

INTERNATIONAL TROPICAL TIMBER ORGANIZATION

Completion Report



PD653/12Rev.1(F)

SUSTAINABLE, MIXED AND PURE FOREST PLANTATION DEVELOPMENT IN THE

Approval Level: Project Manager

Title SUSTAINABLE, MIXED AND PURE FOREST PLANTATION DEVELOPMENT IN THE TRANSITIONAL ZONE OF GHANA'S BIAKOYE
DISTRICT ASSEMBLY, EMPLOYING POVERTY REDUCTION S

Serial Number 1

Host Government: GH

Executing Agency: PICODEV-GHANA

Starting date of the project: 08/05/2013

Project Duration: 24

Completion Report

Version:1.0

Date:16/08/2015

Approval Level: Project Manager

Executing Agency's full name:

PICODEV-GHANA

Executing Agency's address:

P.O. Box 24
Nkonya-Ahenkro,
Volta Region,
Ghana

Executing Agency's telephone:

(233) 245429200 / 207551636 / 265121846

Executing Agency's fax:

Executing Agency's email:

picodev2010@yahoo.co.uk

Information on Collaborating Agency(ies):

BLAKOYE DISTRICT ASSEMBLY

Technical Staff / Scientific Staff:

No Staff

Disclaimer:

Project Completion Report (P D 653/12 Rev. 1 (F))

Project Starting Date: = 23rd May 2013.

Project Duration: = 24 months.

Project Costs(US\$1029;):

ITTO: = US\$ 245,272

Executing Agency/Government of Ghana: = US\$ 78,816

Total Project Cost = US\$ 324,088

Project Technical and Scientific Staff (Key Project Staff):

	Project Position	Name
	Project Coordinator	John Stanislaus Komla Ellety
	Cassava Processing & training Manager	Mary Awura-Adjoah Amoah
	Community Animator (1)	Yao Reddy Akplor/ Christian Aganu
	Community Animator (2)	Helen Vivian Mensah
	Seed Nursery Officer (1)	Joseph Yaw Mensah/ T. O. Edwin Samanhyiah
	Seed Nursery Officer (2)	Francis Komla Osei
	Administrative Accountant	Andrew Kudjo Ameckson
	Project Secretary	Fredrick Kwasi Onny

Implementing Institutions:

Disclaimer:

Executing Agency
PICODEV GHANA,
P. O. Box 24,
Volta Region
Ghana (West Africa).
Tel: +233245429200, +233207551636, +233506781358.
E- mail: - picodev2010@yahoo.co.uk,
elleteyjohn@yahoo.com

Advisory Body
Forest Research Institute of Ghana (FORIG) University
P. O. Box 63,
KNUST,
Kumasi,
Ghana.
Telephone: + 2335160123. Fax + 2332160121.

Advisory/Collaboratory Body
Forestry Commission (FC),
Corporate Headquarters,
P. O. Box MB 484,
Accra,
Ghana.
Tel; - (+233 - 302)401210,401227,401216
E-mail: infohq@fcghana.org.

Forest Services Division (FSD)
P. O. Box 527,
Accra,
Ghana
(Telephone & email as for corporate hq. above).

FSD Regional Office,
P. O. Box 39,
Ho
(Telephone & email as above).

FSD District Office,
P: O: Box 19,
Jasikan,
Ghana.
(Telephone and email as above).

Place and date issued: = Nkonya - Ahenkro Biakoye (District Assembly), Ghana.
10th August 2015.

Disclaimer: This Completion Report was prepared by the Project Executing Agency with the active involvement and support of the project beneficiary stake holders. The opinions expressed and the conclusions arrived at in this report therefore remain solely the responsibility of the said Executing Agency and participating beneficiary stake holders.



INTERNATIONAL TROPICAL TIMBER ORGANIZATION

PD653/12Rev.1(F)

SUSTAINABLE, MIXED AND PURE FOREST PLANTATION DEVELOPMENT IN THE

Completion Report

Version:1.0

Date:16/08/2015

Approval Level: Project Manager

Disclaimer

Project Completion Report (P D 653/12 Rev. 1 (F))

Project Starting Date: = 23rd May 2013.

Project Duration: = 24 months.

Project Costs(US#1029;):

ITTO: = US\$ 245,272

Executing Agency/Government of Ghana: = US\$ 78,816

Total Project Cost = US\$ 324,088

Project Technical and Scientific Staff (Key Project Staff):

Project Position Name

Project Coordinator John Stanislaus Komla Ellety

Cassava Processing training Manager Mary Awura-Adjoah Amoah

Community Animator (1) Yao Reddy Akplor/ Christian Aganu

Community Animator (2) Helen Vivian Mensah

Seed Nursery Officer (1) Joseph Yaw Mensah/ T. O. Edwin Samanhyiah

Seed Nursery Officer (2) Francis Komla Osei

Administrative Accountant Andrew Kudjo Ameckson

Project Secretary Fredrick Kwasi Onny

Implementing Institutions:

Executing Agency

PICODEV GHANA,

P. O. Box 24,

NkonyaAhenkro,

Ghana (West Africa).

Tel: +233245429200, +233207551636, +233506781358.

E- mail: - picodev2010@yahoo.co.uk,

elleteyjohn@yahoo.com

Volta Region

Advisory Body

Forest Research Institute of Ghana (FORIG) University

P. O. Box 63,

Disclaimer

KNUST,
Kumasi,
Ghana.
Telephone: + 2335160123. Fax + 2332160121.

Advisory/Collaboratory Body
Forestry Commission (FC),
Corporate Headquarters,
P. O. Box MB 484,
Accra,
Ghana.
Tel; - (+233 - 302)401210,401227,401216
E-mail: infohq@fcghana.org.

Forest Services Division (FSD)
P. O. Box 527,
Accra,
Ghana
(Telephone email as for corporate hq. above).

FSD Regional Office,
P. O. Box 39,
Ho
(Telephone email as above).

FSD District Office,
P: O: Box 19,
Jasikan,
Ghana.
(Telephone and email as above).

Place and date issued: = Nkonya - Ahenkro Biakoye (District Assembly), Ghana.
10th August 2015.

Disclaimer: This Completion Report was prepared by the Project Executing Agency with the active involvement and support of the project beneficiary stake holdes. The opinions expressed and the conclusions arrived at in this report therefore remain solely the responsibility of the said Executing Agency and participating beneficiary stake holders.

Executive Summary:

Executive Summary.

Executive Summary:

This successful multi dimensional pilot ITTO/JAPAN GOVERNMENT FUNDED project (PD653/12Rev.1(F) which ended shortly (23/5/15), had an excitingly relevant title: sustainable, mixed and pure forest plantation development in the transitional zone of Ghanas Biakoye Distr#305;ct Assembly, employing poverty reduction strategies.

This title / topic not only reflects the relevant concerns (improvement of forest and savana, control of bush fires and poverty reduct#305;on), of the target youth groups in the project area, but also corroborates multiple and central themes in some key ITTO Policy Agreements such as:

- a. promotion of the establishment of mixed indigenous valuable timber species of proven commercial potential;
- b. the promotion of the establishment of sustainable income-earning pure plantations of teak *Tectona grandis* and cassia *Cassia siamea*; and
- c. the professional training of target beneficiaries on creative processing of self-grown local cassava tubers (using simple home-made technology) into popular demand-driven value-added staple foods and thereby directly reducing rural poverty while complementing reforestation efforts.

The project villages (Tayi, Ahenkro, Ntumda, Tepo, Bumbula and Akposo Kabo) all within the Biakoye District Assembly (aprox.between Lat. 6° 45'N 7° 15'N and Long. 0° 30'E 0° 45'E), which forms part of the Eastern portion of Ghanas High Tropical Forest Zone, characterised by varied topography with vast stretches of flat deforested land (in the main project area) with high potential for natural regeneration of the selected indigenous project species (recent inventory results confirm).

The people in the project area are predominantly Guan with good Akan speaking background with only 10% (mainly settlers and workers) of other tribes and mostly christians, only 6% are of other religions. Traditional authority is in the hands of chiefs and sub chiefs and Social organisation is in the form of the extended families, sub clans, clans, villages and towns with largely male dominated societies, though most people now accept that women should be emancipated. This project was therefore designed in favour of gender equality.

The key problem to be addressed in the project area was the existence of large tracts of degraded forests alongside extreme poverty wide spread among the rural people including the target youth groups. The project was originally identified and mooted by members of the Tayi collaborative forest management committee (T-CFMC) and after reaching a consensus with thier couterparts in Bumbula they formed viable community-based youth groups and approached Picodev - Ghana (PG) a locally based NGO for support. With the initiative of the youth groups, the forest management and project management capability of Picodev Ghana and the eagerness and zeal of the newly created Biakoye District Assembly (BDA) to address its hydra-headed developmental issues, this pilot project was born and nurtured to successful maturity with a common purpose :- promotion of sustainable forest plantation establishment and management and poverty reduction.

To recapitulate, the development objective was meant to contribute to the sustained socio-economic development and environmental protection in the Biakoye area in Ghanas Volta Region, to restore precious indigenous and exotic timber supply base and nurture diversified local natural habitats, to expand timber-sale revenues and incomes while widening multiple domestic livelihoods oppotunities on a sustainable basis (short rotation cassia *Cassia siamea* fuel wood and cassava value adding

Executive Summary:

processing).

Similarly, the planned outputs included:

- a. 50 acres (in the aggregate ie 8.4acres x 6 communities) of popular indigenous and proven commercial trees mixed plantations;
- b. (i) 30acres (in the aggregate ie 5acres x 6 communities) of pure teak *Tectona grandis* plantations and;
(ii) 20 acres (in the aggregate ie 3.4 acres x 6 communities) of pure cassia *Cassia siamea* plantations. Additionally;
- c. (interested project community members especially target youth groups members) in the 6 project communities must have been highly proficient in cassava processing with skills that add value to raw cassava and which significantly must have raised their income level.

Outputs actually achieved are:

- output 3.1, 46.6 acres mixed indigenous plantation (93.2% success),
output 3.2a, 21.8 acres teak *Tectona grandis*, pure plantation (72.6% success),
output 3.2b 5 acres cassia *Cassia siamea* pure plantation (25% success),
output 3.3 (81% success).

All outputs achieved were within planned expenditures. Even where abnormal inflation (due to a sudden change in Government Policy to remove subsidy on fuel) threw the fuel and vehicle maintenance expenditures out of balance, due process was followed to seek approval for budget modification without extra cost to ITTO. Counterpart funds were also prudently sourced to supplement expenditures where necessary as planned.

The most critical difference between planned and realised implementation is in the area of cassia establishment (Output 3.2b) where target beneficiaries delayed appreciation of the latent sustainability philosophy implied, affected that outputs plan and implementation and hence the outcome. What is important however is that the target beneficiaries have, at long last, adopted it, developed the capacity, made a modest start, and will continue from there.

The target youth groups agree that this ITTO project PD 653/12 Rev. 1 (F) has been their eye opener that commercial tree growing cushioned with short and medium term poverty reduction strategies could be a profitable venture for the youth and an alternative legacy to bequeath to future generations. However they unanimously agreed that subsequent project support should last at least three (3) years to enable the emerging tree saplings overcome weed competition and to ensure adequate survival.

With the cassava processing component, the target youth were of the view that since cassava and the cereals (especially corn) were inseparable bed fellows in their traditional staple foods, a machine that could process the cereals also (which would be an important adjunct and catalyst to their poverty reduction ventures) would be highly appreciated.

After project intervention, the situation is like the seed (or idea) that was sown and had grown to youthfulness awaits extra care to mature and produce the much needed fruits for sustenance and

Executive Summary:

replication. The capacities of the target beneficiaries have been developed and are poised to take responsibility to ensure adequate yields (short, medium, long terms).

Lessons learned and recommendations:

This popular ITTO/ Japan Government funded project PD 653/12 Rev. 1 (F) has demonstrated vividly that, young, committed, unemployed, rural women and men could take up the establishment of commercial tree plantations using valuable indigenous timber species of proven commercial potential, in mixed stands along side, the establishment of pure plantations of teak *Tectona grandis* and cassia *Cassia siamea* thereby taking advantage of the short, medium and long term rotations, as well as, additional poverty reduction project intervention strategies.

Profuse weed growth is a key impediment to tree sapling growth and survival. It has been realised that such poverty reduction interventions if they incorporated short rotation valuable fruit-trees together with annual cereals, cow peas and staple vegetables (agroforestry practice), the target youth would be motivated to stay longer on the plantations to keep down weed growth while tending these short rotation fruit trees and staples than in the case where they were not incorporated (pure plantation). It has also been realised that where the inter-cropping is not possible, monthly line cleaning with reduced 100% weeding should be an alternative option to the quarterly weeding in order to suppress weeds in the immediate vicinity of the tree saplings, while cutting down on weeding costs.

It has also been realised that it takes a few committed youths effort (rather than the masses) and also imminence of a fair, attractive and respected project benefits for success to be achieved. If subsequent budgeting anticipates and accounts for imminent macro economic imbalances, the gap between planned and achieved outputs should be further reduced. The replication potential of project PD 653/12 Rev. 1 (F) is high and valid.

Also, the project has realised that if the processing machine was either modified to process cereals as well as the cassava, or a complementary one were obtained, the poverty reduction ventures would be catalysed and the target youth groups expectation we shall live longer and happily to maintain the planted forest trees would be, sooner than later, a reality.

The creative idea of the target youth groups to turn vast areas of degraded forest into valuable commercial plantations through self-help initiatives backed by project intervention really works and needs to be replicated.

Context:

1.0. Project Identification

1.2. Project Context

The project location in Biakoye District Assembly area, (aprox.between Lat. 6 ° 45'N 7 ° 15'N and Long. 0 ° 30'E 0 ° 45'E), socio-economic, as well as, cultural and environmental aspects have been summarised above (Executive Summary). The following, therefore, gives further insight into the relevant local, national and regional policies as they impact upon the use of the project land: THE PROJECT LANDS whether for DEMONSTRATIVE PLOTS or INDIVIDUAL YOUTH APPLICATION, are conflict-free long-term leasehold land granted by their parents, or grandfathers, or family heads who

Context:

are the rightful allodial land title holders. All project lands in all the participating communities (customary freehold lands for that matter) have ALREADY been SECURED from the community allodial land owners. A LEGAL and LONG-TERM LAND TENANCY AGREEMENT has also been drafted by a local philanthropist lawyer and discussed at all community levels and has been used as a guide for drafting the land documents administered in the project.(reference annex 3 of project proposal).

COUNTERPART CONTRIBUTION at US \$500.00 per acre, per year (total \$50,000) was partly in the form of project land, based on a 2011 Land Valuation Document addressed to a local traditional head, and which applies to the project-sub-district (reference annex 5 of project proposal) The land used for the mixed timber tree stands and the pure teak and Cassia siamea plantations totaling 100 acres was in the form of contiguous family land units used as the demonstration plots.

In the case of the cassava farms, a more liberal, largely, individual free- hold fallow system is the order. Each family group usually male and female and also members of the CFMC will cultivate up to two acres each for a couple of years until the soil is rendered infertile, which they abandon for another piece while the former is left fallow. It is cassava from these two acre farms, independent of the 100 acres (in aggregate) demonstrative plots, that were used for the training of the target youth for the processing and packaging component. There is no benefit sharing in the cassava farming as the target youth individual units are hundred percent beneficiaries of the cassava produce and products. This is a special incentive package for the target youth groups to motivate them for the maintenance of the mixed and pure plantations.

Since all the youth beneficiary owners are resident indigenous citizens in their communities, the leased lands (2 acres / 0.8 Ha in the average per head, for cassava), as well as 30 acres / 12 Ha for exotic teak, 20 acres / 8 Ha for cassia fuel wood and the 50 acres / 20 hectares mixed plantation demonstration plots) constitute a crucial local contribution in an otherwise patriarchal society.

Land, Land Use and Land Tenure in the Project Area: Immigrant farmers are fairly common in the area: about 20 % of the population. Many indigenous local land-owners are prepared to share the benefits of their land with immigrant farmers (including a percentage of ownership in trees) provided the latter are prepared to genuinely add value to the land in an honest manner. Where secondary land has been cultivated, they are often done either by indigenous dependents of family members who are lawful successors of customary freeholds, or by immigrant farmers under a traditional land use agreement. The indigenous dependents are legally free to use the land for as long as they please as long as they follow local fallow instructions. Most family lands have however been seriously abused and diminishing returns have dangerously set in. It is interesting to note that immigrant farmer participation in this project was very minimal as the target communities largely relied on extended family members.

Land Use Patterns: Most land in the project area is used for the cultivation of subsistence 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.

The organization of this pilot ITTO/JAPAN GOVERNMENT FUNDED multiple plantation development project (PD653/12 Rev. 1 (F) was in line with Ghanas national forest resource improvement

Context:

endeavours as exemplified in the 1994 Forest and Wildlife Policy. The aim of this 1994 policy document is to conserve and sustainably develop Ghana's forest and wildlife resources to ensure adequate environmental quality and perpetual flow of optimum benefits to all segments of society. The 1994 Policy (among others), 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.

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:
Natural resources protection to ensure their sustainability in the interest also of generations to come.

Rehabilitating, enriching, or developing the resources (through, for example, plantation development and enrichment planting in forests).

Optimizing revenue and other benefits that flow from the resources so as to alleviate poverty, especially within resource-owning communities.

Origin and Problem:

1.2. Origin and problem

Similarly, the origin and problem have been introduced and defined in the summary above (executive summary).

The following helps the reader to understand the local rural context that contributes to create the land degradation problems in the project target areas

Social Cultural Dimension with Brief Details

Communities Participating:

There were six communities namely: Tayi, Ahenkro, Ntumda, Tepo, Bumbula and Akposo Kabo all in the Biakoye District Forest-Savanna Zone in the Volta Region of Ghana.

Ethnicity: All Guan.

Demography:

- a) Ethnically homogeneous.
- b) Approximately 12,563 overall population (that is. all six communities combined) according to a projected Ghana Population Census of 2000.
- c) Population growing at the rate of 1.9 per cent annually.
- d) Women constitute 51 per cent of the total population, with a very high child dependency rate.
- e) Average household size = 5 people.

Origin and Problem:

f) High rural-urban migration rate as a result of depleted local natural resources, and high local unemployment and under employment rate.

Major Occupations and Average Income:

- a) Peasant farmers = 80%;
- b) Petty traders = 12%;
- c) Public servants = 3%.
- d) Petty artisans others = 5%.
- e) Average disposable incomes per head range from \$300 - \$450 per year.

Land Titles, and Present Status of Local Secondary Forests Savanna

A mixture of allodial title and customary free-holdings (50%), Family land (40%) and individual holdings (10%). The secondary forest and savanna has been devastated and heavily degraded. Local individuals, elders and village chiefs have agreed to provide all the project land (a minimum of 100 acres /40 hectares).

From the information above, it is obvious to note that the high population rate and density and high unemployment rates have contributed to the high poverty level which put so much pressure on the land and its resources leading to degradation and the vicious circle of poverty, more degradation, more poverty and urban migration for non-existent jobs etc. The project has, therefore, for the past two years been trying to reverse the situation by supporting some committed rural youth groups by means of on-the-job capacity building with some financial assistance for labour and other contingencies.

The project has also trained interested youth groups in cassava production and processing for enhanced value as well as packaging and marketing skills that provide income for their short-term needs to ensure survival so that they will be able to address the medium (pole production) and long-term (timber production) outputs also.

Project objectives and implementation strategy:

2.0. Project Objectives and Implementation Strategy

At this stage, this report seeks to present the original (with any adjustment as necessary) project rationale, objectives, implementation strategies and any identified assumptions and risks.

2.1 Rationale, Development and Specific Objectives

2.1.1 Stakeholder Analysis

Project stakeholders are individuals, households, groups, private or public organizations and institutions that are affected by, and who in turn affect the processes, activities, outputs, and outcomes of a project. In other words, project stakeholders are project intervention actors who have an interest (positive or negative) in the outcomes and results of the program. The stakeholders in this project were described along several dimensions, namely:

- a) Traditional politico-administrative power-owning elites,
- b) Powerful land resource-owning groups, both traditional and newly-arrived landowners-through-outright-purchases,
- c) Women and girls as land-resources most ubiquitous users (although women and girls are NOT front-

Project objectives and implementation strategy:

line land resource owners),

d) Migrant farmers,

e) Multiple local land-use groups like farmers, hunters, and NTFP collectors, as well as

f) Local and district state-sector forestry officials.

These were characterized into three levels

a) Prime stakeholders,

b) Secondary stakeholders, and

c) Tertiary stakeholders.

The prime target beneficiary stakeholders of this project include up to 1,200 target area Youth groups both male and female, and very often landless but who are registered members of the local forestry registered village-based Collaborative Forest Management Committees (CFMCs).

They stand to gain directly from this project in multiple ways: namely, forest tree resources enhancement, part-time employment, as well as household livelihoods expansion. Also in this prime category are the Family heads of these CFMC-Youths who have agreed to provide land for both the project demonstration plots, as well as individual youth plots. These land providers will also GAIN in terms of project forest tree resources benefits sharing. Local environmental micro-climate improvements will further enhance the land resources of the land-owners.

About 90 per cent of the project youths (both young men and young women) have already been allocated project land by their respective family heads or parents who are allodial land title holders. The project therefore maintained the principle of justice, greater access, and fairness in local family land ownership matters. This fact explains the reason behind the current popularity of the project among first- and second-level stakeholders in the target communities. For purposes of this analysis, we maintained the NGO (Picodev Ghana) and the Biakoye District Assembly Offices in Nkonya the projects executing agencies, as prime and crucial stakeholders, as a collaborative unit promoting the target areas long-term forestry and agricultural programs.

The secondary stakeholders include local and district state-sector forestry officials, as well as other local District Assembly officials concerned with reforestation, environmental improvement and staple food production. The project provided a useful learning opportunity for these secondary stakeholders to work with primary stakeholders and to devise alternative and sustainable resource management plans for the locality.

The tertiary stakeholders include the Member of Parliament for the project area, the local political Unit Committee, the Assembly man, the chief farmer, as well as local religious bodies. When the project formulators (initially from the primary- and secondary-level stakeholder groups) first decided on the project, it was the local churches that offered to announce or publicize it in their respective churches

The project stakeholders described above have all played very constructive and active roles at different phases of the project cycle. For each project cycle phase, the participating stake holders are indicated and classified as follows

Project objectives and implementation strategy:

(A) Problem Identification Project Identification

Prime Stakeholders

- a) Targeted Community Youths and Farmers (both local young women and young men) who are registered MEMBERS of the local village-level Collaborative Forest Management Committees CFMCs.
- b) Family heads or parents who are allodial land title holders.
- c) Picodev Ghana BDA Offices in Nkonya Ghana

Secondary and Tertiary Stakeholders

- a) Local community chiefs.
- b) District Forestry Officer
- c) District Agric. Officer
- d) District Assemblymen and assemblywomen
- e) Member of Parliament for the target area.

(B) Project Formulation

Prime Stakeholders

- a) Targeted Community Youths and Farmers (both local young women and young men) who are registered MEMBERS of the local village-level Collaborative Forest Management Committees CFMCs.
- b) Family heads or parents who are allodial land title holders.
- c) Picodev Ghana BDA Offices in Nkonya.

Secondary and Tertiary Stakeholders

- a) Local community chiefs.
- b) District Forestry Officer
- c) District Agric. Officer
- d) District Assemblymen and assemblywomen
- e) Member of Parliament for the target area.

(C) Project Submission

Prime Stakeholders

- a) Targeted Community Youths and Farmers (both local young women and young men) who are registered MEMBERS of the local village-level Collaborative Forest Management Committees CFMCs.
- b) Family heads or parents who are allodial land title holders.
- c) Picodev Ghana BDA Offices in Nkonya.

Secondary and Tertiary Stakeholders

- a) Local community chiefs.
- b) District Forestry Officer
- c) District Agric. Officer
- d) District Assemblymen and assemblywomen
- e) Member of Parliament for the target area.

(D) Project Appraisal Approval

Project objectives and implementation strategy:

Prime Stakeholders

- a) Targeted Community Youths and Farmers (both local young women and young men) who are registered MEMBERS of the local village-level Collaborative Forest Management Committees CFMCs.
- b) Project land owners.
- c) The Executing Agency, i.e. Picodev Ghana BDA Offices In Nkonya

Secondary and Tertiary Stakeholders

- a) Allodial land title holders and family heads of the landowning families
- b) District Forestry Officer
- c) District Assembly

(E) Project Funding

Prime Stakeholders

- a) Project landowners
- b) The local CFMC.
- c) ITTO Focal Point (Ghana)
- d) ITTO (RFM Division/Gov. of Japan)
- e) The Executing Agency, i.e.
- f) Picodev Ghana BDA Offices in Nkonya.

Secondary and Tertiary Stakeholders

- a) Landowning families
- b) Project participating youths within the local CFMCs.
- c) Ghana Forestry Commission
- d) Government of Ghana

(F) Project Implementation Monitoring Evaluation, Review

Prime Stakeholders

- a) The Executing Agency
- b) Project registered youth beneficiary groups and the CFMCs
- c) ITTO (RFM)
- d) Project land owners.

Secondary and Tertiary Stakeholders

- a) ITTO Focal Point
- b) Government of Ghana

2.1.2 Development Objective

The projects development objective is: To contribute to the sustained socio-economic development and environmental protection in the Biakoye area in Ghanas Volta Region seeks to; restore precious indigenous and exotic timber supply base and nurture diversified local natural habitats, expand timber-sale revenues and incomes (mixed indigenous timber species and pure teak *Tectona grandis* plantations) while widening multiple domestic livelihoods opportunities on a sustainable basis (short

Project objectives and implementation strategy:

rotation *Cassia siamea* fuel wood and cassava value adding processing).

2.1.3. Specific Objective

While the specific objective is: To initiate a participatory, poverty alleviation approach (innovative value adding cassava processing and sale) to bring about sustainable forest enrichment and plantation development using tropical timber species in mixed stands and exotic teak (for timber and poles) and *Cassia siamea* (for fuel wood) in pure stands at selected sites in the Biakoye District Assembly area of Ghana's Volta Region.

2.2. Implementation Strategy

In order to ensure a participatory implementation of the project, the project owners and stakeholders discussed and adopted a multi-dimensional project strategy that aimed at achieving maximum results. Some aspects of that participatory strategy included:

- a) Organizational strategy.
- b) Rural private timber cultivation strategy in terms of land preparation, seedlings procurement and seedlings production, seedlings planting, as well as, over all plantation maintenance.
- c) Strategy to promote fully self-financing (by local beneficiaries) of cassava cultivation.
- d) Cassava part-processing and management strategy.
- e) Cassava products promotion, marketing, and sales strategy.
- f) Project benefits sharing, conflict prevention conflict mediation strategy.
- g) Project information, dissemination strategy
- h) Overall community participation in implementation strategy.

The basic objective of the above sub-strategies is to ensure active (cross-segment) involvement in decision-making by stakeholders, leading to greater local actor commitment, supportive and responsible behavior, as well as sustainability of interactive operations, outputs, and outcomes. The details of these diverse aspects of project strategy are further explained below.

2.2.1. Organizational Strategy

In each of the six rural communities, the target youth groups already exist as thriving (Forestry Commission-recognized) Collaborative Forest Management Committees (CFMCs) with their own bye-laws, management structures, and sets of meeting times. The project only strengthened and enriched these useful and committed old links to the socio-economic advantage of the members. In each of the six target communities, the members established the following types of plantations:

- a) The first plantation category was the Six Mixed Plantation Demonstration Plots 50 acres (20Ha aggregate) of indigenous locally popular timber species like Emire, Ofra, Wawa, Dodowa Sofo, Onyina, Papao, and West African Mahogany. These were owned jointly by the land-giving families and the various youth groups
- b) The second type of plantation was the teak plantations in pure stands owned jointly by the land-giving families and the various youth groups.
- c) The third type of plantation was the *Cassia siamea* fuel-wood plantations in pure stands owned jointly by the land-giving families and the various youth groups.
- d) The fourth type of cultivated plots was the COMPLETELY SELF-FINANCED Cassava farm crops (with boundary planting of ofra tree seedlings) for future processing into multiple local demand-driven cassava products, and owned privately by individual youth group members.

Project objectives and implementation strategy:

The youth members worked on these diverse plantations with technical direction from the Project Executing Agency.

2.2.2. Timber Trees Cultivation Strategy:

The initial land clearing and preparation function was done through project-hired labour drawn from the target youth groups and (sometimes) from the local communities at large. Seedlings came from three sources: namely,

- (a) District (FSD) Central Nursery especially for the indigenous tree species;
- (b) The projects own seed nurseries; and
- (c) FSD-approved private nurseries owned and managed by trained operators.

Seedlings transplanting and maintenance were carried out by a combination of hired local labour and target youths own labour as far as possible with technical advice from the project. The philosophy was learning by doing, having in mind post-project maintenance period.

2.2.3. Completely Self-Financed Cassava Cultivation and Processing Strategy

We have already said that the fourth type of cultivated plots was the individually-owned Cassava farm crops for future processing into multiple local demand-driven cassava products, and owned privately by individual youth group members. The individual private owners bore 100 per cent of the cost of initial cassava land clearing (and future cassava maintenance weeding cost). A small ITTO Project Funding Budget (about 5 per cent of the total ITTO budget) was used to

- a) Procure essential initial cassava cultivars or planting materials,
- b) Train the individual youth members on how to process demand-driven cassava products like cut-to-customer-specification-dried cassava chips, innovatively-packed tapioca, cassava-neat-fufu flour, cassava-plantain-fufu flour, cassava-yam-fufu flour, cassava-cocoyam-fufu flour, multiple ready-to-eat pre-mixed gari, - with different popular flavors such as soya flavour, miracle-berry flavor, or cocoa-milo-flavor) - as well as fresh cassava dough for niche regional and local domestic household uses.
- c) Pay for a very modest list of locally proven cassava processing tools and simple equipment and
- d) Promote the local use and profitable sale of the final cassava products. Because cassava is a root tuberous crop and highly nutrient demanding ofram tree seedlings were largely used as boundary plantings with sparse inter plantings as cover trees on fallows after final harvesting of cassava.

2.2.4. Project-Taught Cassava Products Promotion, Sales, and Marketing Strategy

Owing to the fact that cassava is a staple food component in most local lunch or dinner recipes for most households in the target area, cassava processing, storage, packaging, marketing and promotion activities constituted an important part of project implementation. The cassava products, therefore, partly for household use and partly for sale to the general public at a profit for the youth group members.

2.2.5. Project and Plantations Benefits Sharing Issues

The project established multiple levels of project plantations in each of the six communities as follows: Firstly; the mixed plantation of popular indigenous timber species like Emire, Ofram, Wawa, Dodowa Sofo, Onyina, Papao, and West African Mahogany, Then; the mono-culture plantations of teak (for poles and timber) and Cassia siamea (for fuel wood). These project outputs would (after maturity)

Project objectives and implementation strategy:

be shared according to the following proportions below:

Project Ownership Shares in percentages (These percentages apply to all the six target communities)

The target YOUTH GROUP with respect to the relevant Mixed Plantation Demonstration Plots owns 45 per cent of the proceeds of the relevant demonstration plot

The LOCAL FAMILY that provides land for the relevant Mixed Plantation Demonstration Plots owns 45 per cent of the proceeds of the relevant demonstration plots

The Project Executing Agency with relevance ONLY to each of the said Mixed Plantation Demonstration Plots owns 10 per cent of the proceeds of each of the relevant mixed plantation demonstration plots

Individual target youth member with relevance only to the mono-culture TEAK Plantation owns 60 per cent of the holding to the individual private youth owner

Individual target youth member with relevance only to the mono-culture Cassia siamea FUEL-WOOD Plantation owns 60 per cent of the holding to the individual private youth owner

Individual youth member with relevance only to the cassava farm holdings and its processed cassava products owns 100 per cent of the holding to the individual private youth owner

The local Family that provides land for the relevant Teak mono-culture plantation owns 30 percent of the proceeds the demonstration plots.

The local Family that provides land for the mono-culture cassia Fuel Wood Plantation owns 30 percent of the proceeds of the demonstration plots

The Project Executing Agency with relevance only to each of the mono-culture Teak plantations owns 10 percent of the proceeds of each of the relevant mono-culture Teak plantations.

The Project Executing Agency with relevance only to each of the mono-culture cassia plantations owns 10 percent of the proceeds of each of the relevant mono-culture cassia plantations.

2.3. Identified Assumptions and risks

At the onset of project execution the following assumptions and risks were anticipated. These and the measures taken by the project partners to eliminate or minimize them are as below.

(i) Changing and erratic rainfall pattern in that part of Ghana (i.e. forest-savannah land)

Implementation Assumption

That minimal rainfall patterns necessary for the good growth of Wawa, Ofram Emire, Papao, Mahogany, and Teak will continue during the project period and after.

Planned Project Action to Eliminate or Minimize Risk

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 increased in 2010-2011. Early planting of seedlings will be the norm.

(ii) Destructive Wild Bush Fires (especially in the grass-covered project areas)

Implementation Assumption

That wild bush fires in parts of the project areas can be prevented, minimized, or completely eliminated.

Youth groups at Tayi and Bumbula have formed active anti-wild fire volunteers clubs. This idea will be replicated at the other areas also.

Project objectives and implementation strategy:

Planned Project Action to Eliminate or Minimize Risk

- a) Preventive community education, especially for fire risk groups, e.g. hunters, NTFP collectors, palm-wine tappers.
- b) Border planting, using fire-resistant shrubs and trees.
- c) Construction of fire-belts around target plantations to prevent fire outbreaks, and facilitate dry-season fire patrols.
- d) Motivating implementing communities to aim at 100 per cent anti-fire regimes.

The assumptions and risks anticipated for prudent management to ensure survival of plantation tree species were in the areas of adequacy of rainfall and control of wild bush fires necessary for the survival of the selected valuable tree species for the plantations. The Project partners put in every effort necessary to maintain a fire free dry season.

These included timely preparation and maintenance, as well as, frequent patrolling and awareness creation. These measures really paid off to ensure a fire free dry season. However, the project learnt a very necessary lesson, that is; fire could still occur even during the rainy season through negligence. For while the Project partners were busily planting at a section of the Ntumda plantation, a careless and greedy land owner while harvesting charcoal nearby, unknowingly spilled over live charcoal into a weeded plantation causing damage to a portion of the growing planted tree saplings. The pain and extra effort to repair the damage remains an indelible experience on the minds of Project partners never to be complacent.

In the area of adequate rainfall, even though rainfall had been largely chequered and unreliable, the project partners had made prudent use of it (by always drifting along with the tide instead of breasting the current). More precisely the team had always taken advantage of rainy days to do planting and paused during dry spells and when such spells had become unpredictably too long they (partners) had gone the extra mile to water any newly planted seedlings to keep them alive until the next rainy day. The team spirit and level of sacrifice and love for the planted trees were high. That was the secret of success even during trying moments and hazard times.

Project Performance:

3. Project Performance (Project elements planned and implemented)

3.1. Realized performance vs. planned performance differences

3.1.1 Specific Objective

To initiate a participatory, poverty alleviation approach (innovative value adding cassava processing and sale) to bring about sustainable forest enrichment and plantation development using tropical timber species in mixed stands and exotic teak (for timber and poles) and *Cassia siamea* (for fuel wood) in pure stands at selected sites in the Biakoye District Assembly area of Ghanas Volta Region.

3.1.2. Outputs and related Activities

PROJECT OUTPUTS ACHIEVED.

Planned Output Output3.1

Project Performance:

Up to 200 (per community), young women young men of six (6) pilot project communities have established and are professionally managing six (6) mixed plantation demonstration plots of selected popular, indigenous and commercial trees (50 acres in the aggregate ie 8.4 acres x 6 communities) along with basic reforestation skills transfer.

Actual Output Achieved

93.2% (46.6 acres) of the total planned output was achieved.

Inputs Applied/Remarks.

A very successful output achievement. Ntumda, Tepo Akposo Kabo performed above average while Tayi was on average, reflecting their preference for the indigenous species. It is note worthy that Tayi ranks highest followed by Tepo in performance of the the indigenous species due to both site quality and management. Mahogany is doing very well on the Ntumda site.

Planned Output Output 3.2a.

Up to 200 (per community), young men young women of six (6) pilot project communities have established and are professionally managing six (6) demonstration plots of commercial teak (*Tectona grandis*) (30 acres in the aggregate ie 5 acres x 6 communities), along with basic reforestation skills transfer.

Inputs Applied/Remarks.

72.6% (21.8 acres) of the total planned output was achieved.

Actual Output Achieved

Success was satisfactory. Tepo was above average performance with Akloba / ahenkro close to average. It is note worthy that the Akposo Kabo teak plantation has the best form, in terms of uniformity and vigour. A sign of good site quality and management.

Planned Output Output 3.2b.

Up to 200 (per community), young women young men of six (6) pilot project communities have established and are professionally managing six (6) demonstration of commercial cassia (*Cassia siamea*) (20 acres in the aggregate ie 3.4 acres x 6 communities), along with basic reforestation skills transfer.

Inputs Applied/Remarks.

10% (2 acres) success was recorded for this output at the close of the main planting but this was increased to 25% (5 acres) after the communities had been convinced to plant up the fire belts as a measure of protection and sustainability.

Actual Output Achieved

The unpleasant performance in this area was initially because of disinterest as large quantities of fuel wood abounds at the project sites already. However when the target beneficiaries were apprised of the protection and sustainability aspects (thanks for the outcome of the 2nd PTC meeting), they were convinced to plant the fire belts.

All outputs achieved were within planned expenditures. Even where abnormal inflation (due to a sudden change in Government Policy to remove subsidy on fuel) threw the fuel and vehicle maintenance expenditures out of balance, due process was followed to seek approval for budget modification without extra cost to ITTO. Counterpart funds were also prudently sourced to supplement expenditures where necessary as planned.

Project Performance:

Activities Planned and Implemented

Activity 3.1.1: Participatory Land Securing, site selection, site surveying, demarcation, indenture preparation, and pillaring. This activity had a duration of 33 days (01/01/2015 30/04/2015). Labor and pillaring wooden pegs were provided as planned and the activity was completed on schedule.

Activity 3.1.2: Preparation of appropriate individual site maps and ownership site plans. This activity had a duration of (33 days) 01/01/2015 30/04/2015. Labor from the youth group members, implementing agency staff, and local traditional land owners and chiefs who gave out the land was provided as planned and the activity was completed on schedule.

Activity 3.1.3: Major seeds collection (e.g. Emire, Papao, Dodowa sofo, West African Mahogany, Wawa, Ofram), extraction, drying, purchasing, testing and storage. This activity had a duration of 587.5 days (23/05/2013 31/12/2014). Labor, and financial inputs were provided on time.

Kindly Note: All Cassava cultivars (or seeds) cost was borne by the youths and the local Executing Agency (not ITTO) as planned. The activity was completed on schedule.

Activity 3.1.4 Establishment of 2 small seed NURSERIES to produce needed seedlings to complement supplies from FSD. These included land preparation, sowing, fertilization, watering, shading, purchasing of polythene bags, and seedling bagging. This activity had a duration of 556.5 days (23/06/2013 31/12/2014). Two nurseries were started at Tepo and Akposo Kabo. The Tepo one had to be stopped for lack of water. The other one was expanded to provide all seedling requirements. Trained youth group labor, plus seeds and financial resources were available on time. The activity was completed on schedule.

Activity 3.1.5 Adequate preparation of the main field plots for plantation planting activities i.e. pegging, hole digging, etc. This activity had a duration of 396.4 days (23/05/2013-23/06/2014). Wooden pegs and digging implements and labour were provided on time as planned and the activity was completed on schedule.

Activity 3.1.6 Major raining season transplanting of seedlings and follow-up beating up (or re-planting). This activity had a duration of 457 days (23/06/2013 23/09/2014)

Labor and water available were prudently utilized. The activity was completed on schedule. .

Activity 3.1.7 Making of borderline anti-fire strips (where necessary). This activity had a duration of 609 days (23/09/2013 23/05/2015). Both youth groups and Sub-contracted local male labour were used. The activity was completed on schedule

Activity 3.1.8 MAINTENANCE of plantations (e.g. Weeding, tending, spraying, pest control, further beating-up, and other professional activities as advised by project management and FSD. This activity had a duration of 670 days (23/06/2013 23/04/2015)

Executed as planned. All inputs were available on time

Activity 3.2.1 Establishment of 2 small seed NURSERIES to produce needed seedlings to complement supplies from FSD. These included land preparation, sowing, fertilization, watering, shading,

Project Performance:

purchasing of polythene bags, and seedling bagging. This activity had a duration of 556.5 days (23/06/2013 31/12/202014). As in Activity 3.1.4 above. The same nursery was used and the activity was completed on schedule.

Activity 3.2.2 Actual TRANSPLANTING, followed by field inspection and beating up where necessary. This activity had a duration of 457 days (23/06/2013 30/09/2014)

Seedlings, plus labour were available and on time. The activity was completed on schedule

Activity 3.2.3 Construction of borderline anti-fire strips where appropriate. This activity had a duration of 609 days (23/09/2013 31/05/2015). Same as Activity 3.1.7 above.

Activity 3.2.4 MAINTENANCE of plantations (e.g. Weeding, tending, spraying, pest control, further beating-up, and other professional activities as advised by project management and FSD. This activity had a duration of 670 days (23/06/2013 23/04/2015). Same as Activity 3.1.8 above. Youth group labour, plus seedlings were available and on time and the activity was completed on schedule.

Activity 3.3.1 General information provision and discussion forums with the youth groups and the gathering of necessary equipment and inputs in the respective 6 villages. This activity had a duration of 427 days (23/11/2013 - 23/01/2015). Trained implementing agency staff carried out the work effectively. All the 6 communities were provided with the necessary equipment as planned. The activity was completed on schedule. .

Activity 3.3.2 Organization of several learning-by-doing training workshops where participants actually learned to process, make, manufacture, pack, label, and sell creatively processed cassava products. This activity had a duration of 556.5 days (23/06/2013 31/12/2014). The target groups here were basically local youth groups in the target area, namely: Tayi, Ahenkro, Ntumda Tepo Bumbula and Akposo-Kabo communities implementing the project including the CFMC members carrying out the planting in the field. They all participated effectively and the activity completed on schedule.

Activity 3.3.3 Periodic organization of formal networking and training workshops, Open Days, and Cassava promotion days for the target groups. This was done by Trained implementing agency staff as and when necessary in the communities.

Activity 1.3.4 Arranging planned field visits to institutions that have relevant services to offer the project in terms of output 3.3 above. This activity had a duration of 556.5 days (23/06/2013 31/12/2014). These visits helped the rural youth plantation development and cassava processing groups to build professional networks and function effectively as professional profit-making groups. The activity was completed on schedule.

Activity 3.3.5 Promoting other target area private seedlings producers (that is, private nurseries) that are professionally sound enough to supply approved seedlings for targeted fast-growing indigenous timber species. This activity had a duration of 556.5 days (23/06/2013 31/12/2014). Such private nurseries must have been trained by FSD in the District. 2 such private nursery workers were employed at the Akposo Kabo project nursery. The activity was completed on schedule.

Project Performance:

Activity 3.3.6 Organization of project monitoring exercises along with the participating groups and ITTO officials. This activity had a duration of 5 days (26/06/2013 - 27/06/2013, 30/10/2013 - 15/12/2014 - 16/12/2014). Three PTC meetings were organized successfully. Accommodation and transport was provided for some key project staffs. Two with ITTO official and one at the local level.

Project Oertify that all your data has been saved.:

4.0. Project Outcome, target beneficiaries involvement.

4.1 The extent to which the project specific objective was achieved.

4.1.1. Specific objective.

The projects specific objective was stated as follows: To initiate a participatory, poverty alleviation approach (innovative value adding cassava processing and sale) to bring about sustainable forest enrichment and plantation development using tropical timber species in mixed stands and exotic teak (for timber and poles) and Cassia siamea (for fuel wood) in pure stands at selected sites in the Biakoye District Assembly area of Ghanas Volta Region, and the extent to which it was achieved has been summarized form below.

4.1.2. Specific and permanent project related skills acquired by target beneficiaries.

Specific and permanent project related skills acquired by target beneficiaries.

(A) Seeds Seedling Identification.

Proficiency Acquired

Simple scientific knowledge on high quality seeds stumps.

Skills Acquisition Groups

Target youth groups (men women), land owners, EA staff.

(B) Nursery establishment.

Proficiency Acquired

Aspect, bed making alignment, seed pre-treatment, sowing, pricking out, transplanting, watering, lifting stumping etc.

Skills Acquisition Groups

Target youth groups (men women), land owners, EA staff.

(C) Plantation land preparation.

Project Oertify that all your data has been saved.:

Land clearing

Proficiency Acquired

Important biodiversity issues were taken care of.

Skills Acquisition Groups

Target youth groups (men women), land owners, EA staff.

Pegging

Proficiency Acquired

Spacing design proficiency

Skills Acquisition Groups

Target youth groups (men women), land owners, EA staff.

Hole digging

Proficiency Acquired

Depth design

Skills Acquisition Groups

Target youth groups (men women), land owners, EA staff.

Fire belt construction

Proficiency Acquired

Weeding, debris collection, patrolling, Back - firing methods known.

Skills Acquisition Groups

Target youth groups (men women), land owners, EA staff.

(D) Plantation establishment and management.

Proficiency Acquired

Transport of lifted stock.

Packaging , healing in hardening off skills.

Skills Acquisition Groups

Target youth groups (men women), land owners, EA staff.

Proficiency Acquired

Out planting of lifted stock

Season, timing, planting and beating up techniques.

Skills Acquisition Groups

Project Oertify that all your data has been saved.:

Target youth groups (men women), land owners, EA staff.

Proficiency Acquired

Plantation maintenance Weeding, pruning of buds, branches, epicaulic shoots, multiple sprouts from stumps

Skills Acquisition Groups

Target youth groups (men women), land owners, EA staff.

(E) Processing cassava produce and packaging of their products.

Cassava chips (kokonte)

Proficiency Acquired

Cutting and drying techniques

Proficiency Acquired

Target youth (largely women) and other target community members.

Gari - making

Proficiency Acquired

Grating pressing techniques, plain yellow (Lagos Gold) and several ready to eat mixtures.

Packaging

Proficiency Acquired

Plastic packaging techniques

After project (PD653/12Rev1(F) intervention, the tangible outputs, as detailed above, include: 46.6 acres of lush and healthy plantations of mixed, indigenous, tropical, timber species of proven and premium commercial value (African Mahogany, Khaya anthotheca, Ofram, Terminalia superba, and Wawa Triplochiton scleroxylon); 21.8 acres of pure plantations of commercial teak, Tectona grandis all sustainably being managed (by target beneficiary youth groups from 6 target rural communities), to ensure the expansion (among others) of the timber trade in tropical species.

Additionally, capacity of the target youth from the 6 target communities, has been built, as indicated above, to sustainably implement (and are implementing) a poverty reduction component consisting of establishment of sustainably managed pure plantations of cassia *Cassia siamea* for short term sustainable production of firewood and charcoal, to meet domestic and commercial needs, as well as, the processing of a popular staple food item (cassava tuber) into, popular demand driven value added staple foods for both domestic and commercial uses. These poverty reduction initiatives are

Project Oertify that all your data has been saved.:

built in strategies supporting the target youth to, as they say, live longer and happily to maintain the planted forest trees.

These achievements are in line with national and regional policies, and objectives, etc. such as: the objectives of the ITTA, 2006; ITTO Agreement, 2006 and ITTO criteria and Action plan, and also conform with Ghanas ((host country of the implementing agency(Picodev)) forest and wildlife policy in the areas of degraded tropical forest rehabilitation, biodiversity enhancement, sustainable management of tropical forests and the expansion of the tropical timber trade with timber from sustainably managed sources, as well as, poverty reduction etc. Detailed elaboration of these conformities to sectorial policies can be obtained from part 1.2 of the project proposal document.

The immediate outcomes of project intervention are as follows: the target youth are harvesting the firewood and charcoal obtained from the site preparation activities of the plantation establishment component while the cassia (at long last adopted) and cassava poverty reduction initiatives they have embarked upon fully develops to make them fully self-sufficient. It was gratifying to be called aside and shown and even provided with a specimen of one of the popular recipes (cassava doughnuts) locally called kaklo and proudly affirm this is one of the recipes the project has taught us and it is still more gratifying to see these produced for sale daily on the local market because it is our conviction that one day this effort will develop by means of a pooling of resources into a business not only for the local but for the export market

After project intervention, the situation is like the seed (or idea) that was sown 2 years ago, and had grown to youthfulness, now awaits extra care to mature and produce the much needed fruits for sustenance and replication. The capacities of the target beneficiaries have been developed and are poised to take responsibility to ensure adequate yields (short, medium, long terms). However it will take some time for the target youth to be proficient enough to raise income levels to reach export status.

What then are the sustainability arrangements put in place to bridge this self-sufficiency gap? The NGO (Picodev) has pledged to offer further moral and technical support, as well as, depend on wood processing industries in the district and other donors, to be able to offer any needed financial support especially for weed suppression and fire prevention. It is our fervent hope that Picodev secures further project extension to enable it support these and other communities. Having successfully run project PD 653/12 Rev.1 (F), Picodev wishes to advertise itself in other to attract other donor support to further this laudable reforestation endeavor that employs poverty reduction strategies.

Assessment and Analysis:

5.0 Assessment and Analysis.

This section presents the main outcomes arising from the participatory internal evaluation between the Executing Agency (Picodev) and the target youth groups in the last week of April 2015 before project completion in May of the same year.

Some of the Assessment Dimension with a Brief Analysis

(A) Project rationale and identification process.

The project actors unanimously agreed that inter-planting with short-term food and valuable tree crops would keep the target youth groups longer on the plantation for without a divided attention, they would tend their crops and planted trees at the same time and place, thereby managing the crucial weed proliferation problem more expeditiously. When the costs and benefits of taungya (agro-forestry practice) were considered in the light of the existing situation, the odds swayed in favour of the inter-planting option. It was also agreed that interested enthusiastic and hardworking older people should not be left out and that (from project experience) smaller group plantation units would be a more expeditious management option. Finally it was agreed the 2 year project support for tree plantation development was too short for survival of planted seedlings and should be reviewed and adjusted to at least 3 years. All these convictions have been accounted for in a proposed project second phase.

(B) The projects main problem identified, the specific objective and implementation strategy.

The projects main problem and specific objective that laid emphasis on sustainable rehabilitation of degraded forests using mixed valuable indigenous commercial timber as well as pure teak *Tectona grandis* and cassia *Cassia siamea* stands for different purposes by means of participatory poverty reduction strategies were unanimously upheld as appropriate and adequate. It was, however, strongly opined that smaller group plantation units as well as inclusion of committed and enthusiastic older people would enhance the implementation strategy.

(C) The most critical difference(s) between planned and actual project implementation.

The cassia *Cassia siamea* short-term poverty-reduction planned output had been the most difficult one to adopt by the target beneficiaries presumably because of the apparent short-sighted or aberrated or seeming existing fuel wood sufficiency views expressed by the target beneficiary groups. The prolonged or late adoption of this may have to be further explored as there may be a hidden underlying cause. If the inter-cropping option identified by them (and introduced in the second phase) works, then it may replace direct plantation method where convenient - discretion remains the order, and poverty reduction our goal.

(D) Adequacy and timing of project inputs

Budget allocation for plantation maintenance was woefully underestimated (profuse weed growth not anticipated) and unattractive and was a major setback to seedling survival and also high fire risk. Other, planned project inputs were adequate and timely. Where unexpected policy change by the host government caused an over-run of budget in affected portions, swift and prudent response to request for budget modification was made by EA to manage the situation without additional cost to ITTO. Three target project communities could not be supplied with crushers and pressers due to an

Assessment and Analysis:

unforeseen budgeting error. This has been taken care of in the second phase proposal.

(E) Evaluation of anticipated / real external influences effectiveness of mitigating factors

Bushfire was real but the mitigating factors were effective in keeping the dry season completely bushfire-free. The lesson learned was that complacency should be avoided at all times as damage could still occur even in the rainy season, as for example a careless charcoal harvest of a greedy land owner caused damage to a portion of the Ntumda indigenous plantation which caused extra resources to promptly repair.

The effect of climate change was real. Rainfall was chequered and very unreliable but the project strategy was effective:- drift along with the tide ie, be always prepared, plant when its raining and stop when the rain pauses, and wait for another rainy day.

(F) Evaluation of participation of anticipated / actual project beneficiaries in implementation.

There is always a gap between the anticipated and the actual implementation of a project and prudent management tries to close up this gap to ensure success. The poverty level of the target youth groups was so low while the incentive package was so unattractive that they could not provide all the labour requirement at all times without sacrificing their means of subsistence though their level of participation was enough for them to obtain the necessary on the - job training proficiency indicated above (see section 4.1.2.). The project also judiciously utilized its planned dissemination strategy (stressing the house to house missions and planned meetings) to drive home the message. The proficiencies acquired will impact positively on future plantation activities The project depended on extra hired labour from the communities at large to be able to meet planned targets on time. These (hired community workers) are also anticipated beneficiaries of project training.

(G) Project sustainability after completion (conceptualization, assumptions, implementation and strategic issues).

The interface of project completion and sustainable management is fragile, likened to the weaning phase for a child. The concept of the target youth to rely upon the poverty reduction strategy to survive and sustainably manage the plantations is (as explained in section 4 above) gradually unfolding. The EA (Picodev-Ghana) has pledged continued support in anticipation of good will from other agencies (see section 4), the capacities of the target beneficiaries have been built and the immediate outcomes have been laid down in section 4, while strategies for minimizing negative external influences and the intercropping option adopted in section 5 above, are all positive ingredients for managing this fragile interface to sustainability. Additionally, the labour deficit of 100% weeding due to the withdrawal of project support can be off-set by relying upon frequent line cleaning to free the young saplings from weeds until they have formed canopies above the weed level.

(H) Appropriateness of (Advisory and Complementary) institutional bodies.

FORIG provided necessary advice and seedlings, while the Forestry Commission (FC), provided necessary professional and training support.

Lessons Learned:

6.0 Lessons Learned

The lessons learned during all stages of project conception, formulation, implementation and completion are presented briefly in tabula form below:

PROJECT IDENTIFICATION, DESIGN AND IMPLEMENTATION ISSUES.

(A) Project identification and design matters.

Although the project identification gave due emphasis to the felt needs of the target beneficiary youth groups generally, consultation was not deep enough to appreciate the extent of need so as to design an effective incentive package. In situations (such as above) where poverty levels are so low, a food - for work incentive package would be appropriate.

The design should be flexible to include committed older people to establish and bequeath to their heirs as in the case of other cash crop establishment.

In the case of tree plantation establishment it is realised that at least 3 years project support is needed to ensure survival of the planted seedlings (1st year largely for nursery work animation procurement etc, 2nd year largely for site preparation and planting of stock and 3rd year for further maintenance weeding and protection of seedlings to ensure survival).

(B) Projects implementation strategies

These strategies were well conceived and well elaborated to suit the multi-dimensional nature of the project and has contributed immensely to the successful running of the project, however an equally important ingredient, (the project realized), to success has been the ability to adapt to changing trends posed by climate change. This confirms Democritus philosophy which says (as he put it), everything is becoming. Adaptation to climate change conditions should be the hallmark of every reforestation project.

(C) Post - project sustainability.

The post project sustainability interface refers to the period just after cessation of project support up to the time when the target beneficiaries have become financially and practically stable to sustainably manage the regenerated forest lands or plantations established. This period has been likened to the weaning stage in a child's life. The project realises and identifies this to be a fragile stage that requires a concerted effort of all stakeholders (actual and anticipated beneficiaries) to be spear-headed by the projects Executing Agency (EA).

(D) Quality of project planning.

Experience has shown that detailed planning and budgeting with good anticipation or forecasting is crucial for bridging the gap between planned and actual implementation a necessary ingredient for achieving project targets and providing incentives.

PROJECT MANAGEMENT AND OPERATIONAL ISSUES.

(A) Adequacy and timing of project inputs.

Generally, ITTO funds were timely except on two occasions when our bankers had to return disbursements to ITTO headquarters because of discrepancies arising from change of project account number. The Implementing Agency reacted swiftly by suspending payment of allowances of staff over

Lessons Learned:

the delay period so as to maintain enough funds to ensure smooth implementation of project activities. Funds for supply of inputs were adequate and on time. However, owing to unexpected rapid increases in cost of labour in the project area, due to:

Astronomical devaluation of the local currency (cedi),

Removal of govt. subsidy on petroleum products, as a result of;

A fall in the world market price of oil and cocoa (2 major export commodities of the country).

These factors also resulted in an over- run of the fuel and vehicle maintenance budgets as explained in section 5 above. The EA reacted swiftly to request for budget modification to ensure smooth implementation and completion of the project.

(B) External influences and risks.

Although wild fires were completely kept out during the dry season the Ntumda rainy season incident is sufficient warning for all stakeholders to avoid complacency always.

Conclusions and Recommendations:

7.0. Conclusions and Recommendations.

At long last the pilgrimage (from conception, through formulation, implementation, successful completion and the way forward) has ended. The concluding account of good stewardship is presented below under the two (2) headings of conclusions and recommendations.

7.1. Conclusions.

This modest, ITTO / Japan Government funded rural youth pilot project (PD 653 / 12 Rev.1 F), (the major stakeholders have attested), has been successful in all aspects of; project conception, formulation and implementation. Transparency, accountability participatory involvement of stakeholders in planned project activities constitute the hallmark of success, while the zeal and enthusiasm of the critical mass provided the essential life wire during turbulent times. The project environment was characterized by inconceivable major macro economic instability (slump in world market prices of oil and cocoa) that affected project costs and rendered the projects incentive package unattractive but with the dexterity of project machinery described above, modest and appreciable output and outcome levels were attained. This inherent dexterity is the fulcrum to be lubricated by the post project sustainability package elaborated in sections 4, 5 and 6 of this report that will propel sustainable management of our plantations. To ensure personal, household and community gains, fair benefits, and valuable returns (hallmarks of self-interest), project formulators must go the extra mile to produce well researched, precise but robust budgets that will maintain attractive incentive packages to fuel this complementary self-interest, so that maximum project outputs and outcomes would be attained at all times.

7.2. Recommendations.

This ITTO/Japan Govt. funded project PD653/12 Rev. 1(F) has demonstrated that the idea of poor rural youth groups to rehabilitate degraded tropical forests using proven local and popular indigenous tree species (in mixed stands) alongside with teak (for poles and timber in pure stands) really works if they are allowed free and open participation in all project activities, and if project benefits are attractive, fair and respectable. The replication and scaling up potential of project PD653/12 Rev. 1 (F) is therefore very high indeed.

Conclusions and Recommendations:

The project has also realized that using staple food processing, packaging and marketing as a complementary poverty reduction and project enhancement factor was very effective. After the above comments about project potential for replication and scaling up, the following recommendations are hereby made:

Project identification and design.

- a) Project support for plantation establishment must be designed for at least 3 years (1st year for nursery establishment, 2nd year planting establishment, 3rd year for further maintenance weeding).
- b) In situations of abject poverty an attractive incentive package (including food for work) is inevitable.

Project implementation.

- a) Well managed intercropping (agro forestry practice) is preferred to pure plantation.

External factors.

- a) Climate change is a reality and adaptation is a must for successful plantation establishment.
- b) Wild fire is a threat and complacency must be avoided (even in the rainy season).

Post project sustainability.

- a) Weed proliferation is a threat to sustainability so manage weeding costs by replacing quarterly 100% weeding with frequent line weeding.

Responsible for this completion report is on behalf of PICODEV GHANA,

SIGNATURE,

JOHN STANISLAUS KOMLA ELLETEY

EXECUTIVE DIRECTOR OF PICODEV AND PROJECT COORDINATOR

Annexes



PROJECT FINANCIAL STATEMENT

Project N° PD 653/12REV.1(F)

Period ending on 5/31/2015

Project Title "Sustainable, Mixed And Pure Forest Plantation Development In The Transitional Zone of Ghana's Biakoye District Assembly, Employing Poverty Reduction Strategies"

Component	Original Amount (A)	Modified Approved Amount (A)	Expenditures To-date			Available Funds (E) { A - D }
			Accrued (B) a/	Expended (C)	Total (D) { B + C }	
I. Funds managed by Executing Agency						
10. Project Personnel						
11. National Experts (long term)	\$20,400.00	\$20,400.00		\$20,400.00	\$20,400.00	\$0.00
11.1 Project Coordinator	\$6,000.00	\$6,000.00		\$6,000.00	\$6,000.00	\$0.00
11.2 Cassava Processing & Training Manager	\$4,800.00	\$4,800.00		\$4,800.00	\$4,800.00	\$0.00
11.3 Community Animator I & II	\$4,800.00	\$4,800.00		\$4,800.00	\$4,800.00	\$0.00
11.4 Nursery Officers I & II	\$4,800.00	\$4,800.00		\$4,800.00	\$4,800.00	\$0.00
12. Other Personnel	\$15,840.00	\$15,840.00		\$15,840.00	\$15,840.00	\$0.00
12.1 Administrative Accountant	\$3,600.00	\$3,600.00		\$3,600.00	\$3,600.00	\$0.00
12.2 Project Secretary	\$3,600.00	\$3,600.00		\$3,600.00	\$3,600.00	\$0.00
12.4 Reforestation Manual Laborers (6)	\$8,640.00	\$8,640.00		\$8,640.00	\$8,640.00	\$0.00
19. Component Total:	\$36,240.00	\$36,240.00		\$36,240.00	\$36,240.00	\$0.00
20. Sub-contracts	\$14,060.00	\$17,056.00		\$17,055.36	\$17,055.36	\$0.64
21. Preliminary clearing of degraded forest bush	\$3,640.00	\$3,640.00		\$3,639.40	\$3,639.40	\$0.60
22. Pegging & Seedlings Transplanting	\$4,020.00	\$4,020.00		\$4,020.00	\$4,020.00	\$0.00
23. Programmed Training Workshops (Organized by District Forestry Officials for the Youth)	\$3,200.00	\$0.00		\$0.00	\$0.00	\$0.00
24. Plantation Routine Quarterly Maintenance Weeding	\$3,200.00	\$9,396.00		\$9,395.96	\$9,395.96	\$0.04
29. Component Total:	\$14,060.00	\$17,056.00		\$17,055.36	\$17,055.36	\$0.64
30. Travel						
31. Daily Subsistence Allowance	\$36,720.00	\$36,720.00		\$36,720.00	\$36,720.00	\$0.00
31.1 Project Coordinator	\$12,480.00	\$12,480.00		\$12,480.00	\$12,480.00	\$0.00
31.2 Cassava Processing & Training Manager	\$8,400.00	\$8,400.00		\$8,400.00	\$8,400.00	\$0.00
31.3 Community Animator I & II	\$8,640.00	\$8,640.00		\$8,640.00	\$8,640.00	\$0.00
31.4 Nursery Officers I & II	\$7,200.00	\$7,200.00		\$7,200.00	\$7,200.00	\$0.00
39. Component Total:	\$36,720.00	\$36,720.00		\$36,720.00	\$36,720.00	\$0.00

40. Capital Items					
41. Value of 100 ACRES (40 hectares) of Project Land to be used					
42. Project Equipment, Tools and Accessories	\$66,684.00	\$63,402.00	\$63,401.03	\$63,401.03	\$0.97
42.1 Toyota IMV Hilux vehical	\$34,900.00	\$34,438.00	\$34,437.95	\$34,437.95	\$0.05
42.2 Motorbike MK22 HP-F	\$4,900.00	\$4,900.00	\$4,900.00	\$4,900.00	\$0.00
42.2 Locally-built cassava crushers	\$4,500.00	\$4,250.00	\$4,250.00	\$4,250.00	\$0.00
42.3 Locally-built Cassava Dough Presses	\$3,600.00	\$3,250.00	\$3,250.00	\$3,250.00	\$0.00
42.4 Locally-built Gari Roasting Pans	\$840.00	\$420.00	\$420.00	\$420.00	\$0.00
42.5 Iron Coal-Pots for Garri roasting (Large sizes)	\$600.00	\$300.00	\$300.00	\$300.00	\$0.00
42.6 Nursery equipment and accessories	\$2,400.00	\$2,400.00	\$2,399.98	\$2,399.98	\$0.02
42.7 Large silver bowls for storage of peeled cassava	\$600.00	\$300.00	\$300.00	\$300.00	\$0.00
42.8 Cutlasses	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$0.00
42.9 Hoes	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$0.00
42.10 Hand (Publicity) Megaphones	\$400.00	\$200.00	\$200.00	\$200.00	\$0.00
42.11 Wheel barrows	\$1,200.00	\$800.00	\$800.00	\$800.00	\$0.00
42.12 Wellington Boots	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$0.00
42.13 Watering cans	\$480.00	\$480.00	\$480.00	\$480.00	\$0.00
42.14 Tarpaulins for drying fresh cassava	\$1,800.00	\$1,200.00	\$1,200.00	\$1,200.00	\$0.00
42.15 Garden lines	\$144.00	\$144.00	\$144.00	\$144.00	\$0.00
42.16 Measuring tapes	\$120.00	\$120.00	\$120.00	\$120.00	\$0.00
42.17 Medically-Stocked First Aid Boxes	\$900.00	\$900.00	\$899.10	\$899.10	\$0.90
42.18 Knapsack sprays	\$720.00	\$720.00	\$720.00	\$720.00	\$0.00
42.19 HP Pro Personal Computer, HP W2072a LED Monitor and accessories	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$0.00
42.20 HP LaserJet MFP M175 Printer	\$1,700.00	\$1,700.00	\$1,700.00	\$1,700.00	\$0.00
42.21 unintarupted power Voltage stabilizer	\$380.00	\$380.00	\$380.00	\$380.00	\$0.00
49. Component Total:	\$66,684.00	\$63,402.00	\$63,401.03	\$63,401.03	\$0.97
50. Consumable Items					
51. Raw Materials	\$17,800.00	\$14,730.00	\$14,728.87	\$14,728.87	\$1.13
51.1 Very good quality (FSD-collected) seeds of selected indigenous timber species, to	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00	\$0.00
51.2 Approved Pesticides and Fungicides	\$500.00	\$500.00	\$499.34	\$499.34	\$0.66
51.3 Assorted essential ingredients for cassava processing	\$5,000.00	\$2,400.00	\$2,399.53	\$2,399.53	\$0.47
51.4 Packaging materials, advertisement and marketing of processed cassava products	\$4,800.00	\$4,800.00	\$4,800.00	\$4,800.00	\$0.00
51.3 Wooden pegs for pre-planting pegging	\$1,400.00	\$1,380.00	\$1,380.00	\$1,380.00	\$0.00
51.4 Small poly bags for use at the seedlings' nursery	\$1,200.00	\$1,200.00	\$1,200.00	\$1,200.00	\$0.00
51.6 Plastic packaging materials for fresh unprocessed cassava	\$900.00	\$450.00	\$450.00	\$450.00	\$0.00
52. Spares	\$7,100.00	\$10,456.00	\$10,455.29	\$10,455.29	\$0.71
52.1 Vehicle (pick up) spares	\$1,500.00	\$2,720.00	\$2,719.85	\$2,719.85	\$0.15
52.2 Cassava crusher & cassava press spares	\$1,600.00	\$1,600.00	\$1,600.00	\$1,600.00	\$0.00
52.3 Cost of Fuel for Running project transport	\$4,000.00	\$6,136.00	\$6,135.44	\$6,135.44	\$0.56
54. Office Supplies	\$7,100.00	\$7,100.00	\$6,841.37	\$6,841.37	\$258.63
54.1 Computer Printer Cartridges	\$1,400.00	\$1,400.00	\$1,250.00	\$1,250.00	\$150.00
54.2 Simple Office Furniture	\$500.00	\$500.00	\$500.00	\$500.00	\$0.00
54.3 Stationery for ITTO reports & project office use	\$3,600.00	\$3,600.00	\$3,493.00	\$3,493.00	\$107.00
54.4 Electricity	\$1,000.00	\$1,000.00	\$999.44	\$999.44	\$0.56
54.5 Water	\$600.00	\$600.00	\$598.93	\$598.93	\$1.07

59. Component Total:	\$32,000.00	\$32,286.00		\$32,025.53	\$32,025.53	\$260.47
60. Miscellaneous	\$6,400.00	\$6,400.00		\$5,131.34	\$5,131.34	\$1,268.66
61. External Auditing	\$2,400.00	\$2,400.00		\$1,200.00	\$1,200.00	\$1,200.00
62. Steering Committee Meetings (STM)	\$3,000.00	\$3,000.00		\$3,000.00	\$3,000.00	\$0.00
63. Sundries	\$1,000.00	\$1,000.00		\$931.34	\$931.34	\$68.66
69. Component Total:	\$6,400.00	\$6,400.00		\$5,131.34	\$5,131.34	\$1,268.66
70. National Management Costs				\$0.00	\$0.00	\$0.00
71. Executing Agency Management Costs				\$0.00	\$0.00	\$0.00
79. Component Total:	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00
Sub-Total:	\$192,104.00	\$192,104.00		\$190,573.26	\$190,573.26	\$1,530.74
80. Project Monitoring & Administration						b/
81. ITTO Monitoring and Review	\$20,000.00	\$20,000.00				b/
82. ITTO Mid-term and Ex-post Evaluation	\$15,000.00	\$15,000.00				b/
83. ITTO Programme Support Costs	\$18,168.00	\$18,168.00				b/
83. Donor Monitoring Costs						
89. Component Total:	\$53,168.00	\$53,168.00				b/
90. Refund of Pre-Project Costs (Pre-Project Budget)						b/
Sub-Total:	\$53,168.00	\$53,168.00	\$0.00	\$0.00	\$0.00	b/
100. GRAND TOTAL:	\$245,272.00	\$245,272.00	\$0.00	\$190,573.26	\$190,573.26	

Note: Budget Components are those detailed in the Project Document.

a/ The **Cash Flow Statement must be completed first**, before the input into the Financial Statement.

b/ Accrued expenditure: expenditures incurred during the reporting period, but not yet settled.

c/ Amounts under the "Expended" column will be imported from the Cash Flow Statement (with direct link).

PICODEV - GHANA

Mobile: 0245429200
0207551636
E-mail: picodev2010@yahoo.co.uk

P. O. Box 24
Nkonya-Ahenkro
Volta Region
Ghana

Our Ref:

Date: 17th August, 2015

Your Ref:

Dear Mr. Policape Masupa-Kambale

SUBMISSION OF PROJECT COMPLETION REPORT

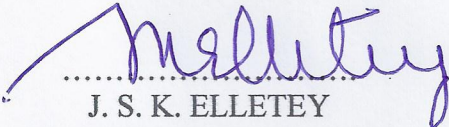
PD653/12REV.1(F)

I am pleased to inform you that a completion report for Pd653/12Rev.1 (f) has been prepared and successfully uploaded into the project on line monitoring software (POLMS) with the necessary attachments including an official copy in the Appendix.

We will shortly forward and seek for approval a phase two (II) proposal which is currently under preparation as demanded by many in our area.

Thanks for cooperation.

Best regards


.....
J. S. K. ELLETEY
PROJECT COORDINATOR
AND EXECUTIVE DIRECTOR
PICODEV – GHANA

PROJECT FINANCIAL STATEMENT

Project No PD 653/12REV.1(F)

Period ending on 5/31/2015

Project Title "Sustainable, Mixed And Pure Forest Plantation Development In The Transitional Zone of Ghana's Biakoye District Assembly, Employing Poverty Reduction Strategies"

Component	Original Amount (A)	Modified Approved Amount (A)	Expenditures To-date			Available Funds (E) { A - D }
			Accrued (B) a/	Expended (C)	Total (D) { B + C }	
I. Funds managed by Executing Agency						
10. Project Personnel						
11. National Experts (long term)						
11.1 Project Coordinator				\$0.00	\$0.00	\$0.00
11.2 Cassava Processing & Training Manager				\$0.00	\$0.00	\$0.00
11.3 Community Animator I & II				\$0.00	\$0.00	\$0.00
11.4 Nursery Officers I & II				\$0.00	\$0.00	\$0.00
12. Other Personnel				\$0.00	\$0.00	\$0.00
12.1 Administrative Accountant				\$0.00	\$0.00	\$0.00
12.2 Project Secretary				\$0.00	\$0.00	\$0.00
12.4 Reforestation Manual Laborers (6)				\$0.00	\$0.00	\$0.00
19. Component Total:	\$0.00			\$0.00	\$0.00	\$0.00
20. Sub-contracts				\$0.00		
21. Preliminary clearing of degraded forest bush				\$0.00	\$0.00	\$0.00
22. Pegging & Seedlings Transplanting				\$0.00	\$0.00	\$0.00
23. Programmed Training Workshops (Organized by District Forestry Officials for the Youth)				\$0.00		\$0.00
24. Plantation Routine Quarterly Maintenance Weeding				\$0.00		\$0.00
29. Component Total:	\$0.00			\$0.00	\$0.00	\$0.00
30. Travel				\$0.00	\$0.00	\$0.00
31. Daily Subsistence Allowance				\$0.00	\$0.00	\$0.00
31.1 Project Coordinator				\$0.00	\$0.00	\$0.00
31.2 Cassava Processing & Training Manager				\$0.00	\$0.00	\$0.00
31.3 Community Animator I & II				\$0.00	\$0.00	\$0.00
31.4 Nursery Officers I & II				\$0.00	\$0.00	\$0.00
39. Component Total:	\$0.00			\$0.00	\$0.00	\$0.00

40. Capital Items			\$50,000.00	\$50,000.00	(\$50,000.00)
41. Value of 100 ACRES (40 hectares) of Project Land to be used	\$50,000.00		\$50,000.00	\$50,000.00	\$0.00
42. Project Equipment, Tools and Accessories			\$0.00	\$0.00	\$0.00
42.1 Toyoto IMV Hilux vehical			\$0.00	\$0.00	\$0.00
42.2 Motorbike MK22 HP-F			\$0.00	\$0.00	\$0.00
42.2 Locally-built cassava crushers			\$0.00	\$0.00	\$0.00
42.3 Locally-built Cassava Dough Presses			\$0.00	\$0.00	\$0.00
42.4 Locally-built Gari Roasting Pans			\$0.00	\$0.00	\$0.00
42.5 Iron Coal-Pots for Garri roasting (Large sizes)			\$0.00	\$0.00	\$0.00
42.6 Nursery equipment and accessories			\$0.00	\$0.00	\$0.00
42.7 Large silver bowls for storage of pealed cassava			\$0.00	\$0.00	\$0.00
42.8 Cutlasses			\$0.00	\$0.00	\$0.00
42.9 Hoes			\$0.00	\$0.00	\$0.00
42.10 Hand (Publicity) Megaphones			\$0.00	\$0.00	\$0.00
42.11 Wheel barrows			\$0.00	\$0.00	\$0.00
42.12 Wellington Boots			\$0.00	\$0.00	\$0.00
42.13 Watering cans			\$0.00	\$0.00	\$0.00
42.14 Tarpaulins for drying fresh cassava			\$0.00	\$0.00	\$0.00
42.15 Garden lines			\$0.00	\$0.00	\$0.00
42.16 Measuring tapes			\$0.00	\$0.00	\$0.00
42.17 Medically-Stocked First Aid Boxes			\$0.00	\$0.00	\$0.00
42.18 Knapsack sprays			\$0.00	\$0.00	\$0.00
42.19 HP Pro Personal Computer, HP W2072a LED Monitor and accessories			\$0.00	\$0.00	\$0.00
42.20 HP LaserJet MFP M175 Printer			\$0.00	\$0.00	\$0.00
42.21 unintarupted power Voltage stabilizer			\$0.00	\$0.00	\$0.00
49. Component Total:	\$50,000.00		\$50,000.00	\$50,000.00	\$0.00
50. Consumable Items			\$2,074.78	\$2,074.78	(\$2,074.78)
51. Raw Materials			\$0.00	\$0.00	\$0.00
51.1 Very good quality (FSD-collected) seeds of selected indigenous timber species, teak, and Cassia siamea			\$107.61	\$107.61	(\$107.61)
51.2 Approved Pesticides and Fungicides			\$0.00	\$0.00	\$0.00
51.3 Assorted essential ingredients for cassava processing			\$0.00	\$0.00	\$0.00
51.4 Packaging materials, advertisement and marketing of processed cassava products			\$0.00	\$0.00	\$0.00
51.3 Wooden pegs for pre-planting pegging			\$0.00	\$0.00	\$0.00
51.4 Small poly bags for use at the seedlings' nursery			\$0.00	\$0.00	\$0.00
51.6 Plastic packaging materials for fresh unprocessed cassava			\$0.00	\$0.00	\$0.00
52. Spares			\$0.00	\$0.00	\$0.00
52.1 Vehicle (pick up) spares			\$314.74	\$314.74	(\$314.74)
52.2 Cassava crusher & cassava press spares			\$0.00	\$0.00	\$0.00
52.3 Cost of Fuel for Running project transport			\$1,569.95	\$1,569.95	(\$1,569.95)
54. Office Supplies			\$0.00	\$0.00	\$0.00
54.1 Computer Printer Cartridges			\$0.00	\$0.00	\$0.00
54.2 Simple Office Furniture			\$82.48	\$82.48	(\$82.48)
54.3 Stationery for ITTO reports & project office use			\$0.00	\$0.00	\$0.00
54.4 Electricity			\$0.00	\$0.00	\$0.00
54.5 Water			\$0.00	\$0.00	\$0.00

59. Component Total:	\$0.00			\$2,074.78	\$2,074.78	(\$2,074.78)
60. Miscellaneous				\$0.00	\$0.00	\$0.00
61. External Auditing				\$0.00	\$0.00	\$0.00
62. Steering Committee Meetings (STM)				\$0.00	\$0.00	\$0.00
63. Sundries				\$0.00	\$0.00	\$0.00
69. Component Total:	\$0.00			\$0.00	\$0.00	\$0.00
70. National Management Costs				\$26,436.28	\$26,436.28	
71. Executing Agency Management Costs	\$28,816.00			\$25,600.26	\$25,600.26	\$3,215.74
79. Component Total:	\$28,816.00			\$26,436.28	\$26,436.28	\$2,379.72
Sub-Total:	\$78,816.00			\$78,511.06	\$78,511.06	\$304.94
80. Project Monitoring & Administration						b/
81. ITTO Monitoring and Review						b/
82. ITTO Mid-term and Ex-post Evaluation						b/
83. ITTO Programme Support Costs						b/
83. Donor Monitoring Costs						b/
89. Component Total:	\$0.00					b/
90. Refund of Pre-Project Costs (Pre-Project Budget)						b/
Sub-Total:	\$0.00		\$0.00	\$0.00	\$0.00	b/
100. GRAND TOTAL:	\$78,816.00		\$0.00	\$78,511.06	\$78,511.06	

Note: Budget Components are those detailed in the Project Document.

a/ The **Cash Flow Statement must be completed first**, before the input into the Financial Statement.

b/ Accrued expenditure: expenditures incurred during the reporting period, but not yet settled.

c/ Amounts under the "Expended" column will be imported from the Cash Flow Statement (with direct link).



**Completion Report
of the ITTO Project
P D 653/12 Rev. 1(F)**

Title:

**“Sustainable, Mixed and Pure Forest Plantation
Development in the Transitional Zone of Ghana’s Biakoye
District Assembly, Employing Poverty Reduction
Strategies.”**



**Host Government: The Republic of Ghana.
Project Executing Agency: Picodev – Ghana.**



Project Completion Report (P D 653/12 Rev. 1 (F))

Project Starting Date: = 23rd May 2013.

Project Duration: = 24 months.

Project Costs(US\$):

ITTO: = US\$ 245,272

Executing Agency/Government of Ghana: = US\$ 78,816

Total Project Cost = US\$ 324,088

Project Technical and Scientific Staff (Key Project Staff):

Project Position	Name
Project Coordinator	John Stanislaus Komla Elletey
Cassava Processing and training Manager	Mary Awura-Adjoah Amoah
Community Animator (1)	Yao Reddy Akplor/ Christian Aganu
Community Animator (2)	Helen Vivian Mensah
Seed Nursery Officer (1)	Joseph Yaw Mensah/ T. O. Samanhyiah
Seed Nursery Officer (2)	Francis Komla Osei
Administrative Accountant	Andrew Kudjo Ameckson
Project Secretary	Fredrick Kwasi Onny

Implementing Institutions:

Executing Agency	PICODEV – GHANA, P. O. Box 24, NkonyaAhenkro, Volta Region Ghana (West Africa). Tel: +233245429200, +233207551636, +233506781358. E- mail: - picodev2010@yahoo.co.uk , elleteyjohn@yahoo.com
Advisory Body	Forest Research Institute of Ghana (FORIG) University P. O. Box 63, KNUST, Kumasi, Ghana. Telephone: + 2335160123. Fax + 2332160121.
Advisory/Collaboratory Body	Forestry Commission (FC), Corporate Headquarters, P. O. Box MB 484, Accra, Ghana. Tel; - (+233 - 302)401210,401227,401216 E-mail: infohq@fcghana.org .

	<p>Forest Services Division (FSD) P. O. Box 527, Accra, Ghana (Telephone & email as for corporate hq. above).</p> <p>FSD Regional Office, P. O. Box 39, Ho (Telephone & email as above).</p> <p>FSD District Office, P: O: Box 19, Jasikan, Gnana. (Telephone and email as above).</p>
--	---

Place and date issued: = Nkonya - Ahenkro Biakoye (District Assembly), Ghana.
10th August 2015.

Disclaimer: This Completion Report was prepared by the Project Executing Agency with the active involvement and support of the project beneficiary stake holdes. The opinions expressed and the conclusions arrived at in this report therefore remain solely the responsibility of the said Executing Agency and participating beneficiary stake holders.

<u>Table of contents</u>	<u>Page</u>
Executive Summary	5-8
1.0. Project Identification	9-12
1.1. Project Context	9
1.2. Origin and problem	10
2.0. Project Objectives and Implementation Strategy	13-20
2.1 Rationale, Development and Specific Ojectives	13
2.1.1 Stakeholder Analysis	13
2.1.2 Development Objective	15
2.1.3. Specific Objective	15
2.2. Implementation Strategy	16
2.2.1. Organizational Strategy	16
2.2.2. Timber Trees Cultivation Strategy:	17
2.2.3. Completely Self-Financed Cassava Cultivation and Processing Strategy	17
2.2.4. Project-Taught Cassava Products Promotion, Sales, and Marketing Strategy	17
2.2.5. Project and Plantations' Benefits Sharing Issues	18
2.3. Identified Assumptions and risks	19
3.0. Project Performance (Project elements planned and implemented)	21-25
3.1. Realized performance vs. planned performance & differences	21
3.1.1 Specific Objective	21
3.1.2. Outputs and related Activities	21
4.0 Project Outcome, target beneficiaries involvement.	26-28
4.1 The extent to which the project specific objective was achieved.	26
4.1.1. Specific objective.	26
4.1.2. Specific and permanent project – related skills acquired by target beneficiaries.	26
5.0 Assessment and Analysis.	29-31
6.0 Lessons Learned	32-33
7.0. Conclusions and Recommendations.	34-35
7.1. Conclusions.	34
7.2. Recommendations.	34

Executive Summary.

This successful multi dimensional pilot ITTO/JAPAN GOVERNMENT FUNDED project (PD653/12Rev.1(F) which ended shortly (23/5/15), had an excitingly relevant title: **‘sustainable, mixed and pure forest plantation development in the transitional zone of Ghana’s Biakoye District Assembly, employing poverty reduction strategies.’**

This title / topic not only reflects the relevant concerns (**improvement of forest and savana, control of bush fires and poverty reduction**), of the target youth groups in the project area, but also corroborates multiple and central themes in some key **ITTO Policy Agreements such as:**

- a. promotion of the establishment of mixed indigenous valuable timber species of proven commercial potential;
- b. the promotion of the establishment of sustainable income-earning pure plantations of teak *Tectona grandis* and cassia *Cassia siamea*; and
- c. the professional training of target beneficiaries on creative processing of self-grown local cassava tubers (using simple home-made technology) into popular demand-driven value-added staple foods and thereby directly reducing rural poverty while complementing reforestation efforts.

The project villages (Tayi, Ahenkro, Ntumda, Tepo, Bumbula and Akposo Kabo) all within the Biakoye District Assembly (aprox.between Lat. 6° 45’N & 7 ° 15’N and Long. 0 ° 30’E & 0 ° 45’E), which forms part of the Eastern portion of Ghana’s High Tropical Forest Zone, characterised by varied topography with vast stretches of flat deforested land (in the main project area) with high potential for natural regeneration of the selected indigenous project species (recent inventory results confirm).

The people in the project area are predominantly Guan with good Akan speaking background with only 10% (mainly settlers and workers) of other tribes and mostly christians, only 6% are of other religions. Traditional authority is in the hands of chiefs and sub – chiefs and Social organisation is in the form of the extended families, sub – clans, clans, villages and towns with largely male dominated societies, though most people now accept that women should be emancipated. This project was therefore designed in favour of gender equality.

The key problem to be addressed in the project area was the existence of large tracts of degraded forests alongside extreme poverty wide spread among the rural people including the target youth groups. The project was originally identified and mooted by members of the Tayi collaborative forest management committee (T-CFMC) and after reaching a consensus with their counterparts in Bumbula they formed viable community-based youth groups and approached **Picodev - Ghana (PG)** a locally based NGO for support. With the initiative of the youth groups, the forest management and project management capability of Picodev Ghana and the eagerness and zeal of the newly created **Biakoye District Assembly (BDA)** to address its hydra-headed developmental issues, this pilot project was born and nurtured to

successful maturity with a common purpose :- promotion of sustainable forest plantation establishment and management and poverty reduction.

To recapitulate, **the development objective** was meant to contribute to the sustained socio-economic development and environmental protection in the Biakoye area in Ghana's Volta Region, to restore precious indigenous and exotic timber supply base and nurture diversified local natural habitats, to expand timber-sale revenues and incomes while widening multiple domestic livelihoods opportunities on a sustainable basis (short rotation cassia *Cassia siamea* fuel wood and cassava value adding processing).

Similarly, **the planned outputs** included:

- a. **50 acres** (in the aggregate ie 8.4acres x 6 communities) of popular indigenous and proven commercial trees mixed plantations;
- b. (i) **30acres** (in the aggregate ie 5acres x 6 communities) of pure teak *Tectona grandis* plantations and;
(ii) **20 acres** (in the aggregate ie 3.4 acres x 6 communities) of pure cassia *Cassia siamea* plantations. **Additionally;**
- c. **(interested project community members especially target youth groups members)** in the 6 project communities must have been highly proficient in cassava processing with skills that add value to raw cassava and which significantly must have raised their income level.

Outputs actually achieved are:

- output 3.1, 46.6 acres mixed indigenous plantation (93.2% success),
- output 3.2a, 21.8 acres teak *Tectona grandis*, pure plantation (72.6% success),
- output 3.2b 5 acres cassia *Cassia siamea* pure plantation (25% success),
- output 3.3 (81% success).

All outputs achieved were within planned expenditures. Even where abnormal inflation (due to a sudden change in Government Policy to remove subsidy on fuel) threw the fuel and vehicle maintenance expenditures out of balance, due process was followed to seek approval for budget modification without extra cost to ITTO. **Counterpart funds were also prudently sourced to supplement expenditures where necessary as planned.**

The most critical difference between planned and realised implementation is in the area of cassia establishment (Output 3.2b) where target beneficiaries' delayed appreciation of the latent sustainability philosophy implied, affected that output's plan and implementation and hence the outcome. What is important however is that the target beneficiaries have, at long last, adopted it, developed the capacity, made a modest start, and will continue from there.

The target youth groups agree that this ITTO project **PD 653/12 Rev. 1 (F)** has been their eye opener that commercial tree growing cushioned with short and medium term poverty reduction strategies could be a profitable venture for the youth and an alternative legacy to bequeath to future generations. However they unanimously agreed that subsequent project

support should last at least three (3) years to enable the emerging tree saplings overcome weed competition and to ensure adequate survival.

With the cassava processing component, the target youth were of the view that since cassava and the cereals (especially corn) were inseparable bed fellows in their traditional staple foods, a machine that could process the cereals also (which would be an important adjunct and catalyst to their poverty reduction ventures) would be highly appreciated.

After project intervention, the situation is like the seed (or idea) that was sown and had grown to youthfulness awaits extra care to mature and produce the much needed fruits for sustenance and replication. The capacities of the target beneficiaries have been developed and are poised to take responsibility to ensure adequate yields (short, medium, & long terms).

Lessons learned and recommendations:

This popular ITTO/ Japan Government funded project PD 653/12 Rev. 1 (F) has demonstrated vividly that, young, committed, unemployed, rural women and men could take up the establishment of commercial tree plantations using valuable indigenous timber species of proven commercial potential, in mixed stands along side, the establishment of pure plantations of teak *Tectona grandis* and cassia *Cassia siamea* thereby taking advantage of the short, medium and long – term rotations, as well as, **additional poverty reduction project intervention strategies.**

Profuse weed growth is a key impediment to tree sapling growth and survival. It has been realised that such poverty reduction interventions if they incorporated short rotation valuable fruit-trees together with annual cereals, cow peas and staple vegetables (agroforestry practice), the target youth would be motivated to stay longer on the plantations to keep down weed growth while tending these short rotation fruit – trees and staples than in the case where they were not incorporated (pure plantation). It has also been realised that where the inter-cropping is not possible, monthly line cleaning with reduced 100% weeding should be an alternative option to the quarterly weeding in order to suppress weeds in the immediate vicinity of the tree saplings, while cutting down on weeding costs.

It has also been realised that it takes a few committed youth's effort (rather than the masses) and also imminence of a **fair, attractive and respected project benefits** for success to be achieved. If subsequent budgeting anticipates and accounts for imminent macro – economic imbalances, the gap between planned and achieved outputs should be further reduced. **The replication potential of project PD 653/12 Rev. 1 (F) is high and valid.**

Also, the project has realised that if the processing machine was either modified to process cereals as well as the cassava, or a complementary one were obtained, the poverty reduction ventures would be catalysed and the target youth groups' expectation **'we shall live longer and happily to maintain the planted forest trees'** would be, sooner than later, a reality.

The creative idea of the target youth groups to turn vast areas of degraded forest into valuable commercial plantations through self- help initiatives backed by project intervention really works and needs to be replicated.

1.0. PROJECT IDENTIFICATION

1.1 Project Context

The project location in Biakoye District Assembly area, (aprox.between Lat. 6 ° 45'N & 7 ° 15'N and Long. 0 ° 30'E & 0 ° 45'E), socio- economic, as well as, cultural and environmental aspects have been summarised above (Executive Summary). The following, therefore, gives further insight into the relevant local, national and regional policies as they impact upon the use of the project land: THE PROJECT LANDS – whether for DEMONSTRATIVE PLOTS or INDIVIDUAL YOUTH APPLICATION, are conflict-free long-term leasehold land granted by their parents, or grandfathers, or family heads who are the rightful allodial land title holders. All project lands in all the participating communities (customary freehold lands for that matter) have ALREADY been SECURED from the community allodial land owners. A LEGAL and LONG-TERM LAND TENANCY AGREEMENT has also been drafted by a local philanthropist lawyer and discussed at all community levels and has been used as a guide for drafting the land documents administered in the project.(reference annex 3 of project proposal).

COUNTERPART CONTRIBUTION at US \$500.00 per acre, per year (total \$50,000) was partly in the form of project land, based on a 2011 Land Valuation Document addressed to a local traditional head, and which applies to the project-sub-district (reference annex 5 of project proposal) The land used for the mixed timber tree stands and the pure teak and *Cassia siamea* plantations totaling 100 acres was in the form of contiguous family land units used as the demonstration plots.

In the case of the cassava farms, a more liberal, largely, individual free- hold fallow system is the order. Each family group usually male and female and also members of the CFMC will cultivate up to two acres each for a couple of years until the soil is rendered infertile, which they abandon for another piece while the former is left fallow. It is cassava from these two acre farms, independent of the 100 acres (in aggregate) demonstrative plots, that were used for the training of the target youth for the processing and packaging component. There is no benefit sharing in the cassava farming as the target youth individual units are hundred percent beneficiaries of the cassava produce and products. This is a special incentive package for the target youth groups to motivate them for the maintenance of the mixed and pure plantations.

Since all the youth beneficiary owners are resident indigenous citizens in their communities, the leased lands (2 acres / 0.8 Ha in the average per head, for cassava), as well as 30 acres / 12 Ha for exotic teak, 20 acres /8 Ha for cassia fuel wood and the 50 acres / 20 hectares mixed plantation demonstration plots) constitute a crucial local contribution in an otherwise patriarchal society.

Land, Land Use and Land Tenure in the Project Area: Immigrant farmers are fairly common in the area: about 20 % of the population. Many indigenous local land-owners are prepared to share the benefits of their land with immigrant farmers (including a percentage of ownership in trees) provided the latter are prepared to genuinely add value to the land in an

honest manner. Where secondary land has been cultivated, they are often done either by indigenous dependents of family members who are lawful successors of customary freeholds, or by immigrant farmers under a traditional land use agreement. The indigenous dependents are legally free to use the land for as long as they please as long as they follow local fallow instructions. Most family lands have however been seriously abused and diminishing returns have dangerously set in. It is interesting to note that immigrant farmer participation in this project was very minimal as the target communities largely relied on extended family members.

Land Use Patterns: Most land in the project area is used for the cultivation of subsistence 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.

The organization of this pilot ITTO/JAPAN GOVERNMENT FUNDED multiple plantation development project (PD653/12 Rev. 1 (F)) was in line with Ghana's national forest resource improvement endeavours as exemplified in the 1994 Forest and Wildlife Policy. The aim of this 1994 policy document is to conserve and sustainably develop Ghana's forest and wildlife resources to ensure adequate environmental quality and perpetual flow of optimum benefits to all segments of society. The 1994 Policy (among others), 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.
- 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:
- Natural resources protection to ensure their sustainability in the interest also of generations to come.
- Rehabilitating, enriching, or developing the resources (through, for example, plantation development and enrichment planting in forests).
- Optimizing revenue and other benefits that flow from the resources so as to alleviate poverty, especially within resource-owning communities.

1.2. Origin and problem

Similarly, the origin and problem have been introduced and defined in the summary above (executive summary).

The following schematic representation helps the reader to understand the local rural context that contributes to create the land degradation problems in the project target areas.

Social & Cultural Dimension	Brief Details
Communities Participating:	(a) Tayi, Ahenkro, Ntumda, Tepo, Bumbula and Akposo Kabo all in the Biakoye District Forest-Savanna Zone in the Volta Region of Ghana.
Ethnicity:	All Guan.
Demography:	(a) Ethnically homogeneous. (b) Approximately 12,563 overall population (that is. all six communities combined) according to a projected Ghana Population Census of 2000. (c) Population growing at the rate of 1.9 per cent annually. (d) Women constitute 51 per cent of the total population, with a very high child dependency rate. (e) Average household size = 5 people. (f) High rural-urban migration rate as a result of depleted local natural resources, and high local unemployment and under employment rate.
Major Occupations and Average Income:	(a) Peasant farmers = 80%; (b) Petty traders = 12%; (c) Public servants = 3%. (d) Petty artisans & others = 5%. Average disposable incomes per head range from \$300 - \$450 per year.
Land Titles, and Present Status of Local Secondary Forests & Savanna	A mixture of allodial title and customary free-holdings (50%), Family land (40%) and individual holdings (10%). The secondary forest and savanna has been devastated and heavily degraded. Local individuals, elders and village chiefs have agreed to provide all the project land (a minimum of 100 acres /40 hectares).

From the information above, it is obvious to note that the high population rate and density and high unemployment rates have contributed to the high poverty level which put so much pressure on the land and its resources leading to dgradation and the vicious circle of poverty, more degradation, more poverty and urban migration for non existent jobs etc. The project has, therefore, for the past two years been trying to reverse the situation by supporting some

committed rural youth groups by means of on-the-job capacity building with some financial assistance for labour and other contingencies.

The project has also trained interested youth groups in cassava production and processing for enhanced value as well as packaging and marketing skills that provide income for their short term needs to ensure survival so that they will be able to address the medium (pole 1 production) and long term (timber production) outputs also.

2.0. PROJECT OBJECTIVES AND IMPLEMENTATION STRATEGY

At this stage, this report seeks to present the original (with any adjustment as necessary) project rationale, objectives, implementation strategies and any identified assumptions and risks.

2.1 Rationale, Development and Specific Objectives

2.1.1 Stakeholder Analysis

Project stakeholders are individuals, households, groups, private or public organizations and institutions that are affected by, and who in turn affect the processes, activities, outputs, and outcomes of a project. In other words, project stakeholders are project intervention actors who have an interest (positive or negative) in the outcomes and results of the program. The stakeholders in this project were described along several dimensions, namely:

- a) Traditional politico-administrative power-owning elites,
- b) Powerful land resource-owning groups, both traditional and newly-arrived “landowners-through-outright-purchases”,
- c) Women and girls as land-resources most ubiquitous users (although women and girls are NOT front-line land resource owners),
- d) Migrant farmers,
- e) Multiple local land-use groups like farmers, hunters, and NTFP collectors, as well as
- f) Local and district state-sector forestry officials.

These were characterized into three levels

- a) **Prime stakeholders,**
- b) **Secondary stakeholders,** and
- c) **Tertiary stakeholders.**

The prime target beneficiary stakeholders of this project include up to 1,200 target area Youth groups– both male and female, and very often landless– but who are registered members of the local forestry registered village-based Collaborative Forest Management Committees (CFMCs).

They stand to gain directly from this project in multiple ways: namely, forest tree resources enhancement, part-time employment, as well as household livelihoods expansion. Also in this prime category are the Family heads of these **CFMC-Youths who have agreed to provide land for both the project demonstration plots, as well as individual youth plots.** These land providers will also GAIN in terms of project forest tree resources benefits sharing. Local environmental micro-climate improvements will further enhance the land resources of the land-owners.

About 90 per cent of the project youths (both young men and young women) **have already been allocated project land by their respective family heads or parents who are allodial land title holders.** The project therefore maintained the principle of justice, greater access, and fairness in local family land ownership matters. This fact explains the reason behind the

current popularity of the project among first- and second-level stakeholders in the target communities. For purposes of this analysis, we maintained **the NGO (Picodev Ghana) and the Biakoye District Assembly Offices in Nkonya the project’s executing agencies**, as prime and crucial stakeholders, as a collaborative unit promoting the target area’s long-term forestry and agricultural programs.

The secondary stakeholders include local and district state-sector forestry officials, as well as other local District Assembly officials concerned with reforestation, environmental improvement and staple food production. The project provided a useful learning opportunity for these secondary stakeholders to work with primary stakeholders and to devise alternative and sustainable resource management plans for the locality.

The tertiary stakeholders include the Member of Parliament for the project area, the local political Unit Committee, the Assembly man, the chief farmer, as well as local religious bodies. When the project formulators (initially from the primary- and secondary-level stakeholder groups) first decided on the project, it was the local churches that offered to announce or publicize it in their respective churches

The project stakeholders described above have all played very constructive and active roles at different phases of the project cycle as described below.

PROJECT CYCLE PHASE	PRIME STAKEHOLDERS	SECONDARY AND TERTIARY STAKEHOLDERS
Problem Identification & Project Identification	(a) Targeted Community Youths and Farmers (both local young women and young men) who are registered MEMBERS of the local village-level Collaborative Forest Management Committees – CFMCs. (b) Family heads or parents who are allodial land title holders. (c) Picodev Ghana & BDA Offices in Nkonya Ghana	(a) Local community chiefs. (b) District Forestry Officer (c) District Agric. Officer (d) District Assemblymen and assemblywomen (e) Member of Parliament for the target area.
Project Formulation	(a) Targeted Community Youths and Farmers (both local young women and young men) who are registered MEMBERS of the local village-level Collaborative Forest Management Committees – CFMCs. (b) Family heads or parents who are allodial land title holders.	(a) Local community chiefs. (b) District Forestry Officer (c) District Agric. Officer (d) District Assemblymen and assemblywomen (e) Member of Parliament for the target area.

	(c) Picodev Ghana & BDA Offices in Nkonya.	
Project Submission	-As Above-	-As Above-
Project Appraisal & Approval	(a) Targeted Community Youths and Farmers (both local young women and young men) who are registered MEMBERS of the local village-level Collaborative Forest Management Committees – CFMCs. (b) Project land owners. (c) The Executing Agency, i.e. Picodev Ghana & BDA Offices In Nkonya	<ul style="list-style-type: none"> • Allodial land title holders and family heads of the landowning families • District Forestry Officer • District Assembly
Project Funding	<ul style="list-style-type: none"> • Project landowners • The local CFMC. • ITTO Focal Point (Ghana) • ITTO (RFM Division/Gov. of Japan) • The Executing Agency, i.e. Picodev Ghana & BDA Offices in Nkonya. 	<ul style="list-style-type: none"> • Landowning families • Project participating youths within the local CFMCs. • Ghana Forestry Commission • Government of Ghana
Project Implementation Monitoring Evaluation, & Review	<ul style="list-style-type: none"> • The Executing Agency • Project registered youth beneficiary groups and the CFMCs • ITTO (RFM) • Project land owners. 	<ul style="list-style-type: none"> • ITTO Focal Point • Government of Ghana

2.1.2 Development Objective

The project's development objective is: 'To contribute to the sustained socio-economic development and environmental protection in the Biakoye area in Ghana's Volta Region seeks to; restore precious indigenous and exotic timber supply base and nurture diversified local natural habitats, expand timber-sale revenues and incomes (mixed indigenous timber species and pure teak *Tectona grandis* plantations) while widening multiple domestic livelihoods opportunities on a sustainable basis (short rotation *Cassia siamea* fuel wood and cassava value adding processing)'.

2.1.3. Specific Objective

While the specific objective is: 'To initiate a participatory, poverty alleviation approach (innovative value adding cassava processing and sale) to bring about sustainable forest

enrichment and plantation development using tropical timber species in mixed stands and exotic teak (for timber and poles) and *Cassia siamea* (for fuel wood) in pure stands at selected sites in the Biakoye District Assembly area of Ghana's Volta Region'.

2.2. Implementation Strategy

In order to ensure a participatory implementation of the project, the project owners and stakeholders discussed and adopted a **multi-dimensional project strategy** that aimed at achieving maximum results. Some aspects of that participatory strategy included:

- a) *Organizational strategy.*
- b) *Rural private timber cultivation strategy in terms of land preparation, seedlings procurement and seedlings production, seedlings planting, as well as, over all plantation maintenance.*
- c) *Strategy to promote fully self-financing (by local beneficiaries) of cassava cultivation.*
- d) *Cassava part-processing and management strategy.*
- e) *Cassava products promotion, marketing, and sales strategy.*
- f) *Project benefits sharing, conflict prevention & conflict mediation strategy.*
- g) *Project information, dissemination strategy*
- h) *Overall community participation in implementation strategy.*

The basic objective of the above sub-strategies is to ensure active (cross-segment) involvement in decision-making by stakeholders, leading to greater local actor commitment, supportive and responsible behavior, as well as sustainability of interactive operations, outputs, and outcomes. The details of these diverse aspects of project strategy are further explained below.

2.2.1. Organizational Strategy

In each of the six rural communities, the target youth groups already exist as thriving (Forestry Commission-recognized) **Collaborative Forest Management Committees (CFMCs)** with their own bye-laws, management structures, and sets of meeting times. The project only strengthened and enriched these useful and committed old links to the socio-economic advantage of the members. In each of the six target communities, the members established the following types of plantations:

- a) **The first plantation category** was the **Six Mixed Plantation Demonstration Plots** 50 acres (20Ha aggregate) of **indigenous** locally popular timber species like *Emire, Ofram, Wawa, Dodowa Sofo, Onyina, Papao, and West African Mahogany*. These were owned jointly by the land-giving families and the various youth groups
- b) **The second type of plantation** was the teak plantations in pure stands owned jointly by the land-giving families and the various youth groups.
- c) **The third type of plantation** was the *Cassia siamea* fuel-wood plantations in pure stands owned jointly by the land-giving families and the various youth groups.
- d) The fourth type of cultivated plots was the **COMPLETELY SELF-FINANCED Cassava farm crops** (with boundary planting of ofram tree seedlings) for future processing into multiple local demand-driven cassava products, and owned privately by individual youth group members.

The youth members worked on these diverse plantations with technical direction from the Project Executing Agency.

2.2.2. Timber Trees Cultivation Strategy:

The initial land clearing and preparation function was done through project-hired labour drawn from the target youth groups and (sometimes) from the local communities at large. Seedlings came from three sources: namely,

- (a) District (FSD) Central Nursery especially for the indigenous tree species;
- (b) The project's own seed nurseries; and
- (c) FSD-approved private nurseries owned and managed by trained operators.

Seedlings transplanting and maintenance were carried out by a combination of hired local labour and target youths own labour as far as possible with technical advice from the project. The philosophy was learning by doing, having in mind post-project maintenance period.

2.2.3. Completely Self-Financed Cassava Cultivation and Processing Strategy

We have already said that the fourth type of cultivated plots was the individually-owned *Cassava farm crops* for future processing into multiple local demand-driven cassava products, and owned privately by individual youth group members. The individual private owners bore 100 per cent of the cost of initial *cassava* land clearing (and future *cassava* maintenance weeding cost). A small ITTO Project Funding Budget (about 5 per cent of the total ITTO budget) was used to

- a) Procure essential initial cassava cultivars or planting materials,
- b) Train the individual youth members on how to process demand-driven cassava products like “cut-to-customer-specification-dried cassava chips”, “innovatively-packed tapioca”, “cassava-neat-fufu flour”, “cassava-plantain-fufu flour”, “cassava-yam-fufu flour”, “cassava-cocoyam-fufu flour”, “multiple ready-to-eat pre-mixed gari”, - with different popular flavors such as soya flavour, miracle-berry flavor, or cocoa-milo-flavor) - as well as “fresh cassava dough” for niche regional and local domestic household uses”.
- c) Pay for a very modest list of locally proven cassava processing tools and simple equipment and
- d) Promote the local use and profitable sale of the final cassava products. Because cassava is a root tuberous crop and highly nutrient demanding offram tree seedlings were largely used as boundary plantings with sparse inter plantings as cover trees on fallows after final harvesting of cassava.

2.2.4. Project-Taught Cassava Products Promotion, Sales, and Marketing Strategy

Owing to the fact that *cassava* is a staple food component in most local lunch or dinner recipes for most households in the target area, cassava processing, storage, packaging, marketing and promotion activities constituted an important part of project implementation. The cassava products, therefore, partly for household use and partly for sale to the general public at a profit for the youth group members.

2.2.5. Project and Plantations' Benefits Sharing Issues

The project established multiple levels of project plantations in each of the six communities as follows: Firstly; the mixed plantation of popular indigenous timber species like *Emire*, *Ofram*, *Wawa*, *Dodowa Sofo*, *Onyina*, *Papao*, and *West African Mahogany*, Then; the mono-culture plantations of teak (for poles and timber) and *Cassia siamea* (for fuel wood). These project outputs would (after maturity) be shared according to the following proportions below:

Project Ownership Shares (in percentages)

(These percentages apply to all the six target communities)

RURAL COMMUNITY BENEFICIARY	PERCENTAGE OWNED
The target YOUTH GROUP (with respect to the relevant Mixed Plantation Demonstration Plots)	45 per cent of the proceeds of the relevant demonstration plot
The LOCAL FAMILY that provides land for the relevant Mixed Plantation Demonstration Plots	45 per cent of the proceeds of the relevant demonstration plots
The Project Executing Agency (with relevance ONLY to each of the said Mixed Plantation Demonstration Plots)	10 per cent of the proceeds of each of the relevant mixed plantation demonstration plots
Individual target youth member with relevance only to the mono-culture TEAK Plantation	60 per cent of the holding to the individual private youth owner
Individual target youth member with relevance only to the mono-culture <i>Cassia siamea</i> FUEL-WOOD Plantation	60 per cent of the holding to the individual private youth owner
Individual youth member with relevance only to the cassava farm holdings and its processed cassava products	100 per cent of the holding to the individual private youth owner
The local Family that provides land for the relevant Teak mono-culture plantation	30 percent of the proceeds the demonstration plots.
The local Family that provides land for the mono-culture cassia Fuel Wood Plantation	30 percent of the proceeds of the demonstration plots
The Project Executing Agency (with relevance only to each of the mono-culture Teak plantations)	10 percent of the proceeds of each of the relevant mono-culture Teak plantations.
The Project Executing Agency (with relevance only to each of the mono-culture cassia plantations.	10 percent of the proceeds of each of the relevant mono-culture cassia plantations.

2.3. Identified Assumptions and risks

At the onset of project execution the following assumptions and risks were anticipated. These and the measures taken by the project partners to eliminate or minimize them are presented below.

Risk	Implementation Assumption	Planned Project Action To Eliminate Or Minimize Risk
<p>Changing and erratic rainfall pattern in that part of Ghana (i.e. forest-savannah land)</p>	<p>That minimal rainfall patterns necessary for the good growth of <i>Wawa</i>, <i>Ofram Emire</i>, <i>Papao</i>, <i>Mahogany</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 increased in 2010-2011. Early planting of seedlings will be the norm.</p>
<p>Destructive Wild Bush Fires (especially in the grass-covered project areas)</p>	<p>That wild bush fires in parts of the project areas can be prevented, minimized, or completely eliminated.</p> <p>Youth groups at Tayi and Bumbula have formed active anti-wild fire volunteers clubs. This idea will be replicated at the other areas also.</p>	<p>(a) Preventive community education, especially for fire risk groups, e.g. hunters, NTFP collectors, palm-wine tapers. (b) Border planting, using fire-resistant shrubs and trees. (c) Construction of fire-belts around target plantations to prevent fire outbreaks, and facilitate dry-season fire patrols. (d) Motivating implementing communities to aim at 100 per cent anti-fire regimes.</p>

The assumptions and risks anticipated for prudent management to ensure survival of plantation tree species were in the areas of adequacy of rainfall and control of wild bush fires necessary for the survival of the selected valuable tree species for the plantations. The Project partners put in every effort necessary to maintain a fire free dry season.

These included timely preparation and maintenance, as well as, frequent patrolling and awareness creation. These measures really paid off to ensure a fire free dry season. However, the project learnt a very necessary lesson, that is; fire could still occur even during the rainy season through negligence. For while the Project partners were busily planting at a section of the Ntumda plantation, a careless and greedy land owner while harvesting charcoal nearby, unknowingly spilled over live charcoal into a weeded plantation causing damage to a portion

of the growing planted tree saplings. The pain and extra effort to repair the damage remains an indelible experience on the minds of Project partners never to be complacent.

In the area of adequate rainfall, even though rainfall had been largely chequered and unreliable, the project partners had made prudent use of it (by always ‘drifting along with the tide instead of breasting the current’). More precisely the team had always taken advantage of rainy days to do planting and paused during dry spells and when such spells had become unpredictably too long they (partners) had gone the extra mile to water any newly planted seedlings to keep them alive until the next rainy day. The team spirit and level of sacrifice and love for the planted trees were high. That was the secret of success even during trying moments and hazard times.

3.0 PROJECT PERFORMANCE (PROJECT ELEMENTS PLANNED AND IMPLEMENTED)

3.1 Realized performance vs. planned performance & differences

3.1.1 Specific Objective

To initiate a participatory, poverty alleviation approach (innovative value adding cassava processing and sale) to bring about sustainable forest enrichment and plantation development using tropical timber species in mixed stands and exotic teak (for timber and poles) and *Cassia siamea* (for fuel wood) in pure stands at selected sites in the Biakoye District Assembly area of Ghana's Volta Region.

3.1.2. Outputs and related Activities

Project outputs achieved.

Planned Output	Actual Output Achieved.	Inputs Applied/Remarks.
<p><u>Output3.1</u> Up to 200 (per community), young women & young men of six (6) pilot project communities have established and are professionally managing six (6) mixed plantation demonstration plots of selected popular, indigenous and commercial trees (50 acres in the aggregate ie 8.4 acres x 6 communities) along with basic reforestation skills transfer.</p>	93.2% (46.6 acres) of the total planned output was achieved.	A very successful output achievement. Ntumda, Tepo & Akposo Kabo performed above average while Tayi was on average, reflecting their preference for the indigenous species. It is note worthy that Tayi ranks highest followed by Tepo in performance of the the indigenous species due to both site quality and management. Mahogany is doing very well on the Ntumda site.
<p><u>Output 3.2a.</u> Up to 200 (per community), young men & young women of six (6) pilot project communities have established and are professionally managing six (6) demonstration plots of commercial teak (<i>Tectona grandis</i>) (30 acres in the aggregate ie 5 acres x 6 communities), along with basic reforestation skills transfer.</p>	72.6% (21.8 acres) of the total planned output was achieved.	Sucess was satisfactory. Tepo was above average performance with Akloba / ahenkro close to average. It is note worthy that the Akposo Kabo teak plantaion has the best form, in terms of uniformity and vigour. A sign of good site quality and management.
<p><u>Output 3.2b.</u> Up to 200 (per community), young women & young men of six (6)</p>	10% (2 acres) success was recorded for this output at the close of	The unpleasant performance in this area was initially because of disinterest as large

pilot project communities have established and are professionally managing six (6) demonstration of commercial cassia (<i>Cassia siamea</i>) (20 acres in the aggregate ie 3.4 acres x 6 communities), along with basic reforestation skills transfer.	the main planting but this was increased to 25% (5 acres) after the communities had been convinced to plant up the fire belts as a measure of protection and sustainability.	quantities of fuel wood abounds at the project sites already. However when the target beneficiaries were apprised of the protection and sustainability aspects (thanks for the outcome of the 2nd PTC meeting), they were convinced to plant the fire belts.
--	--	--

All outputs achieved were within planned expenditures. Even where abnormal inflation (due to a sudden change in Government Policy to remove subsidy on fuel) threw the fuel and vehicle maintenance expenditures out of balance, due process was followed to seek approval for budget modification without extra cost to ITTO. **Counterpart funds were also prudently sourced to supplement expenditures where necessary as planned.**

Activities Planned and Implemented

OUTPUT 3.1	DURATION	INPUTS AND REMARKS
Activity 3.1.1: Participatory Land Securing , site selection, site surveying, demarcation, indenture preparation, and pillaring.	01/01/2015 – 30/04/2015 (120 days)	Labor and pillaring wooden pegs provided as planned. Completed on schedule.
Activity 3.1.2 Preparation of appropriate individual site maps and ownership site plans	01/01/2015 – 30/04/2015 (120 days)	Labor from the youth group members, implementing agency staff, and local traditional land owners and chiefs who give out the land provided as planned .Completed on schedule.
Activity 3.1.3 Major seeds collection (e.g. <i>Emire</i> , <i>Papao</i> , <i>Dodowa sofo</i> , <i>West African Mahogany</i> , <i>Wawa</i> , <i>Ofram</i>), extraction, drying, purchasing, testing and storage	23/05/2013 – 31/12/2014 (588 days)	Labor, and financial inputs provided on time. Kindly Note: All Cassava cultivars (or seeds) cost was borne by the youths and the local Executing Agency (& not ITTO) as planned. Completed on schedule.

Activity 3.1.4 Establishment of 2 small seed NURSERIES to produce needed seedlings to complement supplies from FSD. These included land preparation, sowing, fertilization, watering, shading, purchasing of polythene bags, and seedling bagging.	23/06/2013 – 31/12/2014 (558 days)	2 nurseries were started at Tepo and Akposo Kabo. The Tepo one had to be stopped for lack of water. The other one was expanded to provide all seedling requirements. Completed on schedule.. Trained youth group labor, plus seeds and financial resources were available on time.
Activity 3.1.5 Adequate preparation of the main field plots for plantation planting activities i.e. pegging, hole digging, etc.	23/05/2013 - 23/06/2014 (397 days)	Wooden pegs and digging implements and labour were provided on time as planned Completed on schedule.
Activity 3.1.6 Major raining season transplanting of seedlings and follow-up beating up (or re-planting)	23/06/2013 – 23/09/2014 (459 days)	Labor and water available were prudently utilized. Completed on schedule. .
Activity 3.1.7 Making of borderline anti-fire strips (where necessary)	23/09/2013 – 23/05/2015 (608 days)	Both youth groups and Sub-contracted local male labour were used. Completed on schedule
Activity 3.1.8 MAINTENANCE of plantations (e.g. Weeding, tending, spraying, pest control, further beating-up, and other professional activities as advised by project management and FSD.	23/06/2013 – 23/04/2015 (671 days)	Executed as planned. All inputs were available on time Completed on schedule..

OUTPUT 3.2.(A & B)	DURATION	INPUTS AND REMARKS
Activity 3.2.1 Establishment of 2 small seed NURSERIES to produce needed seedlings to complement supplies from FSD. These included land preparation, sowing, fertilization, watering, shading, purchasing of polythene bags, and seedling bagging.	23/06/2013 – 31/12/2014 (558 days)	As in Activity 3.1.4 above. The same nursery was used. Completed on schedule.
Activity 3.2.2 Actual TRANSPLANTING , followed by field inspection and beating up where necessary.	23/06/2013 – 30/09/2014 (459 days)	Seedlings, plus labour were available and on time Completed on schedule
Activity 3.2.3	23/09/2013	Same as Activity 3.1.7 above..

Construction of borderline anti-fire strips where appropriate	– 23/05/2015 (608 days)	Completed on schedule
Activity 3.2.4 MAINTENANCE of plantations (e.g. Weeding, tending, spraying, pest control, further beating-up, and other professional activities as advised by project management and FSD)	23/06/2013 – 23/04/2015 (671 days)	Same as Activity 3.1.8 above. Youth group labour, plus seedlings were available and on time. Completed on schedule.

OUTPUT 3.3	DURATION	INPUTS AND REMARKS
Activity 3.3.1 General information provision and discussion forums with the youth groups and the gathering of necessary equipment and inputs in the respective 6 villages.	23/11/2013 - 23/01/2015 (427 days)	Trained implementing agency staff carried out the work effectively. All the 6 communities were provided with the necessary equipment as planned. Completed on schedule. .
Activity 3.3.2 Organization of several “ <i>learning-by-doing</i> ” training workshops where participants actually learned to process, make, manufacture, pack, label, and sell creatively processed cassava products.	23/06/2013 – 31/12/2014 (558 days)	The target groups here are basically local youth groups in the target area, namely: Tayi, Ahenkro, Ntumda Tepo Bumbula and Akposo-Kabo communities implementing the project including the CFMC members carrying out the planting in the field. They all participated effectively Completed on schedule.
Activity 3.3.3 Periodic organization of formal networking and training workshops, Open Days, and Cassava promotion days for the target groups.	23/05/2014 – 23/05/2015 (366 days)	Trained implementing agency staff.
Activity 1.3.4 Arranging planned field visits to institutions that have relevant services to offer the project in terms of output 3.3 above	23/06/2013 – 31/12/2014 (558 days)	These visits helped the rural youth plantation development and cassava processing groups to build professional networks and function effectively as professional profit-making groups. Completed on schedule.
Activity 3.3.5	23/06/2013	Such private nurseries must

Promoting other target area private seedlings producers (that is, private nurseries) that are professionally sound enough to supply approved seedlings for targeted fast-growing indigenous timber species.	– 31/12/2014 (558 days)	have been trained by FSD in the District. 2 such private nursery workers were employed at the Akposo Kabo project nursery. Completed on schedule.
Activity 3.3.6 Organization of project monitoring exercises along with the participating groups and ITTO officials	26/06/2013 – 27/06/2013, 30/10/2013 & 15/12/2014 - 16/12/2014 (5 days)	3 PTC meetings were organized. 2 with ITTO officials and one at the local level. Accommodation and transport were provided for some participants

4.0. PROJECT OUTCOME, TARGET BENEFICIARIES INVOLVEMENT.

4.1 The extent to which the project specific objective was achieved.

4.1.1. Specific objective.

The project's specific objective was stated as follows: 'To initiate a participatory, poverty alleviation approach (innovative value adding cassava processing and sale) to bring about sustainable forest enrichment and plantation development using tropical timber species in mixed stands and exotic teak (for timber and poles) and *Cassia siamea* (for fuel wood) in pure stands at selected sites in the Biakoye District Assembly area of Ghana's Volta Region', and the extent to which it was achieved has been summarized form below.

4.1.2. Specific and permanent project – related skills acquired by target beneficiaries.

Seeds & seedling identification and securing skills.

Activity	Proficiency Acquired	Skills Acquisition Groups
Seeds & seedling identification	Simple scientific knowledge on high quality seeds & stumps.	Target youth groups (men & women), land owners, EA staff.
Nursery establishment.	Aspect, bed making & alignment, seed pre-treatment, sowing, pricking out, transplanting, watering, lifting stumping etc.	As above

Plantation land preparation.

Activity	Proficiency Acquired	Skills Acquisition Groups
Land clearing	Important biodiversity issues taken care of.	As above
Pegging	Spacing & design proficiency	As above
Hole digging	Depth & design	As above
Fire belt construction	Weeding, debris collection, patrolling, Back – firing methods known.	As above

Plantation establishment and management.

Activity	Proficiency Acquired	Skills Acquisition Groups
Transport of lifted stock.	Packaging &, healing – in & hardening – off skills.	As above
Out planting of lifted stock	Season, timing, planting and beating up techniques.	As above
Plantation maintenance	Weeding, pruning of buds, branches, epicaulic shoots, & multiple sprouts from stumps	As above

Processing cassava produce and packaging of their products.

Activity	Proficiency Acquired	Skills Acquisition Groups
Cassava chips (kokonte)	Cutting and drying techniques	Target youth (largely women) and other target community members.
Garri - making	Grating & pressing techniques, plain & yellow (Lagos Gold) and several ready to eat mixtures.	As above
Packaging	Plastic packaging techniques	As above

After project (PD653/12Rev1(F) intervention, the tangible out puts, as detailed above, include: 46.6 acres of lush and healthy plantations of mixed, indigenous, tropical, timber species of proven and premium commercial value (*African Mahogany*, *Khaya anthotheca*, *Ofram*, *Terminalia superba*, and Wawa *Triplochiton scleroxylon*); 21.8 acres of pure plantations of commercial teak, *Tectona grandis* all sustainably being managed (by target beneficiary youth groups from 6 target rural communities), to ensure the expansion (among others) of the timber trade in tropical species.

Additionally, capacity of the target youth from the 6 target communities, has been built, as indicated above, to sustainably implement (and are implementing) a poverty reduction component consisting of establishment of sustainably managed pure plantations of cassia *Cassia siamea* for short – term sustainable production of firewood and charcoal, to meet domestic and commercial needs, as well as, the processing of a popular staple food item (cassava tuber) into, popular demand – driven value – added staple foods for both domestic and commercial uses. These poverty reduction initiatives are built – in strategies supporting the target youth to, as they say, ‘live longer and happily to maintain the planted forest trees’.

These achievements are in line with national and regional policies, and objectives, etc. such as: the objectives of the ITTA, 2006; ITTO Agreement, 2006 and ITTO criteria and Action plan, and also conform with Ghana’s ((host country of the implementing agency(Picodev)) forest and wildlife policy in the areas of degraded tropical forest rehabilitation, biodiversity enhancement, sustainable management of tropical forests and the expansion of the tropical timber trade with timber from sustainably managed sources, as well as, poverty reduction etc. Detailed elaboration of these conformities to sectorial policies can be obtained from part 1.2 of the project proposal document.

The immediate outcomes of project intervention are as follows: the target youth are harvesting the firewood and charcoal obtained from the site preparation activities of the plantation establishment component while the cassia (at long last adopted) and cassava poverty reduction initiatives they have embarked upon fully develops to make them fully self-sufficient. It was gratifying to be called aside and shown and even provided with a specimen of one of the popular recipes (‘cassava doughnuts’) locally called ‘kaklo’ and proudly affirm ‘this is one of the recipes the project has taught us’ and it is still more

gratifying to see these produced for sale daily on the local market because it is our conviction that one day this effort will develop by means of a pooling of resources into a business not only for the local but for the export market

After project intervention, the situation is like the seed (or idea) that was sown 2 years ago, and had grown to youthfulness, now awaits extra care to mature and produce the much needed fruits for sustenance and replication. The capacities of the target beneficiaries have been developed and are poised to take responsibility to ensure adequate yields (short, medium, & long terms). However it will take some time for the target youth to be proficient enough to raise income levels to reach export status.

What then are the sustainability arrangements put in place to bridge this self-sufficiency gap? The NGO (Picodev) has pledged to offer further moral and technical support, as well as, depend on wood processing industries in the district and other donors, to be able to offer any needed financial support especially for weed suppression and fire prevention. It is our fervent hope that Picodev secures further project extension to enable it support these and other communities. Having successfully run project PD 653/12 Rev.1 (F), Picodev wishes to advertise itself in other to attract other donor support to further this laudable reforestation endeavor that employs poverty reduction strategies.

5.0 ASSESSMENT AND ANALYSIS.

This section presents the main outcomes arising from the participatory internal evaluation between the Executing Agency (Picodev) and the target youth groups in the last week of April 2015 before project completion in May of the same year.

Assessment Dimension	Brief Analysis
Project rationale and identification process.	The project actors unanimously agreed that inter-planting with short-term food and valuable tree crops would keep the target youth groups longer on the plantation for without a divided attention, they would tend their crops and planted trees at the same time and place, thereby managing the crucial weed proliferation problem more expeditiously. When the costs and benefits of taungya (agro-forestry practice) were considered in the light of the existing situation, the odds swayed in favour of the inter-planting option. It was also agreed that interested enthusiastic and hardworking older people should not be left out and that (from project experience) smaller group plantation units would be a more expeditious management option. Finally it was agreed the 2 year project support for tree plantation development was too short for survival of planted seedlings and should be reviewed and adjusted to at least 3 years. All these convictions have been accounted for in a proposed project second phase.
The project's main problem identified, the specific objective and implementation strategy.	The project's main problem and specific objective that laid emphasis on sustainable rehabilitation of degraded forests using mixed valuable indigenous commercial timber as well as pure teak <i>Tectona grandis</i> and cassia <i>Cassia siamea</i> stands for different purposes by means of participatory poverty reduction strategies were unanimously upheld as appropriate and adequate. It was, however, strongly opined that smaller group plantation units as well as inclusion of committed and enthusiastic older people would enhance the implementation strategy.
The most critical difference(s) between planned and actual project implementation.	The cassia <i>Cassia siamea</i> short-term poverty-reduction planned output had been the most difficult one to adopt by the target beneficiaries presumably because of the apparent short-sighted or aberrated or seeming existing fuel wood sufficiency views expressed by the target beneficiary groups. The prolonged or late adoption of this may have to be further explored as there may be a

	<p>hidden underlying cause. If the inter-cropping option identified by them (and introduced in the second phase) works, then it may replace direct plantation method where convenient - discretion remains the order, and poverty reduction our goal.</p>
<p>Adequacy and timing of project inputs</p>	<p>Budget allocation for plantation maintenance was woefully underestimated (profuse weed growth not anticipated) and unattractive and was a major setback to seedling survival and also high fire risk. Other, planned project inputs were adequate and timely. Where unexpected policy change by the host government caused an over-run of budget in affected portions, swift and prudent response to request for budget modification was made by EA to manage the situation without additional cost to ITTO. Three target project communities could not be supplied with crushers and pressers due to an unforeseen budgeting error. This has been taken care of in the second phase proposal.</p>
<p>Evaluation of anticipated / real external influences & effectiveness of mitigating factors</p>	<ul style="list-style-type: none"> • Bushfire was real but the mitigating factors were effective in keeping the dry season completely bushfire-free. The lesson learned was that complacency should be avoided at all times as damage could still occur even in the rainy season, as for example a careless charcoal harvest of a greedy land owner caused damage to a portion of the Ntumda indigenous plantation which caused extra resources to promptly repair. • The effect of climate change was real. Rainfall was chequered and very unreliable but the project strategy was effective:- ‘drift along with the tide’ ie, be always prepared, plant when it’s raining and stop when the rain pauses, and wait for another rainy day.
<p>Evaluation of participation of anticipated / actual project beneficiaries in implementation.</p>	<p>There is always a gap between the anticipated and the actual implementation of a project and prudent management tries to close up this gap to ensure success. The poverty level of the target youth groups was so low while the incentive package was so unattractive that they could not provide all the labour</p>

	<p>requirement at all times without sacrificing their means of subsistence though their level of participation was enough for them to obtain the necessary on – the - job – training proficiency tabulated above (see section 4.1.2.). The project also judiciously utilized it’s planned dissemination strategy (stressing the house to house missions and planned meetings) to drive home the message. The proficiencies acquired will impact positively on future plantation activities The project depended on extra hired labour from the communities at large to be able to meet planned targets on time. These (hired community workers) are also anticipated beneficiaries of project training.</p>
<p>Project sustainability after completion (conceptualization, assumptions, implementation and strategic issues).</p>	<p>The interface of project completion and sustainable management is fragile, likened to the weaning phase for a child. The concept of the target youth to rely upon the poverty reduction strategy to survive and sustainably manage the plantations is (as explained in section 4 above) gradually unfolding. The EA (Picodev-Ghana) has pledged continued support in anticipation of good will from other agencies (see section 4), the capacities of the target beneficiaries have been built and the immediate outcomes have been laid down in section 4, while strategies for minimizing negative external influences and the intercropping option adopted in section 5 above, are all positive ingredients for managing this fragile interface to sustainability. Additionally, the labour deficit of 100% weeding due to the withdrawal of project support can be off-set by relying upon frequent line cleaning to free the young saplings from weeds until they have formed canopies above the weed level.</p>
<p>Appropriateness of (Advisory and Complementary) institutional bodies.</p>	<p>FORIG provided necessary advice and seedlings, while the Forestry Commission (FC), provided necessary professional and training support.</p>

6.0 LESSONS LEARNED

The lessons learned during all stages of project conception, formulation, implementation and completion are presented briefly in tabula form below:

Project identification, design and implementation issues.

Dimensions.	Brief Explanation
Project identification and design matters.	<ul style="list-style-type: none"> • Although the project identification gave due emphasis to the felt needs of the target beneficiary youth groups generally, consultation was not deep enough to appreciate the extent of need so as to design an effective incentive package. In situations (such as above) where poverty levels are so low, a food - for – work incentive package would be appropriate. • The design should be flexible to include committed older people to establish and bequeath to their heirs as in the case of other cash crop establishment. • In the case of tree plantation establishment it is realised that at least 3 years project support is needed to ensure survival of the planted seedlings (1st year largely for nursery work animation procurement etc, 2nd year largely for site preparation and planting of stock and 3rd year for further maintenance weeding and protection of seedlings to ensure survival).
Project's implementation strategies	<p>These strategies were well conceived and well elaborated to suit the multi-dimensional nature of the project and has contributed immensely to the successful running of the project, however an equally important ingredient, (the project realized), to success has been the ability to adapt to changing trends posed by climate change. This confirms Democritus' philosophy which says (as he put it), 'everything is becoming.' Adaptation to climate change conditions should be the hallmark of every reforestation project.</p>
Post - project sustainability.	<p>The post project – sustainability interface refers to the period just after cessation of project support up to the time when the target beneficiaries have become financially and practically stable to sustainably manage the regenerated forest lands or plantations established. This period has been likened to the weaning stage in a child's life. The project realises and identifies this to be</p>

	a fragile stage that requires a concerted effort of all stakeholders (actual and anticipated beneficiaries) to be spear-headed by the project's Executing Agency (EA).
Quality of project planning.	Experience has shown that detailed planning and budgeting with good anticipation or forecasting is crucial for bridging the gap between planned and actual implementation a necessary ingredient for achieving project targets and providing incentives.

Project management and operational issues.

Adequacy and timing of project inputs.	<p>Generally, ITTO funds were timely except on two occasions when our bankers had to return disbursements to ITTO headquarters because of discrepancies arising from change of project account number. The Implementing Agency reacted swiftly by suspending payment of allowances of staff over the delay period so as to maintain enough funds to ensure smooth implementation of project activities. Funds for supply of inputs were adequate and on time. However, owing to unexpected rapid increases in cost of labour in the project area, due to:</p> <ul style="list-style-type: none"> • Astronomical devaluation of the local currency (cedi), • Removal of govt. subsidy on petroleum products, as a result of; • A fall in the world market price of oil and cocoa (2 major export commodities of the country). <p>These factors also resulted in an over- run of the fuel and vehicle maintenance budgets as explained in section 5 above. The EA reacted swiftly to request for budget modification to ensure smooth implementation and completion of the project.</p>
External influences and risks.	Although wild fires were completely kept out during the dry season the Ntumda rainy season incident is sufficient warning for all stakeholders to avoid complacency always.

7.0. CONCLUSIONS AND RECOMMENDATIONS.

At long last the pilgrimage (from conception, through formulation, implementation, successful completion and the way forward) has ended. The concluding account of good stewardship is presented below under the two (2) headings of conclusions and recommendations.

7.1. Conclusions.

This modest, ITTO / Japan Government – funded rural youth pilot project (PD 653 / 12 Rev.1 F), (the major stakeholders have attested), has been successful in all aspects of; project conception, formulation and implementation. Transparency, accountability participatory involvement of stakeholders in planned project activities constitute the hallmark of success, while the zeal and enthusiasm of the critical mass provided the essential life wire during turbulent times. The project environment was characterized by inconceivable major macro – economic instability (slump in world market prices of oil and cocoa) that affected project costs and rendered the project’s incentive package unattractive but with the dexterity of project machinery described above, modest and appreciable output and outcome levels were attained. This inherent dexterity is the fulcrum to be lubricated by the post project sustainability package elaborated in sections 4, 5 and 6 of this report that will propel sustainable management of our plantations. To ensure personal, household and community gains, fair benefits, and valuable returns – (hallmarks of self-interest), project formulators must go the extra mile to produce well researched, precise but robust budgets that will maintain attractive incentive packages to fuel this complementary self-interest, so that maximum project outputs and outcomes would be attained at all times.

7.2. Recommendations.

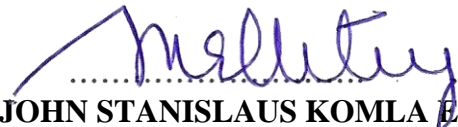
This ITTO/Japan Govt. funded project PD653/12 Rev. 1(F) has demonstrated that the idea of poor rural youth groups to rehabilitate degraded tropical forests using proven local and popular indigenous tree species (in mixed stands) alongside with teak (for poles and timber in pure stands) really works if they are allowed free and open participation in all project activities, and if project benefits are attractive, fair and respectable. The replication and scaling up potential of project PD653/12 Rev. 1 (F) is therefore very high indeed.

The project has also realized that using staple food processing, packaging and marketing as a complementary poverty reduction and project enhancement factor was very effective. After the above comments about project potential for replication and scaling up, the following recommendations are hereby made:

- Project identification and design.
 - a) Project support for plantation establishment must be designed for at least 3 years (1st year for nursery establishment, 2nd year planting establishment, 3rd year for further maintenance weeding).
 - b) In situations of abject poverty an attractive incentive package (including food for work) is inevitable.
- Project implementation.

- a) Well managed intercropping (agro forestry practice) is preferred to pure plantation.
- External factors.
 - a) Climate change is a reality and adaptation is a must for successful plantation establishment.
 - b) Wild fire is a threat and complacency must be avoided (even in the rainy season).
- Post – project sustainability.
 - a) Weed proliferation is a threat to sustainability so manage weeding costs by replacing quarterly 100% weeding with frequent line weeding.

Responsible for this completion report is on behalf of Picodev - Ghana



**JOHN STANISLAUS KOMLA ELLETEY
EXECUTIVE DIRECTOR OF PICODEV – GHANA
AND PROJECT COORDINATOR**