

**The Study on Upper West  
Integrated Agricultural Development  
in the Republic of Ghana**

**Final Report**

**Part II  
Appendices**

**March 2010**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

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**KAIHATSU MANAGEMENT CONSULTING, INC.  
CTI ENGINEERING INTERNATIONAL CO., LTD.**

GNO

JR

10-004

**Ministry of Food and Agriculture  
The Republic of Ghana**

**The Study on Upper West  
Integrated Agricultural Development  
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**Final Report**

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**The Study on Upper West Integrated Agricultural Development  
in the Republic of Ghana  
Final Report  
Table of Contents**

**Part II Appendices**

- A. Assignment Schedule and Main Activities of the Study Team
- B. Minutes of Meetings
- C. Pamphlet
- D. District Agricultural Development Plans
- E. PDA Plans - Problems Trees and Proposed PDA Components
- F. Proposed Plan of Operations of the PDAs
- G. Present Situations of the PDA Communities
- H. Sociological Features of the PDA Communities
- I. Babile Pig Breeding Station
- J. Outcomes of the Workshops - Monitoring and Evaluation
- K. PDA Implementation: Designs, Results and Conclusions from the Pilot Trials, Other Suggestion and Lessons Obtained during the Implementation
- L. Benefit Revolving System
- M. Other Development Partners' Projects in the Area and Major Lessons for the Study
- N. Training Modules
- O. Possible Collaborations - JICA's Group Training Program "Sustainable Rural Development in Japan", and JICA's "Project for Strengthening Health System in UWR"
- P. Baseline Survey Final Report
- Q. Village Socio-Economic Survey Final Report

The Study on Upper West Integrated Agricultural Development  
in the Republic of Ghana

Final Report

Appendix A

**Assignment Schedule and  
Main Activities of the Study Team**

## Appendix A Assignment Schedule and Main Activities of the Study Team

This Appendix describes the records of the assignment, the report submission, and the main activities of the Study Team.

### A.1 Assignment of the Study Team

The schedule and the result of the assignment for the Study Team is shown in Table A.1.1.

### A.2 Report Submission

Several reports were prepared and submitted by the Study Team according to the following schedule:

Names of the Reports and the Submission Dates		Main Report (copies)		Summary (copies)	
		English	Japanese	English	Japanese
Inception Report (Ic/R)	May 2008	25	-	-	5
Pamphlet (PF)	March 2009	100	10	-	-
Progress Report 1 (P/R1)	September 2008	25	-	Included in the main report	5
Interim Report (I/R)	March 2009	25	-	- ditto -	5
Progress Report 2 (P/R 2)	October 2009	25	-	- ditto -	5
Draft Final Report (DF/R)	January 2010	25	-	- ditto -	5
Final Report (F/R)	March 2010	25	-	- ditto -	5
PDF File	March 2010	3 copies of English and Japanese Summary, 1 photo album, 20 copies of Study Summary in English and Japanese			

### A.3 Activities of the Study Team

#### A.3.1 Activities by the P/R1 Completion

The main activities of the Study Team by the completion of the P/R1 were as follows.

##### (1) Preparatory Work (May 2008)

###### In Japan

- Discussion with JICA Headquarters
- Preparation of the Inception Report
- Preparation of the Work in Ghana

##### (2) First Field Work in Ghana (May to June 2008)

###### In Accra

- Courtesy Call to and Discussion with Japanese Embassy
- Discussion with JICA Ghana Office and MOFA Headquarters
- Presentation and Discussion on the Inception Report at the Inception Meeting
- Data Collection and Discussion with the Offices Concerned

### **In the UWR**

- Presentations and Discussions on the Inception Report at the Inception Meetings in the Region as well as the Districts Concerned
- Field Survey of the Study Area
- Preparation and Discussion with the Counterpart (C/P) on the Contents of the Master Plan, Basic Strategies of Agricultural Development of the Study Area

#### **(Sub-contracted Surveys)**

- Preparation and Implementation of the Baseline Survey: Preparation of the Instruction to Applicants and the Technical Specification, Short-listing of the Local Consulting Firms, Assessment of the Proposals, Contract Negotiations, Contract Signing, and Supervision of the Fieldwork
- Preparation of the Village Socio-Economic Survey: Preparation of the Instruction to Applicants and the Technical Specification, Short-listing of the Local Consulting Firms, Assessment of the Proposals, Contract Negotiations, and Contract Signing

### **(3) Second Field Work in Ghana (August to September 2008)**

#### **In the UWR**

- Field Survey of the Study Area (continued)
- Preparation and Discussion with the C/P on the Action Plans and Possible PDA Components
- Selection of the Communities for the Implementation of the Pilot Development Activities (PDAs)
- Workshop at the Concerned District Offices with the District Officers, AEAs and Community People for the Problem Analysis and Possible Solutions
- Field Visit to the Communities on the Preliminary Selection of the PDA Components
- Discussion with the District Officers and AEAs on the PDA Components
- Survey for Cost Estimation of the PDAs
- Preparation, Presentations and Discussions on the P/R 1 at the Implementation Committee

#### **(Sub-contracted Surveys)**

- Presentation on the Results of the Baseline Survey By the Local Consulting Firm
- Preparation of TOR for the Village Socio-Economic Survey for the Communities Selected for the Implementation of the PDAs, Supervision of the Fieldwork

#### **In Accra**

- Presentations and Discussions on the P/R 1 at the Steering Committee in Accra

### **A.3.2 Activities by the I/R Completion**

The main activities of the Study Team from the completion of the P/R 1 to the I/R are as follows:

#### **(1) Work in Japan (by and in November 2008)**

- Detail planning of the PDAs, including the planning for the components of the PDAs and their scales, based on the results from the workshops and discussions conducted at the MOFA district offices and communities in August and September 2008
- Preparation of the 1st draft of the POs (Plan of Operations) for all PDAs
- Collection of the information on unit prices necessary for estimating the PDA costs

## **(2) Field Work in Ghana (November to December 2008)**

### **In the UWR**

- Explanation and discussion on the draft POs at the MOFA regional and district offices and community levels
- Explanation and discussion on the implementation and monitoring structures
- Preparation for the implementation, including the arrangement of the training, field visits and procurement of necessary materials, etc.
- Continuation of the collection of the information on unit prices for estimating the PDA costs

### **(Sub-contracted Surveys)**

- Preparation and submission of the draft final report on the Village Socio-Economic Survey by a local consultant firm

## **(3) Work in Japan (by and in February 2009)**

- Finalization of the POs for all PDAs based on the comments obtained from the counterparts (C/P) and community people in November and December 2008
- Finalization of the cost estimate for all PDAs
- Preparation of various forms necessary for monitoring and evaluation of the PDA implementation
- Preparation of the format of the Operational Guidelines and Manuals
- Preparation of the project's Pamphlet
- Preparation of the I/R

### **(Sub-contracted Surveys)**

- Review and comment on the draft final report on the Village Socio-Economic Survey

## **(4) Field Work in Ghana (January to March 2009)**

### **In the UWR**

- Continuation of the preparation for the implementation of the PDAs
- Conduct of kick-off meetings at each community for the commencement of the PDAs
- Implementation of the PDAs
- Monitoring of the progress
- Preparation of the Operational Guidelines and Manuals
- First evaluation of the project performances
- Planning for the second year's activities
- Completion of the I/R
- Presentations and Discussions on the I/R at the Implementation Committee

### **(Sub-contracted Surveys)**

- Finalization of the Report on the Village Socio-Economic Survey

### **In Accra**

- Presentations and Discussions on the I/R at the Steering Committee

### **A.3.3 Activities by the P/R2 Completion**

The main activities of the Study Team from the completion of the I/R to the P/R2 are as follows:

#### **(1) Work in Japan (March to May 2009)**

- Review and necessary revision of the PDA plans based on the results of monitoring and evaluation
- Preparation of the Study Team's work plan for the fiscal year 2009
- Contract negotiation and signing with JICA

#### **(2) Work in Japan (August 2009)**

- Preparation of the Operational Guidelines and Manuals
- Preparation of the P/R 2

#### **(3) Field Work in Ghana (May to September 2009)**

##### **In the UWR**

- Implementation and monitoring of the PDAs
- Preparation of the Operational Guidelines and Manuals
- Mid-term evaluation of project performances, including monitoring workshops at the district level
- Necessary revision of the PDA plans
- Modification of the draft M/P based on the results of the PDAs
- Preparation and submission of the P/R 2
- Presentations and Discussions on the P/R 2 at the Steering Committee in Wa

### **A.3.4 Activities by F/R Completion**

The main activities of the Study Team from the completion of the P/R2 to the F/R are as follows:

#### **(1) Field Work in Ghana (from October 2009 to February 2010)**

##### **In the UWR**

- Implementation, monitoring and wrap-up of the PDAs
- Final evaluation of the project performances, including evaluation workshops at the district level
- Finalization of the draft M/P, including the Operational Guidelines and Manuals
- Preparation and submission of the DF/R
- Presentations and Discussions on the DF/R at the Steering Committee

#### **(2) Work in Japan (December 2009 and January 2010)**

- Preparation of the DF/R
- Preparation for the final evaluation

#### **(3) Work in Japan (in March 2010)**

- Revision of the DF/R based on the comments from the Steering Committee, MOFA and JICA
- Submission of the F/R to MOFA and JICA



**Table A.1.1 Schedule and Result of Assignment for the Study Team**

: Planned Work in Ghana    
  : Work in Japan  
 : Work Progressed in Ghana

Assigned Area of Work	Name	2008												2009												2010						M/M									
		JP Fiscal Year 2008												JP Fiscal Year 2009																		FY2008		FY2009		Total					
		4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3							Ghana	Japan	Ghana	Japan	Ghana	Japan				
Work in Ghana	Team leader / Rural development, monitoring and evaluation	Hiroshi Okabe (Mr.)	50				40			15			21			45			50				50	planned	126		145		271	planned	126		145		271						
	Sub-leader / Agricultural policy, marketing	Michiaki Hosono (Dr.)	50				40					21						30				30		planned	111		60		171	planned	111		60		171						
	Agricultural technology 1	Nobuharu Morita (Mr.)	30						60							45			85				50	planned	90		180		270	planned	90		180		270						
	Agricultural technology 2	Junnosuke Harada (Mr.)											45				105						95	planned	45		200		245	planned	45		200		245						
	Extension / Organizational management	Etsuko Akabane (Ms.) / Osamu Yasuno (Mr.)	45				27		15				21			45		20		20			50	planned	108		135		243	planned	108		135		243						
	Cost Sharing / Financial Management	Shinichi Honda (Mr.)														45			50						planned	0		95		95	planned	0		95		95					
	Coordinator	Shinichi Honda (Mr.) / Mari Takano (Ms.)																					50	planned	0		50		50	planned	0		50		50						
																						Sub-total Ghana (plan)		480	(16.00)	865	(28.83)	1,345	(44.83)												
Work in Japan	Team leader / Rural development, monitoring and evaluation	Hiroshi Okabe (Mr.)	5														10				5	5	planned		5		30		35	planned		5		30		35					
	Sub-leader / Agricultural policy, marketing	Michiaki Hosono (Dr.)	5																		5		5	planned		5		10		15	planned		5		10		15				
	Extension / Organizational management	(TBD)	5														10				5		5	planned		5		20		25	planned		5		20		25				
																						Sub-total Japan (plan)		15	(0.50)	60	(2.00)	75	(2.50)												
																						planned		16.00	0.50	28.83	2.00	44.83	2.50												
																								16.50		30.83		47.33													

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Final Report

Appendix B

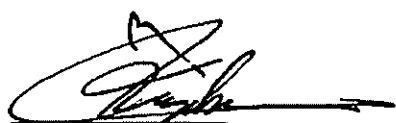
**Minutes of Meetings**

**MINUTES OF MEETING  
ON  
SCOPE OF WORK  
FOR  
THE STUDY  
ON  
UPPER WEST INTEGRATED AGRICULTURAL DEVELOPMENT  
(UPWARD)  
IN  
THE REPUBLIC OF GHANA**

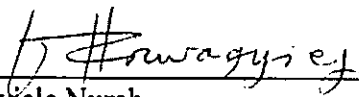
**AGREED UPON BETWEEN**

**THE MINISTRY OF FOOD AND AGRICULTURE  
AND  
THE JAPAN INTERNATIONAL COOPERATION AGENCY**

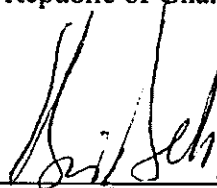
Accra, October 3<sup>rd</sup>, 2007



Mr. Masanobu Kiyoka  
Team Leader  
Preparatory Study Team  
Japan International Cooperation Agency  
Japan



Dr. Gyiele Nurah  
Chief Director  
Ministry of Food and Agriculture  
The Republic of Ghana



Mr. Ernest Osei Prempeh  
Ag. Director, External Resources  
Mobilization (Bilateral) Division  
Ministry of Finance and  
Economic Planning  
The Republic of Ghana

## **I INTRODUCTION**

In response to the request of the Government of the Republic of Ghana (hereinafter referred to as "GOG"), the Preparatory Study Team (hereinafter referred to as "the Team") headed by Mr. Masanobu Kiyoka was sent to Ghana by the Japan International Cooperation Agency (hereinafter referred to as "JICA") from 24<sup>th</sup> September to 3<sup>rd</sup> October, 2007 for the purpose of discussing and confirming the Scope of Work for The Study on Savannah Integrated Agricultural Development in the Upper West Region in the Republic of Ghana (hereinafter referred to as "the Study").

The Team held a series of discussions with representatives of the Ministry of Food and Agriculture (hereinafter referred to as "MOFA") and other relevant organizations.

The following are the main issues discussed and agreed upon by both sides in relation to the Scope of Work. A list of participants in the series of meetings is attached as Annex I.

## **II RESULTS OF DISCUSSION**

### **1. Title of the Study**

Both sides agreed that the title of the Study should be changed from "The Study on Savannah Integrated Agricultural Development in the Upper West Region" to "The Study on the Upper West Integrated Agricultural Development" (UPWARD) in the Republic of Ghana.

### **2. Objective of the Study**

Both sides agreed that the objective of the Study should be as follows:

1. To formulate a Master Plan of sustainable and environment-friendly agricultural and rural development in the Upper West Region (UW/R) in Ghana, which will be composed of an operational guideline(s) for development and extension of appropriate agricultural and rural development technology and a project proposal for future implementation of the findings of the Study; and,

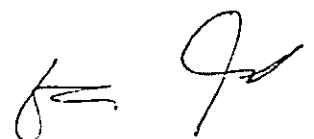
2. To develop capacity of Ghanaian counterpart personnel, related agencies, and local community-based organizations including Farmer-Based Organizations in the course of the Study in order to acquire the development methods of appropriate agricultural and rural technology and its efficient dissemination system.

### **3. Study Area**

Both sides confirmed that the Study area covers the following three (3) districts of the UW/R: Nadowli District, Jarapa-Lambussie District, and Lawra District

### **4. Study Schedule**

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Both sides agreed that the Study will be carried out during a period of approximately twenty four (24) months, in accordance with the attached tentative schedule (See ANNEX II)

## **5. Managerial Structure of the Study**

Both sides agreed upon the establishment of a managerial structure as follows:

5-1. Steering Committee, chaired by the Chief Director of MOFA, is responsible for overseeing implementation of the Study.

Expected members of the steering committee are listed below.

- (1) Ministry of Food and Agriculture
- (2) Ministry of Finance and Economic Planning
- (3) Council for Scientific and Industrial Research (CSIR)
- (4) Upper West Regional Director of MOFA
- (5) JICA Study Team
- (6) JICA Ghana Office
- (7) Other agencies concerned

5-2. Implementation Committee, chaired by the Regional Director of MOFA, is responsible for implementing the Study on site.


Expected members of the implementation Committee are listed below.

- (1) Regional Director of MOFA
- (2) Director of Regional Monitoring and Evaluation Unit
- (3) District Directors of MOFA concerned
- (4) Representatives of District Assemblies
- (5) JICA Study Team
- (6) Other agencies concerned, e.g. representatives of farmers and FBOs, representatives of NGOs, and related government agencies, when necessary

## **6. Counterpart organization and personnel**

- (1) Both sides confirmed that the MOFA is responsible for coordinating and implementing the Study with assistance of the Study Team and JICA
- (2) Both sides confirmed that The Upper West Regional/District Offices of MOFA is an operational counterpart organization on site and will be responsible for the managerial and technical matters of the Study. Ghanaian side promised to assign sufficient number of fulltime suitable C/P personnel at both level of region and district for the Study Team upon the Study's commencement.

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## **7. Training of Counterpart Personnel**

MOFA requested for the training of counterpart personnel in Japan. The Team promised to convey it to GOJ.

## **8. Final Report**

Both sides agreed that the final report of the Study would be made open to the public.

## **9. Signing of the Scope of Work**

Both sides agreed on the Draft Scope of Work. Signing of the Scope of Work will take place between GOG and the Resident Representative of JICA Ghana office after consultation with related agencies in Japan.

## ANNEX I: List of participants

### Ministry of Food and Agriculture

Mr. Gyiele Nurah, Chief Director of MOFA

### Ministry of Food and Agriculture in Upper West Region

Mr. E.A. Mark Hansen, Deputy Regional Director of MOFA

Mr. Methiodius Y. Suglo, Regional Extension Officer

Mr. Kwasi Wih, Regional Plant Protection and Regulatory Services Officer

Ms. Elizabeth A. Kutina, Regional WIAD Officer

Mr. Y.O.D. Saaka, Regional Animal Production Officer

### Ministry of Food and Agriculture in Nadowli District

Mr. James Yelsun Konogini, District Director of Nadowli

Mr. Damian Tampouri, District Agriculture Extension Officer

Mr. Roland Aboyinga, District Management/Information Systems Officer

Mr. Braimah Iddrisu, Schedule Officer

### Ministry of Food and Agriculture in Lawra District

Mr. Onyobie Abu Ojingo, Ag. District Director of Lawra

Mr. Dramani Karimu, MoFA Supervisor

Mr. Dangana Mahama,, District Agriculture Officer, Crops/PPRS

Mr. Adam K. Saeed, MoFA District Accountant

Mr. Samani Richard, MoFA Accounts Officer

Ms Hanae Mouri, JICA/MoFA

Mr. Eric Kaliebu, District Agriculture Officer, Livestock

### Ministry of Food and Agriculture in Jirapa-Lambussie District

Mr. Allansah M. Kuzie, Ag. District Director

Mr. George Asaasiba, District MIS Officer

Mr. Oteng Samuel Poku, District Agriculture Officer, Livestock

Ms. Mavis Derigubah, District Agriculture Officer, WIAD

### Agricultural Extension Services, Ministry of Food and Agriculture

Mr. Kwame Amezah, AG. Director

Mr. Peter Asibey Bonsu, Assistant Director

Mr. Emmanuel Agyei Odame, Senior Agriculture Officer

### Council for Scientific and Industrial Research (CSIR)

Mr. K.M. Satsoafia

### Dept. of Agricultural Economics & Agribusiness, the University of Ghana

Professor K.G. Ofosu-Budu

### Canada International Development Agency (CIDA)

Ms. Janice MacDonald, Deputy Director of Development Cooperation

Mr. Jim Pietryk, Senior Policy Advisor

UNDP

Mr. Komatsubara Shigeki, Deputy Resident Representative

Ms. Yasuko Kusakari, Programme Officer

Development Consultant

Mr. Mallam Seidu (former Director of PPMED, MOFA)

Regional Assembly in Upper West Region

Mr. G. Hikah Benson, Regional Minister

Mr. David Yakubu, Regional Coordinating Director

Institution Building Advisor of Community Based Rural Development Programme, Upper West Region

Mr. Anthony Boateng

NGO, Techno-Serve, Wa

Mr. Stephen Mwinkaara, Project Manager

Savannah Agriculture Research Institute, Wa

Mr. Saaka Buah, Crop Physiologist/Soil Scientist

Mr. Shaibu Seini, Entomologist

University of Development Studies, Wa Campus

Mr. Kwabena Badu-Yeboah, Head of Department Planning Land Economy and Rural Development

Mr. Sylvester Galaa, Head of Department of Social, Political and Historical Studies

Mr. Togbiga Dzivenu, DEEI

Mr. George Honya, Head of Department of Economics and Entrepreneurship Development

Mr. Daniel Bagah, Dean, FIDS

Mr. Nkrumal, Vice Dean

Ghana Irrigation Development Agency (GIDA), Wa

Mr. Adu Danquah, Deputy of Regional Director

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ANNEX II: Tentative Schedule

JFY	2007						2008												2009						
Month	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
Number	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Baseline Survey																									
Market Survey																									
Pilot Development Activities																									
Work in Japan Report																									
Report		Ic/R							I/R(1)					I/R					P/R(2)			DF/R		F/R	

JFY : Japanese Fiscal Year   Ic/R : Inception Report   P/R : Progress Report   I/R : Interim Report  
 DF/R : Draft Final Report   F/R : Final Report

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**ATTACHMENT**

**DRAFT SCOPE OF WORK  
FOR  
THE STUDY  
ON  
UPPER WEST INTEGRATED AGRICULTURAL DEVELOPMENT  
(UPWARD)  
IN  
THE REPUBLIC OF GHANA**

**AGREED UPON BETWEEN**

**THE MINISTRY OF FOOD AND AGRICULTURE  
AND  
THE JAPAN INTERNATIONAL COOPERATION AGENCY**

Accra, October, \_\_\_\_\_ 2007

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Mr. Hiroshi Murakami  
Resident Representative, Ghana Office  
Japan International Cooperation Agency

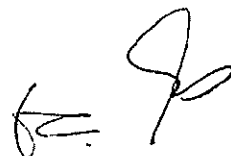
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Dr. Gyiele Nurah  
Chief Director  
Ministry of Food and Agriculture  
The Republic of Ghana

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Mr. Ernest Osei Prempeh  
Ag. Director, External Resources  
Mobilization (Bilateral) Division  
Ministry of Finance and  
Economic Planning  
The Republic of Ghana

清定



## **I INTRODUCTION**

In response to the request of the Government of the Republic of Ghana (hereinafter referred to as "GOG"), the Government of Japan (hereinafter referred to as "GOJ") has decided, in accordance with the relevant laws and regulations in force in Japan, to conduct a study on Upper West Integrated Agricultural Development in the Republic of Ghana (hereinafter referred to as "the Study").

Based on the decision of GOJ, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs, will undertake the Study in close cooperation with the authorities concerned of the GOG.

The present document sets forth the Scope of Work with regard to the Study.

## **II OBJECTIVES OF THE STUDY**

The objectives of the Study are;

1. To formulate a Master Plan of sustainable and environment-friendly agricultural and rural development in the Upper West Region (UW/R) in Ghana, which will be composed of an operational guideline(s) for development and extension of appropriate agricultural and rural development technology and a project proposal for future implementation of the findings of the Study; and,
2. To develop capacity of Ghanaian counterpart personnel, related agencies, and local community-based organizations including Farmer-Based Organizations in the course of the Study.

## **III STUDY AREA**

The Study area covers the following three (3) districts of the UW/R:

Nadowli District, Jarapa-Lambussie District, and Lawra District

## **IV SCOPE OF THE STUDY**

The Study will consist of the following items:

1. Baseline Survey
  - 1-1. To identify development issues including fundamental problems, restrictions and development potential by collecting existing data and conducting additional field surveys in the following aspects by necessity:
    - (1) Natural conditions (rainfalls, water resources, etc)
    - (2) Farming practice (cropping and harvesting season, machinery and tools, etc)

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- (3) Socio-economic conditions (land holding/tenure, ethnics, household composition, etc)
- (4) Marketing (quantity, marketing channel, price structure, etc of agricultural inputs and products)
- (5) Others

1-2. To review and evaluate the outputs and lessons learned of the on-going and previous projects implemented by GOG and other partners in the UW/R

## 2. Implementation of Pilot Development Activities (PDAs)

- 2-1. To implement and monitor PDAs for the purpose of obtaining empirical basis for formulating a Master Plan with particular attention to seasonality of income earning pattern and vulnerability among farming households in UW/R and consider an efficient dissemination system of appropriate agricultural and rural development technologies
- 2-2. To develop capacity of Ghanaian counterpart personnel, related agencies, and local community-based organizations including Farmer-Based Organizations
- 2-3. To formulate the Master Plan of sustainable and environment-friendly agricultural and rural development in the UW/R

## V STUDY SCHEDULE

The Study will be carried out during a period of approximately twenty four (24) months, in accordance with the tentative schedule (See ANNEX II attached to the M/M).

## VI REPORTS

JICA shall prepare and submit the following reports to the GOG.

- (1) Inception Report: Twenty (20) copies
- (2) Interim Report: Twenty (20) copies
- (3) Progress Report(s): Twenty (20) copies
- (4) Draft Final Report: Twenty (20) copies at the end of the field work;  
GOG will provide JICA with its comments on the Draft Final Report within one (1) month of the receipt of the Draft Final Report
- (5) Final Report: Thirty (30) copies and one set of CD-ROM within two (2) months of JICA's receipt of GOG's comments on the Draft Final Report

## VII UNDERTAKING OF THE GOG

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1. To facilitate the smooth conduct of the Study, the GOG shall take necessary measures:
  - (1) To secure the safety of the Study Team;
  - (2) To permit the members of the Study Team to enter, leave and sojourn in the Republic of Ghana for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees;
  - (3) To exempt the members of the Study Team from taxes, duties and any other charges on equipment, machinery and other material brought into the Republic of Ghana for the implementation of the Study;
  - (4) To exempt the members of the Study Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Study Team for their services in connection with the implementation of the Study;
  - (5) To secure permission for entry into private properties or restricted areas for the implementation of the Study;
  - (6) To secure permission for the Study Team to take all data and documents including maps and photographs related to the Study out of Ghana to Japan; and,
  - (7) To provide medical services as needed. Its expenses will be chargeable on members of the Study.
2. The GOG shall bear claims, if any arise, against the members of the Study Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the Study Team.
3. The Upper West Regional/District Offices of MOFA (hereinafter referred to a “MOFA U/W”) shall act as operational counterpart agency on the Study Team and also as coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
4. The Ministry of Food and Agriculture, at its own expense, where necessary, provide the Study Team with the following, in cooperation with other organizations concerned:
  - (1) Available data (including maps and photographs) and information related to the Study;
  - (2) Counterpart personnel and their allowances according to the regulation of MOFA;
  - (3) Suitable office space with furniture and telephone facilities; and
  - (4) Credentials or identification cards.

王清泉



## **VIII UNDERTAKING OF JICA**

For the implementation of the Study, JICA shall take the following measures:

1. To dispatch, at its own expense, a study team with necessary equipments to the Republic of Ghana and
2. To pursue technology and skills transfer to Ghanaian counterpart personnel as well as farmers in the course of the Study.

## **IX CONSULTATION**

JICA and the Ministry of Food and Agriculture shall consult with each other in respect of any matter that may arise from or in connection with the Study.

## **X VALIDITY OF THE SCOPE OF WORK**

The Scope of Work comes into effect as the date when necessary arrangement in JICA is completed.

**MINUTES OF MEETING  
ON  
THE INCEPTION REPORT  
FOR  
THE STUDY ON UPPER WEST  
INTEGRATED AGRICULTURAL DEVELOPMENT  
IN THE REPUBLIC OF GHANA**

ACCRA, MAY 15, 2008



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Dr. Gyiele NURAH  
Chief Director  
Ministry of Food and Agriculture



---


Mr. Hiroshi OKABE  
Team Leader  
JICA Study Team

In accordance with the Minutes of Meeting on the Scope of Work for the Study on the Upper West Integrated Agricultural Development (UWIAD) in the Republic of Ghana (hereinafter referred to as “the Study”), Japan International Cooperation Agency (hereinafter referred to as “JICA”) dispatched a study team headed by Mr. Hiroshi Okabe for implementing the Study.

The JICA Study Team submitted the Inception Report (May 2008) for the captioned project to the Ministry of Food and Agriculture (MOFA) through JICA Ghana Office on May 12, 2008. The Study Team explained the basic concept and outline of the report to the officials concerned on May 15, 2008.

As the result of the discussion, the Ghanaian side and the Study Team have confirmed the following points.

- 1) The Ghanaian side has agreed with the contents of the Inception Report. It was confirmed that the Inception Report was consistent with the Scope of Work, which was agreed upon between the JICA Preparatory Study Team and the Ministry of Food and Agriculture on December 13, 2007.
- 2) Since Jarapa-Lambussie district has been divided into two districts the Study Area now has four districts. The stakeholders agreed to continue to keep the Study Area unchanged (geographical area).





## LIST OF ATTENDANTS

### GHANAIAN SIDE

#### Ministry of Food and Agriculture

Mr. Peter Asibey Bonsu Assistant Director, RELCs, Directorate of Agriculture Extension Services (DAES)

Dr. E.A. Mark Hansen Deputy Director, Upper West Office

Mr. Abu Huudu Upper West Office

Mr. Samuel Oku Deputy Director, Statistics, Research and Information (SRI)

Mr. Alabi Bortey Deputy Director, Policy Planning Monitoring and Evaluation Directorate (PPMED)

Mr. Ram Bhavnani Deputy Director, Policy Planning Monitoring and Evaluation Directorate (PPMED)

Mr. George Prah Agricultural Officer

Mr. D. N. Ohemeng Deputy Chief Executive, Ghana Irrigation Development Authority (GIDA)

#### Ministry of Finance

Mr. Yaw Okyere-Nyako Director, External Resources Management (Bilaterals)

#### Canadian International Development Agency (CIDA)

Ms. Nana O. Koranteng Senior Food Security Advisor

#### Alliance for Green Revolution in Africa (AGRA)

Dr. Aboubacar Toure Executive Secretary

#### Brazilian Agricultural Research Corporation, African Regional Office (EMBRAPA)

Mr. Paulo R. Galerani Technical Coordinator



**JAPANESE SIDE**

Embassy of Japan in Ghana

Mr. Tsuyoshi Shigeta                      Second Secretary

JICA Ghana Office

Mr. Masato Kumagai                      Deputy Resident Representative  
Mr. Yukinari Tanaka                      Assistant Resident Representative  
Ms. Akiko Tatsuta                      Project Formulation Adviser

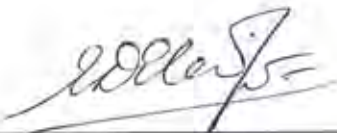
The JICA Study Team

Mr. Hiroshi Okabe                      Team Leader  
Dr. Michiaki Hosono                      Sub-Leader  
Mr. Nobuharu Morita                      Agricultural Technology  
Ms. Etsuko Akabane                      Extension  
Mr. Shinichi Honda                      Coordinator



**MINUTES OF MEETING  
ON  
THE INCEPTION REPORT  
FOR  
THE STUDY ON UPPER WEST INTEGRATED AGRICULTURAL  
DEVELOPMENT  
IN THE REPUBLIC OF GHANA**

**Wa, MAY 23, 2008**



---

Mr. Emmanuel D. Eledi  
Regional Director, Upper West Region  
Ministry of Food and Agriculture



---

Mr. Hiroshi OKABE  
Team Leader  
JICA Study Team

In accordance with the Minutes of Meeting on the Scope of Work for the Study on the Upper West Integrated Agricultural Development (UWIAD) in the Republic of Ghana (hereinafter referred to as “the Study”), Japan International Cooperation Agency (hereinafter referred to as “JICA”) dispatched a study team headed by Mr. Hiroshi Okabe for implementing the Study.

The JICA Study Team submitted the Inception Report (May 2008) for the captioned project to the Ministry of Food and Agriculture (MOFA) through JICA Ghana Office on May 12, 2008. The Study Team explained the basic concept and outline of the report to the officials concerned and major stakeholders in the region on May 23, 2008.

As the result of the discussion, the Ghanaian side and the Study Team have confirmed the following points.

- 1) The Ghanaian side has agreed with the contents of the Inception Report. It was confirmed that the Inception Report was consistent with the Scope of Work, which was agreed upon between the JICA Preparatory Study Team and the Ministry of Food and Agriculture on December 13, 2007.
- 2) The following pages record discussions between the stakeholders and the Study Team during the meeting.



COMMENTS FROM STAKEHOLDERS AND REPLY FROM JICA STUDY TEAM ON JICA  
STUDY ON UWIAD INCEPTION MEETING HELD AT REGIONAL MOFA,  
CONFERENCERE HALL ON THE 23<sup>RD</sup> MAY 2008

NAME: NAA BAWA SEIDU

ORGANIZATION: SEED GROWERS ASSOCIATION (President)

COMMENTS:

- Incomes of farmers cannot be increased without corresponding increase in production. Please explain
- The seed industry plays a role in agric. production but in the presentation no mention was made of seed
- Irrigation in the region will be of paramount importance if Agriculture will improve. However the whole study seems not to have any provision for it. It is well known fact that irrigation is capital intensive. What help can the study give on the part of technology even for our few existing dams and dugouts?

REPLY from STUDY TEAM:

- We mean that the Study does not only intend to increase production, but to increase incomes of farmers.
- Seed is included as one of the study items for improving agricultural practice of farmers.
- This is a study but not a project though the Study contains implementation of pilot projects. Small scale irrigation with gravity could be considered as one of pilot project if not much investment is required.

NAME: DR. SINDIM KWEKU

ORGANIZATION: REPRESENTATIVE OF REGIONAL VETERINARY OFFICER, MOFA (DVO)

COMMENTS:

- It is important to include disease prevention and control of livestock in the study

REPLY from STUDY TEAM:

- Livestock is included as one of the study subjects.

NAME: ONYOBIE ABU OJINGO

ORGANIZATION: DADU, LAWRA (DDA)

COMMENTS:

- The one year implementation period of the study project is too short for results to be established. I therefore suggest that two more years for practical implementation should be established.

REPLY from STUDY TEAM:

- We understand one year is too short to show sufficient results particularly for agricultural development, but the period has been given to us by JICA. What we understand is that Japanese government focuses on UWR as the priority area of assistance, and it is therefore expected that assistance will be continued even after this Study completes. We should make a best effort to produce substantial outputs through the Study, and would ask JICA to continue the assistance or expand the project activities in bigger scale.

NAME: OTIS S. TIBLA

ORGANIZATION: GHANA METEO AGENCY (District Director)

COMMENTS:

- MOFA and AEAs to disseminate the outlook on rainfall to farmers in their various districts

NAME: NAA BANKA

ORGANIZATION: UPPER WEST AGRO-INDUSTRIES (Managing Director)

COMMENTS:

- Explore the potential of developing a viable private sector to handle the produce of the small holder farmer
- Adopting the Area Council as the basic unit for initiating a sustainable agric and rural developmental programme



REPLY from STUDY TEAM:

- Developing and/or linking with private sector is one of the main themes of the Study.
- We understand involvement of local government units is important. Such stakeholders are invited to important meetings.

NAME: M.K. ALLANSAH

ORGANIZATION: DADU, JIRAPA AND LAMBUSSIE (Acting DDA)

COMMENTS:

- Since increase incomes to farmers can among others come about as a result of increase production/productivity, has the study considered effective and efficient marketing as a key catalyst to increased incomes?

REPLY from STUDY TEAM:

- Yes, marketing aspect is included in the Study as one of the key subjects.

NAME: BERNARD B.S. ATAKRO

ORGANIZATION: DADU, WA WEST (DDA)

COMMENTS:

- The inclusion of tree crops such as grafted mangoes and cashew which can help stabilize and improve farmers' incomes
- The need to include the value chain concept in the project

REPLY from STUDY TEAM:

- Yes, such aspects are included in the Study as the key subjects. We understand agricultural products could be value-added even by simply processing.



NAME: BOFAH DANIEL

ORGANIZATION: DADU, JIRAPA AND LAMBUSSIE (AEA)

COMMENTS:

- Looking at the time frame thus 2 years and the preparation time, I will like the team to reconsider their time and extend it to 3 years
- If the approach is going to be category I AEA extension services (of extension methods that the Study Team proposes), will the AEA capacity be built?
- The technology transfer should be participatory
- JICA should develop a good marketing strategy to solve problems with marketing in the region
- Will logistics be provided for the AEA's who are going to be involved?

REPLY from STUDY TEAM:

- The time frame is as explained above.
- AEA capacity will be built through the implementation of the study and pilot projects.
- The Study intensively adopts participatory approach.
- Marketing aspect is included in the Study as one of the key subjects, as explained.
- In principle, logistics for the AEA's will not be provided as one of our concerns is how we should secure the sustainability of the activities. We intend to prepare the Master Plan and implement the projects based on the current capacity of AEA's.





## LIST OF ATTENDANTS

### GHANAIAN SIDE

#### Ministry of Food and Agriculture Upper West Regional Office

Mr. Emmanuel D. Eledi	Regional Director
Dr. Sindim Kweku	Representative of Regional Veterinary Officer
Mr. Abu Huudu	Regional Agricultural Officer (crops)
Mr. Methodius Suglo	Regional Agricultural Officer (extension)
Mr. Y.O. D. Saaka	Regional Agricultural Officer (livestock)
Mr. Nathan Biassey.	Representative of Regional Agricultural Officer (Plant Protection and Regulatory Services)
Mr. John K. Dassah	Regional Agricultural Officer (M and E)
Mr. Clement Tuorah	Regional Cooperative Officer, Department of Cooperatives
Mr. Malamor Abraku	Engineering Officer
Mr. A. S. Iddrisu	Municipal Development Officer, Wa Municipality
Mr. Maurice Puotege	Representative of DDA , Wa East District
Mr. Adamu Vasco	DDA, Sissala West District
Mr. James Konogini	DDA, Nadowli District
Mr. Bernard B. S. Atakro	DDA, Wa West District
Mr. F. Naanwerebagr	District Agricultural Officer, Wa East District
Mr. M. K. Allansah	Ag. DDA, Jirapa District
Mr. Onyobie Abu Ojingo	DDA , Lawra District
Mr. Abdallah Sibri	District Agricultural Officer, Nadowli District
Mr. Bofah Daniel	Agricultural Extension Agent , Jirapa District
Mr. Festus A. Longkur	Agricultural Extension Agent
Mr. Dala B. Baugerba	Agricultural Extension Agent
Mr. Fay Conrtautire	Agricultural Extension Agent
Ms. Rita Mumuni	M&E, National Service personnel, MOFAUWR
Mr. Ohene Damptey	Representative, DDA, Sissala East
Mr. Francis Akorlor	Regional Director, MOFI, UWR

#### Ghana Meteo Agency

Mr. Otis S. Tibla                      Regional Director

#### Seed Growers Association

Mr. Naa Bawa Seidu                  Chairman



Techno Serve

Mr. Stephen Mwinkaara      Project Manager

Upper West Agro Industries

Dr. Francis Banke              Managing Director

Ghana Irrigation Development Authority

Mr. Harrison Anchebah

Savannah Agricultural Research Institute

Mr. Saaka Buah                  Agronomist, RELC Coordinator

Mr. Shaibu Seini                Entomologist, Representative, Team Leader, SARI

SEEDPAG

Mr. S. K. Danyagri              Farmer Representative

Engineers Without Borders

Ms. Josephine Tsui

EPA

Mr. Emmanuel Liguède      APO

**JAPANESE SIDE**

Embassy of Japan in Ghana

Mr. Tsuyoshi Shigeta        Second Secretary

JICA Ghana Office

Ms. Akiko Tatsuta              Project Formulation Adviser

The JICA Study Team

Mr. Hiroshi Okabe              Team Leader

Dr. Michiaki Hosono        Sub-Leader

Mr. Nobuharu Morita        Agricultural Technology

Ms. Etsuko Akabane        Extension

Mr. Shinichi Honda        Coordinator



**MINUTES OF MEETING  
ON  
THE DRAFT PROGRESS REPORT I  
FOR  
THE STUDY ON UPPER WEST  
INTEGRATED AGRICULTURAL DEVELOPMENT  
IN THE REPUBLIC OF GHANA**

Wa, 12 September 2008



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Mr. Emmanuel D. ELEDI  
Regional Director of Agriculture  
Upper West Region Office  
Ministry of Food and Agriculture



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Mr. Hiroshi OKABE  
Team Leader  
JICA Study Team

In accordance with the Minutes of Meeting on the Scope of Work for the Study on the Upper West Integrated Agricultural Development (UWIAD) in the Republic of Ghana (hereinafter referred to as “the Study”), the JICA Study Team headed by Mr. Hiroshi Okabe has been implementing the Study.

After conducting the field work in Ghana, the JICA Study Team prepared the draft Progress Report I and presented it to the Implementation Committee for discussion and approval.

As the result of the discussion, the Ghanaian side and the JICA Study Team have confirmed the following points.

- 1) The contents of the draft Progress Report I are acceptable.
- 2) To build on the PDAs’ success, the privates sector is expected to play a bigger role in the subsequent project that JICA would extend.
- 3) There is a need to develop marketing strategy for the surplus produce from the Pilot Development Activities.
- 4) Researchers will be invited for the operation of the demonstration farms of UWIAD to increase the effects of the activities implemented by the PDAs. They are also expected to contribute comments to UWIAD for improvement.
- 5) The focus of the Study is not only to increase farmers’ income but also to ensure food security in the region.





## LIST OF ATTENDANTS

### GHANAIAN SIDE

#### Ministry of Food and Agriculture Upper West Regional Office

Mr. Emmanuel D. Eledi	Regional Director
Mr. Abu Huudu	Regional Agricultural Officer (crops)
Ms. E. A. Kutina	Regional Agricultural Officer (WIAD)
Mr. Methodius Suglo	Regional Agricultural Officer (extension)
Mr. Clement Tuorah	Regional Cooperative Officer, Department of Cooperatives
Mr. Peter K. Sarpong	Farm Manager
Mr. Roland Aboyinga	District Director of Agriculture, Nadowli District
Mr. Omar Mohammed	Regional Agricultural Officer (seeds)
Mr. Naa Y. O.D. Saaka	Regional Agricultural Officer (livestock)
Mr. Sallam Atimbila	Regional Agricultural Development Unit
Mr. Mohammed A. S.	District Agricultural Officer, Lambussie District
Mr. John R. Dassah	Regional Agricultural Officer (M&E)
Mr. Nana Buah	Regional Agricultural Officer (Engineering)
Mr. Allansah M. Kuzie	District Director of Agriculture, Jirapa District
Mr. Dramani Karim	District Director of Agriculture, Lambussie District
Mr. Liebda Doria	Regional Agricultural Development Unit
Ms. Rita Mumuni	Assistant (M&E)
Mr. Baarekoh Noah Leonard	Assistant Accountant
Mr. Galaa Vincent	Foreman, Regional Agricultural Development Unit
Mr. John K. Habels	Senior Personnel Officer, Regional Agricultural Development Unit

#### Seed Growers Association

Mr. Naa Bawa Seidu	Chairman
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#### Techno Serve

Mr. Stephen Mwinkaara	Project Manager
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#### Upper West Agro Industries

Dr. Francis Banka	Managing Director
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Ghana Irrigation Development Authority

Mr. George A. Tagoe                      Regional Manager

Savannah Agricultural Research Institute

Mr. Saaka Buah                      Agronomist

Mr. Shaibu Seini                      Entomologist

Engineers Without Borders

Ms. Suzanne Fish

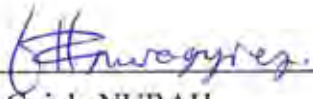
**JAPANESE SIDE**

The JICA Study Team

Mr. Hiroshi Okabe	Team Leader
Dr. Michiaki Hosono	Sub-Leader
Ms. Etsuko Akabane	Extension
Mr. Shinichi Honda	Coordinator

**MINUTES OF MEETING  
ON  
THE PROGRESS REPORT I  
FOR  
THE STUDY ON UPPER WEST  
INTEGRATED AGRICULTURAL DEVELOPMENT  
IN THE REPUBLIC OF GHANA**

ACCRA, 16 September 2008



---

Dr. Gyiele NURAH  
Chief Director  
Ministry of Food and Agriculture



---

Mr. Hiroshi OKABE  
Team Leader  
JICA Study Team



In accordance with the Minutes of Meeting on the Scope of Work for the Study on the Upper West Integrated Agricultural Development (UWIAD) in the Republic of Ghana (hereinafter referred to as “the Study”), the JICA Study Team headed by Mr. Hiroshi Okabe has been implementing the Study.

Based on the results of the field work in Ghana, the JICA Study Team prepared the draft Progress Report I and presented it to the Steering Committee for discussion and approval.

As the result of the discussion, the Ghanaian side and the JICA Study Team have confirmed the following points.

- 1) The contents of the draft Progress Report I are acceptable.
- 2) To enable the beneficiary farmers to increase income from selling their agricultural produce, marketing aspect is important and, subsequently, marketing strategy should be developed in due course and included in the master plan.
- 3) To ensure the efficiency of the proposed Pilot Development Activity (PDA) monitoring framework, the existing monitoring system and the proposed PDA monitoring system should be examined. UWIAD should avoid overlap and overload of work, especially for the Agricultural Extension Agents.
- 4) It is necessary to identify the financial source for the UWIAD activities that are yet to be budgeted. In particular, extra funds will be required to cater for the fuel necessary for Agricultural Extension Agents’ monitoring and reporting as well as the one for the district officers’ supervision.
- 5) In the expectation of PDA expansion after the pilot phase, it is necessary to have key officers who should be familiar with the PDAs’ operation. Thus, it is important to consider assigning a few MOFA UWR officers to be in charge of UWIAD. This will ensure sustainability of the activities.



- 6) Depending on the agenda, the Steering Committee will be held in Wa. The necessary travelling cost, daily allowance, the cost necessary for the meeting will be provided by JICA.
- 7) The Progress Report I will be distributed to all the directors at MOFA headquarters. Their comments on the report will have to be submitted to JICA Ghana office by the end of October 2008. The comments will be reflected on the Interim Report.
- 8) In future, the reports written by the Study Team will be distributed to the Steering Committee members ahead of the meeting date.
- 9) The Steering Committee will review the membership to include other relevant heads of MOFA departments.
- 10) The Ghanaian side needs to make an effort to ensure that the components of the PDAs are replicable and sustainable, through the implementation of the recommendation on the PDA shortcomings identified.



**LIST OF ATTENDANTS**

**GHANAIAAN SIDE**

Ministry of Food and Agriculture

Dr. Gyiele Nurah            Chief Director

Mr. Emmanuel Eledi      Regional Director, Upper West Office

Mr. Abu Huudu            Regional Agricultural Officer, Upper West Office



**JAPANESE SIDE**

JICA Ghana Office

Mr. Kunihiro Yamauchi

Resident Representative

Mr. Yukinari Tanaka

Assistant Resident Representative

Mr. Mitsuhiro Kato

Project Formulation Adviser

The JICA Study Team

Mr. Hiroshi Okabe

Team Leader

Dr. Michiaki Hosono

Sub-Leader

Ms. Etsuko Akabane

Extension

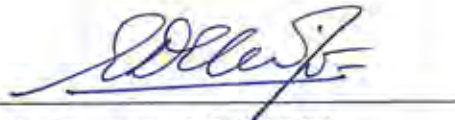
Mr. Shinichi Honda

Coordinator

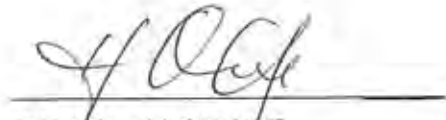


**MINUTES OF MEETING  
ON  
THE INTERIM REPORT  
FOR  
THE STUDY ON UPPER WEST  
INTEGRATED AGRICULTURAL DEVELOPMENT  
IN THE REPUBLIC OF GHANA**

WA, MARCH 9, 2009



Mr. Emmanuel D. ELEDI  
Regional Director of Agriculture  
Upper West Region Office  
Ministry of Food and Agriculture



Mr. Hiroshi OKABE  
Team Leader  
JICA Study Team

In accordance with the Minutes of Meeting on the Scope of Work for the Study on the Upper West Integrated Agricultural Development (UWIAD) in the Republic of Ghana (hereinafter referred to as “the Study”), the JICA Study Team headed by Mr. Hiroshi Okabe has been implementing the Study.

After starting the Pilot Development Activities (PDAs) in the target communities in the Study Area, the JICA Study Team prepared the Interim Report and presented it to the Implementation Committee for discussion and approval.

As the result of the discussion, the Ghanaian side and the JICA Study Team have confirmed the following points.

- 1) The contents of the Interim Report are acceptable.
- 2) There is a need to study the economic value of soya bean production and processing.
- 3) In the PDA communities in which compost making is included, it is necessary to educate farmers not only the preparation method of compost but also its proper usage.
- 4) For the pig rearing PDA, the stakeholders must understand the importance of feed supply. The Study Team has to make sure that the feed will be supplied properly for the pig rearing PDA.
- 5) The beneficiaries need to fully understand the concept of cost sharing and what they are responsible for.
- 6) Given MOFA’s budget limitations, unless the fuel necessary for monitoring and reporting on the PDAs and appropriate daily allowance are provided, it is not easy for the MOFA staff to perform the task related to UWIAD. For DDAs, this issue is yet to be taken care of.
- 7) There is a need to establish better communication links between MOFA, the JICA Study Team, and the JICA Ghana Office.



## LIST OF ATTENDANTS

### GHANIAN SIDE

#### Ministry of Food and Agriculture Upper West Regional Office

Mr. Emmanuel D. Eledi	Regional Director
Dr. E.A. Mark Hansen	Deputy Regional Director
Mr. Abu Huudu	Regional Agricultural Officer (crops)
Ms. E. A. Kutina	Regional Agricultural Officer (WIAD)
Mr. Methodius Suglo	Regional Agricultural Officer (extension)
Mr. Kwasi Wih	Regional Agricultural Officer (PPRS)
Mr. Abobo Alphansus	Regional Agricultural Development Unit
Mr. Naa Y. O.D. Saaka	Regional Agricultural Officer (livestock)
Mr. John R. Dassah	Regional Agricultural Officer (M&E)
Mr. Clement Tuorah	Regional Cooperative Officer, Department of Cooperatives
Mr. Allansah M. Kuzie	District Director of Agriculture, Jirapa District
Mr. Onyobie Abu O.	Acting District Director of Agriculture, Lawra District
Mr. Damian Tampuori	Acting District Director of Agriculture, Nadowli District
Mr. S. K. Attah	Acting District Director of Agriculture, Lambusie District
Mr. Peter Nabegmado	District Agricultural Officer (crops), Jirapa District
Mr. James S. Vuuro	District Agricultural Officer (crops), Lawra District
Mr. Rashid Ibrahim	District Agricultural Officer (crops), Lawra District
Mr. Epiphanus Tuurosiin	District Agriculture Officer (extension), Jirapa District
Mr. Bofah Daniel	District Agricultural Officer (extension), Lambussie District
Mr. Roland Aboyinga	District Agricultural Officer (extension), Nadowli District
Mr. Sibir Abdulla	District Agriculture Officer, Nadowli District
Mr. Peter K. Sarpong	Farm Manager

Mr. David K. Waawula                      District Agricultural Development Unit, Wa East  
Mr. Liebda Doria                              Regional Agricultural Development Unit

Ghana Irrigation Development Authority

Mr. Khalid M. Ramid                      Senior Technical Engineer,

Seed Growers Association

Mr. Naa Bawa Seidu                      Chairman

Techno Serve

Mr. Stephen Mwinkaara                      Project Manager

Upper West Agro Industries

Dr. Francis Banka                              Managing Director

Savannah Agricultural Research Institute

Mr. Saaka Buah                              Agronomist

Farmer

Mr. Fatawu S.K. Damyagri                      Farmer

**JAPANESE SIDE**

The JICA Study Team

Mr. Hiroshi Okabe                              Team Leader

Dr. Michiaki Hosono                              Sub-Leader

Ms. Etsuko Akabane                              Extension

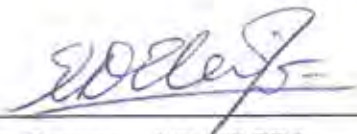
Mr. Shinichi Honda                              Coordinator





**MINUTES OF MEETING  
ON  
THE INTERIM REPORT  
FOR  
THE STUDY ON UPPER WEST  
INTEGRATED AGRICULTURAL DEVELOPMENT  
IN THE REPUBLIC OF GHANA**

ACCRA, 11 March 2009



Mr. Emmanuel D. ELEDI  
Regional Director of Agriculture  
Upper West Region Office  
Ministry of Food and Agriculture



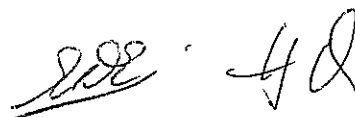
Mr. Hiroshi OKABE  
Team Leader  
JICA Study Team

In accordance with the Minutes of Meeting on the Scope of Work for the Study on the Upper West Integrated Agricultural Development (UWIAD) in the Republic of Ghana (hereinafter referred to as “the Study”), the JICA Study Team headed by Mr. Hiroshi Okabe has been implementing the Study.

After starting the Pilot Development Activities (PDAs) in the target communities in the Study Area, the JICA Study Team prepared the Interim Report and presented it to the Steering Committee for discussion and approval.

As the result of the discussion, the Ghanaian side and the JICA Study Team have confirmed the following points.

- 1) The Meeting Minutes of the previous meeting (16 September 2008) is accepted.
- 2) The contents of the Interim Report are acceptable.
- 3) Product-specific marketing strategies will have to be carefully planned for the raw and processed agricultural products produced by the Study.
- 4) The next Steering Committee should be held in Wa in order to provide a chance for the Steering Committee members to understand the Study fully and to learn about the Pilot Development Activities on site.
- 5) A soft copy of the Study Team’s report should be e-mailed to the Steering Committee members ahead of the next Steering Committee meeting.
- 6) A special attention has to be paid to ensure the sustainability of the shea nuts processing component in the PDAs due to the numerous cases of unsustainable donor projects in this activity.
- 7) It is necessary for the stakeholders to have a common understanding that the use of compost may only be effective for small scale cultivation in the context of UWIAD since the materials and labor necessary for preparing sufficient compost for large scale cultivation is not available.
- 8) It is suggested that for the issue of scaling up the production, alternative methods for soil fertility improvement shall be studied.



## LIST OF ATTENDANTS

### GHANAIAN SIDE

#### Ministry of Food and Agriculture

Dr. E.B.M. Koney	Acting Director, Veterinary Services Directorate
Mr. J. H. K. Ankah	Acting Director, Animal Production Directorate
Ms. Victoria Tsekpo	Acting Director, WIAD
Mr. K. Amoo Baffoe	Acting Director, Directorate of Crop Services
Mr. George Brantuo	Deputy Director, Agricultural Engineering Services Directorate
Mr. Alabi Bortey	Deputy Director
Mr. Eric Quaye	Senior Agricultural Officer, Plant Protection and Regulatory Services Directorate
Mr. Emmanuel Eledi	Regional Director, Upper West Office
Mr. Abu Huudu	Regional Agricultural Officer, Upper West Office

#### Ministry of Finance and Economic Planning

Mr. Joseph Antwi	SBA
------------------	-----

#### Council for Scientific and Industrial Research

Dr. F.O. Anno-Nyako	T. S. , Research and Development
---------------------	----------------------------------

### JAPANESE SIDE

#### JICA Ghana Office

Mr. Mitsuhiro Kato	Project Formulation Adviser
Mr. Konlan K. Samson	Program Officer

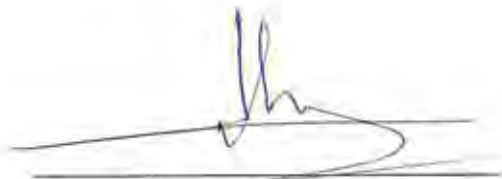
#### The JICA Study Team

Mr. Hiroshi Okabe	Team Leader
Dr. Michiaki Hosono	Sub-Leader
Ms. Etsuko Akabane	Extension
Mr. Shinichi Honda	Coordinator

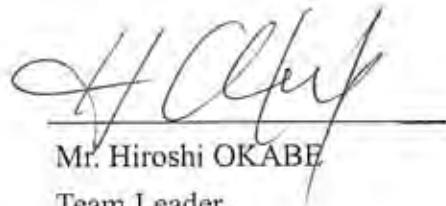


**MINUTES OF MEETING  
ON  
THE PROGRESS REPORT 2  
FOR  
THE STUDY ON UPPER WEST  
INTEGRATED AGRICULTURAL DEVELOPMENT  
IN THE REPUBLIC OF GHANA**

WA, 9 October 2009

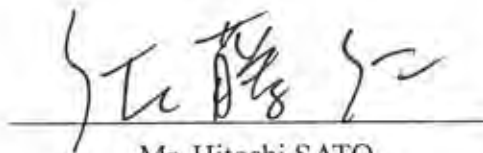


Ing. Joseph Kwasi Boamah  
Chief Director  
Ministry of Food and Agriculture



Mr. Hiroshi OKABE  
Team Leader  
JICA Study Team

Witness



Mr. Hitoshi SATO  
Deputy Resident Representative  
Japan International Cooperation Agency Ghana Office

In accordance with the Minutes of Meeting on the Scope of Work for the Study on the Upper West Integrated Agricultural Development (UWIAD) in the Republic of Ghana (hereinafter referred to as “the Study”), the JICA Study Team headed by Mr. Hiroshi Okabe has been implementing the Study.

After the completion of the draft Master Plan and the commencement of the Pilot Development Activities (PDAs) in the target communities in the Study Area, the JICA Study Team prepared the Progress Report 2 and presented it to the Steering Committee for discussion and approval. The Steering Committee was held in Wa on 9 October 2009, chaired by the Chief Director of MOFA. The main points of the discussions are as follows;

1. The Minutes of Meeting of the previous meeting (11 March 2009) was accepted by Steering Committee members.
2. The contents of the Progress Report 2 was accepted by the Steering Committee members; however, minor corrections should be made on currency units, translation mistakes, etc.
3. MOFA pointed out that a list of all the Steering Committee members, and an attendance record for the Committee should be attached. The record should mention who the chairman was.
4. It was mentioned by MOFA that the differences of commodity prices in different markets should be explained more clearly.
5. It was mentioned by MOFA that a reference should be made on the past studies and projects on shea butter processing activities for learning the lessons.
6. It was mentioned by MOFA that the way forward after the end of the Study should be presented in the draft final report. How MOFA will utilize the output of this Study should be discussed by MOFA with JICA.
7. It was mentioned by MOFA that JICA should use the output of the Study to elicit funding from Japanese government to implement a project emanating from the Study.

8. MOFA questioned alternative measures for improving soil fertility. In response to this, the use of green manure or animal manure, were explained by the Study Team.
9. Although it was proposed by MOFA to include Ghana Irrigation Development Authority (GIDA) in the Steering Committee, there were counter opinions by JICA claiming that the UWIAD PDAs are conducted only in small scale using wells and hand tools for dry season gardening. It was confirmed the idea to include GIDA was not necessary.
10. There needs to be appropriate measures against the high mortality rates in livestock. It was agreed among the Steering Committee members that MOFA should consequently take necessary actions on this issue.
11. Redemption of credit for the PDA should be in kind, i.e. from the group to the next group by the same package of animals. It was proposed by the MOFA that the other costs such as feeds should be free for the first beneficiaries. This should be further discussed among MOFA, the Study Team and the community beneficiaries.
12. It was pointed out by JICA that markets for the commodities should be further studied and be reflected in the draft final report. It was agreed among the Steering Committee members that MOFA District offices should provide market information to the Study Team for improved market analysis.
13. It was mentioned by JICA that the mechanism and sample to generate income in agriculture sector should be more clearly presented to the Steering Committee members in order to facilitate to understand. In response to it, the Study Team responded that income generation mechanism and sample will be described in the draft final report.
14. The next and last Steering Committee will be held in Wa in February 2010. The date will be proposed later by the Study Team.

## LIST OF ATTENDANTS

### GHANAIAN SIDE

#### Ministry of Food and Agriculture

Mr. J. K. Boamah	Chief Director
Dr. Kwame Amezah	Acting Director, Directorate of Agricultural Extension Services
Mr. Kwaku Nicol	Acting Director, Directorate of Crop Services
Mr. J. H. K. Ankah	Director, Directorate of Animal Production
Mr. Vesper Suglo	Director, Directorate of Plant Protection and Regulatory Services
Ms. Mildred Suglo	Assistant Agricultural Officer, Directorate of Women in Agricultural Development
Mr. Emmanuel Eledi	Regional Director, Upper West Regional Office
Mr. Abu Huudu	Regional Agricultural Officer, Upper West Regional Office
Mr. Mahamood Abdulai	Regional Agricultural Officer, Upper West Regional Office
Mr. Abobo Alphonsus	Regional Agricultural Officer, Upper West Regional Office
Naa Y. O. D. Saaka	Regional Agricultural Officer, Upper West Regional Office
Ms. E. A. Kutina	Regional Agricultural Officer, Upper West Regional Office
Mr. Kwasi Wih	Regional Agricultural Officer, Upper West Regional Office
Dr. Philip Salia	Regional Veterinary Officer, Upper West Regional Office
Mr. MYB Suglo	Regional Agricultural Officer, Upper West Regional Office
Ms. Rita Mumuni	Assistant Officer, Monitoring and Evaluation, Upper West Regional Office
Dr. Stephen Degbor	District Director of Agriculture, Jirapa District Office
Mr. James Konogini	District Director of Agriculture, Nadowli District Office
Mr. Onyobie Abu O.	Acting District Director of Agriculture, Lawra District Office
Mr. S. K. Attah	Acting District Director of Agriculture, Lambussie District Office
Mr. Ibrahim Rashid	District Agricultural Officer, Lawra District Office
Mr. Dangana Mahama	District Agricultural Officer, Lawra District Office

Mr. Peter Nabegmado	District Agricultural Officer, Jirapa District Office
Mr. Epiphanus Tuurozin	District Agricultural Officer, Jirapa District Office
Mr. Malik Tingbani	District Agricultural Officer, Lambussie District Office
Mr. Abdallah Sibri	District Agricultural Officer, Nadowli District Office
Mr. Roland Aboyinga	District Agricultural Officer, Nadowli District Office
Mr. Soyiri Nicholas	District Agricultural Officer, Nadowli District Office
Mr. Y. Asenso Mensah	Assistant Farm Manager, Babile Pig Breeding Station
Dr. S. S. Buah	Coordinator, Research Extension Linkage Committee

Council for Scientific and Industrial Research

Dr. F. K. Avorny	Director, Animal Research Institute
Dr. S. K. Nutsugah	Acting Director, Savannah Agricultural Research Institute

**JAPANESE SIDE**

JICA Ghana Office

Mr. Hitoshi Sato	Deputy Resident Representative
Mr. Mitsuhiro Kato	Project Formulation Adviser
Mr. Konlan K. Samson	Program Officer

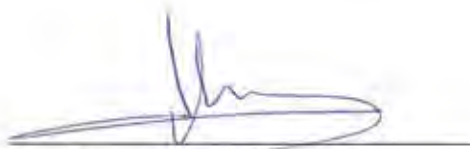
The JICA Study Team

Mr. Hiroshi Okabe	Team Leader
Dr. Michiaki Hosono	Sub-Leader
Mr. Nobuharu Morita	Agronomist
Mr. Osamu Yasuno	Extension
Mr. Shinichi Honda	Cost sharing / Financial Management



**MINUTES OF MEETING  
ON  
THE DRAFT FINAL REPORT  
FOR  
THE STUDY ON UPPER WEST  
INTEGRATED AGRICULTURAL DEVELOPMENT  
IN THE REPUBLIC OF GHANA**

WA, 19 February 2010

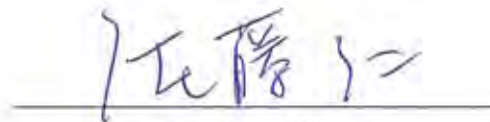


Ing. Joseph Kwasi Boamah  
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Ministry of Food and Agriculture



Mr. Hiroshi OKABE  
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Witness



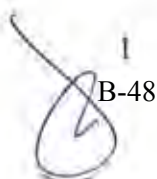
Mr. Hitoshi Sato  
Deputy Resident Representative  
Japan International Cooperation Agency Ghana Office



In accordance with the Minutes of Meeting on the Scope of Work for the Study on the Upper West Integrated Agricultural Development (UWIAD) in the Republic of Ghana (hereinafter referred to as "the Study"), the JICA Study Team headed by Mr. Hiroshi Okabe has been implementing the Study.

Based on the results of the Pilot Development Activities (PDAs) in the target communities in the Study Area, the JICA Study Team prepared the Draft Final Report and presented it to the Steering Committee for discussion and approval. The Steering Committee was held in Wa on 19 February 2010, chaired by the Chief Director of MOFA. The main points of the discussion are as follows;

1. The Minutes of Meeting of the Third Steering Committee Meeting (9 October 2009) was accepted by the Steering Committee members, with a correction in the attendance list.
2. The contents of the Draft Final Report were accepted by the Steering Committee members.
3. It was asked by MOFA how the 5 years for implementation period was proposed. The Study Team answered that it was assumed to require at least 3 years to introduce new technologies to the community people, and if more technologies are involved in a project, more time is needed for the beneficiaries to understand, accept and utilize them.
4. It was asked by MOFA that the idea of extension volunteers was peculiar to the UWR. MOFAUWR answered that they are based on the experience of the UWADEP.
5. It was asked by JICA if the community leaders are really able to play the role for extension. MOFAUWR explained that role of community leaders is community mobilization. The Study Team clarified that AEAs are not excluded but they play as facilitators even if the areas where AEAs do not reside.
6. It was suggested by MOFA to consider using Farmer-Based Organizations (FBOs) so that the information transfer will be done more smoothly, for example, when introducing melon production, to help extension officers. The Study Team




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B-48



explained that FBOs are already included as beneficiary groups in the proposed extension strategies, and they will be involved in the beneficiary meeting.

7. It was asked by MOFA why the local pigs and PDA pigs are different in selling price. The Study Team answered that the beneficiaries think the PDA pigs can be sold at higher price as they take care of sanitation and feed. The quality is much different.
8. It was asked by MOFA about the sources of supply for vegetable seeds, particularly melon. The Study Team explained that the seeds of some kinds of melon are locally available but the ones introduced in the PDA was hybrid one. It was requested by MOFA that the Study Team examine how seed are continuously obtained.
9. It was asked by JICA to explain the differences between the extension methods for the areas with AEAs and the areas without AEAs. The Study Team explained that AEAs also visit the areas without AEAs and the community approach would be applied to both areas but the community leaders play a larger role in facilitation in the areas without AEAs. MOFAUWR also explained that AEAs would give guidance even in the areas without AEAs and their roles would be critical.
10. It was mentioned by MOFA that one reason for AEAs limitation in covering communities is logistics and this problem needs to be considered. It was mentioned by MOFA Headquarters that efficient and proper use of available resources is necessary.
11. It was suggested by MOFA to consider vegetable processing for increasing the cash crop production and incomes. The Study Team replied that it would be profitable, but was not included because of the limitation of the time given for the Study Team to make other trials and prove their effectiveness. The Study Team mentioned that there are still many ways that can be included for increasing incomes such as meat processing.
12. It was asked by MOFA regarding the number of fertility in the community-based pig breeding. It was mentioned by MOFA that there are problems of proper care for piglets. It was suggested by MOFA that AEAs and DAOs should ensure that


 B-49<sup>2</sup>

farmers are interested in pig rearing as a business so that they will take good care of pigs.

13. It was asked by MOFA why the prices of tomatoes are high in August-September and low in October. The Study Team explained the data on prices are taken from MOFA statistics and the reasons behind prices are the amount of supply and demand.
14. It was suggested by MOFA that the shea butter processing activities should be expanded. It was also suggested by MOFA that the proposal should be made to JICA or other potential donor.
15. It was mentioned by MOFA that the lessons from the past projects did not seem to be reflected/incorporated in the design of PDAs, and that is one of the reasons why there was high mortality rate of livestock.
16. It was suggested by MOFA that the results of PDAs should be critically reviewed and analyzed before making decision on what projects should be implemented after this study because we are introducing innovations, such as guinea fowl production. The Study Team commented that PDAs are still being implemented and cannot be concluded in many aspects within this limited time period of the Study. The data obtained was quite limited, and therefore there are still many assumption and estimation for proposing the development projects.
17. JICA raised a question whether the time period of 3-5 years for producing profits is acceptable from the view point of farmers and AEAs. MOFAUWR suggested that we need to assess how long it takes to cover the whole areas with more than 500 communities. The proposed extension methods are welcome for MOFAUWR as it incorporates participatory and community development approach.
18. JICA mentioned with regard to the proposed technologies, the data stated in the DFR is not enough and therefore the conclusions look not persuasive.
19. JICA suggested to further analyze the PDA results to decide the way forward.

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B-50

20. MOFAH/Q mentioned that the further actions should be taken to make the Master Plan more useful. The Study Team, MOFAUWR and JICA should discuss the way forward for the Study.

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## LIST OF ATTENDANTS

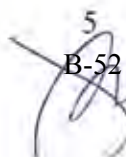
### GHANAIAN SIDE

#### Ministry of Food and Agriculture

Mr. J. K. Boamah	Chief Director
Mr. Kwaku Nicol	Acting Director, Directorate of Crop Services
Mr. B. Asare-Mensah	Acting Director, Directorate of Animal Production
Mr. Cletus Achaab	Deputy Director, Directorate of Plant Protection and Regulatory Services
Ms. Eunice Adams	Acting Director, Directorate of Women in Agricultural Development
Mr. Emmanuel Eledi	Regional Director, Upper West Regional Office
Mr. Abu Huudu	Regional Agricultural Officer, Upper West Regional Office
Ms. E. A. Kutina	Regional Agricultural Officer, Upper West Regional Office
Mr. Kwasi Wih	Regional Agricultural Officer, Upper West Regional Office
Mr. MYB Suglo	Regional Agricultural Officer, Upper West Regional Office (rep. for the Director, DAES)
Mr. John K. Dassah	Regional Agricultural Officer, Upper West Regional Office
Mr. Nana Baah	Regional Agricultural Officer, Upper West Regional Office (rep. for the Director, AESD)
Mr. Francis Ndamani	Regional Agricultural Officer, Upper West Regional Office
Mr. Abobo Alphonsus	Regional Agricultural Unit, Upper West Regional Office
Mr. B. B. S. Atakro	Regional Agricultural Unit, Upper West Regional Office
Mr. Liebdi Doria	Regional Agricultural Unit, Upper West Regional Office
Ms. Rita Mumuni	Assistant Officer, Monitoring and Evaluation, Upper West Regional Office
Mr. Onyobie Abu O.	District Director of Agriculture, Lawra District Office
Mr. James Konogini	District Director of Agriculture, Nadowli District Office
Mr. S. K. Attah	District Director of Agriculture, Lambussie District Office
Mr. Ibrahim Rashid	District Agricultural Officer, Lawra District Office
Mr. Dangana Mahama	District Agricultural Officer, Lawra District Office
Mr. James S. Vuuro	District Agricultural Officer, Lawra District Office



5  
B-52



Mr. Assasiba George	Management Information System Officer (rep. District Director of Agriculture), Jirapa District Office
Mr. Peter H. Lipaya	District Agricultural Officer, Jirapa District Office
Mr. Epiphanius Tuurozin	District Agricultural Officer, Jirapa District Office
Mr. Malik Tingbani	District Agricultural Officer, Lambussie District Office
Mr. Abdallah Sibri	District Agricultural Officer, Nadowli District Office
Mr. Soyiri Nicholas	District Agricultural Officer, Nadowli District Office
Mr. Yelsung K. Stephen	District Agricultural Officer, Nadowli District Office
Mr. Peter Kwasi Sarpong	Farm Manager, Babile Pig Breeding Station
Mr. Y. Asenso Mensah	Assistant Farm Manager, Babile Pig Breeding Station
Dr. S. S. Buah	Coordinator, Research Extension Linkage Committee

Council for Scientific and Industrial Research

Dr. F. K. Avormyo	Acting Head, Animal Research Institute
Dr. J. B. Naab	Team Leader, Savannah Agricultural Research Institute, Wa
Dr. F. Anno-Nyako	Technical Specialist (rep. Director General, CSRI Accra)

**JAPANESE SIDE**

JICA Ghana Office

Mr. Hitoshi Sato	Deputy Resident Representative
Mr. Mitsuhiro Kato	Project Formulation Adviser
Mr. Konlan K. Samson	Program Officer

The JICA Study Team

Mr. Hiroshi Okabe	Team Leader
Mr. Nobuharu Morita	Agronomist
Mr. Junnosuke Harada	Agronomist
Ms. Mari Takano	Coordinator

The Study on Upper West Integrated Agricultural Development  
in the Republic of Ghana

Final Report

Appendix C

**Pamphlet**



## The Study on Upper West

### Integrated Agricultural Development (UWIAD)

#### **Purpose:**

The purpose of the Study is to undertake the following activities for increasing income of the farmers.

- 1) To formulate a Master Plan which consists of guidelines for the development and dissemination of agricultural technologies and proposals of agricultural development projects
- 2) To build capacity of Ghanaian counterparts, partner organizations, and community based organizations

It is expected that the Master Plan will be utilized for agricultural and rural development in Upper West Region by the Ghanaian government. The guidelines for the development and dissemination of agricultural technologies will be developed for the use of agricultural extension agents and farmers.

#### **Study Area:**

Lawra District, Jirapa District, Lambussie District, and Nadowli District in Upper West Region



District	Area (km <sup>2</sup> )	Population
Lawra	1,051.2	97,544
Jirapa and Lambussie	1,667.6	96,834
Nadowli	2,745.5	82,716
<b>Study Area Total</b>	<b>5,464.3</b>	<b>277,094</b>
<b>Upper West Region Total</b>	<b>18,000.0</b>	<b>580,000</b>

(Source: MOFA district offices, June 2008)

#### **Key Partners:**

**GHANA:** Ministry of Food and Agriculture (MOFA), Upper West Regional Office and Districts Offices, Farmers in the Study Area

**JAPAN:** Japan International Cooperation Agency (JICA), the JICA Study Team (Kaihatsu Management Consulting, Inc. and CTI Engineering International Co., Ltd.)

#### **Main Activities:**

- 1) To identify the major problems and possible solutions for the development of the Study Area
- 2) To conduct a baseline survey and a village socio-economic survey
- 3) To plan and implement the Pilot Development Activities (PDAs) in the selected communities
- 4) To develop a Master Plan for agricultural development in Upper West Region

**Duration:** May 2008 – March 2010

#### **Schedule:**

Phase	2008												2009												2010		
	JP Fiscal Year 2008												JP Fiscal Year 2009												JP Fiscal Year 2010		
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3			
Phase 1																											
Phase 2																											

#### Phase 1

- Drafting the Master Plan
- Field Survey of the Study Area (May to Sep. 2008)
  - Conducting the Baseline Survey (June to Sep. 2008)
  - Selection of the PDA Communities (Aug. to Sep. 2008)
  - Workshop for Problem Analysis and Possible Solutions (Aug. to Sep. 2008)

#### Phase 2

- Implementing the PDAs
- Conducting the Village Socio-Economic Survey (Sep. to Nov. 2008)
  - Planning of the PDAs (Sep. to Dec. 2008)
  - Implementation and Monitoring of the PDAs (Jan. to Dec. 2009)
  - Preparation of the Instruction Manuals and Training Materials (Feb. to Dec. 2009)
  - Evaluation of the PDAs (Jan. to Feb. 2010)
  - Finalization of the Master Plan (Jan. to March 2010)

### The Purposes of the PDAs:

- (1) Stabilization of crop production
- (2) Increasing productivity
- (3) Prevention of soil erosion
- (4) Diversification of income sources
- (5) Improvement of living conditions

### Key Features of the PDAs:

- ✓ The Focus on Participatory Approach

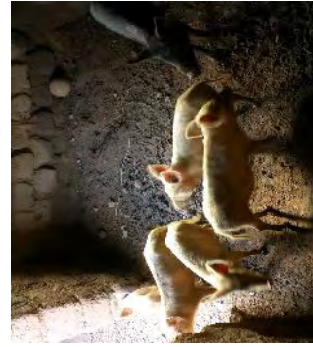
The major stakeholders, such as the government staff at the regional and district levels, the farmers, and the Study Team, are all actively involved in the PDAs' planning and implementation process. The Study focuses on incorporating the ideas of all the stakeholders into the project design.

- ✓ Cost Sharing

To make the PDAs sustainable, a cost sharing approach is introduced. The Study intends to make the beneficiaries have the sense of the ownership for the PDA activities. Also, the Study aims to maximize the number of beneficiaries of the PDAs by creating the revolving funds in the communities.

- ✓ Implementation as the Pilot Projects

To verify the effectiveness of the Master Plan, the PDAs will be implemented as the pilot projects. The ones that prove to be effective and efficient after one year of implementation will be expanded to full scale.



District	Community	Contents of the PDAs
LAWRA	Puffien	PDA1: Integrated farming PDA2: Mango tree planting
	Tome -Kokodour	PDA1: Integrated farming PDA2: Dry season gardening PDA3: Mango tree planting
	Zakpee	PDA1: Integrated farming PDA2: Soya bean processing PDA3: Pig rearing PDA4: Bee keeping
	Naawie	PDA1: Pig rearing and compost making PDA2: Improvement in post-harvest technology PDA3: Bee keeping
JIRAPA	Kogri	PDA1: Pig rearing and compost making PDA2: Improvement in post-harvest technology PDA3: Bee keeping
	Nyani	PDA1: Improvement in post-harvest technology PDA2: Integrated farming PDA3: Agro-forestry (mango and fast growing trees) PDA4: Shea butter processing PDA5: Rabbit and pig rearing
	Daffiama	PDA1: Small scale irrigation for paddy and vegetables PDA2: Groundnuts processing
	Tabiesi	PDA1: Guinea fowl and rabbit rearing PDA2: Dry season gardening with the use of compost PDA3: Shea soap making
	Nanvilli	PDA1: Guinea fowl and pig rearing PDA2: Dry season gardening with the use of compost.

Upper West Regional Office,  
Ministry of Food and Agriculture  
&  
the JICA Study Team on UWIAD  
JICA Ghana Office

Upper West Regional Office, Ministry of Food and Agriculture  
Box 21, Wa, Upper West, Ghana  
TEL: +233-(0)756-22012 / 22123

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TEL: +233-(0)21-760781  
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<http://www.jica.go.jp/english/index.html>



Ministry of Food and Agriculture  
Japan International Cooperation Agency



### The PDA Target Communities and the Activity Contents

## アップパーウエスト州総合農業開発計画調査 (UWIAD)

### 目的:

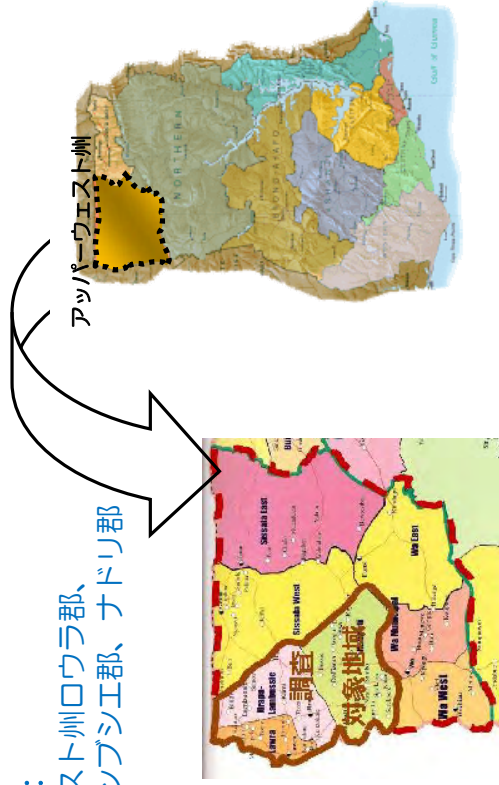
対象地域農家の収入向上を目指し、

- 1) 農業技術の開発と普及のためのガイドラインと、農業開発プロジェクトの提案を含むマスタープランを策定すること
- 2) ガーナナ国カウンターターパート、関係機関、コミュニティ組織の能力強化を図ること

本「マスタープラン」はガーナ国政府によるアップパーウエスト州農業・農村開発の推進に役立てること、そして「農業技術の開発と普及のためのガイドライン」は対象地域の農業普及員と農民の活用に至ることを狙いとされている。

### 調査対象地域:

アップパーウエスト州ロウラ郡、  
ジラバ郡、ランブシエ郡、ナドリ郡



郡	面積 (km <sup>2</sup> )	人口
ロウラ	1,051.2	97,544
ジラバ	1,667.6	96,834
ランブシエ	2,745.5	82,716
ナドリ	5,464.3	277,094
調査対象地域合計	18,000.0	580,000
アップパーウエスト州全体		

(出所: MOFA 郡事務所, 2008年6月)

**主要関係機関:**  
 ガーナ: 食糧農業省(MOFA)、アップパーウエスト州・郡事務所、調査対象地域の農民

日本: 国際協力機構(JICA)、JICA調査団(株) かいほつマネジメント・コンサルティング、建設技研インターナショナル共同企業体)

### 主な活動:

- 1) 調査対象地域の開発における主な問題点の把握と改善案の策定
- 2) ベースライン調査と村落社会経済調査の実施
- 3) コミュニティを対象としたパイロット事業(PDA)計画と実施
- 4) アップパーウエスト州農業開発のためのマスタープラン作成

**調査機関:** 2008年5月 ~ 2010年3月

### スケジュール:

Phase	2008 JP Fiscal Year 2008												2009 JP Fiscal Year 2009												2010		
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3			
Phase 1																											
Phase 2																											

#### フェーズ 1

- マスタープラン案の作成
- 調査対象地域の現地調査 (2008年5月~9月)
  - ベースライン調査の実施 (2008年6月~9月)
  - PDA実施コミュニティの選定 (2008年8月~9月)
  - 問題分析と改善案のためのワークショップ(2008年8月~9月)

#### フェーズ 2

- PDA実施
- 村落社会経済調査の実施 (2008年9月~11月)
  - PDA計画策定 (2008年9月~12月)
  - PDA実施とモニタリング (2009年1月~12月)
  - 農業技術マニュアル、普及マニュアル、研修教材の作成 (2009年2月~12月)
  - PDA評価 (2010年1月~2月)
  - マスタープランの完成 (2010年1月~3月)

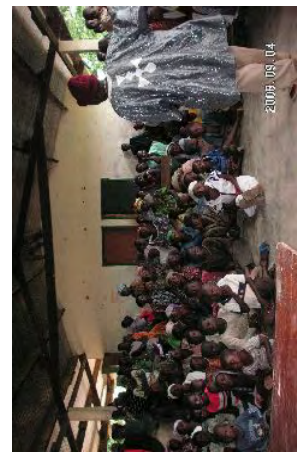
## PDA 実施コミュニティと事業内容

郡	コミュニティ	事業内容
ロウラ	ハウィエン	PDA1: 複合農業 PDA2: マンゴ樹育成
	トム・ココドール	PDA1: 複合農業 PDA2: 乾期の野菜づくり PDA3: マンゴ樹育成
	ザクパー	PDA1: 複合農業 PDA2: 大豆加工 (栄養改善) PDA3: 養豚 PDA4: 養蜂
	ナウウィエ	PDA1: 養豚と堆肥づくり PDA2: 収穫後処理技術の改善 PDA3: 養蜂
ジラバ	コグリ	PDA1: 養豚と堆肥づくり PDA2: 収穫後処理技術の改善 PDA3: 養蜂
	ニャニ	PDA1: 収穫後処理技術の改善 PDA2: 複合農業 PDA3: アグロフォレストリー: マンゴと早生樹 PDA4: シアバター加工 PDA5: うさぎと豚の飼育
ナドリ	ダフィアマ	PDA1: 小規模灌漑による稲と野菜づくり PDA2: 落花生の加工
	タビエシ	PDA1: ホロホロ鳥とうさぎ飼育 PDA2: 堆肥の利用による乾期の野菜づくり PDA3: シアせっけんづくり
	ナンビリ	PDA1: ホロホロ鳥と豚飼育 PDA2: 堆肥の利用による乾期の野菜づくり

食糧農業省アッパーウェスト州事務所、 JICA 調査団事務所	Upper West Regional Office, Ministry of Food and Agriculture Box 21, Wa, Upper West, Ghana TEL: +233-(0)756-22012 / 22123
JICA ガーナ事務所	4 <sup>th</sup> Floor, Millennium Heights Building, 14 Liberation Link, Airport Commercial Area, Accra, Ghana TEL: +233-(0)21-760781 <a href="http://www.jica.go.jp/ghana/english/index.html">http://www.jica.go.jp/ghana/english/index.html</a> <a href="http://www.jica.go.jp/english/index.html">http://www.jica.go.jp/english/index.html</a>



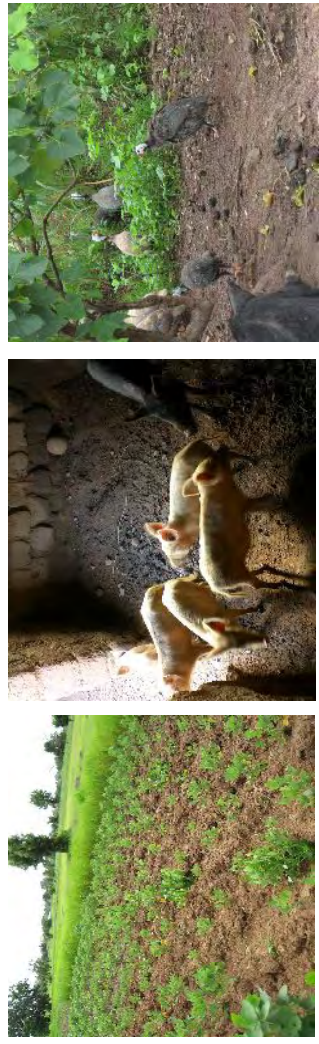
Ministry of Food and Agriculture  
Japan International Cooperation Agency



- PDA の目的：**
- (1) 農作物の安定的な生産
  - (2) 生産性の向上
  - (3) 土壌浸食の防止
  - (4) 収入源の多様化
  - (5) 基礎的な生活環境の改善

**PDA の特徴**

- ✓ 参加型アプローチ  
MOFA 州・郡事務所員、農民、調査団など主要関係者すべてが PDA 計画と実施に主体的に関わり、それぞれの意向やニーズをプロジェクトに反映。
- ✓ コストシェアリング  
プロジェクト受益者が PDA 活動に対して所有者意識を持てるようコストシェアリング・アプローチを採用、これによって PDA の持続性を向上させることを狙いとしている。さらに、コミュニティ内にリボルビング・ファンドを創設し、プロジェクト受益者数の拡大を図る。
- ✓ パイロット事業としての実施  
マスタープランの有効性を実証するためのパイロット事業として PDA を位置づけ、実施期間（1 年間）が経過した時点で、高い効果と効率性を持つ事業を本格的に実施。



The Study on Upper West Integrated Agricultural Development  
in the Republic of Ghana

Final Report

Appendix D

**District Agricultural Development Plans**

## Appendix D District Agricultural Development Plans

Each MOFAUWR district office prepares three-year agricultural development plan. In the plan, the development strategies, such as objectives, outputs, indicators, etc. are indicated based on the identified problems. According to the latest plan covers from 2007 to 2009, the main problems identified, development objectives and necessary outputs for the districts are as follows:

### D.1 Nadowli

#### Major Problems Identified:

low agricultural production, low price for agricultural produce, high loss on farm produces at storage

#### Objectives and Necessary Outputs:

Objectives	Outputs
1. Farmers adopt improved technologies for increased production, processing and storage	<ul style="list-style-type: none"> <li>- Improved technologies in production, processing, utilization and storage disseminated</li> <li>- Technologies developed through collaboration with researchers and other stakeholders</li> </ul>
2. The availability of timely, reliable and relevant data and information ensured for planning and dissemination to stakeholders	<ul style="list-style-type: none"> <li>- Special studies on specific agricultural issues conducted and documented</li> <li>- Reliable and relevant agricultural data base system developed</li> <li>- Monitoring and evaluation system established</li> </ul>
3. Capacity of DADU staff improved for efficient and effective services delivery to farmers and other stakeholders	<ul style="list-style-type: none"> <li>- Knowledge of DADU staff on land and water management techniques and practices improved</li> <li>- Knowledge of DADU staff on crop production and plant protection practices enhanced</li> <li>- Knowledge of DADU staff on animal health and husbandry practices improved</li> <li>- Infrastructure, equipment and protective clothing provided annually</li> </ul>
4. Access of farmers, processors, and FBOs to markets, credit, and storage facilities facilitated	<ul style="list-style-type: none"> <li>- Awareness creation facilitated o improved storage facilities for cowpea and groundnut annually</li> <li>- Marketing avenues provided for farm produce through collaboration with the district assembly and other stakeholders facilitated</li> <li>- Formation of viable farmers groups for credit facilities facilitated</li> </ul>
5. Linkage with all stakeholders for agricultural development established and maintained	<ul style="list-style-type: none"> <li>- Effective network between MOFA and other stakeholders enhanced</li> <li>- National shows and field days organized annually</li> </ul>
6. Farmers' awareness in gender, HIV/AIDS and other emerging issues increased	<ul style="list-style-type: none"> <li>- Awareness creation and prevention of HIV/AIDS</li> <li>- Vulnerable groups (women and physically challenged) supported income generation activities</li> </ul>
7. Production of raw materials of economic importance for industries and export promoted	<ul style="list-style-type: none"> <li>- Awareness on pig, cashew, kapaala* and soya bean production created</li> </ul>

\*: Improved (early maturing) variety of sorghum

## D.2 Jirapa-Lambussie

### Major Problems Identified:

low crop yield and livestock production, high post harvest losses, inadequate improved seed, low market prices, inadequate transport services, low soya utilization, inappropriate processing equipment

### Objectives and Outputs:

Objectives	Outputs
1. Farmers adopt improved technologies for increased production, processing, storage and utilization	- Technologies developed through collaboration with researchers and other stakeholders - Increased adoption of technologies by farmers for increased yields
2. Farmers produce sorghum, cashew and soya to feed local industries	- Groups formed and their capacities strengthened to go into cereal, legume and tree crop production
3. Provide agricultural and other appropriate technologies for the production of agriculture export commodities annually	- Awareness on guinea fowl, and cashew production created throughout the district
4. Improve data collection for planning and dissemination of information to stakeholders	- Reliable and relevant agricultural data generated, analyzed and disseminated annually - Monitoring and evaluation systems established
5. Capacity of DADU improved for effective services delivery to farmers and other stakeholders	- Knowledge of DADU staff on crop and livestock production and plant protection practices improved - Infrastructure, equipment and protective clothing provided annually
6. Linkage with all stakeholders to integrate agriculture with industries established and maintained	- Effective network between DADU and other stakeholders enhanced (NGOs in agric.) - National shows and field days organized annually

## D.3 Lawra

### Major Problems Identified:

low production of all crops, livestock and fish, poor marketing system, high post harvest losses

### Objectives and Outputs:

Objectives	Outputs
1. Farmers adopt improved technologies for increased production, processing and storage	- Improved technologies in production, processing, utilization and storage disseminated - Technologies developed through collaboration with researchers and other stakeholders
2. Farmers' accessibility to market, credit and storage facilities improved	- Awareness creation facilitated on improved storage facilities for groundnuts/cowpea annually
3. Data collection and information dissemination to stakeholders improved	- Special studies on specific agricultural issues conducted and documented - Reliable and relevant agricultural data base system developed

Objectives	Outputs
	- Monitoring and evaluation system established
4. Capacity of DADU improved for effective services delivery to farmers and other stakeholders	<ul style="list-style-type: none"> <li>- Knowledge of DADU staff on land and water management techniques and practices improved</li> <li>- Knowledge of DADU staff on crop production and plant protection practices enhanced</li> <li>- Knowledge of DADU staff on animal health and husbandry practices improved</li> <li>- Infrastructure, equipment and protective clothing provided annually</li> </ul>
5. Farmers' awareness in gender, HIV/AIDS and other emerging issues increased	
6. Production of raw materials of economic importance for industries and export promoted	- Awareness on guinea fowl and kapaala production created
7. Linkage with all stakeholders to integrate agriculture with industries established and maintained	<ul style="list-style-type: none"> <li>- Effective network between MOFA and other stakeholders enhanced</li> <li>- National shows and field days organized annually</li> </ul>



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in the Republic of Ghana

Final Report

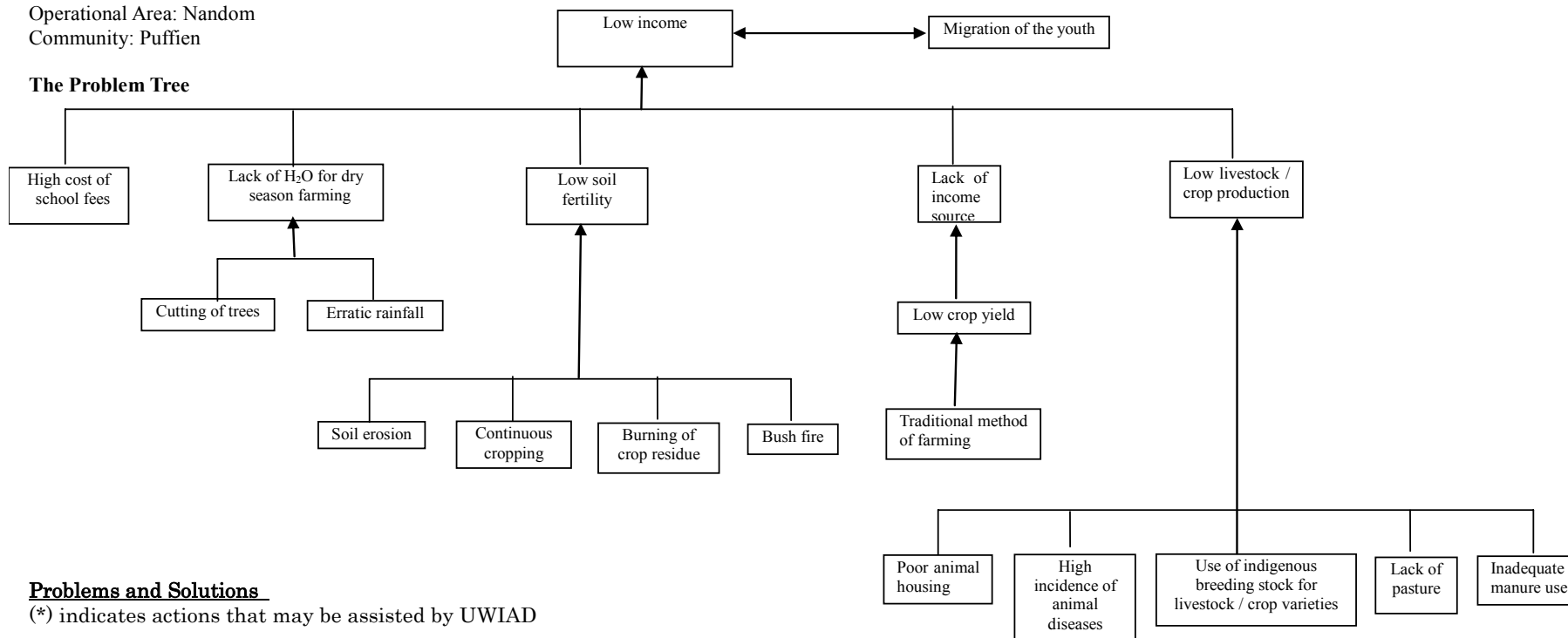
Appendix E

**PDA Plans**

**– Problems Trees and Proposed PDA Components**

## Appendix E PDA Plans – Problem Trees and Proposed PDA Components

District: Lawra  
 Zone: Nandom  
 Operational Area: Nandom  
 Community: Puffien



### Problems and Solutions

(\*) indicates actions that may be assisted by UWIAD

#### Problem

Low soil fertility

#### Solutions

- Tree planting
- Tie ridge(\*)
- Use of animal manure and compost(\*)
- Stop bush burning
- Stop burning crop residue
- Use of animal traction

#### Problem

Lack of income sources

#### Solution

- Provision of processing equipment for shea butter/soap(\*)

#### Problem

Lack of H<sub>2</sub>O for dry season farming

#### Solution

- Construct dug-out for livestock watering and crop production

#### Problem

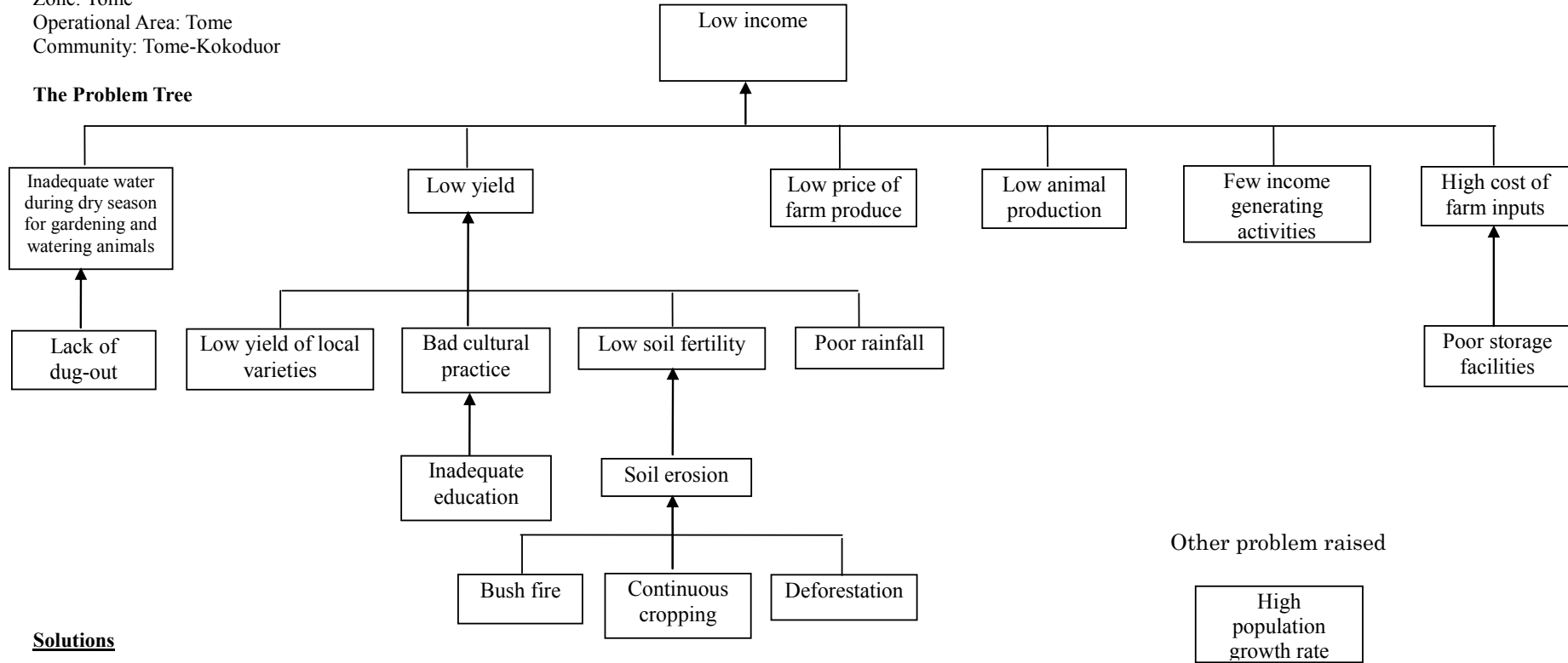
Low livestock / crop production

#### Solutions

- Improve animal housing
- Provide supplementary feeding / water
- Use of early-maturing varieties(\*)
- Use of improved breeds of livestock(\*)
- Provide veterinary medicines

**Figure E.1.1 The Problem Tree (Puffien)**

District: Lawra  
 Zone: Tome  
 Operational Area: Tome  
 Community: Tome-Kokoduor



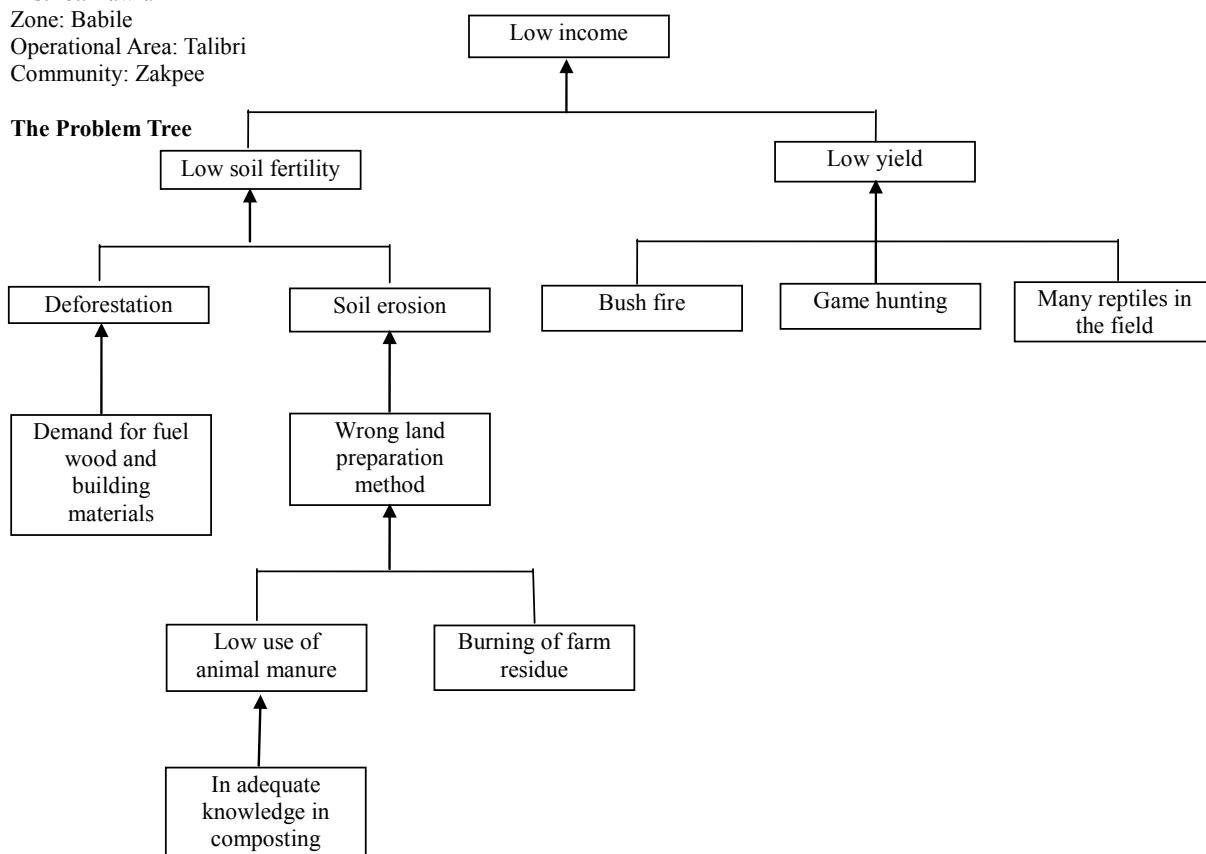
**Solutions**

- Integrated farming  
 Livestock production (sheep and goats)  
 Crop production (introduce improved cropping method)
- Create dugout for dry season vegetable production
- Obtain processing machines for shea butter production
- Afforestation by planting mangoes and cashew trees

**Figure E.1.2 The Problem Tree (Tome-Kokoduor)**

District: Lawra  
 Zone: Babile  
 Operational Area: Talibri  
 Community: Zakpee

**The Problem Tree**



**Other problems raised**

- Low price for farm produce
- High post harvest loss
- Theft of livestock
- Wrong cultural practice
- High mortality of livestock
- Inadequate use of early maturing variety
- Inadequate water source for watering animals and irrigation
- Inadequate knowledge in food processing and utilization
- Erratic rainfall

**Problems and Solutions**

**Problem**

Soil erosion

**Solutions**

- Ridging across sloping lands
- Stone lining / contour bands
- Non-burning of farm produce
- Making the use of compost and animal dung
- Planting of vertiva grass across the slopes

Bush fire

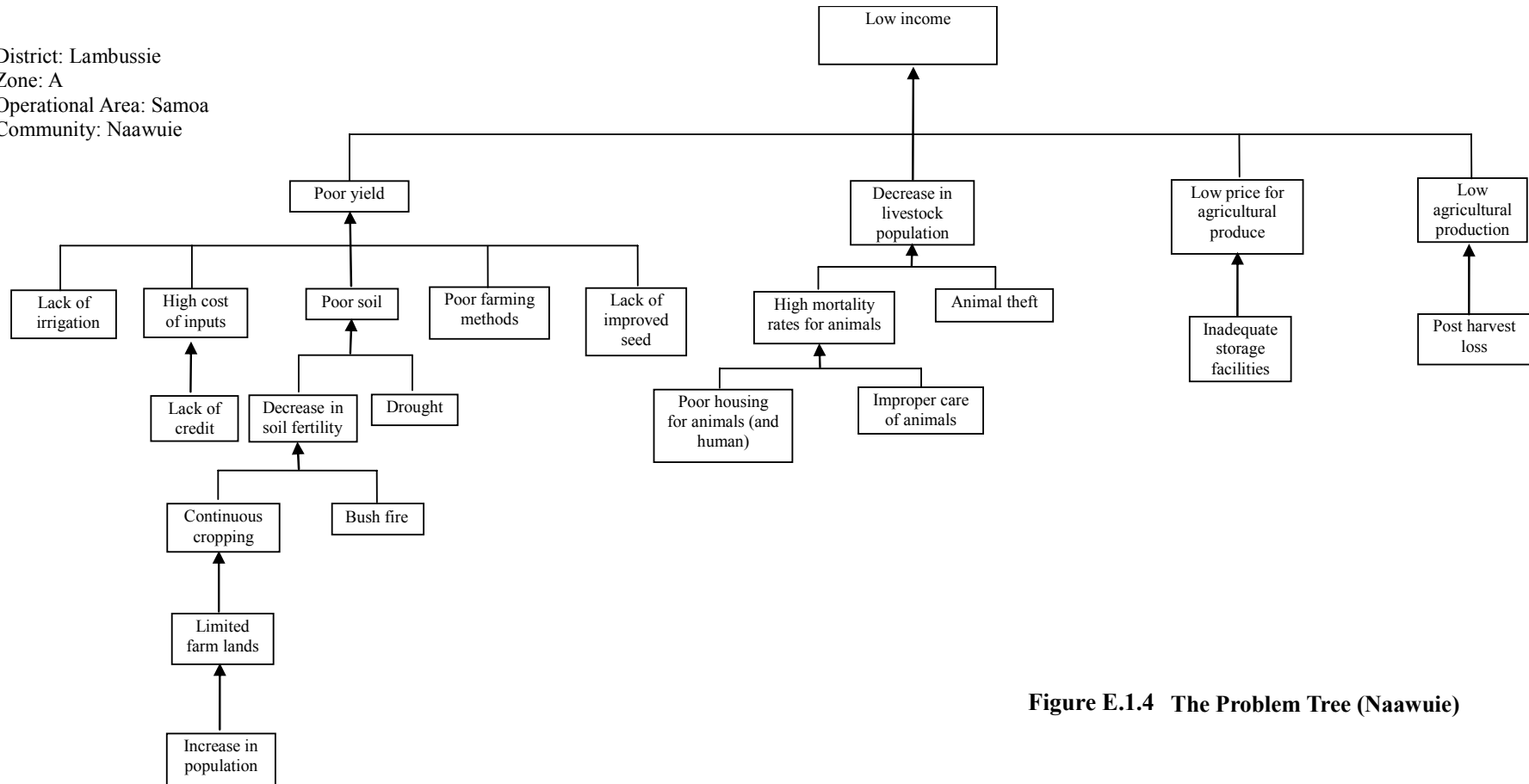
**Solutions**

- Formation of fire volunteers and their training
- Enact bye-laws against bush burning
- Create fire bells around community lands
- Communicating in writing to neighboring communities

**Figure E.1.3 The Problem Tree (Zakpee)**

**Problem**

District: Lambussie  
 Zone: A  
 Operational Area: Samoa  
 Community: Naawuie



**Figure E.1.4 The Problem Tree (Naawuie)**

Problems and Solutions

Problem

Poor yield

Solution

Improve soil fertility

Problem

Decrease in animal population

Solutions

Improve livestock management  
 Introduce improved breed

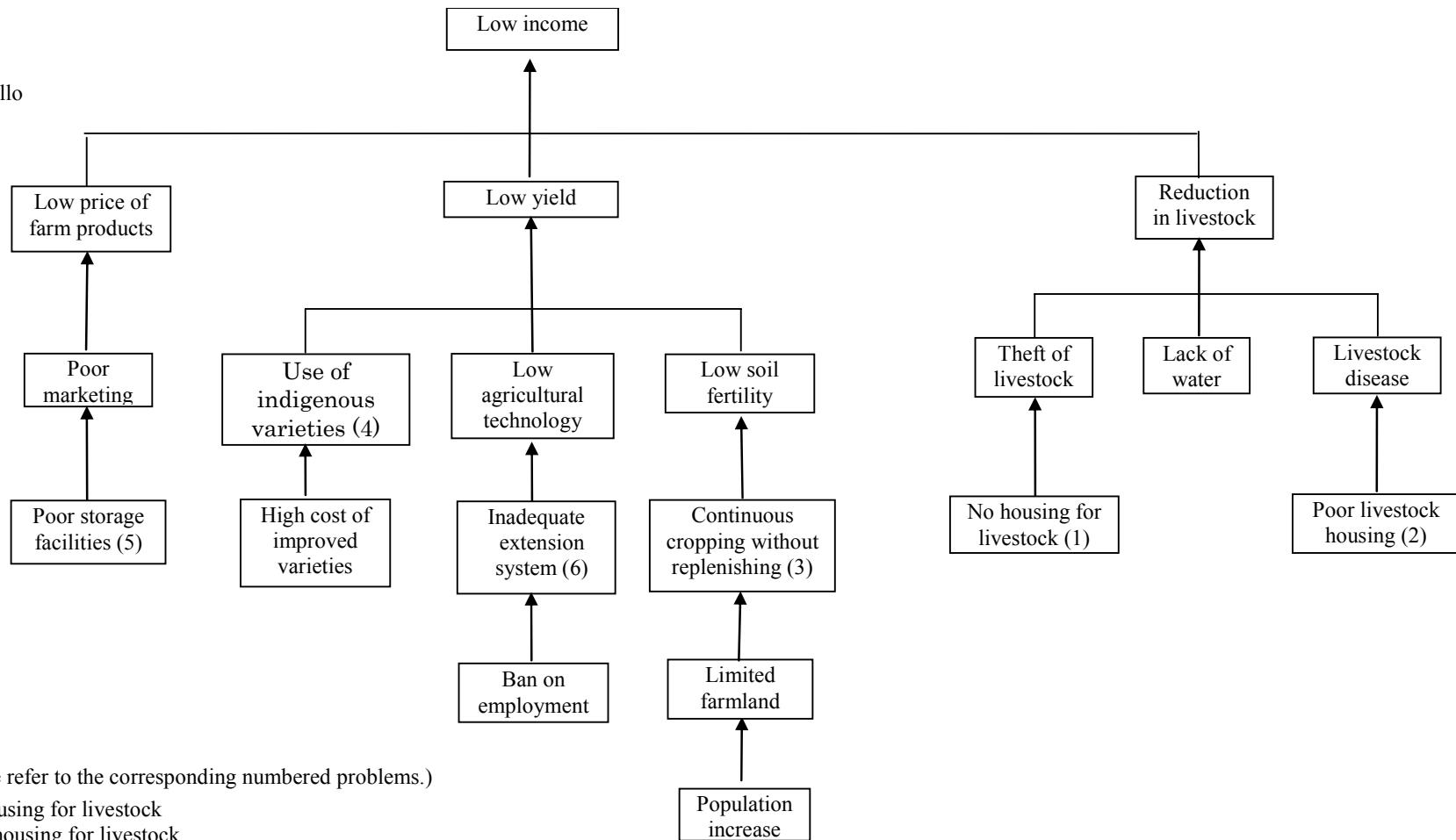
Problem

High level of post-harvest loss

Solution

Provide storage facilities for durables and perishables

District: Jirapa  
 Zone: B  
 Operational Area: Ullo  
 Community: Kogri

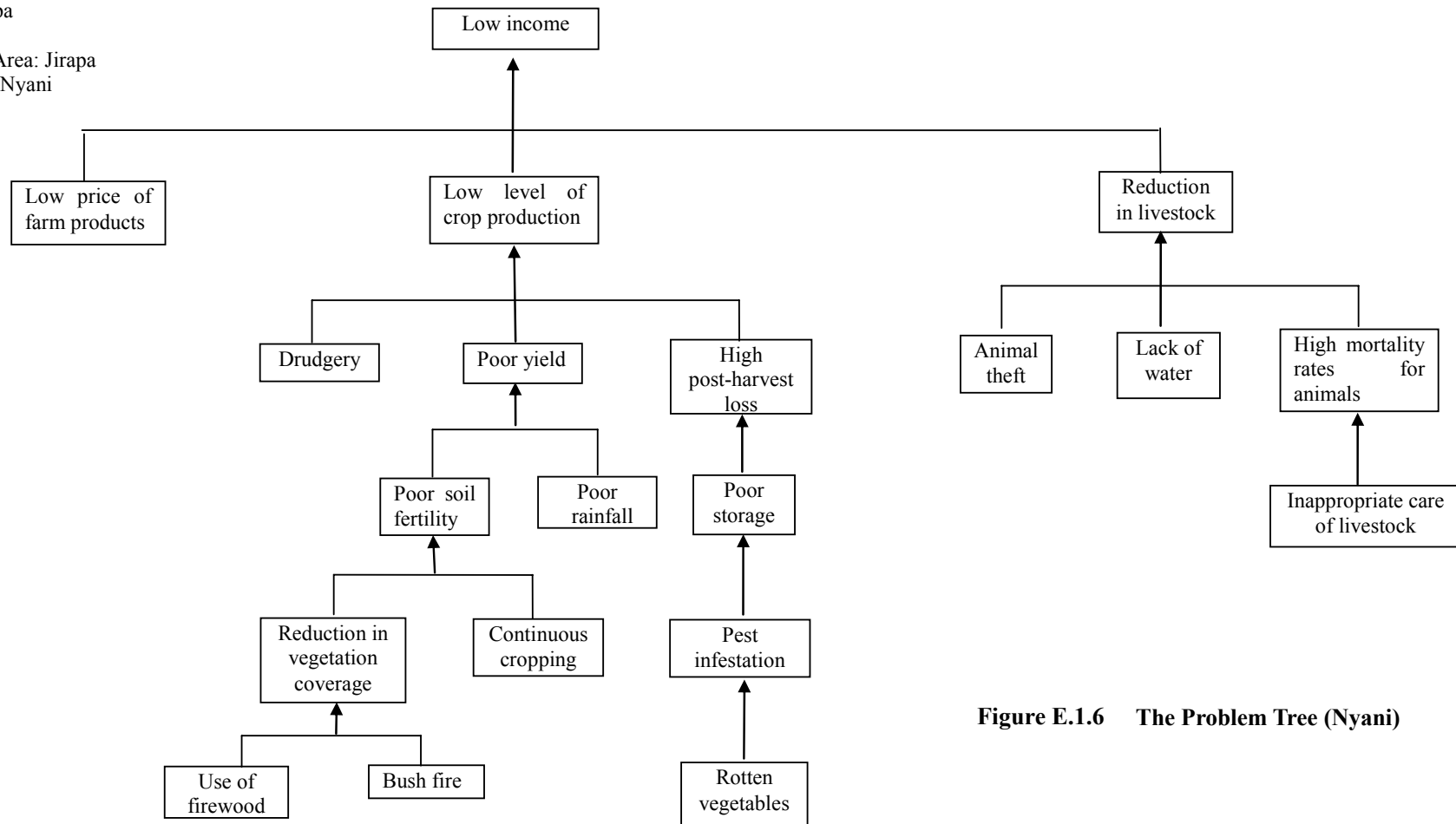


**Solutions** (Please refer to the corresponding numbered problems.)

- (1) Provision of housing for livestock
- (2) a. Appropriate housing for livestock  
b. Timely reporting of disease outbreak to veterinary officers
- (3) a. The use of animal dung to enrich the soil  
b. The use of organic matter
- (4) The use of improved varieties
- (5) a. The use of improved and appropriate storage facilities  
b. Drying of farm produce to a proper moisture level
- (6) Train more community extension volunteers

**Figure E.1.5 The Problem Tree (Kogri)**

District: Jirapa  
 Zone: C  
 Operational Area: Jirapa  
 Community: Nyani



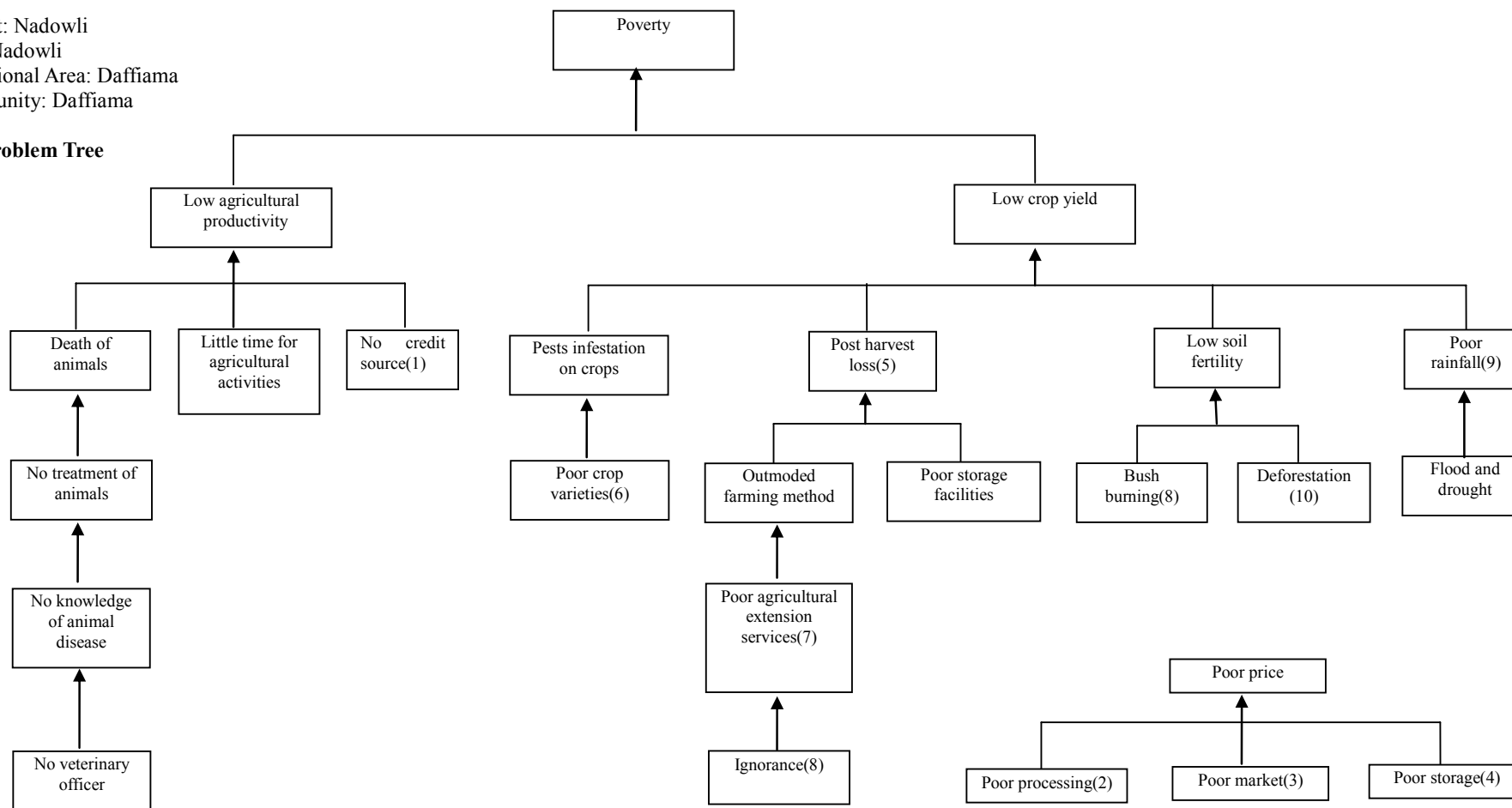
**Figure E.1.6 The Problem Tree (Nyani)**

Solutions

- Inventory credit to farmers
- Introduction of improved breed of livestock
- Better use of animal dung (→ compost)
- Encourage rotational cropping
- Introduction of early-maturing varieties
- Promote afforestation
- Enact bye-laws to stop bush burning (chiefs and land lord)
- Develop income generating activities for women (processing machine fro shea butter)
- Access to post-harvest chemicals and training on the effective use of them
- Training on livestock production
- Promote water harvesting
- Promote animal traction
- Provide veterinary medicine
- Improve animal housing
- Provide more water for livestock

District: Nadowli  
 Zone: Nadowli  
 Operational Area: Daffiama  
 Community: Daffiama

**The Problem Tree**



**Solutions** (please refer to the corresponding numbered problem)

**Figure E.1.7 The Problem Tree (Daffiama)**

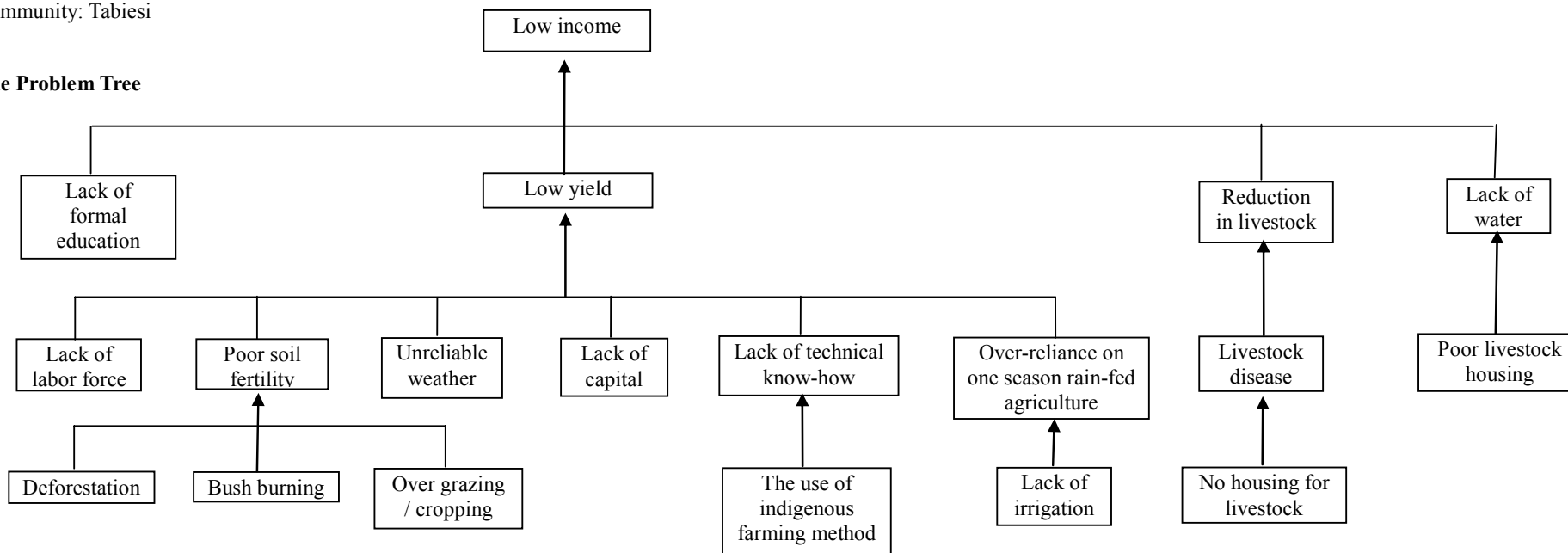
- (1) Provision of credit facilities with low interest rate
- (2) Provision of processing equipment / training in making shea butter and groundnut
- (3) Provision of training on advertising / establish better links with markets
- (4) Provision of improved silos and warehouses
- (5) Establish pest control system / timely harvesting / training on proper drying method

- (6) Introduction of early-maturing drought and pest-tolerant varieties
- (7) More training for the AEAs / better transportation support the AEAs
- (8) Education / advocacy
- (9) Construction of dam and irrigation
- (10) Agro-forestry (e.g. mango and moringa)



District: Nadowli  
 Zone: Fian  
 Operational Area: Tabiesi  
 Community: Tabiesi

**The Problem Tree**



**Figure E.1.8 The Problem Tree (Tabiesi)**

Problems and Solutions (\*) mark indicates actions that may be supported by UWIAD.

Problem

Over-reliance on one season rain-fed agriculture

Solutions

- Dry season vegetable production(\*)
- Rearing of guinea fowls and rabbits(\*)
- Processing shea nuts into butter(\*)
- Introduction of early-maturing varieties

Problem

Reduction in the number of livestock

Solutions

- Recruit more extension agents
- Subsidize veterinary medicine
- Construct improved housing for small ruminants(\*)

Problem

Poor soil fertility

Solutions

- Discourage bush burning and encourage forestation
- Increase the use of fertilizers
- Encourage rotational cropping
- Increase the use of compost

District: Nadowli  
 Zone: Kaleo  
 Operational Area: Nanvill  
 Community: Nanvill

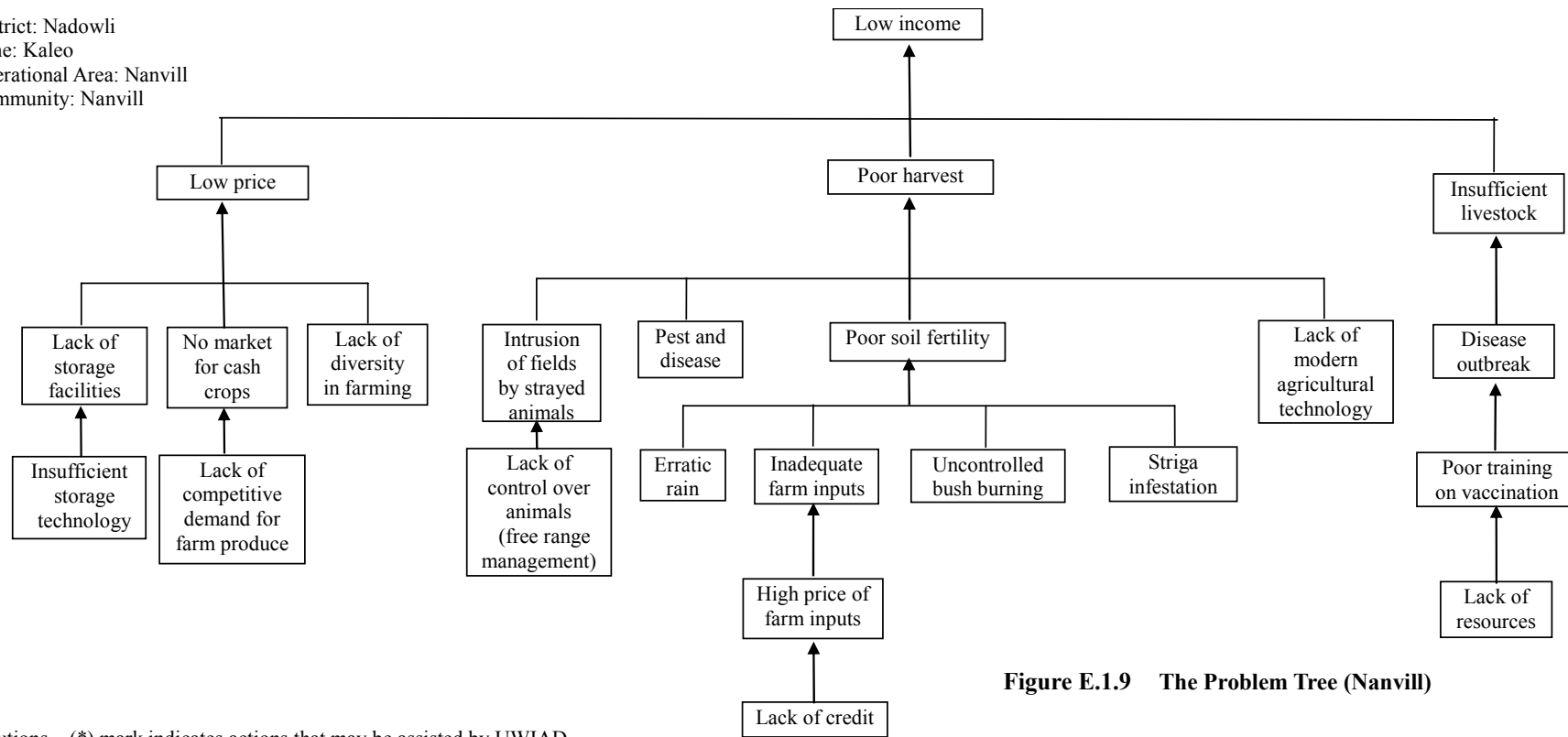


Figure E.1.9 The Problem Tree (Nanvill)

Solutions (\*) mark indicates actions that may be assisted by UWIAD.

- Diversify crop and livestock production
- Provide necessary equipments for animal traction(\*)
- Assist farmer cooperatives to have better storage facilities
- Provide better breeding stock for livestock
- Adopt modern agricultural technology
- Provide disease-resistant animal breed(\*)
- Provide high-yielding, drought-resistant, and early-maturing variety(\*)
- Provide credit with low interest rate
- Train more MOFA staff

**Table E.1.1 Proposed PDAs (Project Purposes and Outputs) (Lawra District)**

		Puffien	Tome-Kokoduor	Zakpee
PDA 1	Project purpose:	<b>Integrated farming</b> Crop production is increased.	<b>Integrated farming</b> Crop production is increased.	<b>Integrated farming</b> The production of upland rice, soya bean , groundnuts is increased.
	Outputs:	1) Demonstration plots are established. 2) Farmers' knowledge on compost making is improved. 3) Farmers' knowledge on erosion check (stone lining and vertiva grass) is improved. 4) Improved huts for small ruminants are built (with supply of improved breeds).	1) Demonstration plots are established. 2) Farmers' knowledge on crop cultivation (alley cropping) and compost making is improved. 3) Improved huts for small ruminants are built (with supply of improved breeds).	1) Demonstration plots are established. 2) Farmers' knowledge on compost making is improved. 3) Farmers' knowledge on erosion check (stone lining and vertiva grass) is improved. 4) Piggeries are built.
PDA 2	Project purpose:	<b>Mango tree planting</b> The number of grafted mango trees is increased in the community.	<b>Dry season gardening</b> The vegetable production is increased.	<b>Soya bean processing</b> The volume of processed soya bean is increased.
	Outputs:	1) Farmers' knowledge on mango tree planting is improved. 2) Seedlings are supplied.	1) The boreholes (reliable source of water) are dug. 2) Improved seeds are supplied. 3) The number of farmers with the knowledge of vegetable gardening is increased.	1) Soya bean production is increased. 2) Farmers' knowledge on soya bean processing and utilization is improved.
PDA 3	Project purpose:		<b>Mango tree planting</b> The number of grafted mango trees is increased in the community.	<b>Pig rearing</b> The income from pig sales is increased.
	Outputs:		1) Farmers' knowledge on mango tree planting is improved. 2) Seedlings are supplied.	1) Pig production is increased. 2) Improved piggery is constructed. 3) Farmers' knowledge on feed compounding is improved.
PDA 4	Project purpose:			<b>Bee keeping</b> The income from honey sales is increased.
	Outputs:			1) Honey production is increased 2) Farmers' knowledge on bee keeping is improved.

**Table E.1.2 Proposed PDAs (Project Purposes and Outputs) (Jirapa-Lambussie Districts)**

		<b>Naawuie</b>	<b>Kogri</b>	<b>Nyani</b>
PDA 1	Project purpose:	<b>Pig rearing and compost making</b> The number of the households producing compost is increased. The income from selling pigs is increased.	<b>Pig rearing and compost making</b> The number of the households producing compost is increased. The income from selling pigs is increased.	<b>Improvement in post-harvest technology</b> The post-harvest storage loss is reduced by proper dry and store.
	Outputs:	1) The compost pits are established. 2) The demonstration plots for compost making are established. 3) The coordinating farmers are functioning. 4) The number of the farmers trained on compost making is increased. 5) The number of farmers who rear pigs is increased. 6) The number of households with proper hatches for pigs is increased.	1) The compost pits are established. 2) The demonstration plots for compost making are established. 3) The coordinating farmers are functioning. 4) The number of the farmers trained on compost making is increased. 5) The number of farmers who rear pigs is increased. 6) The number of households with proper hatches for pigs is increased.	(same as Naawuie and Kogri)
PDA 2	Project purpose:	<b>Improvement in post-harvest technology</b> The post-harvest storage loss is reduced by proper dry and store.	<b>Improvement in post-harvest technology</b> The post-harvest storage loss is reduced by proper dry and store.	<b>Integrated farming</b> The number of the farmers reached new technologies is increased. The number of the households producing compost is increased.
	Outputs:	1) The volume of the properly dried products is increased 2) The number of properly cleaned storage is increased. 3) The knowledge on drying and storage (incl. ash) is improved.	1) The volume of the properly dried products is increased 2) The number of properly cleaned storage is increased. 3) The knowledge on drying and storage (incl. ash) is improved.	1) The compost pits are established. 2) The demonstration plots are established. 3) The coordinating farmers are functioning. 4) The number of the farmers trained on compost making is increased.
PDA 3	Project purpose:	<b>Bee Keeping</b> Honey production is increased	<b>Bee Keeping</b> Honey production is increased	<b>Agro-forestry (mango and first growing trees)</b> The number of trees planted is increased.
	Outputs:	1) Beehives are provided. 2) Knowledge on bee keeping is improved.	1) Beehives are provided. 2) Knowledge on bee keeping is improved.	1) The production of seedlings is increased. 2) A central nursery is established 3) Knowledge on agro-forestry is improved.

		<b>Naawuie</b>	<b>Kogri</b>	<b>Nyani</b>
PDA 4	Project purpose:			<b>Shea butter processing</b> The production of shea butter is increased.
	Outputs:			1) Adequate volume of shea nut is stocked. 2) Competent women groups are identified and strengthened. 3) Manual processing machines are provided. 4) A facility for installing the machines is constructed.
PDA 5	Project purpose:			<b>Rabbit and pig rearing</b> The income from selling rabbits and pigs is increased.
	Outputs:			1) The number of the farmers rearing rabbit and/or pigs are increased. 2) The number of proper huts for rabbits and pigs are increased.

**Table E.1.3 Proposed PDAs (Project Purposes and Outputs) (Nadowli Districts)**

		<b>Daffiama</b>	<b>Tabiesi</b>	<b>Nanvill</b>
PDA 1	Project purpose:	<b>Small scale irrigation for paddy and vegetables</b> The production of paddy is increased. The income from selling vegetables is increased.	<b>Guinea fowl and rabbit rearing</b> The income from the sales of guinea fowl and rabbit is increased.	<b>Guinea fowl and pig rearing</b> The income from the sales of guinea fowl and pig is increased.
	Outputs:	1) Demonstration plots are established for paddy. 2) Farmers' knowledge on paddy cultivation is improved. 3) The production of vegetables such as tomatoes, okra, watermelon, onions is increased.	1) The production of Guinea fowl and rabbit is increased with new breeds. 2) Knowledge on rearing Guinea fowl and rabbit is improved.	1) The production of Guinea fowl and pig is increased with new breeds. 2) Knowledge on rearing Guinea fowl and pig is improved.
PDA 2	Project purpose:	<b>Shea nuts and groundnuts processing</b> The income from shea butter and soap sales is increased. The income from groundnuts oil is increased.	<b>Dry season gardening with the use of compost</b> The production of organic manure is increased.	<b>Dry season gardening with the use of compost</b> The production of organic manure is increased.
	Outputs:	1) The production of shea butter and soap is increased. 2) Competent women groups are identified and strengthened. 3) The production of groundnuts oil is increased. 4) Packaging technologies of groundnuts oil is introduced.	1) The knowledge on compost making is improved. 2) Compost pits are established.	1) The knowledge on compost making is improved. 2) Compost pits are established.
PDA 3	Project purpose:		<b>Shea nuts processing</b> The income from shea butter and soap sales is increased.	
	Outputs:		1) The production of shea butter and soup is increased. 2) Competent women groups are identified and strengthened.	

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in the Republic of Ghana

Final Report

Appendix F

**Proposed Plan of Operations of the PDAs**

## Appendix F Proposed Plan of Operations of the PDAs

The plans of operations (POs) for the PDAs prepared by the Study Team, and the MOFAUWR regional and district staff are shown in this appendix. The POs were revised several times before and during the implementation of the PDAs, and the POs in this appendix was as of January 2009. The schedules and some other details of each PDA were left blank as they were not concluded at that time.

Prepared on: Jan. 9, 2009

District: Lawra Community: Puffien

Project: Integrated farming Project Purpose: Crop production is increased.

Intended Output No. 1-4 :

1. Farmers' knowledge on compost making and erosion check (stone lining and vetiver grass) is improved.
2. Improved seeds are distributed to the neighboring farmers.
3. Improved huts for small ruminants are built.
4. Farmers' knowledge on rearing small ruminants is improved.

Responsible Officers:

Output 1 and 2 < Region Abu Huudu District James Segtta AEA Charles Yenli>

Output 3 and 4 < Region Dr. Mark Hansen, Naa YOD Saaka, Peter Sarpong District James Segtta AEA Charles Yenli >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in integrated farming	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for compost making	Selected members	Knowledge is improved on compost making								AEA Compost Yard Owner	Staff of MOFAUWR /District	Manure, plants, instruments	Labor by beneficiaries for making compost	1 day training at compost yard



Activities	Beneficiaries	Expected Results	Schedule												Responsible Person(s)	Inputs			Necessary Conditions	
			N	J	M	M	J	S	N	Personnel	Materials	Others								
																		yard		
1-3. Demonstration plot preparation	Selected members	A demonstration plot is established.													AEA Demo. Plot Owner	Staff of MOFAUWR /District	Vetiver stocks, seeds, stones, instruments	Labor by beneficiaries for making demo plot		1) A plot at eroded field. 2) A plot shall be prepared with compost and anti-erosion materials
1-4. Training (=Field Day) for cultivation	Interested farmers	Knowledge on (i) application of compost & farm management, (ii) erosion checks is improved.													AEA Plot Owner	Staff of MOFAUWR /District				Field day shall be made at the time of planting, farm management and harvesting (3 times)
1-5. Demonstration plot management	Selected members	Knowledge on farm management is improved.													AEA Plot Owner					
1-6. Harvesting	Selected members	Crops are harvested.													Members	AEA				
2-1. Distribution of harvested improved seeds.	Selected members	Improved seeds are distributed to the other farmers.													Members	AEA				
3-1. Meeting for improved huts for small ruminants	Selected members	Beneficiary members are selected, and rules are made.													AEA	Staff of MOFAUWR /District				Rules for cost and benefit sharing
3-2. Building huts for sheep and goats	Selected two members	Huts are built													AEA	Staff of MOFAUWR /District				1) A hut for sheep and another hut for goat 2) Beneficiaries shall pay for construction by loan
3-3. Supply of improved breeds of sheep and goats	Selected two members	X number of sheep and Y number of goats are supplied													AEA	Staff of MOFAUWR /District				Beneficiaries shall pay for improved breeds by loan
4-1. Training for rearing sheep and goats	Selected members	Knowledge on sheep and goat rearing is improved.													AEA	Staff of MOFAUWR /District				1 day training
4-2. Hut management	Selected members	Manure of sheep and goats are collected.													AEA Selected members	Staff of Babile Pig Breeding Station				

Prepared on: January 9, 2009

District: Lawra Community: Puffien

Project: Mango tree planting Project Purpose: The number of grafted mango trees is increased in the community.

Intended Output No. 1-2 :

1. Farmers' knowledge on mango tree planting is improved.

2. Seedlings are supplied.

Responsible Officers:

Output 1 and 2 < Region Abu Huudu District James Segtta AEA Charles Yenli >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in mango cultivation	Beneficiary members are selected, and rules are made.								AEAs				Rules for cost and benefit sharing shall be made
1-2. Training	Selected members	Knowledge is improved on management of mango cultivation								AEA	Staff of MOFAUWR /District			1 day training
1-3. Demonstration plot preparation	Selected members	A demonstration plot is established.								AEA Demo. Plot Owners	Staff of MOFAUWR /District	instruments	Labor by beneficiaries for making demo plot	
1-4. Demonstration plot management	Selected members	Mango trees are rooted.								AEA Plot Owners				
2-1. Seedling supply	Selected members	Seedlings are supplied								AEA		Grafted mango seedlings		

Prepared on: January 9, 2009

District: Lawra Community: Tome-Kokodour

Project: Integrated farming Project Purpose: Crop production is increased.

Intended Output No. 1-4 :

1. Farmers' knowledge on compost making and crop cultivation (alley cropping) is improved.
2. Improved seeds are distributed to the neighboring farmers.
3. Improved huts for small ruminants are built.
4. Farmers' knowledge on rearing small ruminants is improved.

Responsible Officers:

Output 1 and 2 < Region Abu Huudu District James Segtta AEA Daniel Gyimah >

Output 3 and 4 < Region Dr. Mark Hansen, Naa YOD Saaka, Peter Sarpong District James Segtta AEA Daniel Gyimah >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in integrated farming	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for compost making	Selected members	Knowledge is improved on compost making								AEA Compost Yard Owner	Staff of MOFAUWR /District	Manure, plants, instruments	Labor by beneficiaries for making compost yard	1 day training at compost yard
1-3. Demonstration plot preparation	Selected members	A demonstration plot is established.								AEA Demo. Plot Owner	Staff of MOFAUWR /District	seeds, alley cropping materials instruments	Labor by beneficiaries for making demo plot	A plot shall be prepared with compost.

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-4. Training (=Field Day) for cultivation	Interested farmers	Knowledge on (i) application of compost & farm management, (ii) alley cropping is improved.								AEA Plot Owner	Staff of MOFAUWR /District			Field day shall be made at the time of planting, farm management and harvesting (3 times)
1-5. Demonstration plot management	Selected members	Knowledge on farm management is improved.								AEA Plot Owner				
1-6. Harvesting	Selected members	Crops are harvested.								Members	AEAs			
2-1. Distribution of harvested improved seeds.	Selected members	Improved seeds are distributed to the other farmers.								Members	AEAs			
3-1. Meeting for improved huts for small ruminants	Selected members	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing
3-2. Building huts for sheep and goats	Selected two members	Huts are built								AEA	Staff of MOFAUWR /District			1) A hut for sheep and another hut for goat 2) Beneficiaries shall pay for construction by loan
3-3. Supply of improved breeds of sheep and goats	Selected two members	X number of sheep and Y number of goats are supplied								AEA	Staff of MOFAUWR /District			Beneficiaries shall pay for improved breeds by loan
4-1. Training for rearing sheep and goats	Selected members	Knowledge on sheep and goat rearing is improved.								AEA	Staff of MOFAUWR /District			1 day training
4-2. Hut management	Selected members	Manure of sheep and goats are collected.								AEA Selected members	Staff of Babile Pig Breeding Station			

Prepared on: January 9, 2009

District: Lawra Community: Tome-Kokodour

Project: Dry season gardening Project Purpose: The vegetable production is increased.

Intended Output No. 1-2 : 1. Knowledge of the farmers on vegetable gardening is improved. 2. The boreholes (reliable source of water) are dug.

Responsible Officers:

Output 1 and 2 < Region Abu Huudu, Nana Baah Appiah District James Segtta AEA Daniel Gyimah >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in dry season gardening	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Gardening plot preparation	Selected members	Gardening plot is established								AEA Gardening Plot Owners	Staff from MOFAUWR /District	compost, improved seeds, instruments	Labor by beneficiaries	A plot shall be prepared with compost.
1-3. Training for vegetable gardening	Selected members	Knowledge is improved on vegetable gardening								AEA Gardening Plot Owners	Staff from MOFAUWR /District	watering cans		1 day training at gardening plot
1-4. Gardening plot management	Selected members	Knowledge on farm management is improved.								AEA Plot Owners				
1-5. Training for post-harvest	Selected members	Knowledge is improved on post harvest								AEA Plot Owners				
1-6. Harvesting	Selected members	Vegetables are harvested.								Members	AEA			
2-1. Digging boreholes	Selected members	Irrigation water is available.								AEA		Site protection ring, concrete	Labor by beneficiaries	Boreholes are dug by members.

Prepared on: January 9, 2009

District: Lawra Community: Tome-Kokodour

Project: Mango tree planting Project Purpose: The number of grafted mango trees is increased in the community.

Intended Output No. 1-2 :

1. Farmers' knowledge on mango tree planting is improved.
2. Seedlings are supplied.

Responsible Officers:

Output 1 and 2 < Region Abu Huudu District James Segtta AEA Daniel Gyimah >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in mango cultivation	Beneficiary members are selected, and rules are made.								AEAs				Rules for cost and benefit sharing shall be made
1-2. Training	Selected members	Knowledge is improved on management of mango cultivation								AEA	Staff of MOFAUWR /District			1 day training
1-3. Demonstration plot preparation	Selected members	A demonstration plot is established.								AEA Demo. Plot Owners	Staff of MOFAUWR /District	instruments	Labor by beneficiaries for making demo plot	
1-4. Demonstration plot management	Selected members	Mango trees are rooted.								AEA Plot Owners				
2-1. Seedling supply	Selected members	Seedlings are supplied								AEA		Grafted mango seedlings		

Prepared on: January 9, 2009

District: Lawra Community: Zakpee

Project: Integrated farming Project Purpose: The production of upland rice, soya bean, groundnuts is increased.

Intended Output No. 1-4 :

1. Farmers' knowledge on compost making and erosion check (stone lining and vetiver grass) is improved.
2. Improved seeds are distributed to the neighboring farmers.
3. Piggeries are built.
4. Farmers' knowledge on pig rearing is improved.

Responsible Officers:

Output 1 and 2 < Region Abu Huudu District Eric Kaleobu AEA Mercy Saanuo >

Output 3 and 4 < Region Dr. Mark Hansen, Naa YOD Saaka, Peter Sarpong District Eric Kaleobu AEA Mercy Saanuo >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in integrated farming	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made Women groups shall be included for soya bean production.
1-2. Training for compost making	Selected members	Knowledge is improved on compost making								AEA Compost Yard Owner	Staff of MOFAUWR /District	Manure, plants, instruments	Labor by beneficiaries for making compost yard	1 day training at compost yard
1-3. Demonstration plot preparation	Selected members	A demonstration plot is established.								AEA Demo. Plot Owner	Staff of MOFAUWR /District	Vetiver stocks, seeds of rice, soya bean and	Labor by beneficiaries for making demo plot	1) A plot at eroded field. 2) A plot shall be prepared with compost and anti-erosion materials

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
											ground nuts, stones, instruments			
1-4. Training (=Field Day) for cultivation	Interested farmers	Knowledge on (i) application of compost & farm management, (ii) erosion checks is improved.								AEA Plot Owner	Staff of MOFAUWR /District			Field day shall be made at the time of planting, farm management and harvesting (3 times)
1-5. Demonstration plot management	Selected members	Knowledge on farm management is improved.								AEA Plot Owner				
1-6. Harvesting	Selected members	Crops are harvested.								Members	AEAs			
2-1. Distribution of harvested improved seeds.	Selected members	Improved seeds are distributed to the other farmers.								Members	AEAs			
3-1. Meeting for improved piggery	Selected members	Beneficiary members are selected, and rules are made.								AEA	Staff of Babile Pig Breeding Station			Rules for cost and benefit sharing shall be made
3-2. Building a piggery	Selected one member	A piggery is built								AEA One selected member	Staff of Babile Pig Breeding Station			A Beneficiary member shall pay for construction by loan
3-3. Supply of improved breeds of pigs	Selected one member	X number of pigs is supplied								AEA One selected member	Staff of Babile Station			A beneficiary member shall pay for improved breeds by loan
4-1. Training for rearing pigs	Selected members	Knowledge on pig rearing is improved.								AEA Selected members	Staff of Babile Station			1 day training
4-2. Piggery management	Selected members	Manure of pigs are collected.								AEA One selected member	Staff of Babile Station			



Prepared on: January 9, 2009

District: Lawra Community: Zakpee

Project: Soya bean Processing Project Purpose: Women improve the skills and knowledge on Soya bean processing.

Intended Output No. 1-3

1. Competent women groups are identified.
2. Women's knowledge on soya bean processing is improved.
3. Women's knowledge on nutrition improvement is improved.

Responsible Officers:

Output 1, 2, and 3 < Region Elizabeth Kutina District Eric Kaleobu AEA Mercy Saanuo >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community women groups interested in soya bean processing	Beneficiary women members are selected and rules are made.								AEA-WIAD	AEA			Rules for cost and benefit sharing shall be made.
2-1. Manual Preparation	N/A	A training manual on soya bean processing is prepared.								AEA-WIAD	RAO-WIAD			
2-2. Training for soya bean processing	Selected members	Knowledge is improved on soya bean processing								AEA-WIAD	AEA-WIAD	Processing Tools (pots, scale, etc.) Soya bean		Soya bean shall be provided with loan to the beneficiaries
3-1. Manual Preparation	N/A	A training manual on nutrition improvement is prepared.								AEA-WIAD	RAO-WIAD			
3-2. Training for nutrition	Selected members	Knowledge is improved on nutrition.								AEA-WIAD	AEA-WIAD			

Prepared on: January 9, 2009

District: Lawra Community: Zakpee

Project: Pig Rearing Project Purpose: The income from pig sales is increased.

Intended Output No. 1-7 :

1. Competent groups are identified as the project's potential beneficiaries.
2. The groups are strengthened to be the eligible beneficiaries.
3. Farmers' knowledge on pig rearing is improved.
4. Improved piggeries are built.
5. Improved breeds and feeds are supplied.
6. Farmers' knowledge on marketing is improved.
7. Market channels are linked with the beneficiaries.

Responsible Officers:

Output 1 through 7 < Region Mark Hansen, Naa YOD Saaka, Peter Sarpong District Eric Kaleobu AEA Mercy Saanuo >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule						Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S		N	Personnel	Materials	
1-1. Community-level Meeting	Community people interested in pig rearing	Beneficiary members are selected and rule are made.							MOFA District Director AEA	Staff of Babile pig breeding station			Rules for cost and benefit sharing shall be made.
2-1. Training for organizational management	The selected members	Knowledge of the group on organizational management is strengthened.							Staff of MOFAUWR/District	Staff of Babile pig breeding station AEA CDD			Training shall be continued until the group becomes eligible for the project.
3-1. Training for pig rearing	The selected members	Knowledge is improved on (i) pig rearing, (ii) piggery construction, and (iii) feed compounding							Staff of Babile station	AEA			3 day training

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
4-1. Planning a piggery	The selected members	The piggery plan is prepared.								Staff of Babile station AEA	AEA			
4-2. Build a piggery	The selected members	A piggery is constructed.								Staff of Babile station AEA	Mason	Cement 30 bags	Labor by beneficiaries	A piggery is to be built with locally available materials. Family labor for mud bricks, bricklaying, and roofing
5-1. Supply of pigs (1 breeding Boar and 3 breeding Sows)	The selected members	Breeding pigs are provided.								Staff of Babile station AEA				
5-2. Supply of feeds	The selected members	Feeds are provided.								Staff of Babile station AEA				
5-3. Piggery management	The selected members	3 Sows have 24 offsprings in total (2 times a year) 22 pigs survive with the average weight of 26 kgs								Staff of Babile station AEA	Dept. of Livestock			Regular health care is provided
6-1. Training	The selected members	Knowledge of the beneficiaries on marketing is improved.												1 day training
7-1. Marketing	The selected members	22 pigs are sold at 1.2 GHS per kilo.												
7-2. Repayment		200 GHS are repaid at each time								AEA The leader of the selected members				Repayments to the rotation fund every 6 months

Prepared on: January 9, 2009

District: Lawra Community: Zakpee

Project: Bee keeping Project Purpose: The income from honey sales is increased.

Intended Output No. 1-2 :

1. Farmers' knowledge on bee keeping and honey production is improved
2. Farmers' knowledge on marketing is improved.

Responsible Officers:

Output 1 and 2 < Region Mark Hansen, Naa YOD Saaka, Peter Sarpong District Eric Kaleobu AEA Mercy Saanuo >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in bee keeping	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing.
1-2. 1 day training for bee keeping and honey extraction	Selected members	Knowledge is improved on (i) bee keeping, (ii) honey extraction								AEA	Staff from MOFAUWR /District			
1-3. Setting Beehive	Selected members	Beehives are set.								AEA		Beehive		
1-4. Beehive maintenance	Selected members	Beehives are maintained								AEA				
1-5. Harvesting	Selected members	Honey is collected								AEA		Centrifuge		
2-1. Training for marketing	Selected members	Knowledge on marketing is improved.								AEA	Staff from MOFAUWR /District			1 day training

Prepared on: January 9, 2009

District: Lambussie Community: Naawuie

Project: Pig rearing and compost making Project Purpose: The number of the households producing compost is increased. The income from selling pigs is increased.

Intended Output No. 1-4 :

1. Farmers' knowledge on compost making and application is improved.
2. The number of farmers who rear pigs with proper hatches is increased.
3. Farmers' knowledge on marketing is improved.
4. Market channels are linked with the beneficiaries.

Responsible Officers:

Output 1 < Region Abu Huudu District \_\_\_\_\_ AEA Allan Gumo >

Output 2, 3 and 4 < Region Dr. Mark Hansen, Naa YOD Saaka, Peter Sarpong District \_\_\_\_\_ AEA Allan Gumo >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in pig rearing and compost making	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for compost making	Selected members	Knowledge is improved on compost making								AEA Compost Yard Owner	Staff of MOFAUWR /District	Manure, plants, instruments	Labor by beneficiaries for making compost yard	1 day training at compost yard
1-3. Demonstration plot preparation	Selected members	A demonstration plot is established.								AEA Demo. Plot Owner	Staff of MOFAUWR /District	compost, seeds, instruments	Labor by beneficiaries for making demo plot	

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-4. Training for compost application	Interested farmers	Knowledge is improved on compost application.								AEA Plot Owner	Staff of MOFAUWR /District			1 day training
2-1. Training for building pig hutches and pig rearing	Selected members	Knowledge is improved on building pig hutches and rearing pigs								AEA	Staff of Babile Station			1 day training
2-2. Building pig hutches	Selected members	Pig hutches are built.								AEA	Staff of Babile Station, mason	Materials, cements	Labor by beneficiari es for building	Improved breeds and feeds are supplied by the project.
2-3. Hutch management	Selected members	Manure of pigs are collected.								AEA Selected member	Staff of Babile Station			
3-1. Training	Selected members	Knowledge of the beneficiaries on marketing is improved.												1 day training
4-1. Marketing	Selected members	Pigs are sold												

Prepared on: January 9, 2009

District: Lambussie Community: Naawuie

Project: Improvement in post-harvest technology Project Purpose: The post-harvest storage loss is reduced by proper dry and store.

Intended Output No. 1 - 3 :

1. The knowledge on drying and storage is improved.
2. Improved drying materials are supplied.
3. Improved storage facilities are supplied.

Responsible Officers:

Output 1, 2 and 3 < Region Kwasi Wih, Abu Huudu, Nana Baah Appiah District \_\_\_\_\_ AEA Allan Gumo>

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in post-harvest technology	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for post-harvest technologies	Selected members	Knowledge is improved on drying and storage								AEA	Staff from MOFAUWR /District			1 day training
1-3. Storage	Selected members	Knowledge is improved on storage								AEA				
2-1. Supply of drying materials	Selected members	Drying materials are supplied								AEA	Staff from MOFAUWR /District	Sheet, tarpaulin	Labor by beneficiaries for drying	
3-1. Supply of storage facilities	Selected members	Storage facilities are supplied								AEA	Staff from MOFAUWR /District	granary		Storage materials are supplied if the beneficiaries do not have it.

Prepared on: January 9, 2009

District: Lambussie Community: Naawuie

Project: Bee keeping Project Purpose: Honey production is increased.

Intended Output No. 1: 1. Knowledge of bee keeping is improved.

Responsible Offices:

Output 1 < Region Dr. Mark Hansen, Naa YOD Saaka, Peter Sarpong District \_\_\_\_\_ AEA Allan Gumo >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in bee keeping	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for bee keeping and honey extraction	Selected members	Knowledge is improved on (i) bee keeping, (ii) honey extraction								AEA	Staff from MOFAUWR /District			1 day training
1-3. Setting Beehive	Selected members	Beehives are set								AEA		Beehive, smoker, etc.		
1-4. Beehive maintenance	Selected members	Beehives are maintained								AEA				
1-5. Harvesting	Selected members	Honey is collected								AEA		Centrifuge		



Prepared on: January 9, 2009

District: Jirapa Community: Kogri

Project: Pig rearing and compost making Project Purpose: The number of the households producing compost is increased. The income from selling pigs is increased.

Intended Output No. 1-4 :

1. Farmers' knowledge on compost making and application is improved.
2. The number of farmers who rear pigs with proper hatches is increased.
3. Farmers' knowledge on marketing is improved.
4. Market channels are linked with the beneficiaries.

Responsible Officers:

Output 1 < Region Abu Huudu District George Asasiba AEA \_\_\_\_\_ >

Output 2, 3 and 4 < Region Dr. Mark Hansen, Naa YOD Saaka, Peter Sarpong District George Asasiba AEA \_\_\_\_\_ >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in pig rearing and compost making	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for compost making	Selected members	Knowledge is improved on compost making								AEA Compost Yard Owner	Staff of MOFAUWR /District	Manure, plants, instruments	Labor by beneficiaries for making compost yard	1 day training at compost yard
1-3. Demonstration plot preparation	Selected members	A demonstration plot is established.								AEA Demo. Plot Owner	Staff of MOFAUWR /District	Compost Seeds, instruments	Labor by beneficiaries for making demo plot	

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-4. Training for compost application	Interested farmers	Knowledge is improved on compost application.								AEA Plot Owner	Staff of MOFAUWR /District			1 day training
2-1. Training for building pig hutches and pig rearing	Selected members	Knowledge is improved on building pig hutches and rearing pigs								AEA	Staff of Babile Station			1 day training
2-2. Building pig hutches	Selected members	Pig hutches are built.								AEA	Staff of Babile Station	Materials, cements	Labor by beneficiari es for building	Improved breeds and feeds are supplied by the project.
2-3. Hutch management	Selected members	Manure of pigs are collected.								AEA Selected member	Staff of Babile Station			
3-1. Training	Selected members	Knowledge of the beneficiaries on marketing is improved.												1 day training
4-1. Marketing	Selected members	Pigs are sold												

Prepared on: January 9, 2009

District: Jirapa Community: Kogri

Project: Improvement in post-harvest technology Project Purpose: The post-harvest storage loss is reduced by proper dry and store.

Intended Output No. 1-3 :

1. The knowledge on drying and storage is improved.
2. Improved drying materials are supplied.
3. Improved storage facilities are supplied.

Responsible Officers:

Output 1, 2 and 3 < Region Kwasi Wih, Abu Huudu, Nana Baah Appiah District George Asasiba AEA \_\_\_\_\_ >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in post-harvest technology	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for post-harvest technologies	Selected members	Knowledge is improved on drying and storage								AEA	Staff from MOFAUWR /District			1 day training
1-3. Storage	Selected members	Knowledge is improved on storage								AEA				
2-1. Supply of drying materials	Selected members	Drying materials are supplied								AEA	Staff from MOFAUWR /District	Sheet, tarpaulin	Labor by beneficiaries for drying	
2-2. Supply of storage facilities	Selected members	Storage facilities are supplied								AEA	Staff from MOFAUWR /District	granary		Storage materials are supplied if the beneficiaries do not have it.

Prepared on: January 9, 2009

District: Jirapa Community: Kogri

Project: Bee keeping Project Purpose: Honey production is increased.

Intended Output No. 1: 1. Knowledge of bee keeping is improved.

Responsible Officers:

Output 1 < Region Dr. Mark Hansen, Naa YOD Saaka, Peter Sarpong District George Asasiba AEA \_\_\_\_\_ >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in bee keeping	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for bee keeping and honey extraction	Selected members	Knowledge is improved on (i) bee keeping, (ii) honey extraction								AEA	Staff from MOFAUWR /District			1 day training
1-3. Setting Beehive	Selected members	Beehives are set								AEA		Beehive, smoker, etc.		
1-4. Beehive maintenance	Selected members	Beehives are maintained								AEA				
1-5. Harvesting	Selected members	Honey is collected								AEA		Centrifuge		

Prepared on: January 9, 2009

District: Jirapa Community: Nyani

Project: Improvement in post-harvest technology Project Purpose: The post-harvest storage loss is reduced by proper dry and store.

Intended Output No. 1 - 3 :

1. The knowledge on drying and storage is improved.
2. Improved drying materials are supplied.
3. Improved storage facilities are supplied.

Responsible Officers:

Output 1, 2 and 3 < Region Kwasi Wih, Abu Huudu District Epiphanus Tuurosing AEA Peter Kuunkpene >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in post-harvest technology	Beneficiary members are selected, and rules are made.								DAO	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for post-harvest technologies	Selected members	Knowledge is improved on drying and storage								DAO	Staff from MOFAUWR /District			1 day training
1-3. Storage	Selected members	Knowledge is improved on storage								DAO				
2-1. Supply of drying materials	Selected members	Drying materials are supplied								DAO	Staff from MOFAUWR /District	Sheet, tarpaulin	Labor by beneficiaries for drying	
3-1. Supply of storage facilities	Selected members	Storage facilities are supplied								DAO	Staff from MOFAUWR /District	Granary, storage chemical		Storage materials are supplied if the beneficiaries do not have it.

Prepared on: January 9, 2009

District: Jirapa Community: Nyani

Project: Integrated farming Project Purpose: The number of households producing compost is increased.

Intended Output No. 1: 1. Farmers' knowledge on compost making, cultivation and farm management is improved.

Responsible Officers:

Output 1 < Region Abu Huudu District Epiphanus Tuurosing AEA Peter Kuunkpene >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in integrated farming	Beneficiary members are selected, and rules are made.								DAO	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training	Selected members	Knowledge is improved on (i) compost making, (ii) application of compost								DAO	Staff from MOFAUWR /District	Manure, plants, instruments	Labor by beneficiaries for making compost yard	1 day training at compost yard (one plot only)
1-3. Demonstration plot preparation	Selected members	A demonstration plot is established.								DAO	Staff of MOFAUWR /District	compost, Seeds, instruments	Labor by beneficiaries for making demo plot	A plot shall be prepared with compost (one plot only)
1-4. Training (=Field Day) for cultivation	Interested farmers	Knowledge on cultivation is improved.								DAO	Staff of MOFAUWR /District			Field day shall be made at the time of planting, farm management and harvesting (3 times)
1-5. Demonstration plot management	Selected members	Knowledge on farm management is improved.								AEA A leader of the beneficiary group				
1-6. Harvesting	Selected members	Crops are harvested								A leader of the beneficiary group	AEA			

Prepared on: January 9, 2009

District: Jirapa Community: Nyani

Project: Agro-forestry (mango & fast growing trees) Project Purpose: The number of the trees planted is increased.

Intended Output No. 1-2 :

1. Knowledge on agro-forestry is improved.
2. A central nursery is established.

Responsible Officers:

Output 1 and 2 < Region Abu Huudu District Epiphanus Tuurosing AEA Peter Kuunkpene >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in agro-forestry	Beneficiary members are selected, and rules are made.								DAO	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for agro-forestry	Selected members	Knowledge is improved on agro-forestry								DAO	Staff from MOFAUWR /District			1 day training
1-3. Supply of mango and fast growing nursery trees	Selected members	Mango and fast growing nursery trees are supplied								RAO Crop	Staff from MOFAUWR /District			Beneficiaries shall pay for nursery trees
1-4. Transplanting	Selected members	Nursery trees are planted								DAO			Labor by beneficiaries for transplanting	Nursery stock is rooted.
2-1. Central nursery preparation	Selected members	A central nursery is established								DDA, DAO Crop		Seedling, seeds, pots, fencing, etc.		The existing nursery shall be strengthened.

Prepared on: January 9, 2009

District: Jirapa Community: Nyani

Project: Shea Butter Processing Project Purpose: The production of Shea butter is increased.

Intended Output No. 1-7 (No. 3, 4 and 6 are omitted):

1. Competent women groups are identified as the project's potential beneficiaries.
2. Women groups are strengthened to be the eligible beneficiaries.
5. Women's knowledge on collection, storage and processing of Shea nuts is improved.
7. Women's knowledge on marketing is improved.

Responsible Officers:

Output 1, 2, 5 and 7 < Region Elizabeth Kutina, Nana Baah Appiah District Mervis Derigubah, Epiphanus Tuurosing AEA Peter Kuunkpene >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Community-level Meeting	Community women groups interested in Shea butter processing	Beneficiary members are selected and rule are made.								DAO-WIAD	AEA			Rules for cost and benefit sharing shall be made.
2-1. Training for organizational management	The selected members	Knowledge of the group on organizational management is strengthened.								RAO-WIAD	CDD			Training shall be continued until the group becomes eligible for the project.
5-1. Training for collection, storage and processing of Shea nuts	The selected members	Knowledge is improved on collection, storage and processing of Shea nuts.								DAO-WIAD		Shea nuts		Shea nuts shall be provided with loan to the beneficiaries.
7-1. Training for marketing	The selected members	Knowledge on marketing is improved.												



Prepared on: January 9, 2009

District: Jirapa Community: Nyani

Project: Rabbit and pig rearing Project Purpose: The income from selling rabbit and pig is increased.

Intended Output No. 1-5 :

1. Farmers' knowledge on rearing rabbit and pig is improved.
2. Rabbit's and pig's huts are built.
3. Breeds of rabbits and pigs are supplied.
4. Farmers' knowledge on marketing is improved.
5. Market channels are linked with the beneficiaries.

Responsible Officers:

Output 1 through 5 < Region Dr. Mark Hansen, Naa YOD Saaka, Peter Sarpong District \_\_\_\_\_ AEA \_\_\_\_\_ >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in rabbit and pig rearing.	Beneficiary members are selected, and rules are made.								Staff of MOFAUWR/District	Staff of Babile Pig Breeding Station AEA			Rules for cost and benefit sharing shall be made
1-2. Training for rabbit and pig rearing	Selected members	Knowledge is improved on rabbit and pig rearing								AEA Selected members	Staff of Babile Station			1 day training
1-3. Hut management	Selected members	Rabbits/pigs are properly reared.								AEA Selected Members	Staff of Babile Station			

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
2-1. Building huts for rabbits and pigs	Selected members	Rabbit huts and pig huts are built								AEA Selected members	Staff of Babile Pig Breeding Station, mason	Materials, cement	Labor by beneficiaries for construction	
3-1. Supply of breeds of rabbits and pigs (improved)	Selected members	X number of rabbits and Y number of pigs are supplied.								AEA Selected members	Staff of Babile Station	feeds		A beneficiary member shall pay for breeds and feeds by loan
4-1. Training on marketing	Selected members	Knowledge of the beneficiaries on marketing is improved.												1 day training
5-1. Marketing	Selected members	AA number of rabbits are sold at XX GHS per one.  BB number of pigs are sold at YY GHS per kilo.												

Prepared on: January 9, 2009

District: Nadowli Community: Daffiama

Project: Small scale irrigation for paddy and vegetables

Project Purpose: The production of paddy is increased. The income from selling vegetables is increased

Intended Output No. 1-2:

1. Farmers' knowledge on paddy cultivation, vegetables such as tomatoes, okra, watermelon, onions is improved.
2. Farmers' knowledge on marketing vegetables is improved.

Responsible Officers:

Output 1 and 2 < Region Abu Huudu District Damian Tampuori AEA Richard Chireeh >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in irrigation farming	Beneficiary members are selected, and rules are made.								DAO Crop	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Land preparation	Selected members	Irrigable plots are prepared.								AEA Plot Owners	Staff of MOFAUWR /District	Compost by beneficiaries Instruments including watering cans	Labor by beneficiaries	The respective plots for paddy and vegetables shall be prepared with compost or manure
1-3. Training	Selected members	Knowledge is improved on irrigated paddy and vegetable cultivation.								DAO Crop	Staff of MOFAUWR /District	improved seeds side protection rings		1 day training at irrigable plot.
1-4. Field management	Selected members	Knowledge on farm management is improved								DAO Plot Owners				

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-5. Harvesting	Selected members	Paddy and vegetables are harvested.								AEA Members				
2-1. Training for marketing	Selected members	Knowledge on marketing is improved.								DAO	Staff from MOFAUWR /District			1 day training

Prepared on: January 9, 2009

District: Nadowli Community: Daffiama

Project: Groundnuts Oil Extraction and Processing

Project Purpose: The income from Groundnuts oil and processing is increased.

Intended Output No. 1- 6 (No. 3 and 4 are omitted):

1. Competent women groups are identified as the project's potential beneficiaries.
2. Women groups are strengthened to be the eligible beneficiaries.
5. Women's knowledge on groundnuts oil extraction and processing is improved.
6. Women's knowledge on marketing is improved.

Responsible Officers:

Output 1, 2, 5 and 6 < Region Elizabeth Kutina, Nana Baah Appiah District Damian Tampuori, Benedict Awuni AEA Richard Chireeh >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions	
			N	J	M	M	J	S	N		Personnel	Materials	Others		
1-1. Community-level Meeting	Community women groups interested in groundnut processing	Beneficiary members are selected and rule are made.									AEA-WIAD	AEA			Rules for cost and benefit sharing shall be made.
2-1. Training for organizational management	The selected members	Knowledge of the group on organizational management is strengthened.									RAO-WIAD	CDD			Training shall be continued until the group becomes eligible for the project.
5-1. Training for oil extraction and processing of groundnut	The selected members	Knowledge is improved on oil extraction and processing of groundnut											groundnut		Groundnut shall be provided with loan to the beneficiaries.
7-1. Training for marketing	The selected members	Knowledge on marketing is improved.													

Prepared on: January 9, 2009

District: Nadowli Community: Tabiesi

Project: Guinea fowl and rabbit rearing

Project Purpose: The income from selling guinea fowl and rabbit is increased.

Intended Output No. 1-5:

1. Farmers' knowledge on rearing guinea fowl and rabbit is improved.
2. Guinea fowl and rabbit's huts are built.
3. Improved breeds of guinea fowl and rabbits are supplied (no supply of feeds).
4. Farmers' knowledge on marketing is improved.
5. Market channels are linked with the beneficiaries.

Responsible Officers:

Output 1 through 5 < Region Dr. Mark Hansen, Naa YOD Saaka, Peter Sarpong District Abdallah Sibiri AEA Paul Dong >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in Guinea fowl and rabbit rearing.	Beneficiary members are selected, and rules are made.								DAO	Staff of Babile Pig Breeding Station  AEA			Rules for cost and benefit sharing shall be made
1-2. Training for guinea fowl and rabbit rearing	Selected members	Knowledge is improved on guinea fowl and rabbit rearing								DAO	Staff of Babile Station  AEA			1 day training A manual for rabbit rearing is available in local language (Ms (Kutina)).

Activities	Beneficiaries	Expected Results	Schedule												Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N	Personnel	Materials	Others							
1-3. Hut management	Selected members	Guinea fowl/rabbit are properly reared.													DAO	Staff of Babile Station			
2-1. Building huts for guinea fowl and rabbit	Selected members	A guinea fowl hut and a rabbit hut are built													DAO	Staff of Babile Pig Breeding Station Mason	Materials, cement	Labor by beneficiaries for construction	A Beneficiary member shall pay for construction by loan
3-1. Supply of improved breeds of guinea fowl and local rabbits	Selected members	X number of guinea fowl and Y number of rabbits are supplied.													RAO Livestock	Staff of Babile Station			A beneficiary member shall pay for improved breeds by loan
4-1. Training on marketing	Selected members	Knowledge of the beneficiaries on marketing is improved.													DAO	CDD			1 day training
5-1. Marketing	Selected members	AA number of guinea fowl are sold at XX GHS per kilo.  BB number of rabbits are sold at YY GHS per kilo.													DAO				

Prepared on: January 9, 2009

District: Nadowli Community: Tabiesi

Project: Dry season gardening with the use of compost

Project Purpose: The production of organic manure is increased.

Intended Output No. 1 : 1. Knowledge on compost making and dry season gardening is improved.

Responsible Officers:

Output 1 < Region Abu Huudu District Abdalla Sibiri AEA Paul Dong >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in dry season gardening	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for compost making	Selected members	Knowledge is improved on compost making								AEA Compost Yard Owner	Staff from MOFAUWR /District	Manure, plants, instruments	Labor by beneficiaries for compost yard	1 day training at compost pit
1-3. Gardening plot preparation	Selected members	A gardening plot is established								AEA Gardening Plot Owners	Staff of MOFAUWR /District	compost, improved seeds, instruments	Labor by beneficiaries for the plot	The plot shall be prepared with compost.
1-4. Training for cultivation	Selected members	Knowledge on cultivation is improved								AEA Plot Owners	Staff from MOFAUWR /District	watering cans		1 day training at gardening plot
1-5. Gardening plot management	Selected members	Knowledge on farm management is improved.								AEA Plot Owners				
1-6. Training on post-harvest	Selected members	Knowledge on harvesting and post-harvesting techniques is improved								AEA Plot Owners	Staff from MOFAUWR /District			
1-7. Harvesting	Selected members	Vegetables are harvested.								Members	AEA			



Prepared on: January 9, 2009

District: Nadowli Community: Tabiasi

Project: Shea Soap Making Project Purpose: The income from soap sales is increased.

Intended Output No. 1-7 (No. 3 is omitted):

1. Competent women groups are identified as the project's potential beneficiaries.
2. Women groups are strengthened to be the eligible beneficiaries.
4. Women's knowledge on collection and storage of Shea nuts is improved.
5. Women's knowledge on processing of Shea nuts is improved.
6. Women's knowledge on soap making is improved.
7. Women's knowledge on marketing is improved.

Responsible Officers:

Output 1, 2, 4, 5, 6 and 7 < Region Elizabeth Kutina, Nana Baah Appiah District Abdallah Sibiri, Benedict Awuni AEA Paul Dong >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Community-level Meeting	Community women groups interested in Shea butter processing and soap making	Beneficiary members are selected and rule are made.								DAO-WIAD	AEA			Rules for cost and benefit sharing shall be made.
2-1. Training for organizational management	The selected members	Knowledge of the group on organizational management is strengthened.								RAO-WIAD	CDD			Training shall be continued until the group becomes eligible for the project.

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
4-1. Training for collection and storage of Shea nuts	The selected members	Knowledge is improved on collection and storage of Shea nuts								DAO-WIAD		Shea nuts		Shea nuts shall be provided with loan to the beneficiaries.
5-1. Training for processing of Shea nuts	The selected members	Knowledge is improved on processing of Shea nuts												
6-1. Training for soap making	The selected members	Knowledge is improved on soap making										Processing equipment		
7-1. Training for marketing	The selected members	Knowledge on marketing is improved.												

Prepared on: January 9, 2009

District: Nadowli Community: Nanvilli

Project: Guinea fowl and pig rearing

Project Purpose: The income from selling guinea fowl and pig is increased.

Intended Output No. 1-5 :

1. Farmers' knowledge on rearing guinea fowl and pig is improved.
2. Guinea fowl huts and piggeries are built.
3. Improved breeds of guinea fowl and pigs are supplied
4. Farmers' knowledge on marketing is improved.
5. Market channels are linked with the beneficiaries

Responsible Officers:

Output 1 through 5 < Region Dr. Mark Hansen, Naa YOD Saaka, Peter Sarpong District Claudius Kotie AEA Joseph Sarpong >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in Guinea fowl and pig rearing.	Beneficiary members are selected, and rules are made.								Staff of MOFAUWR/District	Staff of Babile Pig Breeding Station  AEA			Rules for cost and benefit sharing shall be made
1-2. Training for guinea fowl and pig rearing	Selected members	Knowledge is improved on guinea fowl and pig rearing								AEA Selected members	Staff of Babile Station			1 day training
1-3. Hut and piggery management	Selected members	Guinea fowl/pig are properly reared.								AEA Selected Members	Staff of Babile Station			

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
2-1. Building a guinea fowl hut and piggery	Selected members	A guinea fowl hut and a piggery are built								AEA Selected members	Staff of Babile Pig Breeding Station Mason	Materials, cement		A Beneficiary member shall pay for construction by loan
3-1. Supply of improved breeds of guinea fowl and pigs	Selected members	X number of guinea fowl and Y number of pigs are supplied.								AEA Selected members	Staff of Babile Station	Feeds for pigs		A beneficiary member shall pay for improved breeds and feeds by loan
4-1. Training	The selected group	Knowledge of the beneficiaries on marketing is improved.												1 day training
5-1. Marketing	The selected group	AA number of guinea fowl are sold at XX GHS per kilo.  BB number of pigs are sold at YY GHS per kilo.												

Prepared on: January 9, 2009

District: Nadowli Community: Nanvilli

Project: Dry season gardening with the use of compost

Project Purpose: The production of organic manure is increased.

Intended Output No. 1 : 1. Knowledge on compost making and dry season gardening is improved.

Responsible Officers:

Output 1 < Region Abu Huudu District Claudius Kotie AEA Joseph Sarpong >

Responsible Person of the Community: \_\_\_\_\_

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-1. Meeting	Community people interested in dry season gardening	Beneficiary members are selected, and rules are made.								AEA	Staff of MOFAUWR /District			Rules for cost and benefit sharing shall be made
1-2. Training for compost making	Selected members	Knowledge is improved on compost making								AEA Compost Yard Owner	Staff from MOFAUWR /District	Manure, plants, instruments	Labor by beneficiaries for making compost yard	1 day training at compost pit
1-3. Gardening plot preparation	Selected members	A gardening plot is established								AEA Gardening Plot Owners	Staff of MOFAUWR /District	compost, improved seeds, instruments	Labor by beneficiaries for making the plot	The plot shall be prepared with compost.
1-4. Training for cultivation	Selected members	Knowledge on cultivation is improved								AEA Plot Owners	Staff from MOFAUWR /District	watering cans		1 day training at gardening plot
1-5. Gardening plot management	Selected members	Knowledge on farm management is improved.								AEA Plot Owners				

Activities	Beneficiaries	Expected Results	Schedule							Responsible Person(s)	Inputs			Necessary Conditions
			N	J	M	M	J	S	N		Personnel	Materials	Others	
1-6. Training on post-harvest	Selected members	Knowledge on harvesting and post-harvesting techniques is improved.								AEA Plot Owners	Staff from MOFAUWR /District			
1-7. Harvesting	Selected members	Vegetables are harvested.								Members	AEA			

The Study on Upper West Integrated Agricultural Development  
in the Republic of Ghana

Final Report

Appendix G

**Present Situations of the PDA Communities**

## Appendix G Present Situations of the PDA Communities

### G.1 Overview of the PDA Communities

Among the PDA communities, all are agriculture-based, and it is essentially rain-fed. The land of the communities can be categorized largely as upland. Although agriculture is unmistakably what the people depend on for living, most of them do not produce enough crops. All most all the farmers do not have running water or electricity within their compound. At least, however, a primary school and a junior high school are found in most of the communities.

On the other hand, there are numerous differences among them as well. Mainly because of the differences in the size of the communities, the size of agricultural area differs significantly among the communities. Nyani has the smallest agricultural area, which is only 20 km<sup>2</sup>, however Tabiesi has 289 km<sup>2</sup> of agricultural land. In addition, the range of population is wide, from 6,528 in Daffiama to only 594 in Zakpee. In terms of population, the communities in Nadowli are considerably larger than the communities in the other two districts.

Regarding the income generating activities, in some communities, sales of agricultural products is the most important activity, while sales of livestock or seasonal migrant labor is the most important activity in the other communities.

The number and the share of female-headed household is another area in which great discrepancy is found. The shares of female-headed household in the communities in Nadowli are much higher than the communities in the other districts. The fact that, in Tabiesi, more than half of the households are female-headed is noteworthy.

More detailed examination of the PDA communities' characteristics will follow in the next sub-chapters.

### G.2 Main Features of the Communities

#### G.2.1 Demography and Geography

**Table G.2.1 Demography and Geography**

District Community	Lawra			J-L			Nadowli		
	Puffi.	T-K	Zakp.	Naawi.	Kogri	Nyani	Daffi.	Tabiesi	Nanvi.
Total population	3,240	1,240	564	607	718	647	6,528	3,270	3,586
No. of HH	200	215	73	69	86	75	258	153	215
No. of female-headed HH	32	5	3	3	1	6	87	86	86
Share of female-headed HH	16%	2%	4%	4%	1%	8%	34%	56%	40%
Total area (km <sup>2</sup> )	152	118	65	49	85	35	153	324	34
Agri. Area (km <sup>2</sup> )	64	65	38	25	57	20	84	289	26
Share of agri. area	42%	55%	58%	51%	67%	57%	55%	89%	76%

J-L=Jirapa-Lambussie, Puffi.=Puffien, T-K=Tome-Kokodour, Zakp.=Zakpee, Naawi.=Naawuie, Daffi.=Daffiama, Nanvi.=Nanvilli, HH=household



In terms of demography of the PDA communities, there are a few notable features. Firstly, the size of the communities varies significantly from 6,528 to 564. Daffiama, the largest community, is much larger than the other communities.

Regarding geography, the physical size of these communities varies widely as well. Nanvilli is as small as 34 km<sup>2</sup>, while Tabiesi is 324 km<sup>2</sup>. However, the share of agricultural area in the community is somewhat more uniform.

## G.2.2 Infrastructure and Transportation

**Table G.2.2 Infrastructure and Transportation**

District Community	Lawra			J-L			Nadowli		
	Puffi.	T-K	Zakp.	Naawi.	Kogri	Nyani	Daffi.	Tabiesi	Nanvi.
Electricity	Yes	No	No	No	No	No	Yes	No	No
Banks / credit union	No	No	No	No	No	No	Yes	No	No
Bus / minivan taxi	Yes	No	No	No	No	No	Yes	No	No
Drinking water	B	B	B	B	B	B	PP,B	B,W	B, W
Domestic use	B, S	B	DO	B	B	R, W, B	DM,W, PD	B,W	W, PD
Agriculture	R	R	R	R	R	R	DM, PD	W	W, PD, R

B=boreholes, W=wells, PD=ponds, PP=pipe-borne, DO=dugout, DM=dams, R=rain-fed, S=Stream

The above table shows that there are only two communities where electricity is available, namely Puffien and Daffiama. Pipe-borne water is only available in Daffiama; so it is the only community where both electricity and running water are available. Long distance buses and minivan routes are found again only in Puffien and Daffiama.

Borehole is the most popular source for drinking water and domestic use, while agriculture depends on rain water in nearly all the communities.

## G. 2.3 Educational and Health Institutions

**Table G.2.3 Educational and Health Institutions**

District Community	Lawra			J-L			Nadowli		
	Puffi.	T-K	Zakp.	Naawi.	Kogri	Nyani	Daffi.	Tabiesi	Nanvi.
Primary school	1	1	N/A	1	1	1	2	1	1
Junior high school	1	1	N/A	1	1	N/A	1	1	1
Senior high school	0	1	N/A	N/A	0	N/A	1	0	0
Health clinic	1	1	N/A	N/A	1	N/A	1	0	1

As for the educational facilities, at least a primary school and a junior high school are found in most of the PDA communities, and a health clinic is found in half of them. In Tome-Kokodour and Daffiama, all the institutions listed in the table are found.

## G. 2. 4 Food Sufficiency

**Table G.2.4 Food Sufficiency**

District	Lawra			J-L			Nadowli		
Community	Puffi.	T-K	Zakp.	Naawi.	Kogri	Nyani	Daffi.	Tabiesi	Nanvi.
Share of HH producing enough food (%)	50	20	20	25	50	10	20	70	5
Share of HH selling food regularly (%)	10	40	20	45	10	0	10	25	0

HH=household

The data regarding the food sufficiency in the above table indicates that much less than half of the households in the PDA communities produce enough food for themselves. Thus, food sufficiency is not met in the area, and naturally, few households sell food regularly.

## G. 2. 5 Agriculture

**Table G.2.5 Land Type**

District	Lawra			J-L			Nadowli		
Community	Puffi.	T-K	Zakp.	Naawi.	Kogri	Nyani	Daffi.	Tabiesi	Nanvi.
Upland (%)	80	70	70	70	70	75	80	69	80
Hydromorphic (%)	10	10	10	25	20	10	5	5	10
Valley Bottom (%)	10	20	20	10	10	15	15	26	10

In regard to the land type, large part of the arable land is categorized as upland in all the PDA communities, and all of them have smaller percentages of both hydromorphic and valley bottom areas.

**Table G.2.6 Market**

District	Lawra			J-L			Nadowli		
Community	Puffi.	T-K	Zakp.	Naawi.	Kogri	Nyani	Daffi.	Tabiesi	Nanvi.
Permanent market in the community	0	0	0	0	0	0	1	0	1
Distance to the nearest market (km)	5	2.5	6.4	6	10	5	N/A	45	N/A
No. of shops selling fertilizer in the community	1	0	0	0	0	0	0	0	0
No. of shops selling agricultural tools	1	0	0	0	0	0	0	0	0

As for the market, there are only two communities that have a permanent market within the community, namely Daffiama and Navilli, however markets are opened rotationally every six days in some of the communities. Most of the people can easily access to it. The table shows that all the farmers in the PDA communities, except Puffien, have to go out of their communities to buy fertilizers and agricultural tools since there are no shops selling them within the community.

## G. 2. 6 Economic Activities

**Table G.2.7 Income Generating Activities**

District	Lawra			J-L			Nadowli		
Community	Puffi.	T-K	Zakp.	Naawi.	Kogri	Nyani	Daffi.	Tabiesi	Nanvi.
Sales of agri. products (%)	12	20	20	45	30	0	40	80	29
Sales of livestock (%)	12	10	20	30	30	70	30	10	45
Sales of processed items (%)	14	10	10	15	20	10	13	2	15
Casual labor	18	5	0	5	10	10	5	0	1
Seasonal migrant labor (%)	28	50	40	3	5	5	2	5	11
Others(%)	16	5	10	2	5	5	10	3	N/A

For income generating activities, sales of agricultural products and livestock are more popular than other activities, although there are some variances among the communities. Tabiesi is the only community where sales of agricultural products are the dominant income generating activity. In Tome-Kokodour, Zakpee, and Puffien, seasonal migrant labor is the most important income generating activity.

**Table G.2.8 Expenditure Items**

District	Lawra			J-L			Nadowli		
Community	Puffi.	T-K	Zakp.	Naawi.	Kogri	Nyani	Daffi.	Tabiesi	Nanvi.
School fees (%)	30	10	20	10	10	5	43	10	7
Hospital fees (%)	15	10	20	15	30	5	2	19	5
Social responsibilities (%)	10	20	10	15	5	20	1	12	20
Food items (%)	20	40	10	45	30	50	22	17	30
Agric. labor (%)	20	10	30	10	20	5	30	3	33
HH appliances (%)	2	0	0	2	2	10	1	7	3
Tools & equipt. (%)	2	10	10	2	2	5	2	5	2
Others	1	0	0	1	1	0	0	0	0

In regard to household expenditure, food expenditure is listed as the biggest expenditure item in five communities. This result implies that the interviewee households' farming activities do not produce sufficient food for their families. The table also shows that school fees, hospital fees, social responsibilities, and agricultural labor are considerable expenditure items in some of the communities. However, it is difficult to describe an overall tendency of expenditure due to variances among the communities.

**Table G.2.9 Perception of Self**

District	Lawra			J-L			Nadowli		
Community	Puffi.	T-K	Zakp.	Naawi.	Kogri	Nyani	Daffi.	Tabiesi	Nanvi.
Relatively rich (%)	10	10	30	N/A	30	0	2	15	12
Middle class (%)	10	50	20	N/A	50	10	48	27	33
Relatively poor (%)	20	40	50	N/A	20	90	50	58	55

The data regarding the perception of self illustrates that nearly half of the people consider themselves as relatively poor. However, it has to be noted that there is a substantial number of people who find themselves as middle class, and the number of people who consider themselves rich is not insignificant

as can be seen in the case of Zakpee and Kogri.

### G.3 Status of Each Community

#### G.3.1 Puffien

**Table G.3.1 Demography and Geography (Pf)**

Total Population	3,240	
No. of males	1,400	43%
No. of females	1,840	58%
No. of households	200	
No. of female headed households	32	16%
Religion	Christianity	60%
	Traditional	40%
Tribes	Dagaaba	100%
Total Area (km <sup>2</sup> )	152	
Agricultural Area (km <sup>2</sup> )	64	42%
Residential Area (km <sup>2</sup> )	32	21%
Forest Area (km <sup>2</sup> )	0	0%
Reserve Area (km <sup>2</sup> )	1	1%
Others (km <sup>2</sup> )	1	1%
Distance from capital (km)	35	

Puffien is located in the Nandom zone of Lawra district. The Nandom zone is at the northern top of the Lawra district and borders on Burkina Faso on north and west side.

The number of household in Puffien is 200, of which 32 are headed by female. Christianity is the dominant religion of the community, followed by traditional religion.

Agricultural area is 64 km<sup>2</sup> and it represents 42 percent of the total area. The distance from district capital, Lawra, is 35 km.

**Table G.3.2 Agricultural Data (Pf)**

Agri. land area by type (%)	Upland	80%
	Hydromorphic	10%
	Valley bottom	10%
Agri. land use (acre)	Cultivated	64
	Fallow	10
	Bush / Forest	5
	others	2
HH producing enough food		50%
HH selling food regularly		10%
Permanent market in the community		0
Distance to the nearest permanent market (km)		5
No. of shops selling fertilizer in the community		1
No. of shops selling agric. tools in the community		1

In Puffien, 80 percent of the agricultural land is categorized as upland, while ten percent is hydromorphic and the remaining ten percent is valley bottom. The survey indicates that 64 acre of the agricultural land is cultivated.

Half of the households interviewed answered that they produce enough food. Only ten percent of the households sell their produce regularly, and there is no permanent market in Puffien.

**Table G.3.3 Crop Data (Pf)**

	Sorghum	Millet	Maize	G-nuts	Cowpea	Soybean	Rice	Veget.
Cultivated Area(acres)	12	4	13	20	8	3	4	-
Production(bags)	6	3	39	80	4	3	8	-
Yield(bags/acres)	0.5	0.75	3	4	0.5	1	2	-

According to the table, groundnuts have the highest production and yield. Maize has the second highest production. The cultivated area for sorghum is relatively large in Puffien, however, the yield is much lower than the other crops.

**Table G.3.4 Economic Data (Pf)**

Perception of wealth	Rich	10%
	Middle	10%
	Poor	20%
Income generating activities	Sale of agri. products	12%
	Sale of livestock	12%
	Sale of processed items	14%
	Casual labor	18%
	Seasonal migrant labor	28%
	Others	16%
HH expenditure HH=household	School fees	30%
	Hospital fees	15%
	Social responsibilities	10%
	Food	20%
	Agri. labor	20%
	HH appliances	2%
	Tools & Equipments	2%
	Others	1%
Bank & credit union in the Community		0
Distance to the nearest bank or credit union		5km

The survey shows that 20 per cent of the population identify themselves as poor. “Seasonal migrant labor” is the most popular income generating activity in Puffien, followed by “casual labor”.

School fees are the biggest household expenditure item, and food and agricultural labor are the second biggest expenditure items.

There is no bank or credit union in the community.

**Table G.3.5 Infrastructure (Pf)**

Electricity	Yes
Drinking water	Borehole
Domestic use	Borehole, stream
Agriculture	Rain-fed
Long distance bus stop	Yes
Minivan taxi route/stop	Yes

Electricity is available in Puffien. The residents mostly depend on borehole for drinking water. Agriculture is rain-fed.

Long distance bus and minivan taxi run through the community.

**Table G.3.6 Education and Health Institutions (Pf)**

Primary schools	1
Junior high schools	1
Senior high schools	0
Technical schools	0
Vocational schools	0
Health centre / clinic	1

With regards to educational and health facilities, there are a primary school, a junior high school and a health clinic.

**Table G.3.7 Assets Owned by Households (Pf)**

TV	33%	Donkey Cart	8%
Radio	75%	Cell Phone	67%
Car	0%	Bullock Puller	50%
Motorbike	33%	House	75%
Bicycle	75%	(% of HH owning the assets)	

Radios and bicycles are owned by three quarter of the households surveyed, while a third of them own TVs and motorbikes. Cell phones are owned by 67 percent of the households

### G.3.2 Tome-Kokodour

**Table G.3.8 Demography and Geography (TK)**

Total Population	1,240	
No. of males	651	53%
No. of females	589	48%
No. of households	215	
No. of female headed households	5	2%
Religion	Christianity	60%
	Traditional	40%
Tribes	Dagaaba	100%
Total Area (km <sup>2</sup> )	118	
Agricultural Area (km <sup>2</sup> )	65.0	55%
Residential Area (km <sup>2</sup> )	50.5	43%
Forest Area (km <sup>2</sup> )	1.5	1%
Reserve Area (km <sup>2</sup> )	1.0	1%
Others (km <sup>2</sup> )	0	0%
Distance from capital (km)	22	

Tome-kokodour is located in the Tome zone of Lawra district. The Tome zone is in the middle of the Lawra district and borders on Nandom zone on the north side and on Babile zone on the west and the south side.

The number of household in Tome-kokodour is 215, of which five are headed by female. Christianity is the dominant religion of the community, followed by traditional religion.

Agricultural area is 65 km<sup>2</sup> and it represents 55 percent of the total area. The distance from district capital, Lawra, is 22 km.

**Table G.3.9 Agricultural Data (TK)**

Agri. land area by type (%)	Upland	70%
	Hydromorphic	10%
	Valley bottom	20%
Agri. land use (acre)	Cultivated	79
	Fallow	12
	Bush / Forest	1.8
	others	2
HH producing enough food		20%
HH selling food regularly		40%
Permanent market in the community		0
Distance to the nearest permanent market (km)		2.5
No. of shops selling fertilizer in the community		0
No. of shops selling agric. tools in the community		0

In Tome-Kokodour, 70 percent of the agricultural land is categorized as upland, while ten percent is hydromorphic and the other 20 percent is valley bottom. The survey indicates that 79 acre of the agricultural land is cultivated.

Only 20 percent of the households interviewed answered that they produce enough food. 40 percent of the households sell their produce regularly, and there is no permanent market in Tome-Kokodour.

**Table G.3.10 Crop Data (TK)**

	Sorghum	Millet	Maize	G-nuts	Cowpea	Soybean	Rice	Veget.
Cultivated Area(acres)	25	5	20	20	5	-	3	1
Production(bags)	25	5	60	80	5	-	6	8crates
Yield(bags/acres)	1	1	3	4	1	-	2	-

According to the table, groundnuts have the highest production followed by maize. The yield is also topped by groundnuts and followed by maize.

**Table G.3.11 Economic Data (TK)**

Perception of wealth	Rich	10%
	Middle	50%
	Poor	40%
Income generating activities	Sale of agri. products	20%
	Sale of livestock	10%
	Sale of processed items	10%
	Casual labor	5%
	Seasonal migrant labor	50%
	Others	5%
HH expenditure HH=household	School fees	10%
	Hospital fees	10%
	Social responsibilities	20%
	Food	40%
	Agri. labor	10%
	HH appliances	0%
	Tools & Equipments	10%
	Others	0%
Bank & credit union in the Community		0
Distance to the nearest bank or credit union		14km

The survey shows that 40 percent of the population identify themselves as poor. “Seasonal migrant labor” is the most popular income generating activity in Tome-Kokodour, followed by “sales of agricultural products”.

Food expenditure is the biggest household expenditure item, and social responsibilities are the second biggest expenditure items. School fees, hospitals fees, agricultural labor and tools and equipment all have the same weight in household expenditure in a typical Tome-Kokodour household.

There is no bank or credit union in the community.

**Table G.3.12 Infrastructure (TK)**

Electricity	No
Drinking water	Borehole
Domestic use	Borehole
Agriculture	Rain-fed
Long distance bus stop	No
Minivan taxi route/stop	No

Electricity is not available in Tome-Kokodour. The residents mostly depend on borehole for drinking water. Agriculture is rain-fed.

**Table G.3.13 Education and Health Institutions (TK)**

Primary schools	1
Junior high schools	1
Senior high schools	1
Technical schools	1
Vocational schools	1
Health centre / clinic	1

With regards to educational and health facilities, there is one for all the categories listed in the table shown.

**Table G.3.14 Assets Owned by Households (TK)**

TV	0%	Donkey Cart	17%
Radio	67%	Cell Phone	25%
Car	0%	Bullock Puller	8%
Motorbike	0%	House	92%
Bicycle	92%	(% of HH owning the assets)	

No households own TV, car, or motorbike, while over 90 percent of households own bicycles. Radios are owned by nearly 70 percent and cell phones are owned by 25 percent of the households.

### G.3.3 Zakpee

**Table G.3.15 Demography and Geography (Zk)**

Total Population	564	
No. of males	265	47%
No. of females	299	53%
No. of households	73	
No. of female headed households	3	4%
Religion	Christianity	60%
	Others	40%
Tribes	Dagaaba	100%
Total Area (km <sup>2</sup> )	65	
Agricultural Area (km <sup>2</sup> )	38	58%
Residential Area (km <sup>2</sup> )	26	40%
Forest Area (km <sup>2</sup> )	0	0%
Reserve Area (km <sup>2</sup> )	0.5	1%
Others (km <sup>2</sup> )	0.5	1%
Distance from capital (km)	6.4	

Zakpee is located in the Babile zone of Lawra district. The Babile zone is in the southern part of the Lawra district and borders on Burkina Faso on the west side.

With 564 people in the community Zakpee is the least populated community among the nine PDA communities. The number of household is 73, of which three are headed by female. Christianity is the dominant religion of the community, followed by traditional religion. Agricultural area is 38 km<sup>2</sup> and it represents 58 percent of the total area. The distance from district capital, Lawra, is 6.4 km.

**Table G.3.16 Agricultural Data (Zk)**

Agri. land area by type (%)	Upland	70%
	Hydromorphic	10%
	Valley bottom	20%
Agri. land use (acre)	Cultivated	38
	Fallow	5
	Bush / Forest	3
	others	2
HH producing enough food		20%
HH selling food regularly		20%
Permanent market in the community		0
Distance to the nearest permanent market (km)		6.4
No. of shops selling fertilizer in the community		0
No. of shops selling agric. tools in the community		0

In Zakpee, 70 percent of the agricultural land is categorized as upland, while ten percent is hydromorphic and the other 20 percent is valley bottom. The survey indicates that 38 acre of the agricultural land is cultivated.

Only 20 percent of the households interviewed answered that they produce enough food. Furthermore, only 20 percent of the households sell their produce regularly. There is no permanent market in Zakpee.

**Table G.3.17 Crop Data (Zk)**

	Sorghum	Millet	Maize	G-nuts	Cowpea	Soybean	Rice	Veget.
Cultivated Area(acres)	5	7	8	8	5	1	3	1
Production(bags)	4	4	16	18	8	2	2	20 crates
Yield(bags/acres)	0.8	0.57	2	2.25	1.6	2	0.66	-

According to the table, maize and groundnuts have the two largest cultivated area and production. The yield of sorghum, millet and rice are relatively lower than other crops.



**Table G.3.18 Economic Data (Zk)**

Perception of wealth	Rich	30%
	Middle	20%
	Poor	50%
Income generating activities	Sale of agri. products	20%
	Sale of livestock	20%
	Sale of processed items	10%
	Casual labor	0%
	Seasonal migrant labor	40%
	Others	10%
HH expenditure HH=household	School fees	20%
	Hospital fees	20%
	Social responsibilities	10%
	Food	10%
	Agri. labor	30%
	HH appliances	0%
	Tools & Equipments	10%
	Others	0%
Bank & credit union in the Community	0	
Distance to the nearest bank or credit union	6.4km	

The survey shows that 50 percent of the population identify themselves as poor, while 30 percent of them think of themselves as relatively rich. “Seasonal migrant labor” is the most popular income generating activity in Zakpee, followed by “sales of agricultural products” and “sales of livestock”.

Agricultural labor is the biggest household expenditure item, and school fees and hospital fees are the second biggest expenditure items.

There is no bank or credit union in the community.

**Table G.3.19 Infrastructure (Zk)**

Electricity	No
Drinking water	Borehole
Domestic use	Dugout
Agriculture	Rain-fed
Long distance bus stop	No
Minivan taxi route/stop	No

Electricity is not available in Zakpee. The residents mostly depend on borehole for drinking water. Agriculture is rain-fed.

Long distance buses and minivan taxis are not available in the community.

**Table G.3.20 Education and Health Institutions (Zk)**

Primary schools	0
Junior high schools	0
Senior high schools	0
Technical schools	0
Vocational schools	0
Health centre / clinic	0

With regards to educational and health facilities, there are none of them within the community. However, all of these facilities are located not so far from the community.

**Table G.3.21 Assets Owned by Households (Zk)**

TV	0%	Donkey Cart	0%
Radio	75%	Cell Phone	0%
Car	0%	Bullock Puller	0%
Motorbike	0%	House	67%
Bicycle	75%	(% of HH owning the assets)	

In Zakpee, radios and bicycles are owned by 75 percent of the households, but TV, car, motorbike, donkey cart, cell phone, and bullock puller are not owned by any of them.

### G.3.4 Naawuie

#### G.3.22 Demography and Geography (Nw)

Total Population	607	
No. of males	304	50%
No. of females	303	50%
No. of households	69	
No. of female headed households	3	4%
Religion	Christianity	65%
	Muslim	30%
	Traditional	5%
Tribes	Sisaala	68%
	Dagaati	31%
	Fulani	1%
Total Area (km <sup>2</sup> )	48.8	
Agricultural Area (km <sup>2</sup> )	25.0	51%
Residential Area (km <sup>2</sup> )	15.2	31%
Forest Area (km <sup>2</sup> )	0	0%
Reserve Area (km <sup>2</sup> )	2.6	5%
Others (km <sup>2</sup> )	6	12%
Distance from capital (km)	13	

Naawuie is located in Zone A, which is MOFA's administrative division, of former Jirapa-Lambussie district. Currently, Naawuie is in Lambussie district. It borders on Burkina Faso on the north side, Lawra district on the west side and Sissala district on the east side. The community is multiethnic.

The number of household in Naawuie is 69, of which three are headed by female. Christianity (65 percent) is the dominant religion of the community, followed by Muslim (30 percent).

Agricultural area is 25 km<sup>2</sup> and it represents 51 percent of the total area. The distance from district capital, Lawra, is 13 km.

**Table G.3.23 Agricultural Data (Nw)**

Agri. land area by type (%)	Upland	70%
	Hydromorphic	25%
	Valley bottom	10%
Agri. land use (acre)	Cultivated	25
	Fallow	19
	Bush / Forest	-
	others	36
HH producing enough food		25%
HH selling food regularly		45%
Permanent market in the community		0
Distance to the nearest permanent market (km)		6
No. of shops selling fertilizer in the community		0
No. of shops selling agric. tools in the community		0

In Naawuie, 70 percent of the agricultural land is categorized as upland, while 25 percent is hydromorphic and the other ten percent is valley bottom. The survey indicates that 25 acre of the agricultural land is cultivated.

Only a quarter of the households interviewed answered that they produce enough food. But, 45 percent of the households sell their produce regularly, and this is the highest percentage for this question among the nine PDA communities.

This implies that while the farmers do not produce sufficient food for themselves, they choose to sell them in order to have some cash at hand. There is no permanent market in Naawuie.

**Table G.3.24 Crop Data (Nw)**

	Sorghum	Millet	Maize	G-nuts	Cowpea	Soybean	Rice	Veget.
Cultivated Area(acres)	5	5	8	5	2	-	-	-
Production(bags)	84	74	86	62	6	-	-	-
Yield(bags/acres)	16.6	14.8	10.7	12.4	3	--	-	-

According to the table, despite the small area of cultivates land, sorghum, millet, maize and groundnuts have large production. Their yield is also relatively high.

**Table G.3.25 Economic Data (Nw)**

Perception of wealth	Rich	N/A
	Middle	N/A
	Poor	N/A
Income generating activities	Sale of agri. products	45%
	Sale of livestock	30%
	Sale of processed items	15%
	Casual labor	5%
	Seasonal migrant labor	3%
	Others	2%
HH expenditure HH=household	School fees	10%
	Hospital fees	15%
	Social responsibilities	15%
	Food	45%
	Agri. labor	10%
	HH appliances	2%
	Tools & Equipments	2%
	Others	1%
Bank & credit union in the Community		0
Distance to the nearest bank or credit union		13km

“Sales of agricultural products” is the most popular income generating activity in Naawuie, followed by “sales of livestock”.

Food is the biggest household expenditure item. Following food, hospital fees and social responsibilities are the second biggest expenditure items.

There is no bank or credit union in the community. The nearest bank is 13km away from the community.

Electricity	No
Drinking water	Borehole
Domestic use	Borehole
Agriculture	Rain-fed
Long distance bus stop	No
Minivan taxi route/stop	No

**Table G.3.26 Infrastructure (Nw)**

Electricity is not available in Naawuie. The residents mostly depend on borehole for drinking water. Agriculture is rain-fed.

Long distance bus and minivan taxi do not run through the community. Thus, there is no means of public transport in Naawuie.

**Table G.3.27 Education and Health Institutions (Nw)**

Primary schools	1
Junior high schools	1
Senior high schools	0
Technical schools	0
Vocational schools	0
Health centre / clinic	0

With regards to educational and health facilities, there are a primary school and a junior high school

**Table G.3.28 Assets Owned by Households (Nw)**

TV	8%	Donkey Cart	0%
Radio	75%	Cell Phone	33%
Car	0%	Bullock Puller	42%
Motorbike	33%	House	100%
Bicycle	92%	(% of HH owning the assets)	

In Naawuie, TVs and radios are owned by 8 percent and 75 percent of the households respectively, while 33 percent of the households own motorbikes and cell phones. Bicycles are owned by nearly all the households.

### G3.5 Kogri

**Table G3.29 Demography and Geography (Kg)**

Total Population	718	
No. of males	366	43%
No. of females	352	58%
No. of households	86	
No. of female headed households	1	16%
Religion	Christianity	50%
	Traditional	30%
	Muslim	20%
Tribes	Dagaati	70%
	Sisaala	29%
	Fulani	1%
Total Area (km <sup>2</sup> )	84.8	
Agricultural Area (km <sup>2</sup> )	56.5	67%
Residential Area (km <sup>2</sup> )	17.5	21%
Forest Area (km <sup>2</sup> )	2.8	3%
Reserve Area (km <sup>2</sup> )	6.0	7%
Others (km <sup>2</sup> )	2.0	2%
Distance from capital (km)	35	

Kogri is located in Zone C, which is MOFA's administrative division, of former Jirapa-Lambussie district. Currently, Kogri is in Jirapa district. Zone C occupies central to eastern part of Jirapa district and borders on Lambussie district on the north side and Nadowli district on the south side.

The number of household in Kogri is 86, of which only one is headed by female. Christianity is the dominant religion of the community, followed by traditional religion.

Agricultural area is 56.5 km<sup>2</sup> and it represents 67 percent of the total area. The distance from district capital, Lawra, is 35 km.

**Table G3.30 Agricultural Data (Kg)**

Agri. land area by type (%)	Upland	70%
	Hydromorphic	20%
	Valley bottom	10%
Agri. land use (acre)	Cultivated	56.5
	Fallow	11.5
	Bush / Forest	26
	others	11.3
HH producing enough food		50%
HH selling food regularly		10%
Permanent market in the community		0
Distance to the nearest permanent market (km)		10
No. of shops selling fertilizer in the community		0
No. of shops selling agric. tools in the community		0

In Kogri, 70 percent of the agricultural land is categorized as upland, while 20 percent is hydromorphic and the other ten percent is valley bottom. The survey shows that 56.5 acre of the agricultural land is cultivated.

Half of the households interviewed answered that they produce enough food. Only ten percent of the households sell their produce regularly, and there is no permanent market in Kogri.

**Table G3.31 Crop Data (Kg)**

	Sorghum	Millet	Maize	G-nuts	Cowpea	Soybean	Rice	Veget.
Cultivated Area(acres)	10	10	18	12	-	-	6	0.5
Production(bags)	471	53	208	104	-	-	193	210 crates
Yield(bags/acres)	47.1	5.3	11.5	8.7	-	-	32.1	-

According to the table, maize has the largest cultivated area in Kogri. However, in terms of yield, sorghum has clearly the highest yield. The yield of rice is also considerably higher than other crops.

**Table G.3.32 Economic Data (Kg)**

Perception of wealth	Rich	30%
	Middle	50%
	Poor	20%
Income generating activities	Sale of agri. products	30%
	Sale of livestock	30%
	Sale of processed items	20%
	Casual labor	10%
	Seasonal migrant labor	5%
	Others	5%
HH expenditure HH=household	School fees	10%
	Hospital fees	30%
	Social responsibilities	5%
	Food	30%
	Agri. labor	20%
	HH appliances	2%
	Tools & Equipments	2%
	Others	1%
Bank & credit union in the Community		0
Distance to the nearest bank or credit union		35km

The survey shows that 20 per cent of the population identify themselves as poor, while 30 percent think of themselves as rich. “Sales of agricultural products” and “sales of livestock” are the most popular income generating activities in Kogri, followed by “sales of processed items”.

Hospital fees and food expenditure are the biggest household expenditure items, and agricultural labor is the second biggest expenditure item.

There is no bank or credit union in the community.

**Table G.3.33 Infrastructure (Kg)**

Electricity	No
Drinking water	Borehole
Domestic use	Borehole
Agriculture	Rain-fed
Long distance bus stop	No
Minivan taxi route/stop	No

Electricity is not available in Kogri. The residents mostly depend on borehole for drinking water and agriculture is rain-fed.

There are no long distance bus and minivan taxi stop, thus there is no public transport services.

**Table G.3.34 Education and Health Institutions (Kg)**

Primary schools	1
Junior high schools	1
Senior high schools	0
Technical schools	0
Vocational schools	0
Health centre / clinic	1

With regards to educational and health facilities, there are a primary school, a junior high school and a health clinic in Kogri.

**Table G.3.35 Assets Owned by Households (Kg)**

TV	0%	Donkey Cart	8%
Radio	100%	Cell Phone	8%
Car	0%	Bullock Puller	75%
Motorbike	33%	House	100%
Bicycle	100%	(% of HH owning the assets)	

All the households surveyed in Kogri have radios and bicycles. A third of them own motorbikes and 75 percent of them own bullock pullers. Cell phones are owned by only eight percent of the households.

### G.3.6 Nyani

**Table G.3.36 Demography and Geography (Ny)**

Total Population	647	
No. of males	294	43%
No. of females	353	58%
No. of households	75	
No. of female headed households	6	16%
Religion	Christianity	80%
	Traditional	20%
Tribes	Dagaati	100%
Total Area (km <sup>2</sup> )	35	
Agricultural Area (km <sup>2</sup> )	20	42%
Residential Area (km <sup>2</sup> )	10	21%
Forest Area (km <sup>2</sup> )	0	0%
Reserve Area (km <sup>2</sup> )	5	1%
Others (km <sup>2</sup> )	0	1%
Distance from capital (km)	5	

Nyani is located in Zone B, which is MOFA's administrative division, of former Jirapa-Lambussie district. Currently, Nyani is in Jirapa district. Zone B borders on Lawra district and Burkina Faso on the west side and on Nadowli district on the south side.

The number of household in Nyani is 75, of which six are headed by female. Christianity (80 percent) is the dominant religion of the community, followed by traditional religion.

Agricultural area is 20 km<sup>2</sup> and it represents 42 percent of the total area. The distance from district capital, Jirapa, is 5 km.

**Table G.3.37 Agricultural Data (Ny)**

Agri. land area by type (%)	Upland	75%
	Hydromorphic	10%
	Valley bottom	15%
Agri. land use (acre)	Cultivated	20
	Fallow	10
	Bush / Forest	3
	others	2
HH producing enough food		10%
HH selling food regularly		0%
Permanent market in the community		0
Distance to the nearest permanent market (km)		5
No. of shops selling fertilizer in the community		0
No. of shops selling agric. tools in the community		0

In Nyani, 75 percent of the agricultural land is categorized as upland, while ten percent is hydromorphic and the other 15 percent is valley bottom. The survey shows that 20 acre of the agricultural land is cultivated.

Only ten percent of the households interviewed answered that they produce enough food. There is no households selling their produce regularly, and there is no permanent market in Nyani.

**Table G.3.38 Crop Data (Ny)**

CROP DATA (Ny)	Sorghum	Millet	Maize	G-nuts	Cowpea	Soybean	Rice	Veget.
Cultivated Area(acres)	3	2	4	5	-	-	2	-
Production(bags)	15	1	12	15	-	-	4	-
Yield(bags/acres)	5	0.5	3	3	-	-	2	-

The data shows that, in Nyani, the cultivated area for the major crops is relatively small. Groundnut has the largest cultivated area, but it is only five acres. Among the cereal crops, sorghum has the highest yield with five bags per acre.

**Table G.3.39 Economic Data (Ny)**

Perception of wealth	Rich	0%
	Middle	10%
	Poor	90%
Income generating activities	Sale of agri. products	0%
	Sale of livestock	70%
	Sale of processed items	10%
	Casual labor	10%
	Seasonal migrant labor	5%
	Others	5%
HH expenditure HH=household	School fees	5%
	Hospital fees	5%
	Social responsibilities	20%
	Food	50%
	Agri. labor	5%
	HH appliances	10%
	Tools & Equipments	5%
	Others	0%
Bank & credit union in the Community		0
Distance to the nearest bank or credit union		5km

The survey shows that 90 percent of the population identify themselves as poor. It is noted that considerably more residents in Nyani identify themselves as poor than the other PDA communities. It also has to be noted that Nyani is the only PDA community in which there is no “sales of agricultural products”. The most popular income generating activity is “sales of livestock”.

Food expenditure is the biggest household expenditure item, and social responsibilities are the second biggest expenditure item.

There is no bank or credit union in the community.

**Table G.3.40 Infrastructure (Ny)**

Electricity	No
Drinking water	Borehole
Domestic use	Rain water, borehole
Agriculture	Rain-fed
Long distance bus stop	N/A
Minivan taxi route/stop	N/A

Electricity is not available in Nyani. The residents mostly depend on borehole for drinking water. Agriculture is rain-fed.

The survey results do not show whether there are any stops for public transportation in Nyani.

**Table G.3.41 Education and Health Institutions (Ny)**

Primary schools	1
Junior high schools	0
Senior high schools	0
Technical schools	0
Vocational schools	0
Health centre / clinic	0

With regards to educational and health facilities, there is a primary school in the community, but there is no other facilities.

**Table G.3.42 Assets Owned by Households (Ny)**

TV	0%	Donkey Cart	0%
Radio	67%	Cell Phone	33%
Car	0%	Bullock Puller	8%
Motorbike	8%	House	92%
Bicycle	83%	(% of HH owning the assets)	

No TV, car, or donkey carts are owned by the households in Nyani. Bicycles and motorbikes are owned by 83 percent and 8 percent of the households respectively. Cell phones are owned by a third of them.

### G.3.7 Daffiama

**Table G.3.43 Demography and Geography (Df)**

Total Population	6,528	
No. of males	3,144	48%
No. of females	3,384	52%
No. of households	258	
No. of female headed households	87	38%
Religion	Christianity	80.2%
	Traditional	19.1%
	Muslim	0.6%
	Others	0.2%
Tribes	Dagaaba	99.5%
	Akan	0.3%
	Kusaasi	0.2%
Total Area (km <sup>2</sup> )	153	
Agricultural Area (km <sup>2</sup> )	84	55%
Residential Area (km <sup>2</sup> )	64	42%
Forest Area (km <sup>2</sup> )	5	3%
Reserve Area (km <sup>2</sup> )	0	0%
Others (km <sup>2</sup> )	0	0%
Distance from capital (km)	16	

Daffiama is located in the Nadowli zone of Nadowli district. The Nadowli zone is at the northwestern part of Nadowli district and borders on Jirapa district on the north side and Burkina Faso on the west side.

Daffiama has population of 6,528 and it is by far the largest community among the PDA communities in terms of population. It is almost twice as large as the second largest community, Nanvilli. The number of household in Daffiama is 258, of which 87 are headed by female. Christianity is the dominant religion of the community, followed by traditional religion.

Agricultural area is 84 km<sup>2</sup> and it represents 55 percent of the total area. The distance from district capital, Nadowli, is 16 km.

**Table G.3.44 Agricultural Data (Df)**

Agri. land area by type (%)	Upland	80%
	Hydromorphic	5%
	Valley bottom	15%
Agri. land use (acre)	Cultivated	84
	Fallow	10
	Bush / Forest	48
	others	5
HH producing enough food		20%
HH selling food regularly		10%
Permanent market in the community		1
Distance to the nearest permanent market (km)		N/A
No. of shops selling fertilizer in the community		0
No. of shops selling agric. tools in the community		0

In Daffiama, 80 percent of the agricultural land is categorized as upland, while five percent is hydromorphic and the other ten percent is valley bottom. The survey shows that 84 acre of the agricultural land is cultivated.

20 percent of the households interviewed answered that they produce enough food. Only ten percent of the households sell their produce regularly, and there is one permanent market in the community.

**Table G.3.45 Crop Data (Df)**

	Sorghum	Millet	Maize	G-nuts	Cowpea	Soybean	Rice	Veget.
Cultivated Area(acres)	16	16	12	12	8	4	10	6
Production(bags)	24	24	48	60	8	1	20	48 crates
Yield(bags/acres)	1.5	1.5	4	5	1	0.25	2	-

The table indicates that the yield of groundnut is the highest in Daffiama at five bags per acre, followed closely by maize.



**Table G.3.46 Economic Data (Df)**

Perception of wealth	Rich	2%
	Middle	48%
	Poor	50%
Income generating activities	Sale of agri. products	40%
	Sale of livestock	30%
	Sale of processed items	13%
	Casual labor	5%
	Seasonal migrant labor	2%
	Others	10%
HH expenditure HH=household	School fees	42.5%
	Hospital fees	2%
	Social responsibilities	0.5%
	Food	22%
	Agri. labor	30%
	HH appliances	1%
	Tools & Equipments	2%
	Others	0%
Bank & credit union in the Community		1
Distance to the nearest bank or credit union		N/A

The survey shows that half of the population identify themselves as poor, while 48 percent think of themselves as middle class. “Sales of agricultural products” is the most popular income generating activity in Daffiama, followed by “sales of livestock”.

School fees are the biggest household expenditure item, and agricultural labor is the second biggest expenditure item.

There is a bank or credit union in the community. Daffiama is the only community with such financial institution among the PDA communities.

**Table G.3.47 Infrastructure (Df)**

Electricity	Yes
Drinking water	Pipe-borne, borehole
Domestic use	Dams, wells, ponds
Agriculture	Dams, ponds
Long distance bus stop	Yes
Minivan taxi route/stop	Yes

Daffiama is one of the only two communities among the PDA communities where electricity is available, and it is the only community where drinking water is brought to the people by pipe and water from dam is available for domestic and

agricultural use. Long distance bus and minivan taxi run through the community, thus the residents have direct access to public transportation services.

**Table G.3.48 Education and Health Institutions (Df)**

Primary schools	2
Junior high schools	1
Senior high schools	1
Technical schools	0
Vocational schools	1
Health centre / clinic	1

With regards to educational and health facilities, Daffiama has all the facilities listed in the table shown except technical school.

**Table G.3.49 Assets Owned by Households (Df)**

TV	33%	Donkey Cart	0%
Radio	67%	Cell Phone	50%
Car	0%	Bullock Puller	33%
Motorbike	42%	House	100%
Bicycle	75%	(% of HH owning the assets)	

In Daffiama, a third of the households surveyed own a TV and 67 percent of them own a radio. Motorbikes are owned by more than 40 percent and bicycles are owned by more than 70 percent of the households surveyed.

### G.3.8 Tabiesi

**Table G.3.50 Demography and Geography (Tb)**

Total Population	3,270	
No. of males	1,572	48%
No. of females	1,698	52%
No. of households	153	
No. of female headed households	86	56%
Religion	Christianity	46.4%
	Traditional	32.6%
	Muslim	21.0%
Tribes	Dagaaba	99.9%
	Fulani	0.1%
	Akan	0%
Total Area (km <sup>2</sup> )	324	
Agricultural Area (km <sup>2</sup> )	289	89%
Residential Area (km <sup>2</sup> )	25	8%
Forest Area (km <sup>2</sup> )	1.5	0.3%
Reserve Area (km <sup>2</sup> )	8	2%
Others (km <sup>2</sup> )	0.5	0.2%
Distance from capital (km)	45	

Tabiesi is located in the Fian zone of Nadowli district. The Fian Zone occupies the eastern half of Nadowli district and borders on Jirapa district on the north side and on Wa Municipal area on the south side. Tabiesi has population of 3,270. It has the third largest population among the PDA communities. The number of household in Tabiesi is 153, of which 86 are headed by female. This means that more than half of the households are headed by female. This characteristic of the community should be highlighted. Agricultural area is 289 km<sup>2</sup> and it represents 89 percent of the total area. The distance from district capital, Nadowli, is 45 km. Tabiesi is farthest away from the district capital in comparison to the other PDA communities.

**Table G.3.51 Agricultural Data (Tb)**

Agri. land area by type (%)	Upland	69%
	Hydromorphic	5%
	Valley bottom	26%
Agri. land use (acre)	Cultivated	289
	Fallow	89
	Bush / Forest	18
	others	10
HH producing enough food		70%
HH selling food regularly		25%
Permanent market in the community		0
Distance to the nearest permanent market (km)		45
No. of shops selling fertilizer in the community		0
No. of shops selling agric. tools in the community		0

In Tabiesi, 69 percent of the agricultural land is categorized as upland, while five percent is hydromorphic and the other 26 percent is valley bottom. The survey shows that 289 acre of the agricultural land is cultivated. Tabiesi has the largest cultivated land among the PDA communities. Its size is more than triple the size of Daffiama's cultivated land (84 acre) which is the second largest. 70 percent of the households interviewed answered that they produce enough food. This rate is also the highest among the PDA communities. These numbers suggest that more agricultural activities are taking place in Tabiesi than the other PDA communities, although there is no permanent market for the produce in the community.

**Table G.3.52 Crop Data (Tb)**

	Sorghum	Millet	Maize	G-nuts	Cowpea	Soybean	Rice	Veget.
Cultivated Area(acres)	72	15	76	64	30	10	22	15
Production(bags)	614	344	792	1835	826	75	312	280 crates
Yield(bags/acres)	8.5	22.9	10.4	28.6	27.5	7.5	14.2	-

In Tabiesi, relatively large area is cultivated for sorghum, maize and groundnut. The yields of groundnut, cowpea and millet are considerably higher than other crops.

**Table G3.53 Economic Data (Tb)**

Perception of wealth	Rich	15%
	Middle	27%
	Poor	58%
Income generating activities	Sale of agri. products	80%
	Sale of livestock	10%
	Sale of processed items	2%
	Casual labor	0%
	Seasonal migrant labor	5%
	Others	3%
HH expenditure HH=household	School fees	10%
	Hospital fees	19%
	Social responsibilities	12%
	Food	17%
	Agri. labor	3%
	HH appliances	7%
	Tools & Equipments	5%
	Others	0%
Bank & credit union in the Community		0
Distance to the nearest bank or credit union		7 km

The survey shows that nearly 60 percent of the population identify themselves as poor, while 15 percent think of themselves as rich. “Sales of agricultural products” is the most dominant income generating activity in Tabiesi, followed by “sales of livestock”.

Hospital fees are the biggest household expenditure item, and food expenditure is the second biggest expenditure item.

There is no bank or credit union in the community.

**Table G3.54 Infrastructure (Tb)**

Electricity	No
Drinking water	Boreholes, wells
Domestic use	Boreholes, wells
Agriculture	Wells
Long distance bus stop	No
Minivan taxi route/stop	No

Electricity is not available in Tabiesi. Most people depend on boreholes and wells for drinking water. Long distance buses and minivan taxis do not run through the community, thus the residents have no access to public transportation services.

**Table G3.55 Education and Health Institutions (Tb)**

Primary schools	1
Junior high schools	1
Senior high schools	0
Technical schools	0
Vocational schools	0
Health centre / clinic	0

With regards to educational and health facilities, Tabiesi has a primary school and a junior high school.

**Table G3.56 Assets Owned by Households (Tb)**

TV	25%	Donkey Cart	0%
Radio	75%	Cell Phone	67%
Car	0%	Bullock Puller	75%
Motorbike	50%	House	100%
Bicycle	100%	(% of HH owning the assets)	

In Tabiesi, all the households surveyed own a bicycle and half of them own a motorbike. Radios are found in 75 percent of the households while a quarter of the households own a TV.

### G.3.9 Nanvilli

**Table G.3.57 Demography and Geography (Nv)**

Total Population	3,586	
No. of males	1,703	47%
No. of females	1,883	53%
No. of households	215	
No. of female headed households	86	40%
Religion	Christianity	95%
	Traditional	5%
Tribes	Dagaaba	99.9%
	Lobis, Akan	0.1%
Total Area (km <sup>2</sup> )	33.75	
Agricultural Area (km <sup>2</sup> )	25.5	76%
Residential Area (km <sup>2</sup> )	6.75	20%
Forest Area (km <sup>2</sup> )	0.75	2%
Reserve Area (km <sup>2</sup> )	0.5	1%
Others (km <sup>2</sup> )	0.25	1%
Distance from capital (km)	36	

Nanvilli is located in the Kaleo zone of Nadowli district. The Kaleo Zone occupies the southwestern part of Nadowli district and borders on Burkina Faso on the west side and on Wa Municipal area on the east side.

Nanvilli has population of 3,586 and it is the second largest community among the PDA communities in terms of population. The number of household in Nanvilli is 215, of which 86 are headed by female, i.e., 40 percent of the households. Overwhelming majority of the residents is Christians, but five percent of the residents believe in traditional religion.

Agricultural area is 25.5 km<sup>2</sup> and it represents 76 percent of the total area. The distance from district capital, Nadowli, is 36 km.

**Table G.3.58 Agricultural Data (Nv)**

Agri. land area by type (%)	Upland	80%
	Hydromorphic	10%
	Valley bottom	10%
Agri. land use (acre)	Cultivated	25.5
	Fallow	2
	Bush / Forest	5
	others	1.5
HH producing enough food		5%
HH selling food regularly		0%
Permanent market in the community		1
Distance to the nearest permanent market.		N/A
No. of shops selling fertilizer in the community		0
No. of shops selling agric. tools in the community		0

In Nanvilli, 80 percent of the agricultural land is categorized as upland, while ten percent is hydromorphic and the remaining ten percent is valley bottom. The survey shows that 25.5 acre of the agricultural land is cultivated.

Only five percent of the households interviewed answered that they produce enough food. This is the lowest rate among all the PDA communities. Consequently, there is no household that sells food regularly.

**Table G.3.59 Crop Data (Nv)**

CROP DATA (Nv)	Sorghum	Millet	Maize	G-nuts	Cowpea	Soybean	Rice	Veget.
Cultivated Area(acres)	5	2	6	6	3	1	2	0.5
Production(bags)	25	2.5	18	30	3	1	4	40 Crates
Yield(bags/acres)	5	1.25	3	5	1	1	2	-

According to the table, in Nanvilli, groundnut is cultivated the most and has the highest production and yield. The cultivated area for each crop is relatively small in Nanvilli.

**Table G3.60 Economic Data (Nv)**

Perception of wealth	Rich	12%
	Middle	33%
	Poor	55%
Income generating activities	Sale of agri. products	28.5%
	Sale of livestock	45%
	Sale of processed items	15%
	Casual labor	0.5%
	Seasonal migrant labor	11%
	Others	0%
HH expenditure HH=household	School fees	7%
	Hospital fees	5%
	Social responsibilities	20%
	Food	30%
	Agri. labor	33%
	HH appliances	3%
	Tools & Equipments	2%
	Others	0%
Bank & credit union in the Community		0
Distance to the nearest bank or credit union		36km

The survey shows that 55 percent of the population identify themselves as poor, while 12 percent think of themselves as rich. “Sales of livestock” is the most dominant income generating activity in Nanvilli, followed by “sales of agricultural products”.

Agricultural labor fees are the biggest household expenditure item, and food expenditure is the second biggest expenditure item. Social responsibilities are also big expenditure item.

There is no bank or credit union in the community.

**Table G3.61 Infrastructure (Nv)**

Electricity	No
Drinking water	Boreholes, wells
Domestic use	Wells, ponds
Agriculture	Wells, ponds, rain-fed
Long distance bus stop	No
Minivan taxi route/stop	No

Electricity is not available in Nanvilli. For drinking water, the residents in Nanvilli mostly depend on boreholes and wells, while wells, ponds, and rain are utilized for agriculture. Long distance buses and minivan taxis do not run through the community, thus the residents have no access to public transportation services.

**Table G3.62 Education and Health Institutions (Nv)**

Primary schools	1
Junior high schools	1
Senior high schools	0
Technical schools	0
Vocational schools	0
Health centre / clinic	1

With regards to educational and health facilities, Nanvilli has a primary school, a junior high school and a health clinic.

**Table G3.63 Assets Owned by Households (Nv)**

TV	33%	Donkey Cart	0%
Radio	92%	Cell Phone	58%
Car	8%	Bullock Puller	0%
Motorbike	50%	House	100%
Bicycle	92%	(% of HH owning the assets)	

In Nanvilli, about half of the households surveyed own a motorbike and a cell phone, and over 90 percent of them own a radio and bicycle. TV and car are owned by a minority.