GHANA NATIONAL AGRICULTURAL RESEARCH AND EXTENSION SYSTEM

RESEARCH-EXTENSION-FARMER LINKAGES COMMITTEE MANUAL

A Publication of The Council for Scientific and Industrial Research (CSIR) and The Ministry of Food and Agriculture (MOFA)

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PREFACE

Agricultural research technology development, adoption and dissemination are intricately related to agricultural development, national agricultural productivity and food security. To ensure that research focuses on priority and transparent funding mechanism for demand-driven agricultural Research and Development (R&D) within Ghana and the West African Sub-Region, an appropriate mechanism that seeks to compliment on-going and future R&D activities carried out under the country's agricultural policy are put in place to optimize dissemination of improved technologies in the country's top agricultural priorities. This could only be done efficiently by strengthening the activities of Research Extension Farmers Linkage Committees (RELCs) at the national and regional levels to identify and prioritize farmers' problems for solution by research and extension as well as policy dialogue.

A manual that provides guidelines for this transparent process of problem identification and solution is therefore imperative for compliance. The process of revision of the RELC Manual took a technical team made up of officials from CSIR-WAAPP (Dr. J. Cobbina (Late), Dr. F.O.Anno-Nyako, Mr. John Ocran, Mr. Charles Oware-Tweneboah, Mr. Timothy Archer Playe, Mr. Samuel Mahama) and MoFA-DAES staff in all the 10 regions of Ghana, to meet with and seek the opinion of the major stakeholders of agriculture along the value chain. The resultant document has been duly validated by all stakeholders.

The Director General and the Deputy Director General of CSIR and the Chief Director of MoFA express their sincere appreciation to all stakeholders who contributed in diverse ways to develop this Manual.

Dr (Mrs) RoseEmma Mamaa Entsua-Mensah Deputy Director-General CSIR-Ghana

LIST OF ACRONYMS

AEA	-	Agricultural Extension Agent
CARGS	-	Competitive Agricultural Research Grant Scheme
CBOs	-	Community Based Organizations
CSIR	-	Council for Scientific and Industrial Research
DAES	-	Directorate of Agricultural Extension Services
DDA	-	District Director of Agriculture
DDG	-	Deputy Director General
DG	-	Director General
DoCs	-	Department of Cooperatives
FBOs	-	Farmer Based Organizations
FFF	-	Farmer Field Fora
FFS	-	Farmer Field Schools
GoG	-	Government of Ghana
MDA	-	Municipal/Metropolitan Director of Agriculture
MIS	-	Management Information Systems
MoFA	-	Ministry of Food and Agriculture
NAES	-	National Agricultural Extension System
NARS	-	National Agricultural Research System
NCC	-	National Coordinating Council
NGOs	-	Non-Governmental Organizations
NTC	-	National Technical Committee
OFAR	-	On-Farm Adaptive Research
OFARS	-	On-Farm Adaptive Research Stations
RDA	-	Regional Director of Agriculture
RCC	-	Regional Coordinating Council
RELC	-	Research-Extension-Farmer Linkage Committee
ТоТ	-	Training of Trainers
TRM	-	Technical Review Meeting
WAAPP	-	West Africa Agricultural Productivity Programme

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1.0 INTRODUCTION

It is well documented that applied agricultural research institutions need strong extension services to effectively respond to farmers' identified problems and the extension services need the backstopping of strong applied agricultural research institutions to effectively serve the farming communities and other stakeholders. The main constraint posed to effective agricultural development is weak linkages between research and extension in many developing countries. In April 1989, the then Ministry of Agriculture held the first national seminar on Research and Extension Linkages to enable various stakeholders (e.g. researchers, extension experts and policy makers) share ideas on how to improve on the weak linkages existing between research institutions and extension agencies in the country.

In 1994 the Ministry of Food and Agriculture (MOFA) and the Council for Scientific and Industrial Research (CSIR) institutionalized these linkages through the creation of Research-Extension-Farmer Linkage Committees (RELCs) which were to serve as an interface between the National Agricultural Research System (NARS) and the National Agricultural Extension System (NAES). Their primary purpose was to create a bridge between research, extension, farmers and agribusiness. They were also to encourage active participation, enhance interaction and bring decision making in technology development and dissemination closer to farmers and agribusiness. The ultimate aim was to make research and extension provide demand-driven services to farmers and other stakeholders.

In line with this policy, MOFA in 1998 decentralized and devolved authority for planning and implementation of agricultural development programmes to the regions and districts. The RELCs were initially zonal, based on the five agro-ecological zones of Ghana. These roles have now become even more relevant and challenging in view of Ghana's current development policy, which lays much emphasis on decentralization.

In line with this decentralization policy the zonal RELCs in the year 2000 were replaced with 10 Regional RELCs to deal with regional specific issues. The RELCs have since made reasonable progress towards the achievement of the objectives for which they were set up. However, much still remains to be done to ensure that they play their roles more effectively to support agricultural growth in the country.

This manual therefore seeks to guide and advise the effective and efficient operations and implementation of the RELCs.

1.0 ORGANIZATIONAL STRUCTURE OF THE RESEARCH-EXTENSION -FARMER LINKAGE SYSTEM

The National Research-Extension Farmer Linkage System will consist of structures at the national, regional and district levels, all performing functions aimed at more effective linkage of research and extension activities. At all levels, these bodies perform directing or steering functions and not implementing functions.



2.1 National Level

The National level will comprise the National Coordinating Committee (NCC) and the National Research-Extension -Farmer Linkage Secretariat.

2.1.1 National Coordinating Committee (NCC)

The National Coordinating Committee (NCC) will be responsible for policy advisory functions on research-extension linkage activities.

Membership of the NCC will comprise the following:

- Chief Director (MOFA)
- Deputy Director General (DDG, CSIR)
- 5 National Directors of MoFA (DAES, WIAD, APD, DCS and PPRSD)
- 2 Directors/Deans of Coordinating Research Institutions
- 2 Representatives of RELC Coordinators (one from the North and one from the South)
- Registrar of Co-operatives
- 3 Farmers Representatives (Northern, Middle and Southern zones)1 male:2 females
- 2 Agricultural NGOs (one North, one South) 1 male: 1 female

The NCC will elect its Chairman and meet at least once a year. In attendance at NCC meetings will be the CSIR Desk Officer and the MOFA RELCs Schedule Officer to provide secretarial services. Any relevant stakeholder could be co-opted to attend meetings as and when necessary.

Terms of Reference for NCC

The terms of reference for the NCC will include the following:

- Formulate policies to guide the implementation of linkage functions
- Advocate for partner institutions to allocate funds for RELCs activities
- Any other function necessary for the smooth implementation of RELCs activities

2.1.2 The National RELCs Secretariat

The National Secretariat of the RELCs will be housed at MOFA–DAES. The MOFA Schedule Officer will serve as the National Coordinator assisted by the Desk Officer from CSIR.

The National Secretariat shall perform the following functions:

- See to the day-to-day administration at the national level
- Give secretarial support to the National Coordinating Committee (NCC).
- Document and disseminate reports
- Serve as liaison with other technical directorates

2.2 Research-Extension-Farmer Linkage Committees (RELCs)

The RELCs refer to a group of stakeholders constituted at the regional level to ensure that research and extension activities are responsive to the demands of farmers and other clients.

2.2.1 Objectives of the RELCs

- a) Ensure that research activities, especially adaptive research, respond to farmers' constraints identified through the regional/district planning sessions.
- b) Ensure that Bi-monthly Technical review meetings (BMTRMs), AEA training, Farmer training, Field demonstrations, Farmer Field Fora (FFF), Farmer Field Schools (FFS), Field days etc. are based on issues identified during regional/district planning sessions.
- c) Review progress made by research and extension in solving farmers' problems and efforts made to promote proven technologies and best practices.
- d) Monitor Adaptive research and extension activities at the regional and district levels

A Regional Director of Agriculture (RDA) will chair a RELC meeting whilst the Regional Agriculture Officer (RAO) Extension (MOFA) will serve as the secretary. Meetings shall be held at least two times a year.

In each region, the Director of the coordinating institution (as shown in Table 1) would nominate the RELC Coordinator for approval by the DDG CSIR and the Director of DAES. The RAO-Extension will be the Assistant RELC Coordinator.

Category of Membership	No of Representatives
Regional Director of Agriculture	1 – Chairman
Director/Dean of Coordinating Institution	1
Regional RELC Coordinator	1
RAO - Extension	1
Regional Cooperative Officer	1
2 Representatives of FBOs	(1male, 1 female)
Representative of Agribusiness	1
2 Representatives of Research	(1male, 1 female)
Representative of DDAs/MDAs	1-3 (1 for every 7 districts)
Representative of RCC	1
WIAD	1
Representatives of Agricultural NGOs	2

Table 1 shows the Membership of RELC

Responsibilities of the Office of the RELC Coordinators

The responsibilities of a RELC Coordinator are to:

- Coordinate research work being undertaken in the region.
- Moderate at Planning Sessions.
- Convey issues raised at planning sessions to relevant research organizations
- Collaborate with the RAO-Extension in the development of materials for technology transfer through MOFA.
- Collaborate with the RAO-Extension to prepare reports on the implementation of linkage functions in the region.
- Collaborate with the RAO -Extension to prepare annual work plan and budget for linkage functions specifying sources of funding and ensure that activities are incorporated into respective organization's work plans and budget for funding. Copies should be submitted to CSIR and MOFA-DAES.
- Identify resource persons for Bi Monthly Technical Review Meetings and Workshops
- RELC Coordinator, the Deputy RELC Coordinator and the M&E officer will monitor RELC programmes.

2.3 Coordination of Research and Extension Activities

A coordinating institution is an institution within the NARS (i.e. a research institute, or a university faculty of agriculture) that is situated in the region and/or has a research station in the region and conducts on-farm trials in the region.

This identified institution coordinates the research component of the RELCs functions of each of the ten (10) regions.

Table 2 below shows the list of the Coordinating Institutions.

REGION	COORDINATING RESEARCH INSTITUTION
Greater Accra	CSIR - Animal Researc h Institute
Eastern	CSIR -Oil Palm Research Institute
Volta	CSIR -Crops Research Institute
Western	CSIR -Oil Palm Research Institute
Central	CSIR - Animal Research Institute
Brong Ahafo	CSIR -Crops Research Institute
Ashanti	CSIR -Crops Research Institute
Northern	CSIR -Savanna Agricultural Research Institute
Upper East	CSIR -Savanna Agricultural Research Institute
Upper West	CSIR -Savanna Agricultural Research Institute

Table 2: Regions and their Coordinating Institutions

3.0 ROLES OF KEY STAKEHOLDERS

3.1 Research

- Develop Technology (Primary, Secondary and Adaptive-OFARS) in response to farmers' needs.
- Participate in planning sessions (Regional and District) and RELC meetings
- Develop technical bulletins and other relevant extension materials.
- Participate and provide technical backstopping for technical review meetings.
- Undertake Monitor and Evaluation of Research activities (competitive and non-competitive research).
- Harness resources (Human, Financial and Material) for research

3.2 MoFA(National)

- Coordinate, monitor and evaluate Research Extension Farmer Linkage activities
- Harness resources (financial, material and human) for extension
- Provide technical backstopping, i.e., organize ToT workshops on topical issues; produce technical leaflets etc.
- Participate in Regional Planning Sessions
- Organize interaction for annually
- Plan policy guidelines for implementation
- Organize review meetings
- Repackage research findings and develop extension materials
- Disseminate information on issues raised at planning sessions by relevant implementing agencies
- Facilitate and provide technical backstopping of field demonstrations and field days
- Facilitate the linking of farmers to other service providers
- Document and share relevant indigenous knowledge and practices.

3.3 MoFA(Regional)

- Provide technical backstopping to districts
- Organize technical review meetings
- Organize regional planning sessions
- Facilitate district planning sessions.
- Hold technology fairs annually
- Harness resources (financial, material and human) for extension
- Transfer relevant information/technologies
- Monitor and Evaluate Research and Extension Linkage activities.
- Document and share indigenous technology

3.4 MoFADistrict

- Identify and list farmers problems and strategic issues
- Organise district planning sessions
- Implement research and extension recommendations or interventions for farmers
- Harness resources (financial, material and human) for extension
- Monitor and Evaluate Research and Extension Linkage activities.
- Organise field days and demonstrations, AEA trainings etc.
- Document and share relevant indigenous knowledge and practices

Farmers

- Participate in planning sessions
- Adopt improved and appropriate technologies
- Harness resources to support linkage activities
- Provide feedback on technologies disseminated and adopted
- Provide information on agricultural constraints
- Generate indigenous technology
- Lobby to influence policy

4.0 MAINACTIVITIES OF THE RELCS

The RELCs are potentially powerful instruments for the implementation of an effective adaptive research initiative. They should be responsible for determining the research agenda under the CARGS. However, this can be done more effectively when FBOs, CBOs and AEAs are trained on participatory methodologies. This type of training will enhance their capacity to effectively participate in problem identification and priority setting during planning sessions.

Stated below are some of the identified activities of the RELCs.

4.1 Planning Sessions

These are fora where stakeholders in agricultural and rural development convene to deliberate on agricultural issues of utmost importance to farmers.

This involves:

- a) Identification of Agricultural Development Constraints along the Value Chain (VC)
- b) Prioritization/ranking of agricultural development constraints
- c) Categorizing such constraints to reflect the interventions needed to address them i.e.
 - Research
 - Training and Extension
 - Policy
 - Credit and
 - Marketing

This process is carried out at planning sessions which take place at two levels; District and Regional.

4.1.1 District Level Planning Sessions

There should be a zonal planning session involving DAO, AEAs, Farmers, NGOs, Processors Transporters and Marketers before the district planning session. At the district level, the MOFA

District Offices, headed by the District Director of Agriculture shall be responsible for the implementation of all extension interventions. The District Agriculture Offices will collaborate with research in the implementation of research interventions.

Before a district planning session is held, AEAs should submit a list of agricultural problems identified in their operational areas to the DDA through their District Agriculture Officers. Farmers are also encouraged to add to, and validate the identified problems during the planning session. Four weeks to the holding of a planning session, the RELC Coordinator should be informed of the constraints to enable him/her invite the appropriate researcher(s) to the session. A 2-Day District Planning Session should be held between January and February each year.

Institution	No. of representatives		
Research institutions To be determined based on problems ide operational areas.			
MOFA	Relevant District Officers, 1 AEA/zone, DDA, MIS officer, schedule officers in charge of different projects in the DADU level		
Farmers/ FBOs	At least one per operational area		
District Assembly	Representative of Agric. Subcommittee		
NGOs/Private Service Providers	Two representatives		
DOC	District Cooperative Officer		
Agribusiness	4		
RELC Coordinator/Asst. RELC Coordinator	2		

Table 3: Representation of Various Institutions at a District Planning Session

4.2.2 Regional Planning session

A 4 Day Regional planning session shall take place after all the districts have held their planning sessions. The venue and dates for holding a Regional Planning Session will be decided by the Regional RELC coordinator in conjunction with the RDA. Table 4 shows the representation of various relevant institutions.

Institution	No. of representatives
Research	RELC Co ordinator, Technical Specialist and scientists implementing research projects under FABS and CARGS
MoFA	RDA, Asst. RELC Co ordinator, all DDAs, all RA Os, representatives from National Directorates
Farmers/ FBOs	1 farmer/district
NGOs	1 representative/NGO -relevant agric related
Agribusiness	4 (1 Financial Institution, 1 processor, 1 Input Dealer, 1 marketer, 2 Marketers, (crops and livestock))
DOC	Regional Co-operative Officer
RCC	1 representative
Other Relevant Stakeholders im plementing agricultural programmes in the region	

Table 4: Representation of Various Institutions at a Regional Planning Session

4.3 Technical Review Meeting

Technical review meetings are fora at which researchers and other resource persons interact with MoFA staff to share their field experiences and update the knowledge and technical skills of participants.

The technical review meetings are to be held at the Regional level: Table 5 gives details on resource persons, participants, duration, frequency etc. for these meetings.

Resource Persons	Technical Experts within MOFA and Research
Participants	 Various trainers from the Regional and District levels
Number of Participants	15-40
Duration	2 days
Frequency	4 times/year
Topics for discussion	 Topics identified at planning sessions Adaptive trials
Number of topics treated per meeting	1-3
Format	 Review of field experiences Lectures (Limited) Demonstrations Field visits
Convener(s)	· Asst. Coordinator/ RELC Coordinator
Venue	Regional capital or appropriate location within the region

Table 5: Guidelines on Technical Review Meetings

At the end of each Technical Review Meeting, participants will assess it by completing Table 6.

Table 6: Technical Review Meeting Assessment Form

Level:

Date:

Meeting No.

Торіс	Context	Presentation	Relevance	Organization of meeting
1.				
2.				
3.				

Rank Context as very high, high, adequate, low or too low. Rank Presentation and Relevance of topic as Very good, Good, Satisfactory, Poor or Very Poor. Also rank Organization of meeting Very good, Good, Satisfactory, Poor or Very Poor.

4.4 Dissemination of Information To Farmers

Access to information plays a crucial role in influencing adoption of technologies by farmers. Some of the channels through which farmers access information are:

- (i) Radio
- (ii) Television
- (iii) Newspapers/newsletters
- (iv) Farmers days/exhibition
- (v) Extension staff
- (vi) Religious bodies
- (vii) Schools
- (viii) Demonstrations
- (ix) Fellow farmers
- (x) Inputs suppliers
- (xi) Agricultural Information Centres
- (xii) License buying companies
- (xiii) Research Centre
- (xiv) NGOs
- (xv) e-extension

RELCs must encourage MOFA and other service providers to use the appropriate channels in their areas of operation to disseminate information to farmers.

4.5 RELC Meeting

In order for the RELCs to effectively carry out their oversight functions, it is expected that the committees shall meet quarterly to:

- Review progress and monitoring reports on the agreed actions being implemented by the various agencies.
- Plan periodic verification visits to implementing agencies
- Plan and review technical review sessions.

5.0 REPORTING ON RESEARCH AND EXTENSION ACTIVITIES

A measure of the success of the research and extension programmes at any of the Regional and District levels will be the extent to which the objectives set out are realized through its implementation. This requires the generation and analysis of information on the inputs, activities and results.

The implementation agencies (MOFA, CSIR and other service providers), will produce the following reports:

- Progress reports
- Monitoring reports
- Evaluation reports

5.1 Progress Reports

Progress reports should be prepared quarterly to provide information on the implementation status of research and extension activities being carried out in each District. These reports need not require a narrative text. A form such as the one below (i.e. Table 7) can be used. The DDA upon completion of the form for his/her District should submit it to the Regional Director of Agriculture and copied to the RELC Coordinator.

The Assistant RELC Coordinator will then compile a regional report with the RELC Coordinator.

Table7: Example of a Progress Report FormatDistrict:Name of Officer Reporting:Period of Reporting:

Activity planned (as in work plan)	Progress	Percentage Budget Utilized	Remarks

For each activity indicate progress as (i) not started, (ii) % of completion and (iii) completed.

5.2 Monitoring Reports

Monitoring is the on-going process of gathering, analyzing and reporting of data related to the implementation of an activity for the purpose of keeping implementation moving as planned

and eventually of revising schedules or objectives if necessary. Monitoring reports will be produced half-yearly. The data required for monitoring are needed to answer two questions;

- Is the activity being implemented as planned?
- Are outputs being achieved as planned?

Monitoring in the region should include all agricultural research and extension related activities. Much of the data for monitoring will be gathered from progress reports. Monitoring will therefore overlap extensively with progress reporting.

However, monitoring will go further in that it will analyze and recommend actions to correct deviations from planned results. This will often require diagnosis of implementation problems and generation of additional information.

Visits to on-going projects (e.g. on-farm trials, demonstration plots, laboratory, capacity building) are complementary but important aspect of monitoring.

RELC coordinators should facilitate bi annual monitoring visits for implementing agencies and key stakeholders and prepare reports. In addition to the field and laboratory visits, the Regional M&E officer would produce quarterly progress reports and distribute to the following:

- (i) RDA
- (ii) Regional RELC Coordinator
- (iii) DDAs and any other staff who contributed to the data.
- (iv) Farmer or FBO
- (v) District Assemblies
- (vi) Other key stake holders

Table8: Example of a Monitoring Report format for each District

District; Region: Period of Reporting;

Activity/Output	Actual	Constraints	Recommendations	Responsibility
Indicators	Achievements			
	i			

5.3 Evaluation Reports

In conjunction with The NCC, MoFA-DAES and The CSIR will evaluate RELC activities.

Most of the information required for the evaluation of RELC activities can be obtained from the following documents:

- Work plans
- Field Monitoring reports
- M & E Reports
- Profiles of the District Assembly
- Report from other stakeholders and beneficiaries

These may need to be supplemented by interviews with major stakeholders of agricultural development in the district.

6.0 FUNDINGARRANGEMENTS

6.1 Funding of the RELCs

The RELC being a consultative body instead of an implementing agency will draw funds from the respective stakeholders/agencies budget.

This implies that:

- The responsible agencies should budget and/or solicit funds for RELC activities
- The RELC meeting will be jointly organized by the Coordinating Institutes and the Regional Directors responsible

The suggested funding regimes are as follows:

6.1.1 MoFA

All training of MoFA staff, technical review sessions, demonstrations, field days carried out will be funded by MoFA or funds provided by a donor partner.

6.1.2 Research

Technology development (Primary, On-station Trials and Adaptive Trials on issues emerging from the RELCs) would be funded by CSIR or funds provided by a donor partner (1% of institutional support from Donor projects).

6.2 Funds provided by MoFA for Research

All funds (Donor and GoG) provided by MoFA to support research work should be applied to participatory adaptive trials to address farmer problems identified through the RELC. This means that:

- Funds will be released on request from relevant research institutes to implement adaptive research trials with participation from MoFA (Extension), farmers and other stakeholders.
- Individual researchers could be contracted (similar to the CARGS) to research into specific problems and issues.

	Funding Source	
Activity	MOFA	CSIR
District planning sessions	District MOFA/DDA	Per diem and
		travel cost of
		researchers
Regional planning session	Regional MOFA	Per diem and
		travel cost of
		researchers
Review and documentation of	Regional MOFA and DAES	CSIR
technologies		
Capacity Building (Training of	MOFA	CSIR
Trainers/Technical Review Meetings,		
Farmers, NGO)		
On-farm Adaptive Research	MOFA	CSIR
Demonstrations	MOFA	CSIR
Study tour	MOFA	CSIR
RELC Meetings (2x/year)	MOFA	CSIR
RELC NCC Meetings (2x/year)	MOFA	CSIR
Monitoring & Evaluation	MOFA	CSIR
Organization of National Workshop	MOFA	CSIR
Regional Review Workshop	MOFA	CSIR
Vetting of CARGS Proposals		CSIR

Table 9: Funding Responsibilities of Stakeholders

APPENDICES (Planning Approaches)

Appendix 1: Guidelines for conducting planning sessions

- Problem identification
 - (a) Stakeholders review problems submitted by DDAs to
 - (i) Eliminate statements that are not truly problems (e.g. imagined problems, possible problems and future problems) and those problems that cannot be solved by extension and research agencies.
 - (ii) If necessary re-formulate problems in particular ways in order to be 'researchable' or for action to be taken upon them.
 - (iii) Validate grouping of problems by DDAs under commodities/enterprise if necessary.
 - (b) Prioritize commodities/enterprises using set criteria (See Box 1) and procedures for prioritization outlined below
 - (c) Prioritize problems under selected commodities using set criteria (See Box 1) and procedures for prioritization outlined below.

Problem solution (see Figure 1 on page 18 titled 'From problem identification to solution')

- (d) Analyze the causes underlying the major problems
- (e) Examine whether there is sufficient evidence for these causes. If not conduct further diagnostic research
- (f) Categorize problems as (a) researchable or (b) requiring action from extension services.
- (g) For each problem requiring action from extension services determine the type of technology, the nature of training and the target group and put in a tabular form as shown in Table 10.

Table10: Extension Recommendations from Planning Session

Problem	Technology	Nature of training	Target Group

(h) Prepare a list of researchable problems for prioritization and further analysis at regional planning session

A problem is not the absence of a solution, but an existing negative state. For example No pesticides are available is wrong as it shows the absence of a solution and is not focused while a statement that Crops are infested with pests' depicts a negative state for which an action can be taken.

Examples of such problems are No access road to our village and Fertilizer prices are too high.

Some indication to those not engaged in the process of selection of why a particular priority area was given its respective rank. These statements will clearly describe the importance and/or relevance of the priority area to justify spending of resources on it.



Box 1					
Suggested set criteria					
	ria are the measures used to rank, value, adjust priorities or other procedures. electing 4 priority commodities/enterprises				
А.	How important is the commodity/enterprise				
	 Contribution to poverty alleviation 				
	 Food Security 				
	 Export value/potential 				
	 Percentage of farmers' engaged in the enterprise 				
	 Industrial potential 				
В.	Is there capacity to handle/support it				
C.	Effects on the environment				
D.	Districts comparative advantage in the enterprise				
For selecting priority problems under commodities/enterprises.					
A.	How widespread is the problem				
В.	Effect of the problem on the environment				
C.	Impacts on food security, incomes and livelihoods				
D.	Capacity to deal with the problem				

 Table 11:
 The Priority Grid

		1	2	3	4	5	6	7	8	Total
1	1 Flower & fruit drop in vegetable		1	1	4	5	1	1	1	5
2	Poor keeping quality of sugar loaf			3	4	5	6	7	8	0
	Fruits									
3	Insect infestation of smoked fish in				4	5	6	7	8	1
	storage									
4	4 Poor feeding of livestock in dry					5	4	7	4	5
	season									
5	5 Wilt & blight diseases of vegetables						5	5	5	7
6	Field rot of cassava tubers							7	6	3
7	7 High cost of feeding in non -ruminant								7	5
	production									
8	8 Stem borer attack in maize									2

Table 12: Frequency Table

Rank	Issue	Frequency	Weighted %	Cumulative%
1	Wilt & blight diseases of vegetables	7	25	25
2	High cost of feeding in non ruminant production	6	21.4	46.4
3	Flower & fruit drop in vegetables	5	17.8	64.2
4	Poor feeding of livestock in the dry season	4	14.3	28.5
5	Field rot of cassava tubers	3	10.7	89.2
6	Stem borer attack in maize	2	7.1	96.4
7	Insect infestation for smoked fish in storage	1	3.6	100
8	Poor keeping of sugar loaf fruits	0	0	100
	Total			

Rank	Issue	Brief Supporting Statements			
1	Wilt & blight diseases of vegetables	It is a widespread issue in the Western and Central Regions			
2	High cost of feeding in non ruminant production	This accounts for low level of livestock production by farmers			
3	Flower & fruit drop in vegetable	It demoralizes farmers from going into vegetable production			
4	Poor feeding of livestock in the dry season	Farmers & livestock have to trek long distances to get feed / browses			

Figure1: From Problem identification to solutions



APPENDIX 2: The Logical Framework Approach

The Logical Framework Approach (LFA) was originally developed during the late 1960s in order to assist in the planning, management and evaluation of development activities. Since then the approach has been used by a number of agencies which use the output from the approach—the Log Frame—in their development activities.

What the LFA seeks to do is to provide a structure, which will allow project planners and evaluators to specify the components of their activities and identify the logical linkages between a set of means and a set of ends. Thus, the LFA is an aid to logical thinking and a means by which project may be structured and described for analytical purposes.

The structure of the Log Frame is deceptively simple: it consists of 4x4 matrix in which the rows represent the levels of project objectives, including the means required to achieve them (the vertical logic) while the columns indicate how the achievement of these objectives can be verified (the horizontal logic).

The full matrix is shown below.

Narrative	Objectively	Means of	Important
Summary	Verifiable	Verification	Assumptions
	Indicators	(MOV)	
Goal	Measures of Goal	Sources of	Assumptions
	Achievement	Information	Affecting Purpose-
		Methods Used	Goal Link
Purpose	End of Project	Sources of	Assumptions
	Status	Information	Affecting Output-
		Methods Used	Purpose Link
Outputs	Magnitudes of	Sources of	Assumptions
	Outputs Planned	Information	Affecting Inputs-
	Completion Dates	Methods Use	Outputs link
Inputs	Nature and level of	Sources of	Initial Assumptions
	Resources	Information	About the Project
	Necessary Cost		
	Planned Starting		
1	Dates		

Table 14: Matrix of Indicators