6 <sup>th</sup> Progress Report	August 2012
Completion Report	December 2012
Final Financial Audit Report	January 2013

## 2.2 Project Reporting Formats

All project **progress reporting activities** will be prepared in approved ITTO formats, and submitted by the project management in good time before Council Sessions. It is very much expected that the **project monitoring mission** will include **one ITTO staff** specially sent down to Ghana for the purpose.

## 3.0 Future Operations, Maintenance, Sustainability, and Replication of Successful Outcomes

### 3.0 Future Operations, Maintenance, and Sustainability

During the project planning stage, the following matrix or chart (suggested by two communities) was used to induce free, open, frank, and insightful discussions regarding the projects' future operations, maintenance, and sustainability questions. All six target communities agreed to be guided and bound by the conclusions that emanated from the maintenance and sustainability discussions.

#### 3.1 Future Operations, Maintenance, and Sustainability Matrix

Maintenance Activity OR Future Operation	Work to be done BY WHOM?	How Often? (When?)	Consideration for Doing a Specific Re-Forestation Work or Assignment		
			Work for Free, or Communal Labor.	Work for Cash	Flexible, in-kind, or time-specific consideration
<u>(1) Future planning and liaison work with Ghana Forestry Commission, especially FSD &amp; FORIG</u>	(a) Women's executives, & Executing agency (EA); (b) CFMC; (c) Chiefs of communities	As and when necessary	Free		Sometimes negotiated settlement in kind.
<u>(2) Legal representation on village reforestation matters</u>	- As above -	As and when necessary			Time-specific negotiated settlement in kind.
<u>(3) Legal representation on project reforestation matters</u>	- As above -	As and when necessary			Beneficiaries to make contributions to defray costs involved.
<u>(4) Land or plot boundary demarcation and maintenance issues.</u>				Cash by the beneficiaries	Sometimes as above

**3.1 Future Operations, Maintenance, and Sustainability Matrix (Continued)**

Maintenance Activity  <b>OR</b>  Future Operation	Work to be done <b>BY</b> <b>WHOM?</b>	How Often?  (When?)	Consideration for Doing a Specific Re- Forestation Work or Assignment		
			Work for Free	Work for Cash	Flexible, in-kind, or time-specific consideration
<b>(5) <u>Periodic weeding, re-planting, enrichment planting, pruning, and tree tending</u></b>	Women beneficiaries since they will learn how to do it during normal project period.	Periodic, as necessary	Free	Cash if trained hired labor is used	<b>OR:</b> use hired local labor for an agreed settlement in-kind.
<b>(6) <u>Protection and monitoring against pests and plant diseases</u></b>	(a) Executing Agency, (with) (b) Plantation owners	As necessary	Free	Cash if trained hired labor is used	Time-specific negotiated settlement.
<b>(7) <u>Protection and monitoring against wild bush fires.</u></b>	(a) Women's Executives and Beneficiaries; (b) CFMC; (c) Chiefs of the community	As necessary			Time-specific negotiated settlement, based on roles played
<b>(8) <u>Timber &amp; wood related regulatory functions</u></b>	(a) Plantation Owners; & (b) CFMC; (c) District Office of FSD	As necessary			
<b>(9) <u>NTFP or Non-timber &amp; non-wood forest products regulatory functions.</u></b>	- As above -	As necessary			
<b>(10) <u>Future project</u></b>	The EA; FSD; Women's				Time-specific



<u>replication activities</u>	executives, & trained new target groups				negotiated settlement, based on roles played
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**Meanings of Chart Abbreviations Used:** (a) EA = Project Executing Agency; (b) CFMC = (Community Level) Collaborative Forest Management Committee; (c) FSD = Forest Services Division; (d) FORIG = Forestry Research Institute (Ghana).

**3.2 Further Explanations on Future Operations and Maintenance:**

**(3.2.1) A Maintenance Bank Account: A Community-Level GROUP Plantation Maintenance Bank Account will be opened at the local rural bank called Atiwa Rural Bank (in the district capital) right from the first year of the normal project period to take care of post-project maintenance. All the individual planters have willingly and firmly agreed to undertake this petty saving so as to enhance their plantation maintenance ethic. The control and use of the savings fund will be a transparent and democratic exercise. The coordinator of the project’s executing agency and the women’s group executives have already discussed this matter with the management of the Atiwa Rural Bank and the bank has agreed to cooperate since the women are also creating rural wealth by planting demand-driven timber trees.**

**(3.2.2) Establishing an Active Husbands’ Cooperative Self-Help & Maintenance Club: The Second Phase Project has already negotiated with the project communities towards the formation and development of six voluntary “Husbands’ Cooperative Self-Help & Maintenance Club”. There will be at least one husbands’ club in each target community. These husbands’ clubs will include boy friends, resident male relatives, and brothers of the beneficiary project women. The husbands’ clubs will therefore also assist (free of charge) with post-project maintenance weeding and tree tending with training support and free cutlasses supply (from the Project Executing Agency) in the initial post-project period. The husbands’ club members will be encouraged to do the maintenance weeding in groups, and from plantation to plantation so as to keep the collective maintenance spirit and enthusiasm. This self-help practice, called Nnobo groups, already exists in some of the target communities with respect to food stuffs farming. They are very effective farm group weeding mechanisms.**

**(3.2.3 ) State Subsidy for Plantation Maintenance Weeding: According to the (Ghana) State Ministry of Forestry and the Ghana Forestry Commission, some target women participants or communities who took part in the Pilot Phase, that is, ITTO Project PD 393/06 Rev. 1(F) 2007-2008 (and who have already planted a minimum of 5 acres successfully) have qualified to attract modest state grants for plantation maintenance, especially weeding. This Second Phase Project will assist such women or communities to put together the necessary paper work to be able to attract the modest state maintenance weeding subsidies.**

**3.3 Putting the Maintenance Matrix (Above) in to Practice:**

**Pitris Consult guarantees to provide free professional and technical assistance to the project for five years after ITTO funds no longer flow in. All the six rural community women’s groups discussed and agreed to use a combination of time-specific reward methods to execute necessary future**

plantation operations and maintenance activities as outlined in the MAINTENANCE CHART shown above. This implies the execution of :

(3.3.1) specific reforestation activities (like planted tree base mulching) by the women beneficiaries themselves (since they will be special target groups for training during the normal 3-year period of the project);

(3.3.2) some future reforestation functions like tough bush weeding using husbands or well-wishers (for free) OR trained but hired local labor for a fee or other negotiated local in-kind settlements like harvesting border-line plantains or cocoyam in lieu of cash.

(3.3.3) reforestation functions with common-good undertones (like keeping out wild bush fires, or plantation border demarcations and joint border maintenance) using broad-based community institutions like the Collaborative Forest Management Committee (who normally work either for free, or for flexible negotiated settlements.

#### 3.4 Establishment of Active Community-based Collaborative Forest Management Committees (CFMCs) in every Target Community:

To facilitate the operations and monitoring of all the plantation maintenance activities mentioned earlier in this section, there will be the need to quickly establish in 2009 and 2010, active community-based Collaborative Forest Management Committees (CFMCs) in each of the six target communities, namely, Asankare, Adansi, Bompata (in the Ashanti Region), and New Jejeti, Enyiresi, and Abakoase (in the Eastern Region of Ghana). The broad-based CFMCs will exhibit several conflicting interests in local forestry, hence the need for frank discussions, informed compromise, and negotiated land use settlements that will stand the test of time. The CFMCs will therefore be made up of the following categories of local land users:

(3.4.1) Selected members and executives of the women's groups;

(3.4.2) Representatives of the communities major land-owning clans and families, local indigenous farmers, local migrant farmers, and other important local land users like palm-wine tapers, hunters, timber cutters, and dealers in local non-timber forest products (NTFPs);

(3.4.3) Community-level wild bush fire preventing volunteers.

A strong, active, well-informed, and well-resourced CFMC at rural community level is half the battle when it comes to needed cooperation regarding post-project maintenance and sustainability questions.

#### 3.5 Replication of Successful Project Outcomes:

With regard to possible replication of successful project outcomes in the surrounding project district or region, the management of the Project Executing Agency has already received an encouraging number of formal written applications from nearby non-target communities. The applying communities want to know how they can also establish such successful women's rural indigenous species reforestation projects in their areas. The implementers of this Phase Two Project

**will periodically invite the leaders of such interested (but currently non-member) communities to attend some of the project's Training Workshops as well as quarterly Project Technical Committee (PTC) Meetings so as to systematically pave the way for future outcome replication functions.**

## **Part IV: Tropical Timber Framework**

### **1. Compliance With ITTA 1994 Objectives**

**This Project is in tune with ITTO GOAL No. 2 which says “Improve the tropical timber resource base of member countries”.**

**This ITTO GOAL No. 2 therefore relates to objectives (c ), (d), and (f) of Article 1 of the ITTA, 1994. The relevant ACTION point is No. 5, which says, “Encourage and assist Members, as appropriate, to:**

*“Expand the productive capacity of natural forests through intensified silvicultural practices such as better utilization of lesser-used species, promotion of Non-Timber Forest Products, guided natural regeneration, enrichment planting, and reforestation.”*

**2. Furthermore, this proposal is consistent with the following Objectives of ITTO as established under Article 1 of the ITTO Agreement 1994:**

- (c)** To contribute to the process of sustainable development.
- (d)** To enhance the capacity of members to implement a strategy for achieving exports of timber and timber products from sustainably managed forests.
- (j)** To encourage members to support and develop industrial tropical timber reforestation and forest management activities, as well as rehabilitation of degraded forest land with due regard for the interests of local communities dependent on forest resources
- (l)** To encourage members to develop national policies aimed at sustainable utilization and conservation of timber producing forests and their genetic resources, and at maintaining the ecological balance in the regions concerned, in the context of tropical timber trade.
- (m)** To promote the access to, and transfer of, technologies and technical co-operation to implement the objectives of this Agreement, including concession and preferential terms and conditions, as mutually agreed.

**Furthermore, this proposal meets the following ITTO Criteria:**

- (a)** It relates to the production and use of industrial timber through promoting reforestation of commercial species and their sustainable management.
- (b)** It yields benefits to the tropical timber economy as a whole, and is therefore relevant to both producing and consuming countries.

- (c) It relates to maintaining and expanding the international trade in tropical timber by developing plantation technology which will assure higher commercial value.
- (d) It offers reasonable prospects for positive economic returns in relation to cost.

### **Relationship to ITTO Action Plan and Priorities**

The proposal is directly related to the following activities in the **ITTO Action Plan**:

- (1) Arrest the decline and degradation of tropical forests and bring all productive forest estates as soon as possible under sustainable management so as to achieve ITTO's targeted objectives.
- (2) Support national strategies or efforts in full conformity with **ITTO's Principles**.
- (3) To instill a sense of urgency among consumer and producer nations to maintain tropical timber supply through sustainable forest management
- (4) To encourage the development of sustainable timber production from tree plantations to rehabilitate and manage non-forest and degraded lands and to reduce dependency on natural forest for timber supply;
- (5) To encourage the full participation of local institutions in the development and implementation of projects

Interpreted therefore with reference to the **ITTO Action Plan**, the proposal includes intervention issues that:

- Arrest sharp declines in the degradation of already heavily impoverished local tropical landscapes.
- Promote the gradual development of diverse commercial tropical timber species as a strategy to fully rehabilitate poorly managed and heavily burnt tropical forests.
- Add positively to global studies aimed at further enriching participatory resource management practices that encourage the full and active involvement of local people together with their proven or young institutional settings.

The planned interventions are therefore in line with, and very supportive to other on-going Ghana natural resource management policies and operational plans as outlined under **PART (I), Section 2** of this project proposal.

## **Annex A:**

### **Profile of the Local Executing Agency**

The name of the **Project Implementing Agency** is **PITRIS CONSULT, Box 4609, Kumasi, Ghana.**  
**E-mail Addresses: [pitrisconsult@yahoo.com](mailto:pitrisconsult@yahoo.com); or [pawar2002gh@yahoo.com](mailto:pawar2002gh@yahoo.com)**

**Pitris Consult** is a registered small private research & consulting firm dedicated to participatory women group development, training, rural forestry institutional capacity building, as well as health-related NTFP promotion. The rich reforestation experience of its Project Management Team, as well as the experience of some of its Steering Committee Members dates back at least ten years.

#### **The Mission of Pitris Consult**

**The Mission of Pitris Consult** is to empower disadvantaged forest-fringe groups to protect, rehabilitate, and sustainably use their local natural resources. This pre-supposes the promotion of Co-Management approaches at grassroots level, as well as the development of multipurpose NTFPs.

#### **The Infrastructure of Pitris Consult**

Pitris Consult has two small offices located at Kumasi in the Ashanti Region, and Ho in the Volta Region of Ghana. It has two computers and a old Nissan (seven-seater) vehicle. It has a key staff of five professionals (including an Economist, a Forester, a Sociologist, a Moringa Processing & training Manager, an Accountant-IT Specialist, TWO Qualified and experienced seed nursery specialists, a Natural Science Graduate, and TWO experienced Community Animators, plus five part-time Graduate Consulting Assistants.

In relation to this project, the Forestry Research Institute of Ghana (FORIG) has agreed to supply all the needed seeds and seedlings for *Ofram*, and *Wawa* for the first year of operation (and subsequent seedlings if necessary), and supervise the Executing Agency to establish village nurseries for those species. FOUR project villages already have thriving Teak nurseries of their own with support from PITRIS CONSULT (from the **PILOT PHASE PD 393/06 Rev. 1(F)**). Pitris Consult itself has enough *Moringa Oleifera* seeds to plant at least 700 acres. These will be supplied **FREE of CHARGE** to interested women beneficiaries during **the Phase 2 Project: PD 534/08 (F)**

**Projects & Studies Conducted By Pitris Consult  
From 2002 to THE PRESENT (2008)**

<b>Project</b>	<b>Beneficiary Group(s)</b>	<b>Donor Who Funded the Project</b>
<b>From 2007-2008: Serving as Executing Agency for a successful ITTO Pilot Project PD 393/06 Rev.1(F)</b>	(a) Rural self-help women groups in 4 Ghana villages: namely Enyiresi, New Jejeti, Asankare, and Adansi. (b) Akomadan Tomato Growers Association	(a) ITTO  (b) GTZ
<b>2004: Preparation of a Collaborative Forest Management Training Manual (for Trainers)</b>	Thirty-one CFM groups registered under the FSD & FORUM Project in the Volta Region of Ghana.	GTZ + Ghana Forest Services Division (of the Forestry Commission)
<b>2003: Facilitating the formation of CFM Committees around the Asuokoko Forest Reserve in the Nkwanta District of Ghana.</b>	Eighteen CFMC Groups in the Nkwanta & Jasikan Forest Districts, Ghana.	FSD + FAO (Accra Office)
<b>2003: Conducting a socio-environmental impact assessment of an ITTO funded project at the Abutia Plains.</b>	AFERM and the land-owning communities associated with the Abutia Plains Reforestation Project	ITTO + Government of Ghana.
<b>2002: River Source Reforestation: (Kalakpa River Source Community Reforestation Project), Ghana.</b>	Three communities in the Ho District of Ghana.	European Union, under the EU-GOG Decentralized Development Cooperation Program.
<b>2002: Socio-Economic Survey of 28 forest reserve (fringe) communities + A participatory identification of promising NTFPs.</b>	Twenty-eight rural communities around Chai River and Togo Plateau Forest Reserves in the Volta Region of Ghana.	DFID (UK) + Ghana Forestry Commission
<b>2003: Research Project: "Factors that assist rural institutional capacity building in the forest sector"</b>	A published book for interested stakeholders.	Pitris Consult + SIDA + Jasikan District Assembly.

**Pitris Consult's Budgets for 2007-2008, 2004, 2003, and 2002  
In Relation to Specific Items  
(Past Budgets of the Implementing Agency)  
In US Dollars (\$)**

<b>Year</b>	<b>Total Received Revenue</b>	<b>Portion of Revenue Earmarked for Some Specific Items</b>	<b>Percentage of Total</b>
<b>2007 to 2008</b>	<b>US\$260,450</b>	Personnel: = \$56,800	21%
		Duty Travel: = \$22,500	9%
		Capital Items: = \$47,100	18%
		Consumables: = \$94,825	36%
		Sub-Contracts: = \$39,225	16%
<b>2004</b>	<b>\$36,600</b>	Personnel: = \$12,100	33%
		Duty Travel: = \$2,560	7%
		Capital Items: = \$2,900	8%
		Consumables: = \$3,600	10%
		Sub-Contracts: = \$1,830	5%
<b>2003</b>	<b>\$34,250</b>	Personnel: = \$10,600	31%
		Duty Travel: = \$2,200	5.5%
		Capital Items: = \$3,100	9%
		Consumables: = \$3,300	9.6%
		Sub-Contracts: = \$2,055	6%



### Executive Agency Personnel in Quantitative Terms

Level	Quantity	Remarks
<b>Experts With Post-Graduate Qualifications</b>	4	<ul style="list-style-type: none"> <li>• Forestry (HFZ).</li> <li>• Community reforestation.</li> <li>• Development Economics.</li> <li>• Nutrition/NTFP/Health</li> <li>• Rural Anthropology</li> </ul>
<b>Experts With First University Degree</b>	3	<ul style="list-style-type: none"> <li>• Mixed Plantations Development</li> <li>• Seed nurseries Management.</li> </ul>
<b>Middle Level Technicians</b>	2	<ul style="list-style-type: none"> <li>• Moringa Processing.</li> <li>• Collaborative Forest Management (CFM)</li> </ul>
<b>Administrative Staff</b>	2	<ul style="list-style-type: none"> <li>• Project Accounting &amp; Auditing</li> </ul>
<b>Total Number of Personnel in Forestry-Related Fields</b>	5	<ul style="list-style-type: none"> <li>• Mixed Plantations (2)</li> <li>• Community reforestation</li> <li>• Woodlot Development</li> <li>• Nutrition &amp; NTFP</li> </ul>

### Curricula Vitae of KEY Staff (of the Executing Agency)

#### 1<sup>st</sup> Key Implementing Agency Staff (Project Coordinator)

**1.0 Name: Paul K. Pawar (Dr.)**

1.1 Address: P. O. Box KS- 4609, Kumasi, Ghana.

1.2 Sex: Male.

1.3 Date of Birth: 14<sup>th</sup> October 1948.

1.4 Nationality: Ghanaian.

1.5 Marital Status: Married.

1.6 Religion: Christian.

**2.0 Educational Background**

2.1 PhD. Degree + MSc. (Stockholm University) in Institutional Capacity Building (1994 & 1988).

2.2 B.Sc. Degree (Economics with Sociology) University of Ghana, Legon.

**3.0 Relevant Work Experience**

3.1 Has served successfully as Project Coordinator for the PILOT PHASE of ITTO PD 393/06 Rev. 1(F): 2007 - 2008

- 3.2 Has since 2000 conducted extensive research on Forest Reserve Co-Management Practices in Ghana, especially in the Volta Region
- 3.3 Was consultant to the civil society organizations that implemented the EU – Government of Ghana Decentralized Program that reforested the Kalakpa River Source in the Volta Region.
- 3.4 Has over the past three years served as Consultant on several CFM related programs undertaken by FSD-FORUM in the Volta Region.
- 3.5 Has recently written a training manual on Co-Management Practices that work.
- 3.6 Has in 2004-2005 been conducting field research on Moringa use practices in selected Districts of Ghana.

## 2<sup>nd</sup> Key Implementing Agency Staff (Senior Nurseries Manager)

- 1.0 **Name:** Kennedy K. Agyemang Owusu
- 1.1 **Address:** P. O. Box KS – 4609, Kumasi, Ghana.
- 1.2 **Sex:** Male.
- 1.3 **Date of Birth:** 4<sup>th</sup> April 1971
- 1.4 **Nationality:** Ghanaian.
- 1.5 **Marital Status:** Married with children
- 1.6 **Religion:** Christian.

### 2.0 Educational Background

- 2.1 An Old Product of the Ghana Forestry School, Sunyani (Now a Tertiary Forestry Institution in Ghana)

### 3.0 Relevant Work Experience

- 3.1 Has since 2000 served as Nurseries Officer on diverse Reforestation Projects in the Ashanti Region of Ghana. Has over the past three years provided **at least 95,000 virile Teak, Ofram, Kusia, Wawa** and other indigenous **SEEDLINGS (on contract sales)** from his private nurseries to the Forest Services Division of the Ghana Forestry Commission.

## 3<sup>rd</sup> Key Implementing Agency Staff (Community Animator for Teak Plantations)

- 1.0 **Name:** Stellar Nkrumah (B.Sc. Cape Coast University, Ghana)
- 1.1 **Address:** P. O. Box KS - 4609, Kumasi, Ghana.
- 1.2 **Sex:** Female.
- 1.3 **Date of Birth:** 10<sup>th</sup> August 1977.
- 1.4 **Nationality:** Ghanaian.
- 1.5 **Marital Status:** Single
- 1.6 **Religion:** Christian.

### 2.0 Educational Background

- 2.2 B.Sc. Degree (Biological Sciences) Cape Coast University, Ghana.
- 2.3 Has attended several post-qualification workshops on Forestry and Auditing in Ghana.

### 3.0 Relevant Work Experience

- 3.1 Has worked with Pitris Consult as CFM Advisor & Mixed Plantations Advisor during the Phase One Period (2007-2008)
- 3.2 Was consultant to several Kumasi-based NGO on food packaging.

- 3.3 Has over the past two year conducted research on Moringa Uses in target communities.
- 3.4 Did her national service with the Ghana Audit Services (Sunyani Regional Office).

#### **4<sup>th</sup> Key Implementing Agency Staff (Community Animator for Mixed Plantations Management)**

- 1.0 **Name:** Solomon Asiedu
- 1.1 **Address:** P. O. Box KS - 4609, Kumasi, Ghana.
- 1.2 **Sex:** Male.
- 1.3 **Date of Birth:** 4<sup>th</sup> June 1972.
- 1.4 **Nationality:** Ghanaian.
- 1.5 **Marital Status:** Married.
- 1.6 **Religion:** Christian.

#### **2.0 Educational Background**

- 2.1 B.Sc. Degree KNUST (Renewable Natural Resources).

#### **3.0 Relevant Work Experience**

- 3.1 Has worked extensively with two of the target Community Reforestation Programs.

#### **5<sup>th</sup> Key Implementing Agency Staff (Nursery Officer: Indigenous Tree Species)**

- 1.0 **Name:** Simon Lyap
- 1.1 **Address:** P. O. Box KS - 4609, Kumasi, Ghana.
- 1.2 **Sex:** Male.
- 1.3 **Date of Birth:** 19<sup>th</sup> July 1970.
- 1.4 **Nationality:** Ghanaian.
- 1.5 **Marital Status:** Married.
- 1.6 **Religion:** Christian.

#### **2.0 Educational Background**

- 2.1 **National Diploma (Forestry).** Graduate of the Premier Sunyani Forestry School.

#### **3.0 Relevant Work Experience**

- 3.1 Has worked as Senior Forestry Range Supervisor in four Ghanaian Forestry Districts for 20 years. He has also worked with GTZ on a ten-year Forest Reserve (enrichment planting program.)

#### **6<sup>th</sup> Key Implementing Agency Staff (Moringa Processing & Training Manager)**

- 1.0 **Name:** Mary Awura Adjoah Amoah
- 1.1 **Address:** P. O. Box KS - 4609, Kumasi, Ghana.
- 1.2 **Sex:** Female.
- 1.3 **Date of Birth:** 30<sup>th</sup> December 1973
- 1.4 **Nationality:** Ghanaian.
- 1.5 **Marital Status:** Married.

1.6 **Religion:** Christian.

**2.0 Educational Background**

2.1 Diploma in Food Processing & Nutrition.

2.2 Has attended several workshops in Ghana and other countries

**3.0 Relevant Work Experience**

3.1 Served successfully as the **Moringa Processing Officer** (and **Senior Community Animator**) during the **PILOT PHASE of Project PD 393/06 Rev. 1 (F)**. Loved very much by the target communities for her creativity and resourcefulness.

3.2 Worked for almost 6 years as Business Advisor to rural women groups in Ashanti and Volta Regions of Ghana.

3.3 Was part of the Pitris Consult team that served as consultant to three civil society organizations that implemented the EU – Government of Ghana Decentralized Program that reforested the Kalakpa River Source in the Volta Region.

**7<sup>th</sup> Key Implementing Agency Staff (Project Accountant)**

1.0 **Name:** Francis Agyekum

1.1 **Address:** P. O. Box KS – 4609, Kumasi, Ghana.

1.2 **Sex:** Male.

1.3 **Date of Birth:** 4<sup>th</sup> April 1977

1.4 **Nationality:** Ghanaian.

1.5 **Marital Status:** Married with children

1.6 **Religion:** Christian.

**2.0 Educational Background**

2.1 Has the final certificate of the British Royal Society of Arts in Accounting

2.2 Has attended several project management accounting workshops in Ghana.

**3.0 Relevant Work Experience**

3.1 Has since 2006 worked as accountant for a **G.T.Z. Reforestation Project**.

**OTHER Key Implementing Agency Staff Members Currently on SHORT Training Programs:**

- **G. A. Nyantakyiwaa** (Under further training on indigenous species seedlings production)
- **Kwaku Adjei** (Under further training on indigenous species seeds collection)
- **Michael Asare** (Under further training in Project Accounting/Auditing and indigenous species seeds collection).
- **Kwame Appenteng** (Under further training on indigenous species seedlings production)

## Annex B:

### Modifications Made in Line with the 37<sup>th</sup> Expert Panel Recommendations (IN TABULAR FORM)

<b>Recommendations Made by the 37<sup>th</sup> Expert Panel</b>	<b>Modifications Made in Line with the Recommendations</b>
<p><b><u>Specific Recommendation 1:</u></b></p> <p>“Improve the operational arrangements by describing how the groups of women will be <b>empowered</b> through different implementation bodies of the project (for example, the Executing Agency, the Project Steering Committee, the Advisory Bodies, that is, FORIG &amp; the Ghana Forestry Commission)”</p>	<p>Modification details on <b>Specific Recommendation 1</b> can be seen on <b>pages 53 to 58</b> in the main revised text. The concept (empowerment) was briefly introduced on pages 12 &amp; 17.</p>
<p><b><u>Specific Recommendation 2:</u></b></p> <p>“Further elaborate the <b>future operation and maintenance</b> in relation to the way to sustain and replicate the main outcomes of the project after its completion”</p>	<p>Appropriate modifications have been made inserted on pages 60, 61, 62 and 63</p>
<p><b><u>Specific Recommendation 3:</u></b></p> <p>“Adjust and update the monitoring, reporting, and evaluation section adequately”</p>	<p>Kindly see <b>page 59</b>.</p>