LIVELIHOOD SECURITY PROJECT

Kholifa Mabang, Tonkolili, Sierra Leone

Implemented by Concern

Funded by Irish Aid

END OF PROJECT EVALUATION



August - September 2006

The comments contained herein reflect the views of the consultant only.





1 Table of Contents

1 TABLE OF CONTENTS	
2 ACKNOWLEDGEMENTS	6
AGKNOWLEBGEMENTO	
3 <u>LIST OF ACRONYMS</u>	7
4 EXECUTIVE SUMMARY	8
4.1 GENERAL COMMENTS	8
4.2 ACCESS INFRASTRUCTURE	9
4.3 FOOD SECURITY	9
4.4 ENVIRONMENT	9
4.5 LIVESTOCK	10 10
4.6 COMMUNITY GROUPS 4.7 MICRO-PROJECTS	10
4.8 CONCLUSIONS	11
4.9 FOLLOW-UP	11
4.10 LESSONS LEARNED FOR APPLICATION ELSEWHERE	11
5 INTRODUCTION	12
5.1 COUNTRY BACKGROUND	12
5.2 PROJECT BACKGROUND	12
5.2.1 OBJECTIVE	12
5.2.2 KEY OUTPUTS	12
5.2.3 INTENDED RESULTS	12
5.2.4 REWORDED INTENDED RESULTS (FROM 2005)	13
6 EVALUATION TERMS OF REFERENCE	14
6.1 OBJECTIVES OF THE EVALUATION	14
6.1.1 PURPOSE:	14
6.1.2 SPECIFIC TASKS:	14 14
6.2 METHODOLOGY OF THE EVALUATION 6.3 CONSTRAINTS TO THE EVALUATION	15
0.3 CONSTRAINTS TO THE EVALUATION	10
7 GENERAL COMMENTS	16
7.1 SOCIAL UNIT OF MANAGEMENT	16
7.1 SOCIAL UNIT OF MIANAGEMENT 7.2 PROJECT APPROACH	17
7.3 THE DIFFICULTIES FOR AGRICULTURAL EXPANSION	17
7.4 BENEFICIARY PERCEPTIONS AND PARTICIPATION	19
7.5 PARTNER PARTICIPATION AND PERCEPTIONS	20
7.6 INTEGRATION WITH OTHER CONCERN DEPARTMENTS	21
7.6.1 INTEGRATION WITH THE HEALTH DEPARTMENT:	21
7.6.1.1 Suggestions for more integration:	21

7.6.2 INTEGRATION WITH EDUCATION DEPARTMENT:	21
7.6.2.1 Suggestions for more integration:	22
8 CHIEFDOM-WIDE INTERVENTIONS	23
8.1 ROAD, CULVERT AND BRIDGE REHABILITATION	23
8.2 SEEDS AND TOOLS DISTRIBUTION	24
8.3 REDUCING POST-HARVEST LOSSES	26
8.3.1 Storage	26
8.3.1.1 Positive aspects of stores	26
8.3.1.2 Negative aspects of the stores	27
8.3.1.3 A solution?	27
8.3.2 DRYING FLOORS	27
8.3.2.1 Positive aspects of drying floors	28
8.3.2.2 Negative aspects of drying floors	28
8.3.2.3 A solution?	28
8.3.3 OTHER LOSSES	29
8.4 DEMONSTRATIONS AND FARMER FIELD SCHOOLS	29
8.4.1 FARMER-LED FARMER FIELD SCHOOLS	29
8.4.2 CHIEFDOM FARMER FIELD SCHOOLS	30
8.4.3 SYSTEMS APPROACHES TO ALTERNATIVES TO SLASH AND BURN	31
8.4.4 INTEGRATED PEST MANAGEMENT	32
8.5 ENVIRONMENTAL AWARENESS	32
8.5.1 FIRE CONTROL	32
8.5.2 FUEL EFFICIENT STOVES	32
8.6 ANIMAL RESTOCKING	33
8.7 WORKING WITH COMMUNITY GROUPS	34
9 MICRO-PROJECTS	38
9.1 MATUKU 2 MARKET	38
9.2 FISHING	38
9.3 AQUACULTURE	39
9.4 NERICA RICE MULTIPLICATION	40
9.5 APICULTURE	40
9.6 AGROFORESTRY	41
9.7 SCHOOL MANAGEMENT COMMITTEE FARM	41
9.8 GREEN CLUBS	42
9.9 ADULT EDUCATION	42
9.10 HUMAN RIGHTS MONITORING	43
10 CONCLUSIONS	44
10.1 RELEVANCE	44
10.2 EFFECTIVENESS	44
10.2.1 ENHANCED FOOD PRODUCTION	44
10.2.2 INCREASED MARKETS AND ACCESS	45
10.2.3 REDUCING VULNERABILITY	45
10.2.4 STRENGTHENING RESPONSIVE INSTITUTIONS	46
10.3 EFFICIENCY	46
10.4 IMPACT	47
10.4.1 INTENDED IMPACTS	47

10.4.1.1 Enhanced community confidence and competence in participating in the	
planning and implementation of rural development projects	47
10.4.1.2 Improved operational capabilities of local partners to facilitate and	
implement sustainable community-based development programmes	47
10.4.1.3 Upgrade food security / livelihoods at a local level	47
10.4.2 LONG TERM IMPACTS	48
10.4.3 Negative / Unintended impacts	48
10.5 SUSTAINABILITY	48
10.5.1 ECONOMIC SUSTAINABILITY	49
10.5.1.1 Sustainable elements	49
10.5.1.2 Unsustainable elements	49
10.5.2 Social sustainable elements	49
10.5.2.1 Sustainable elements	49
10.5.2.2 Unsustainable elements	50
10.5.3 ENVIRONMENTAL SUSTAINABILITY	50
10.5.3.1 Sustainable elements	50
10.5.3.2 Unsustainable elements	50
10.5.4 REPLICATION	51
10.5.4.1 Replicable elements	51
10.5.4.2 Non-replicable elements	51
10.5.4.3 Constraints to replication	51
10.5.5 WHAT MAKES A SUCCESSFUL GROUP?	52
10.6 CROSS-CUTTING ISSUES	52
10.6.1 HIV/AIDS AWARENESS	52
10.6.2 HUMAN RIGHTS	52
10.6.3 ENVIRONMENT	53
10.6.4 ADVOCACY	53
11 RECOMMENDATIONS	<u>54</u>
11 RECOMMENDATIONS	<u>54</u>
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG	54
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION	54 54
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions	54 54 54
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools	54 54 54 54
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions	54 54 54 54 54 54
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups	54 54 54 54 54 55
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges	54 54 54 54 54 55 55
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs	54 54 54 54 54 55 55
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture	54 54 54 54 54 55 55 55
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication	54 54 54 54 54 55 55 55 55
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education	54 54 54 54 55 55 55 55 55
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.2 NEW ACTIVITIES	54 54 54 54 55 55 55 55 56
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.2 NEW ACTIVITIES 11.1.2.1 Storage	54 54 54 54 55 55 55 55 55 56 56
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.1.2 NEW ACTIVITIES 11.1.2.1 Storage 11.1.2.2 Chiefdom level farmer field school	54 54 54 54 55 55 55 55 56 56 56
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.1.0 NEW ACTIVITIES 11.1.2.1 Storage 11.1.2.2 Chiefdom level farmer field school 11.1.2.3 Bring land tenure issue into the open	54 54 54 55 55 55 55 55 56 56 56
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.1 NEW ACTIVITIES 11.1.2.1 Storage 11.1.2.2 Chiefdom level farmer field school 11.1.2.3 Bring land tenure issue into the open 11.2 LESSONS LEARNED FOR APPLICATION ELSEWHERE	54 54 54 54 55 55 55 55 56 56 56 56
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.1.9 NEW ACTIVITIES 11.1.2.1 Storage 11.1.2.2 Chiefdom level farmer field school 11.1.2.3 Bring land tenure issue into the open 11.2 LESSONS LEARNED FOR APPLICATION ELSEWHERE 11.2.1 EVOLVING SYSTEM FROM LIVELIHOODS TO RIGHTS	54 54 54 54 55 55 55 55 56 56 56 56 57
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.1.9 NEW ACTIVITIES 11.1.2.1 Storage 11.1.2.2 Chiefdom level farmer field school 11.1.2.3 Bring land tenure issue into the open 11.2 LESSONS LEARNED FOR APPLICATION ELSEWHERE 11.2.1 EVOLVING SYSTEM FROM LIVELIHOODS TO RIGHTS 11.2.2 SOCIAL UNIT OF MANAGEMENT	54 54 54 54 55 55 55 55 56 56 56 56 57 57
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.2 Farmer field schools 11.1.3 Small ruminant distributions 11.1.4 Income generating activities for groups 11.1.5 Access: roads and bridges 11.1.6 Agroforestry and green clubs 11.1.7 Apiculture 11.1.8 Nerica multiplication 11.1.9 Adult education 11.1.2 NEW ACTIVITIES 11.1.2.1 Storage 11.1.2.2 Chiefdom level farmer field school 11.1.2.3 Bring land tenure issue into the open 11.2 LESSONS LEARNED FOR APPLICATION ELSEWHERE 11.2.1 EVOLVING SYSTEM FROM LIVELIHOODS TO RIGHTS 11.2.2 SOCIAL UNIT OF MANAGEMENT 11.2.3 BUILD REPLICABLE SYSTEMS	54 54 54 54 55 55 55 55 56 56 56 56 57 57
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.1.2 NEW ACTIVITIES 11.1.2.1 Storage 11.1.2.2 Chiefdom level farmer field school 11.1.2.3 Bring land tenure issue into the open 11.2 LESSONS LEARNED FOR APPLICATION ELSEWHERE 11.2.1 EVOLVING SYSTEM FROM LIVELIHOODS TO RIGHTS 11.2.2 SOCIAL UNIT OF MANAGEMENT 11.2.3 BUILD REPLICABLE SYSTEMS 11.2.4 INVOLVE LOCAL DEVELOPMENT ACTORS FROM THE OUTSET	54 54 54 55 55 55 55 56 56 56 57 57
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.2 NEW ACTIVITIES 11.1.2.1 Storage 11.1.2.2 Chiefdom level farmer field school 11.1.2.3 Bring land tenure issue into the open 11.2 LESSONS LEARNED FOR APPLICATION ELSEWHERE 11.2.1 EVOLVING SYSTEM FROM LIVELIHOODS TO RIGHTS 11.2.2 SOCIAL UNIT OF MANAGEMENT 11.2.3 BUILD REPLICABLE SYSTEMS 11.2.4 INVOLVE LOCAL DEVELOPMENT ACTORS FROM THE OUTSET 11.2.5 SYSTEMS APPROACH TO AGRICULTURE	54 54 54 55 55 55 55 56 56 56 57 57 57
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.2 NEW ACTIVITIES 11.1.2.1 Storage 11.1.2.2 Chiefdom level farmer field school 11.1.2.3 Bring land tenure issue into the open 11.2 LESSONS LEARNED FOR APPLICATION ELSEWHERE 11.2.1 EVOLVING SYSTEM FROM LIVELIHOODS TO RIGHTS 11.2.2 SOCIAL UNIT OF MANAGEMENT 11.2.3 BUILD REPLICABLE SYSTEMS 11.2.4 INVOLVE LOCAL DEVELOPMENT ACTORS FROM THE OUTSET 11.2.5 SYSTEMS APPROACH TO AGRICULTURE 11.2.6 INTEGRATED SAFETY NETS AND INCOME GENERATION	54 54 54 55 55 55 55 56 56 56 57 57 57 58
11.1 FOLLOW-UP ON THE PROJECT IN KHOLIFA MABANG 11.1.1 CONTINUATION 11.1.1.1 Seed distributions 11.1.1.2 Farmer field schools 11.1.1.3 Small ruminant distributions 11.1.1.4 Income generating activities for groups 11.1.1.5 Access: roads and bridges 11.1.1.6 Agroforestry and green clubs 11.1.1.7 Apiculture 11.1.1.8 Nerica multiplication 11.1.1.9 Adult education 11.1.2 NEW ACTIVITIES 11.1.2.1 Storage 11.1.2.2 Chiefdom level farmer field school 11.1.2.3 Bring land tenure issue into the open 11.2 LESSONS LEARNED FOR APPLICATION ELSEWHERE 11.2.1 EVOLVING SYSTEM FROM LIVELIHOODS TO RIGHTS 11.2.2 SOCIAL UNIT OF MANAGEMENT 11.2.3 BUILD REPLICABLE SYSTEMS 11.2.4 INVOLVE LOCAL DEVELOPMENT ACTORS FROM THE OUTSET 11.2.5 SYSTEMS APPROACH TO AGRICULTURE	54 54 54 55 55 55 55 56 56 56 57 57 57

12 ANNEXES	59
12.1 COMPILED COMMENTS FROM THE PROJECT STAFF	59
12.1.1 GOOD POINTS AND POINTS TO IMPROVE	59
12.1.2 SUGGESTED SOLUTIONS	59
12.1.2.1 Partnerships	59
12.1.2.2 Restocking	59
12.1.2.3 Farmer Field Schools	60
12.1.2.4 Monitoring	60
12.1.2.5 Advocacy	60
12.1.2.6 Capacity building for groups	60
12.1.2.7 Agroforestry	60
12.1.2.8 Exit strategy and vacuum	61
12.1.2.9 Road Network	61
12.2 PROJECT AREA MAP	62

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Thank you!

3 List of Acronyms

4WD - Four Wheel Drive

ABU - Agricultural Business Unit

ACF - Action Contre la Faim

ACT-SL - Agenda for Community Transformation-Sierra Leone

AIDS - Auto Immune Deficiency Syndrome

CARE - Cooperative for Assistance and Relief Everywhere

CBO - Community Based Organisation

CCYA - ??

CFFS - Chiefdom Farmer Field School

CI - Corrugated Iron

COBTRIP - ??

DCI - Development Coorperation Ireland

FAO - Food and Agriculture Organisation

FFS - Farmer Field School

GPS - Geographical Positioning System

HIV - Human Immunodeficiency Virus

IAR - Institute of Agricultural Research

IDRC - International Development Research Centre

IGA - Income Generating Activity

INGO - International Non Governmental Organisation

IP – Implementing Partner

IPM - Integrated Pest Management

ITDG - Intermediate Technology Development Group

IVS - Inland Valley Swamp

KTB - Kenya Top Bar hive

LNGO - Local Non-Governmental Organisation

M&E - Monitoring and Evaluation

MAFS - Ministry of Agriculture and Food Security

MAPS - Multi-Annual Programe Support

MoEd - Ministry of Education

MOU - Memorandum of Understanding

NGO - Non-Governmental Organisation

NPK - Nitrogen, Potassium and Phosphate fertiliser

RBA - Rights Based Approach

REFLECT – Regenerated Freirian Learning and Community Transformation

SASDA – Sight and Skills Development Agency

SLRA - Sierra Leone Roads Agency

SMC - School Management Committee

STAR - Stepping stones And Reflect

SWOT - Strengths, Weaknesses, Opportunities and Threats

UNDP - United Nations Development Agency

VSL - Village Saving and Loan

4 Executive Summary

Concern instigated the livelihood security project in Kholifa Mabang, Tonkolili district, Sierra Leone, in 2003. It uses a livelihood approach with community participation as a central strategy, in order to contribute to the improvement of livelihood security for vulnerable communities by promoting local capacities through micro-projects to achieve sustainable livelihoods. It has the following objectives (rewritten in 2005):

- 1. Enhance food production levels
- 2. Increase markets, and access to them
- 3. Reduce vulnerability
- 4. Strengthen responsive institutions

In August / September 2006, a consultant undertook an end of project evaluation which is the subject of this report. The objectives of the evaluation were to assess the project in terms of

- 1. Relevance
- 2. Efficiency
- 3. Effectiveness
- 4. Impact
- 5. Sustainability
- 6. Concern's relationships with its implementing partner organisations
- 7. Cross-cutting issues
- 8. Exit strategy / follow-on activities
- 9. Lessons learned for application elsewhere

Methodology included document review, meetings with staff of Concern and implementing partners (IPs), field visits, interviews with key informants, community and focus group meetings and the use of participatory methodology. It ended with a feedback session in Magbaruka for Concern, IP, government and other stakeholders at the Tonkolili level, and then a full debriefing to the Concern coordinating team in Freetown.

4.1 General comments

The project is, in general, excellent: the project can adapt to the specific needs of each place and it deals with immediate needs first before moving on to more 'software' options. This is done by first implementing from a livelihood approach, but gradually incorporating a rights based approach.

Concern works through partner organisations including the government, incorporates crosscutting issues and has helped increase food security and ability to withstand shocks in the beneficiary communities.

As a guiding principle the evaluator has also taken into consideration the 'social unit of management', which is the smallest grouping that make management decisions over a certain activity, and is thus the 'natural' decision making body. Not all activities have taken this into sufficient consideration.

It is very difficult for the small farmer in Sierra Leone to expand production. Returns from agriculture are insufficient for the farmer to cover costs of expansion (labour of mechanisation). Attaining food security in conditions like these is very difficult, and will affect the long term impact of project activities in the agriculture sector.

Common in rural Sierra Leone is a relief mentality, coupled with a lack of maintenance culture, which has led to widespread dependency syndrome. It is very difficult to break down entrenched behaviour like this and holds some activities back from attaining their full potential. However, long term relationships with implementing partners gives Concern the time required for community behaviour change. Communities, government and implementing partners trust Concern and the project is popular.

4.2 Access infrastructure

Roads have been rehabilitated by communities, assisted by Concern, but culvert rehabilitation was contracted out. Poor culvert design led to resource wastage, and contractors did not get sufficient participation from the communities. Other construction elements (stores, drying floors etc) have been done under the principle that the community invests as much as possible: local materials and all labour. The culverts should be treated in a consistent manner.

One bridge, that connects the villages of Matuku 1 and Matuku 2, is still not rehabilitated – it spans a wide river which floods every wet season, carrying away the running boards and rendering the bridge unsafe to use. The bridge connects a number of hinterland villages to the new market at Matuku 2, as well as the main road, health centre and school. It is important that this bridge is rehabilitated, at least to the point where it is safe for pedestrians carrying loads to traverse.

4.3 Food security

Seeds and tools distributions, done on a loan basis (recovered seed are redistributed to other beneficiaries in subsequent years), have reduced the 'hunger gap' from up to 5 months to as little as 2 months. Conducted by Concern, aimed at recovery of seed loans only, and with insufficient storage facilities in villages, the long term continuation of this activity is unlikely, and nobody has enough seed yet. Being driven by the communities as a seed bank system focused on multiplication would help to address long term seed shortages.

Cluster-level stores have been constructed in 5 locations, but are only used because of the considerable mobilisation that accompanied them. The traditional method of storage is done at a household level. These stores run the risk of being 'white elephants' even though post harvest losses are high across the project area. Drying floors improve drying of seed and are popular with beneficiaries, but are inefficient use of project funds. They are expensive; and the cheaper (and possibly more effective) alternative of using tarpaulins is more flexible and user friendly.

Agricultural techniques are being improved through farmer field schools (FFS), currently extension-led but with farmer led schools emerging in time. FFS introduce best practise to farmers, aimed at increasing production through simple skill improvements. Innovative farmers will implement these techniques in their fields and thus become 'living demonstrations'.

Agriculture, however, is predominantly slash and burn, and in a degraded environment, is increasingly unsustainable. Alternatives to slash and burn, which centre around integrated systems approaches to agriculture, should be trialled and demonstrated at a chiefdom level: in chiefdom farmer field schools, which should serve as centres for higher learning for expert farmers in the chiefdom.

The best farmers, who are demonstrating lessons from the FFS, and who have attended the chiefdom FFS, should become 'green flag volunteers', like the blue flag volunteers for community health, and given incentives (mobility, profile etc) to be able to operate into the long term.

4.4 Environment

Concern is active in promoting environmental awareness through a bush fire campaign, replanting through schools and in community agroforestry plots, and the promotion of ecostoves, which reduce fuel needs and decrease smoke during cooking, thus providing health benefits too.

It has become clear that people need short term economic incentive to protect from fire, so replanting must be with trees that can give short term economic return (fruit trees), and done

at a household level (community agroforestry plots are not maintained as trees are traditionally owned by households).

4.5 Livestock

Small ruminants have been distributed, highly relevant, as a traditional long term saving strategy is through animals; animals thus reduce vulnerability whilst improving access to proteins. Lessons have been learned from the first round of distributed animals dying from disease, so now animals are vaccinated prior to distribution, which focuses on households.

Paravets in beneficiary villages are trained and linked to MAFS veterinary agents to provide long term animal care and respond to disease outbreaks in a timely manner. They should become 'brown flag volunteers', and given incentives (profile, flags, bicycles, certificates etc) to be able to operate into the long term.

4.6 Community groups

Community groups are selected for micro-projects, the majority of which are farming activities coupled with Thrift and Save (group savings for future investment and access to loans through the community bank), but also pilot projects.

Proceeds from group work provides access to low interest seed loans, helping people out of the debt trap, and can cover necessary unpredictable expenses such as health costs or funeral expenses for group members and the most vulnerable in the community. It is therefore an important safety net or 'insurance policy'.

From the larger groups, small groupings of people can invest small loans from the thrift and save in income generating activities (the main groups are too large to generate meaningful income increases for members). The project needs to facilitate this 'graduation' process from safety net to income generation, with training and, possibly, fund matching or provision of capital items.

4.7 Micro-projects

Fishing groups have been supplied with nets, but the fishing technique is inherently unsustainable, and the nets are not being adequately maintained. It is suspected that the groups are not the right social unit for fishing.

One community has implemented a community fish pond, facilitated by ACT-SL. Implementation is excellent but community ownership is limited, and has led to group members poaching fish from the pond. It is suggested that fish ponds should be done at a household level.

Nerica rice, a new improved rice variety, is being multiplied by 2 communities. This rice variety represents a good opportunity to considerably increase food production in IVS (inland valley swamps), although with higher fertility requirements and low pest resistance, is an expensive and risky investment. It should not be a replacement variety, but an addition to existing varieties.

Apiculture, farming bees for honey, is being trialled in 2 villages. It is too early to see impacts but signs are positive: opportunities for significant income generation, and environmental benefits from increased pollination and fire control. Replication of this pilot would need to be driven by NGOs, or through thrift and save groups, as it requires some investment in capital items.

School Management Committees (SMC) are encouraged to start group farming activities as a way of earning income for the rebuilding of their school. The SMC at Robis has managed to

mobilise the community to do free labour (not even for food) and cultivate a huge cassava farm, but have marketing issues. They are unwilling to invest in a long term strategy like the purchase of a gari processing machine.

Adult education, literacy and numeracy, has been trialled in one village, facilitated by SASDA, and has been very successful. There is a huge need for its extension through time and in other villages. Educators have been paid, but should not be; rather, they should become 'white flag volunteers', and provided incentives to promote adult education into the long term. Adult education could be integrated with HIV/AIDS awareness.

Human rights are being monitored in 2 villages, through recording abuses in log books, and are contributing to a reduction of community crime.

4.8 Conclusions

The project deals with relevant issues, with an appropriate approach, and largely achieves its' purpose, especially in the reduction of vulnerability, access to markets and the strengthening of partner organisations.

It must be noted that food security is not yet assured, and neither are meaningful increases in household income. However, the project has made significant advances towards these goals, groups are ready to implement IGAs, and so the project should not stop yet.

Without more significant returns to group members it is unlikely that all groups will survive into the long term, but with some continued support it is quite possible to capitalise on current impressive gains and attain some sustainable outcomes. However, it must be recognised that costs of farming will continue to rise, and the environment will continue to degrade, making it progressively more difficult for the rural Sierra Leonean smallholder. These macro issues must be addressed too.

4.9 Follow-up

Concern should aim to exit in late 2007, which would be sufficient time to:

- Finish off ongoing activities such as roads and bridges, Nerica multiplication, apiculture and green clubs
- Assist in household level storage
- Ensure that seed distributions are owned by, and done by, communities
- Continue and extend distributions of animals
- Replicate and continue adult education
- Facilitate the establishment of IGAs with members from thrift and save groups
- Establish a chiefdom farmer field school to demonstrate alternatives to slash and burn

4.10 Lessons learned for application elsewhere

- Start with a livelihoods approach, which should evolve into a rights based approach through time
- · Don't forget the social unit of management
- Build systems that can be easily replicated by communities
- Involve local development actors (NGOs, CBOs and government) from the outset
- Use an integrated systems approach to agriculture to attain sustainability
- Integrate community safety nets with income generation
- Ensure there are short term economic gains in long term strategies
- Research and disseminate more ideas, in livelihoods, income generation and agricultural techniques

5 Introduction

5.1 Country background

Sierra Leone is emerging from 11 years of violent conflict (officially ended in 2001), which resulted in massive displacement of rural civilian populations, and the almost complete standstill of the rural economy and agriculture.

More than 70% of Sierra Leoneans live in rural areas, the vast majority of them being subsistence farmers; producing rice, cassava and groundnuts. Prior to the war fishing and animal husbandry were also important components of the rural economy.

Tonkolili district, in the heart of the country, was an important cereal producing area before the war, and suffers from degraded soils due to deforestation. It has high potential for agricultural production due to many seasonal inland valley swamps (IVS) and generally flat topography lending itself to mechanisation.

5.2 Project background

Concern instigated the livelihood security project in Kholifa Mabang in 2003. It uses a livelihood approach with community participation as a central strategy; dealing with widespread and general issues of providing agricultural inputs, and moving towards place-specific micro-projects and pilots. It works through implementing partners (local NGOs and district level line ministries) in order to ensure sustainability.

The objective, key outputs and intended results of the project are 1:

5.2.1 Objective

To contribute to the improvement of livelihood security for vulnerable communities in Kholifa Mabang Chiefdom by promoting local capacities through micro-projects to achieve sustainable livelihoods

5.2.2 Key outputs

- 1. Restore livelihood options for the vulnerable farmers in Kholifa Mabang Chiefdom
- 2. Increase capacity of local partners
- 3. Improve capacity of local communities
- 4. Support community-based micro-projects

5.2.3 Intended results

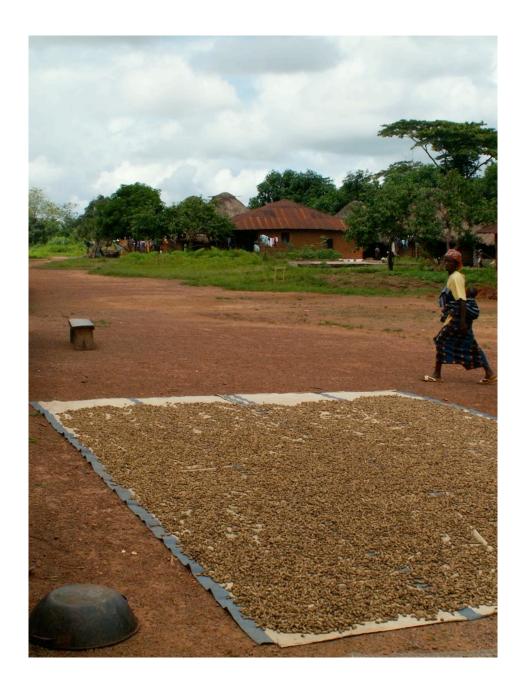
- Improved food availability, and access for the vulnerable target families in the Chiefdom
- 2. Improved community / partner organisation and knowledge
- 3. Improved application of participatory methodologies in community development
- 4. Improved opportunities for expanding income for target communities
- 5. Improved access to farm input resources

These results were re-written in 2005 (below) as it became clear that result 1 and 5 meant much the same thing; and the pursuit of income generation appears to be rather more difficult than anticipated. The project was also extended to 2006, due to a slow start, and the recognition that the process of recovery cannot be rushed.

¹ From the proposal "Livelihood Security Programme 2003-2005", Concern Sierra Leone. Please note this report also documents activities in Konike and Konike Barina, so details to each output have been reworded to better reflect the Kholifa Mabang project only.

5.2.4 Reworded intended results (from 2005²)

- 5. Enhance food production levels
- 6. Increase markets, and access to them
- Reduce vulnerability
 Strengthen responsive institutions



² Adapted from "March – May Quarterly Progress Report 2006", Concern Sierra Leone

6 Evaluation terms of reference

6.1 Objectives of the evaluation

6.1.1 Purpose:

For an external consultant to evaluate the interventions and strategies in the Kholifa Mabang (2003 – 2005) livelihood security program.

6.1.2 Specific tasks:

Provide specific recommendations in the project evaluation based on the following:

- 1. Relevance: to provide recommendations on the relevance of the interventions given the wider context of healthcare service delivery in Sierra Leone;
- 2. Effectiveness: to provide recommendations on the appropriateness of the strategies employed and their implementation in the operational area;
- 3. Efficiency: to comment on the number of intermediate, direct and indirect beneficiaries receiving support compared to the program resources channelled into Kholifa Mabang during the past 3 years;
- 4. Impact: to evaluate the link between goal, purpose and outputs and to determine the degree of effect, outcome and impact for each of the core outputs ...
- 5. Sustainability: to determine to what degree the interventions in building capital assets in the targeted communities (and with various institutions) can be sustained and to recommend the nature and scope of follow up support that may still be required;
- 6. Comment on the current plans for an exit strategy from Kholifa Mabang and provide critical appraisal where required;
- 7. Assess to what extent the various cross cutting issues have been mainstreamed into the programs such as equality, RBA, HIV/AIDS, capacity building, environment and advocacy;
- 8. Assess the role that partnership has played in the program to date at grass roots, district and national level and to recommend how this might be built upon in the future:
- 9. To provide general recommendations and salient lessons learnt to Concern's new 5 year development plan in Konike & Konike Barina chiefdoms (2006 2008)³.

6.2 Methodology of the evaluation

The evaluation was carried out from the 25th August to the 8th September 2006. Methods used included:

- Document review
- · Briefings with key Concern and IP staff
- Community meetings
- · Focus group and key informant meetings
- Participatory methodology
- · Field visits and guided tours
- · Group brainstorming meeting with staff

³ Copied from the "Terms of Reference for the evaluation of the livelihood security program in Tonkolili district", A. Short and T. Alabi, Concern, 2006

- Feedback session to staff, implementing partners and local government
- · Debriefing session to coordinating team, Concern, Freetown

6.3 Constraints to the evaluation

The evaluator specifically asked for an independent translator to accompany him, and not to be constantly accompanied by project staff, so as to ensure objectivity of the research. Whilst this allowed community representatives to criticise Concern (if they wanted to), it reduced the time spent with the field staff, and made verification of information more difficult.

Project staff not being present meant some communities were less than honest with the evaluator – exaggerating their claims.

There is a widespread attitude amongst the rural population of Sierra Leone that one should ask for what one thinks the NGO will provide, and don't criticise it later. This is well expressed in the local saying: "a drowning man will even grasp the sharp end of a knife to be pulled out of the water." It is symptomatic of the 'dependency syndrome'. It is the challenge of the evaluator to design questions that get around this issue, and to create enabling environments for open and honest discourse.

One road was impassable, due to the evaluation being carried out in the peak month of the rainy season, and the vehicle that had been assigned to the evaluation having a fault with the 4WD operation. Only one day was affected.



7 **General comments**

The project is, in general, excellent – both in design and implementation. Whilst this report inevitably focuses on criticisms, it cannot be forgotten that overall this project has been very well done.

Reasons for this are:

- Interventions are designed according to the place, culture and needs of each community / group, as opposed to a blanket approach that assumes that all places have the same needs
- Immediate needs are dealt with first primarily seeds and tools, which then frees the project and beneficiaries to concentrate on developmental activities
- The project uses a livelihood approach as an entry point, which deals with immediate needs as expressed by the beneficiaries, before moving on to more 'software' options like human rights
- The project uses partner organisations, line ministries and local NGOs, thus ensuring long term sustainability
- The project design, Concern and DCI/MAPS are flexible, allowing for changes to the project when they become necessary
- The project is well integrated into the other Concern departments, and incorporates cross-cutting issues such as HIV/AIDS, environment and gender
- Concern, and therefore the livelihoods department, are committed to long term development

7.1 Social Unit of Management

The social unit of management⁴ is the smallest grouping that make management decisions over a certain activity, and is thus the 'natural' decision making body. It is different for different cultures, places and activities.

In designing projects, one must ask the question "what is the social unit of management?" for the activity in question, and design interventions accordingly.

In the Timni⁵ context in Kholifa Mabang, here are some examples:

- Food production, threshing, drying and storage done at the 'pot' level: small nuclear family group, sometimes referred to as a 'household⁶', normally comprising parents and children, who eat together from the same pot.
- Field clearing, harrowing and harvesting done at a working group⁷ level
- Skills transfer done at a village level
- Income generation 'pot', a few family members or relations, or a small group of friends
- Fishing with cast nets or dip nets individual or 'pot' level
- Fishing with permanent nets or fences could be done at a small group level like for income generation

There are cases within the project of an improper social unit of management being used. These interventions may have less success. Examples include:

- Cluster level storage of seeds and grain, should be household level
- Village level drying of seed and grain (drying floors), should be household level
- Income generation in large CBOs or women's groups⁸, should be smaller groups

⁴ term coined by the evaluator

⁵ majority tribe represented in Kholifa Mabang

⁶ confusing terminology, as some houses have several pot units, or households, under the same roof. One house had 17 households living in it!

⁷ People come together to share the burden of hard labour, in a self-help working group. They rotate through the members' farms, clearing (brushing), ploughing and harvesting, and the farm owner provides food and drink

- Community level reforestation (agroforestry)⁹, but trees are owned by individuals or households
- Community management of small ruminants (animal restocking)¹⁰, should be at a household level

7.2 Project approach

The project uses a livelihood security approach, which means that, as a point of entry, the project addresses beneficiaries' immediate livelihood needs: food production, market access and rural infrastructure, vulnerability and income generation.

The project uses participatory methodology, allowing beneficiaries to steer the interventions of the project. In practical terms, because people need to strengthen their livelihoods, community participation and a livelihoods approach amount to the same thing.

An alternative approach, the Rights Based Approach (RBA), uses human rights as the entry point; building representative institutions in communities, discussing underlying causes of conflict and poverty, building links with other levels (administration, traditional etc) and then dealing with emerging needs.

It is the opinion of the evaluator that these two approaches should be integrated together, as an evolved approach:

- Entry point is to deal with initial issues as raised by the communities through participation which, in Sierra Leone, is livelihoods
- Once the most pressing felt needs have been addressed, the project can evolve into a rights based approach, bringing in discussion on rights issues such as representation, gender, child labour, access to land etc
- By the time rights are discussed, the project should have achieved much.
 Beneficiaries would be more open to discussing sensitive issues

7.3 The difficulties for agricultural expansion

It is very difficult for the small farmer in Sierra Leone to expand production. Several reasons exist for this, and the list below is far from inclusive. Reference should also be made to the Concern study of macro-economic constraints to the agriculture sector¹¹.

Reasons include:

- Agricultural produce realises very poor returns for farmers (low prices)
- Many farmers are deeply in debt
- Poverty forces farmers to access very high interest private loans¹²
- Many expenses come before harvest time, catching poor farmers unawares¹³
- Low interest credit is unavailable¹⁴
- Farm inputs costs are too expensive. This includes labour, mechanisation, fertilisers and improved seeds
- Mechanisation is currently subsidised by MAFS; costs only cover fuel and operator time, but even that is too high for most people. Rental costs are due to be imposed¹⁵ and fuel prices continue to rise

11 Study to review National policy & Macro-economic anomalies constraining agricultural development in Sierra Leone, by S. Bangura, Concern / MAFS, March 2006

¹² A bushel sold in advance of the harvest can be sold to unscrupulous traders for between 8000 and 16000le, whereas after the market is likely to fetch 30,000-35,000le

¹³ Such as school costs at the beginning of September, and health costs in the wet season (when disease and hunger is highest)

¹⁴ The community bank, Yoni, at Mile 91, ask for a 20% interest on agricultural activities, which only organised groups or richer people can access (to meet the minimum savings requirement)

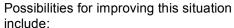
⁸ CBOs operate coping strategies at a group level but the groups are too large to make sufficient economic incentives for individuals

⁹ already changed to target households / individuals

already changed to target households

- Paid labour for farm clearing and weeding is not affordable ¹⁶, even self-help groups (where farm brushing / ploughing / harvest is done by group members) requires food being provided by the farm owners; some farmers don't produce enough even for this ¹⁷
- Labour availability is very low as many youth have migrated to the cities, and farmer's
 inability to offer enough cash for farm labour means there is no incentive to return to
 the rural areas
- Much food is used in tribal ceremonies¹⁸
- · Massive post harvest losses force farmers to resort to loans for seed
- Very few processing machines exist (mills, gari processors etc)
- Fertiliser, even if available is too expensive for most farmers
- Declining soil fertility
- Roads and markets are in disrepair, so few vehicles risk the rural feeder roads, and those that do ply rural roads are expensive
- Farmers must compete with cheap imported rice and food aid
- Farmers have little knowledge of, and no access to, foreign export markets even if they exist
- Almost no investment in the agriculture sector by businesses, in part due to corruption (returns must be huge as there are so many hidden costs)
- Market demand is not diverse, so there is little incentive trying to grow 'new' crops for the local market
- Farmer knowledge of better or alternative farming practices is low
- Only about 20% of the rural population in Tonkolili own land; it is easy for the remaining 80% to access land to farm annual crops, but there is no incentive for the tenant farmer to invest in any long term land improvement strategies

In conditions like this the likelihood that farmers can become food secure is low.





- Animal traction for farm ploughing (not relevant in Tonkolili, where there is no history
 of using animals in this way due to animal disease)
- Even more subsidisation of farm machines (unlikely, as GoSL does not have the money either, and it would just promote dependency)
- Community grows oil crops for use as bio-fuel in tractors, thus reducing fuel costs considerably (not a short term strategy – a number of issues would need to be resolved such as technology, oil presses, taxation etc)

¹⁵ Maybe as early as 2007, it is proposed to place a fee of 30,000le per acre (Tonkolili District MAFS director)

¹⁶ One person day for brushing and ploughing costs about 3000le (USD\$1). It is normal for a household to plant 2-3 bushels of rice seed. To clear a field for 2 bushels, up to 30 people are required for a day; another day for ploughing (turning the soil after broadcasting the seed), meaning a cost of 180,000le (USD\$60) – far above what people can afford. 2 bushels will not provide enough rice for a year for an average family

¹⁷ Mathinka Lol women's group invested almost half their seed / grain in labour: 21 bags of seed were provided to them, 11 of which they planted and 10 they used as food for the labour that prepared the field. Of the 40 bags they harvested, 10 bags were loaned to the most vulnerable, 11 bags were planted and a staggering 19 bags were consumed by the workers (pers. comm.)

¹⁸ Coming of age, circumcision and secret societies cost much food every year, especially as festivals are often held after harvests

- Moving away from reliance on crops that take up a lot of land for small returns (rice) towards higher value crops (vegetables, tree crops and cash crops) (a more feasible option, but markets, both national and international, need to be encouraged)
- Enable investment by business in medium and large scale processing plants (oil palm, gari, rice mills etc), transport and marketing (opening up rural areas to Freetown and international markets): requires a considerable reduction in hidden costs for the investor, and a significant improvement of the rural road network and overseas markets
- More widespread promotion of improved agricultural systems, such as agroforestry, improved / productive fallows, integrated crop-livestock systems, and encouragement of organic farming
- Encourage long term lease of land for farmers so as to encourage long term investments such as tree crops, or for land owners to start demanding land is improved as part of the conditions for use of the land

7.4 Beneficiary perceptions and participation

Beneficiaries are all very satisfied with the work that Concern has been doing with them. Various quotes serve to illustrate this point:

"Concern helps bring peace to the village and unity amongst the women" 19



"We can now express ourselves openly because we have more power from the successes of our group, and our husbands are proud of us"²⁰

"Concern is not the first NGO to come here, but is the best we have had. Other NGOs that want to work here should seek advice from Concern first"²¹

"Our children used to work in the farms, but now go to school, so we have less labour. However, we like it; Concern must express the importance of education wherever they go"²²

However, there are still requests for further support and assistance:

"We are still not strong enough to be left alone yet – we need more assistance" 23

"Whatever goodness you may have in your possession you also pray for your neighbours to have" 24

"These are not our real needs but we have to be grateful" 25

"We are like a suckling child. Do you abandon the child once it is weaned? No! The mother continues to care and teach. We are strong, but we are not ready to walk alone!" 26

²¹ Mawoor demo plot / FFS participants

¹⁹ Mathinka Lol women's group

²⁰ Masimo women's group

Rokankarr CBO member whilst discussing the issue of farm labour

Masimo women's group, in reference to farming activities of the group: they have had poor harvests

²⁴ Mawoor demo plot / FFS participant, asking for Concern to extend it's operations to other areas ²⁵ Mamilagbla elder, who went on to say that shelter, due to the fire risk of thatch houses, is more important

There is still entrenched 'relief mentality'. The project addresses this with a participatory, empowering approach. Beneficiaries are satisfied with their inclusion in all aspects of the project, with complaints only being raised in regards to culvert construction²

It will take much longer than 3 years to bring about widespread behaviour change. The dependency that comes from the relief mentality is compounded by very poor education, widespread illiteracy, poor access to information, and little maintenance culture (if it breaks, just wait for an NGO to give us another one). Examples are:

- Maworr fishing group have broken all of their nets (distributed by Concern), and no effort has been made to mend them. They have been discarded or are being used to keep goats out of a vegetable patch
- Complaints were raised regarding rain runoff eroding soil from the foundations of the store. Rokankarr. No effort has been made to dig a drainage channel or divert the
- Rokankarr CBO want Concern to buy their rice harvest (quaranteed market, saves them having to find a market themselves)
- Rotorble wants Concern / ACT to stock their pond a second time as they lost some fish in a flood before the first harvest
- Many groups and households had a very poor groundnut harvest last year; there are widespread requests for a further distribution of groundnut seed

Another symptom of the relief mentality is the reluctance to invest in long term livelihood strategies compounded by the land tenure system, poor access to animals (the most common long term saving strategy) and poor understanding of the benefits and market opportunities to be had from investing in tree crops. It has emerged that long term strategies will only be successful if there is a short term economic return too.

7.5 Partner participation and perceptions

Concern works through implementing partners (IPs) – either local NGOs or district departments of line ministries. This builds the capacity of 'front line development institutions' to continue long term development, as they are less likely to leave. This approach helps ensure long term sustainability of the project's benefits and so is wholeheartedly supported.

Implementing partners are happy with their relationship with Concern and the project.

Of course they want more. The evaluator's suggests that developing deeper relationships with LNGOs, and devolving more responsibilities to them, should be a slow process:

- The competitive environment for LNGOs means they have to be very good to attract long term support
- LNGOs have also come out of a relief oriented working environment and need to be re-skilled
- There is a widespread shortage of upper management skills in Sierra Leone NGO society: the LNGOs that the evaluator met had a clear understanding of their roles and process, but their ability to operate independently in a transparent and robust way, undertake the proposal writing, reporting, accounting and networking to international standards remains to be seen
- Many examples exist of LNGOs being pushed too far too soon they need time to become capable and confident in their jobs

damaged; with greater community participation the contractor would have known of these places and

Other suggestions for improvement include ²⁸:

designed accordingly

20

²⁶ This was said several times, in different communities

²⁷ Communities have complained that they were not involved by the contractors in the planning or implementation of the culverts. Some culverts are in places that regularly flood, and are already being

- Streamline the bureaucracy between Concern and contract winners (although Concern needs to maintain stringent quality control)
- Assist successful and dynamic partners (who will have a longer term relationship with Concern) with transport

Concern's relationship with MAFS is also strong, with information sharing, coordination, integration of activities and the provision of motorbikes and bicycles to ensure mobility. MAFS is constrained by lack of funds, equipment, staff and a clear strategy. MAFS Tonkolili feel they can safely 'ignore' Kholifa Mabang, and concentrate on other chiefdoms, because Concern are there, who are trusted. While this points to a good relationship with Concern, it also implies that they are not yet ready to take on fuller responsibility for their mandate. Concern must continue to encourage and support MAFS to be more active in Kholifa Mabang as well as other chiefdoms.

Other suggestions for improvement include:

- involve MAFS from the outset of the project be involved in planning and ensure greater coordination with other MAFS initiatives
- have one MAFS staff member as a project staff member (supported by MAFS) to ensure greatest cooperation, information flow and capacity building
- greater coordination between MAFS FFS (Farmer Field Schools²⁹), NGO FFS and ABU (Agricultural Business Unit³⁰)

That Concern intends to remain in Sierra Leone for at least the next 10 years means there is time enough to ensure partners are ready to be self sufficient.

7.6 Integration with other Concern departments

7.6.1 Integration with the health department:

- HIV/AIDS awareness sessions regularly run with groups in the livelihoods department, and through the LNGO COBTRIP
- Distributions of seeds and small ruminants has obvious positive benefits for nutrition

7.6.1.1 Suggestions for more integration:

- Paravets and MAFS veterinary officers could use some storage space for drugs in Concern supported health centres
- Blue flag volunteers could be a model for contact farmers (green flags), paravets (brown or yellow flags) and literacy / Stepping Stones facilitators (white flags), and the health department could assist in training and planning
- Community Health Clubs could be for other community development, especially in determining vulnerability lists and awareness raising on a number of issues including human rights and environmental awareness
- Literacy classes can be integrated with HIV/AIDS awareness techniques (see later)

7.6.2 Integration with education department:

- School management committees (SMC) are supported through the livelihoods department for income generating activities, in order to fund their school rebuilding
- Green clubs are run through schools, with school children
- Literacy classes (pilot project) are adult education but run through the livelihoods project (through an implementing partner SASDA)

supported by Trood and Agriculture Organic (UNDP)

21

²⁸ from meetings with SASDA (Sight and Skills Development Agency) and ACT-SL (Agenda for Social Transformation Sierra Leone); and discussions with representatives from Radio Gbanth and Association for Disabled People

²⁹ supported by Food and Agriculture Organisation (FAO)

7.6.2.1 Suggestions for more integration:

- Lessons learned from the successful Robis SMC pilot should be shared with other SMCs, for replication in other schools.
- Green clubs should be replicated in other schools across the country
- In order to do that, Concern should advocate for adoption of green clubs in the national curriculum
- Literacy classes should be replicated in other communities, and literacy facilitators supported as 'white flag' volunteers



8 Chiefdom-wide interventions

8.1 Road, culvert and bridge rehabilitation

Communities, when asked, say they own the feeder roads, so it falls to them to maintain them. Concern has assisted with tools for 'self-help roads' which the communities have rehabilitated themselves.

Culverts, being more technically challenging, were rehabilitated by contractors, funded by Concern. Two issues arise: one is the level of community participation as mentioned in section 7.4 above; the other is the design of the culverts themselves.

It is recommended that a map is drawn up of the road, in participation with community members – from all the villages that own the road – in order to identify problem spots. The road should be walked in its entirety with community people. Concern / contractor staff should have equipment to mark problem spots (e.g. GPS) and record important information (digital camera, tape measures etc), and get full explanations of the conditions in the wet season, depth of mud and water etc.

It is suggested that any MOU with a contracting company specifically include requirements for full community participation.

Communities should provide:

- 100% of locally available materials sand, gravel, wood etc
- 100% of the labour at no charge
- food and accommodation for technical supervisor(s) for the duration of the work (this
 would encourage the communities to get the work done on time too)

Contractors should provide:

- technical supervision perhaps a technical supervisor, or even a couple of skilled masons
- training of community workers to ensure the work is done properly and in time
- tools
- materials that are impossible to access locally iron rods, cement, nails etc
- transport and logistics where necessary certainly for imported materials, and
 possibly for local materials of they are sourced from afar (but if close community head
 hauling would suffice)

Concern should provide:

- community mobilisation leading to MOU agreements and timely implementation
- supervision of both community and contractor to ensure contract compliance
- ensure timing of construction fits with the agricultural calendar
- conflict resolution if needed

It may be that communities refuse these rather harsh terms, but they have to realise that if they own the road, then they must take responsibility for it. Failure to mend their culverts will have negative consequences for trade, for other villages as well as theirs. However, if a community is persisting in demanding more (pay / incentives), alternatives could be considered:

- skilled labour (e.g. experienced masons) could be paid a small wage, but should be expected to take a lead role in construction; unskilled labour should remain 'free'
- motivation payments
 - o labour is provided free of charge, but in recognition of their hard work, once the work is over a motivation payment is made
 - o the payment can be made in instalments, after sections of the work is done
 - the payment is smaller (about 50%) of what labour would have received if they were paid
 - the payment does not go to the workers, but to the community: so the workers are working for the community

- the payment is only made after the community decides, plans and commits to using the money for positive community development (e.g. school rehabilitation) – a process that should be facilitated by Concern staff
- the payment can be made in kind for example the purchase of roofing sheets or other materials not accessible in villages
- the community is monitored to ensure they use the payment / materials as they said they would



The side-walls of the culverts are a waste of cement (see photos), as they have no load bearing function. Marking the position of the bridge could be done with sticks or brick pillars.

It is suggested that the cement used in these walls should have been used in reinforcing the road banks leading up to the culverts, or channel walls to reduce erosion risks. The budget per culvert does not need to be changed.



Some roads remain unfinished, so Concern should assist the communities to get them done.

It is necessary for the bridge between Matuku 1 and 2 (see photo) to be rehabilitated – maybe not to the quality of being able to drive a vehicle across it, but at least safe for pedestrians to cross it in all but the highest floods³¹. This bridge connects several villages to the main road at Matuku 2, where there is a market. The bridge gets flooded every wet season, removing the wooden boards and hand rails. People in Matuku 1



reported that children miss the first month of school at the end of the wet season, as they are afraid of traversing the bridge; even in the dry season the drop between the bridge and the river bed is high. Furthermore, this bridge is preventing people from carrying more produce to the market.



8.2 Seeds and tools distribution

Seeds (rice and groundnut), other planting material (cassava cuttings and sweet potato vines) and agricultural tools have been distributed to vulnerable households, in order to replace agricultural assets lost during the war. It was essential that Concern do this, as without these assets food security could never be assured. It is noteworthy that households, the social unit of management for agricultural production, has been targeted.

Seed is distributed on a loan recovery basis, whereby households return their seed to Concern, for redistributing, after the harvest. Over half of the vulnerable households, as

³¹ permanently fix tight-fitting bridge boards and hand rails (on both sides) to the structure, so that they do not wash away in floods, and build up the approaches to the bridge (ensuring floods don't wash them away again) would make it much safer at an affordable price – no major rebuilding of the supports would be needed. It would be a total rebuild to get vehicles across.

identified by the community and verified by Concern, receive seed in the first year, the rest receive in year 2 (and 3 and 4 in some cases as displaced people come back to their villages). Distributing in this way has a number of benefits:

- the most needy are assisted immediately
- less seed quantity distributed keeps Concern's costs down
- redistribution instils responsibility for attaining a good harvest and seed saving
- in the event of some households having harvest failure, there will still be enough seed for subsequent distributions

Unfortunately the seed storage and redistribution has been the responsibility of Concern, where it should be the responsibility of the community. If Concern take a lead role in this, it is far less likely that the community will continue to multiply and redistribute their seed beyond the duration of the project. A seed bank system for seed multiplication should have been implemented:

- village level storage³² (small designed JUST for seed banking) should be implemented where no other options exist
- a community committee should be responsible for collecting, storing and redistributing seed loans from community members
- seed repayment should have an interest rate (suggest something like: receive 1 bushel, return 1 bushel, plus 1 pan interest³³). This could be brought in after the most vulnerable people have received their seed
- if the process if transparent, then those that receive next year will keep an eye on those that have received already, as they want to get their seeds next year. This ensures community monitoring and thus responsibility
- In the event of a disastrous harvest, where a household cannot repay their loan, they
 could be given a chance to repay their loan one year later. Again, if the community is
 monitoring it, they will know if someone is being honest or not and react accordingly
- Concern staff should monitor the process and help resolve any conflicts that arise
- Once all vulnerable people have received seed, less poor households could receive seed, redistribution and multiplication could be extended to cluster villages, or seed bank stocks could be provided to CBOs for group farming
- Done this way, theoretically the seed redistribution could continue indefinitely

The impact of receiving seed is considerable: with a focus on dry land rice seed, a participatory study was undertaken with farmers in Magbontho village (see photo).



- ← end of the year
- ← harvest; end of rains
- ← pre-war end of stored food
- ← post-distribution end of stored food
- ← pre-distribution end of stored food; start of rains and planting time

← start of year and time to brush fields

³³ Sierra Leonean seed volume measurements: 1 bushel is just similar to a 50kg sack (not accurate). There are 24 pans to a bushel

³² whilst the social unit of management for storage is at a household level, with regards to seed multiplication through a seed bank system, the social unit is the village. The risk with keeping seeds in houses is that hungry people will eat them before planting time

Prior to the seed distribution, rice stocks were running out at the beginning of the planting season. After the distribution, with the extra bushel of seed provided by Concern³⁴, rice stocks are running out half way through the growing season – an increase in rice availability of 2-3 months. Prior to the war they were running out of rice before the harvest, but only by about 1 month.

They estimated that a household really needs 4-5 bushels of rice seed to assure enough of a harvest for a whole year (depending on family size and assuming a good harvest³⁵). Even after the distribution, farmers still do not have enough seed, and they may not be multiplying their seed stocks. It is suggested, therefore, that multiplication (as explained above), as well as redistribution, be pursued.

Reducing post-harvest losses 8.3

5 stores (with attatched drying floors) have been built at cluster level, are used by Concern while they are needed, and then handed over to communities. Each one serves several villages.

Drying floors have also been built in 13 villages, for the use of households in those villages. Tarpaulins have also been distributed (for drying, as part of the agriculture tool kit) to 30 villages.

Both stores and drying floors are popular with beneficiaries. However, both stores and drying floors have serious constraints to them, in terms of efficiency, effectiveness and sustainability, as described below.

8.3.1 Storage

8.3.1.1 Positive aspects of stores

- Post harvest losses are very high in every village
- Losses come from rodents (mainly rats), theft (children, hungry household members, others) and fire (most severe for houses with thatch roofs, results in catastrophic loss of posessions).
- Stores built from brick and cement, with wire mesh over
 - ventilation, and CI sheet roofs, are proof to all three of the main storage losses
- Household stores³⁶ are generally in a bad state of disrepair, are easily accessed by rats and thieves, or don't exist in the post war situation
- Stores are popular with beneficiaries
- Concern has built the stores to a very high standard
- Concern has invested considerable energy in mobilising the community to actually use the stores

 34 before the distribution farmers had 1-2 bushels to plant. After the distribution they had 2-3 bushels to plant

The traditional method of storage

After pushing for more detail, they estimated that for enough rice for one year for one adult, 6 pans of seed should be planted - one guarter of a bushel. Family sizes vary and some households feed a number of orphans and extended family members. One farmer planted 3 bushels, but feeds 20 people (himself, 2 wives, 9 children and 8 others) – not enough.

8.3.1.2 Negative aspects of the stores

- The social unit of management of storage is at the 'pot' (household) level
- Cultural constraints to storage at a village or cluster level are:
 - 'secrecy' regarding personal commodities, as those with less ask those with more to share their wealth – and people find it difficult or impossible to say no
 - access can be difficult if the storekeeper (who has the key) is not around
 - people are used to dealing with storage themselves
- numerous examples exist from Sierra Leone of stores being 'white elephants' well constructed, popular, but not used
- well constructed stores are expensive
- community owned commodities are rarely maintained or managed, despite them saying they will do so
- cluster stores are even more inconvenient for cluster villages

8.3.1.3 A solution?

Improve household storage³⁷:

- Research traditional Timni household level storage technology. The evaluator is aware of at least three different types³⁸
- Identify the advantages and disadvantages of each one
- Improve them in such a way that they are rat proof and lockable, and cost the same regardless of the store type - for example wire mesh and a padlock, to stop both rats and thieves
- Research and development should be done in participation with 'expert farmers' or community representatives with particular storage knowledge
- Also design a small store that can be shared amongst a few houses again, it should cost the same as the number of household stores it replaces
- Offer the choice of store to beneficiary households. They can choose an inside store (OK if the house is roofed with CI sheets), an outside store (reduces fire risk if the house is thatched) or a shared store
- Beneficiaries should be, at least, all households on the vulnerability lists, but could be all households in a community
- Provide necessary training to beneficiaries in store construction, how to store seed effectively, differences between seed and grain storage and techniques for reducing insect / fungal pests
- Households construct their chosen store type with no further assistance, using their own materials, until they cannot continue without external inputs: mainly the materials they cannot find themselves
- After monitoring by Concern staff³⁹, external inputs are provided so they can finish their stores

For seed multiplication, assist with SMALL stores. Community stores serve a purpose for communally owned commodities such as seed bank / multiplication stocks, or seeds owned by a CBO / women's / youth group. In these cases the secrecy issue is not relevant. If community items are stored in houses, there is greater risk of losses from theft (they are not locked up and out of temptation's way).

8.3.2 Drying floors

Drying of seed is essential:

Drying is essential for storage of seed, too moist seed rots in the store

Research has been undertaken by the pre-war Ministry of Agriculture and Natural Resources, funded by IDRC, into household rice storage methods.

See http://www.idrc.ca/en/ev-83064-201_790109-1-IDRC_ADM_INFO.html
Wooden box on the veranda or in the attic, a clay-lined pit in the foundations of the house, or an outside store made from woven sticks and clay with a thatch roof. ACF have done more detailed research on this issue

Important to monitor first, provide inputs after – there must be conditions on assistance so that Concern can know their true commitment to the idea, and to reduce dependence

- Better drying leads to better germination
- Dry grain is needed for winnowing prior to consumption

8.3.2.1 Positive aspects of drying floors

- Cement soaks in heat from the sun, speeding up and improving the drying process
- Easily kept clean of gravel
- Allow for the earlier harvest of rice, instead of fully drying the rice on the plant, as the
 rice can be threshed and dried on the drying floor: rice left until totally dry in the field
 becomes brittle and easily falls during harvest
- Threshing rice on a drying floor reduces losses from seed flying away when threshed 40 - as they are easily recovered by sweeping
- People like drying floors while it is not a traditional technique, there is widespread acceptance and adoption of the technology.

8.3.2.2 Negative aspects of drying floors

- Drying floors are inconvenient for those that live some distance from them:
 - During drying someone (women or children) must keep an eye on the seed to prevent animals and birds from eating them
 - If your house is some distance from the drying floor, the person observing the seed cannot be getting on with other jobs at the same time
 - Women are most likely to do this, as children are at school, but they are already the most busy members of the household
- One drying floor per community is not enough, so most households have to resort to using other places to dry their seeds anyway
- It is difficult to remove seed fast (by sweeping) in the rainy season, so seed can get rained on
- Drying floors and expensive
- The evaluator has seen drying floors lying empty while people dry seeds nearby (as close as 10m away) on a tarpaulin (see photo)

As can be seen there are pros and cons to drying floors. Whilst drying floors are popular and desired, they are not reducing post harvest losses enough to warrant their great costs, and other steps of the agricultural cycle suffer from greater losses than drying.

8.3.2.3 A solution?

The evaluator recommends the use of tarpaulins for seed drying purposes, because:



- Tarpaulins can be used immediately next to the place that women work – either by the kitchen or in the farm
- In-farm drying on a tarpaulin allows for earlier harvest of the rice, thus reducing harvest losses
- rice can be threshed on the tarpaulin to reduce threshing losses, and



 $^{^{40}}$ The local technique of threshing: lie the harvested rice on the ground / drying floor and beat them with sticks. Inevitably some grains get flung away and lost

threshing can be done in the farm removing the need to carry all the harvested plants into the village to thresh

seed drying on a tarpaulin can easily be wrapped and carried inside if it starts to rain

The problem with tarpaulins is durability – the best ones only last about 3 years. A distribution of tarpaulins in the agricultural tool kits could be considered, but as a one-off only. Appropriate sensitisation should be done to ensure that people realise they have to purchase replacements themselves, and to understand why.

8.3.3 Other losses

A study of losses during the rice agricultural cycle revealed that significant losses occur from (in order of importance):

- broadcast seeding and digging in (birds and rodents)
- post harvest storage (rats, thieves and fire)
- whilst the seedlings are sprouting (rodents such as the greater cane rat or 'grasscutter')
- while the plants are developing seed heads (rodents and birds)
- planning (not respecting the agricultural calendar)
- drying (from animals, birds and people taking seeds when they are spread out to dry)
- transporting seed from the field to the village

The most important harvest losses are occurring in-field and in-store. Concern should be making more effort to arrest those problems (see below).

8.4 Demonstrations and farmer field schools

Concern is supporting farmer field schools (FFS) or demonstrations, at a cluster level. The schools are a platform for promoting better agricultural practise aimed at boosting production and diversity: planting distances, integrated pest management, composting, maize and beans etc. Farmer field schools are situated near routes of movement for people in the cluster area, so as to ensure exposure of the demonstration to the widest number of people.

Some communities tend to choose participants with greater political connections, whereas they should be choosing those with greater agricultural interest and knowledge (in the hope they will adopt new techniques faster and better). **Concern should participate in choosing FFS members to ensure participants are the right people**.

Farmer field schools are currently 'extension led': the process is driven by extension agents (Concern and MAFS), to demonstrate and promote new techniques, aiming at the adoption of those techniques by certain individuals (contact farmers / innovators). In time FFS should become more responsive to farmer's needs, reacting to issues as they arise in the farms (for example ways to deal with pests as they arise, and responding to farmer's requests).



8.4.1 Farmer-led farmer field schools

In time, some participants will implement new techniques in their own fields, at which point they become 'living demonstrations': farmer-led FFS. Experience has shown that the most effective extension agents are the local farmers themselves. **The evolution to farmer-led FFS should be encouraged and supported as much as possible.** Once this is happening, Concern should notify others, encourage visits, and assist the transfer of knowledge; thus it becomes a farmer led extension process.

The innovative farmers that quickly learn and implement new techniques should be supported to become focal points in their villages for issues regarding to production – who could be called 'contact farmers' or 'green flags'⁴¹. These people would be on hand for providing advice regarding pest management, planting techniques, fertility and water management and so on.

'Green flags' should be given assistance to ensure they do their job well – primarily training through chiefdom level farmer field schools (see below), but also with mobility if necessary, and other forms of incentive⁴².

8.4.2 Chiefdom farmer field schools

Alongside support to extension-led and farmer-led FFS in Kholifa Mabang, Concern should assist in the establishment of a chiefdom level FFS (CFFS) to be the vehicle for 'higher agricultural learning' in the chiefdom.

The difference in roles between the different FFS should be clear:

- Farmer-led FFS:
 - village level;
 - wide promotion and adoption of best practise and tried-and-tested methods:
 - production focus
 - o run by 'green flag' volunteers
- Extension-led FFS:
 - o cluster level;
 - farmer's exposure to new ideas, techniques and skills;
 - o responsive to farmer needs,
 - demonstration of best practise and tried and tested methods;
 - production and management (soil fertility, weeds, pests, water) focus
 - run by extension agents (Concern / other NGO / MAFS)
- Research-led FFS:
 - chiefdom level:
 - trials of new methods and integrated / systems approaches,
 - showcasing of a number of alternatives for comparison,
 - higher education for 'green flag' volunteers
 - run by MAFS staff operating with an integrated approach

The CFFS should trial, demonstrate and teach topics not covered by extension-led FFS. Of crucial importance is to introduce alternatives to the presently unsustainable method of slash-and-burn agriculture through an integrated systems approach (see below).

The CFFS should, ideally, be run by MAFS; Concern should assist in the planning, establishment and mobilisation / sensitisation in communities, but a centralised facility like this would not have a long term future without the full support and management by a local institution like MAFS. All departments in MAFS need to work together: crop production, animal husbandry and tree crops / forestry, in order to design and implement integrated systems. As this is a new approach for MAFS. Concern should be involved in the institutional capacity building and training / support necessary.

Chiefdom level FFS participants should be 'green flag' volunteers or 'contact farmers': those people, identified by both the community and Concern staff,

who are the 'expert farmers' of the village, who run the farmer-led FFS, who quickly and successfully adopt new skills.

Green flag volunteers should be supported by their community to attend the CFFS – community contribution to cover their food, accommodation and travel expenses to attend the

Like the blue flag volunteers who are the point people for primary health care in a village, so green flags could be the equivalent position for the health of crops

⁴² No payments, ever! Incentives could be bicycles of they have to travel (for example to report disease outbreaks to MAFS field agents), t-shirts and green flags for boosting their esteem in the community, and certificates after training. All incentives should help them function without creating more dependency and NGO driven.

CFFS. If this can be achieved, the community will have more of a reason to demand the returning green flag volunteer to share his / her knowledge with the others - it is community owned and driven.

8.4.3 Systems approaches to alternatives to slash and burn

Slash and burn agriculture is a system that rapidly becomes unsustainable with population pressure ⁴³, deforestation and uncontrolled fire, as is seen in Tonkolili district.

Symptoms of declining environmental quality are:

- deforestation
- increased cover of invasive and difficult to control savannah grasses preventing forest re-growth in fallow periods and increasing weeding burden in farms
- · decreased fallow length
- increase in hot destructive bush fire⁴⁴
- · farmer reports of declining soil fertility

Alternatives to slash and burn should be trialled and demonstrated. Alternatives include:

- Accelerated fallows:
 - pollarding fallow trees to rapidly return fallow under tree cover and shading out invasive grasses
 - planting quick growing nitrogen fixing trees as fallow trees, such as Leucena and Moringa
 - o planting nitrogen fixing green mulches coupled with fertility inputs (compost, liquid fertilisers, manure, mulch) for one or two year fallows
- Productive fallows:
 - planting fallows with productive trees such as fruit trees (must be quick return trees like cashew nut), and should be coupled with pollarding
 - planting fallows with multi-purpose trees for fodder, stakes, firewood and food (such as Leucena, which is also nitrogen fixing)
- Agroforestry:
 - alley cropping: strip planting of annual crops alongside perennial crops and trees for a multitude of purposes – fodder, fruit, food, fuel, shelter etc
 - forest farming: develop permanent market-oriented productive forest systems of fodder, fruit, medicine, fuel and shelter trees with an understory of shadetolerating annuals
- Permanent intensive farming (no fallows):
 - crop rotations
 - o high input high output
 - o mechanisation
 - terracing on slopes
 - integration of animals, poultry, soil fertility management essential
- Reclamation of grasslands:
 - o cutting back and/or rolling of grasses
 - o green mulching
 - o sheet mulching
 - o fire control
 - protection and care of saplings

All of the above options should be trialled as it is not yet known which method(s) would be most easily adopted by farmers in Tonkolili. It may be appropriate to trial different techniques in different chiefdoms across the district. It is suspected that the options with the least labour and investment are most likely to be adopted.

⁴³ In Tonkolili, population pressure per se is not the issue, rather as land becomes degraded pressure on the remaining higher quality land increases, fallow length decreases as pressure increases. Farmers report reductions in fallow length from 15-20 years to 9-10 years

⁴⁴ savannah grasses burn hot and rapid, leading to fire quickly becoming uncontrollable, and killing saplings and trees in the process. The grasses are not killed, and quickly re-sprout, out competing trees and turning once forested land into unproductive savannah

8.4.4 Integrated pest management

In-farm pests are a huge problem for farmers at the present time. Main pests are rodents ('grasscutters' or 'cutting grass' field rats and others) and birds. FFS lead discussions on control methodology, which centre on trapping and hunting (pit traps, fence traps, hunting nets, snares, hinged jaw traps etc) and scaring (for birds).

Farmers complain that they lack necessary resources to effectively control rodents, the most effective technique apparently being hunting nets.

The are some environmental concerns associated with over hunting of wild animals, but most rodent pests are very common, and constitute an important protein source in people's diet.

It is recommended that more research is done on the issue of improved in-farm rodent control measures, perhaps in conjunction with other NGOs⁴⁷ and MAFS, which could lead to limited distributions of hunting nets if deemed appropriate.

8.5 Environmental Awareness

As noted above, environmental degradation has become an issue, and is largely centred around bush fires and deforestation. Concern is responding with a campaign against bush fires, fuel efficient stoves, green clubs in schools (see section 8.8) and agroforestry (see section 8.6).

8.5.1 Fire control

The bush fire campaign is done through billboards, discussions during agricultural field days, and radio programs. It is too early to see the impact of these efforts, but it has put the issue into the public domain. It is suggested that the radio programs expand their transmissions to include live debate around the subject – entertaining, educative and stimulating, and allowing people to make up their own minds.

The key to widespread adoption of fire control is through making it economically beneficial for farmers to do so. Due to poverty and the land tenure system, short term economic returns are necessary. The fire campaign will increase in effectiveness once there are more long term investment strategies that provide short term economic gain.



8.5.2 Fuel efficient stoves

Concern has introduced fuel efficient stoves, targeting women (who collect wood and do the cooking). They are effective in reducing fuel wood requirements, easy and free to make entirely with local materials, and have a number of positive benefits:

- clay stores heat, thus reducing fuel needs
- reduced fuel needs means less time collecting firewood, and less impact on the environment
- clay emits constant heat easier to cook on
- · reduced smoke means less health risks for the cooks
- reduced smoke makes pots easier to clean
- some people from elsewhere have requested to buy them⁴⁸

greater cane rat (*Thryonomys swinderianus*)

^{46 (}Rattus sp.) and Gambian pouched rat (Cricetomys gambianus)

⁴⁷ ACF Sierra Leone have conducted research into the issue of rodent control and have distributed hunting nets

¹⁸ Mawoor village

These stoves have already been adopted by a number of women, and are likely to remain in use into the long term. They are ideal, as they are easily fixed if they crack, can be made in the village at no cost, and have immediate and numerous benefits. It is recommended that these stoves are promoted in all other villages that Concern and partners are working in.

8.6 Animal Restocking

Concern has been involved in the restocking of small ruminants (goats and sheep), important because:

- animals are the traditional rural saving scheme
- animals reduce vulnerability as the saved money is a coping mechanism
- animals provide protein in the diet, often insufficient in rural Sierra Leone
- manure can be used for soil fertility
- · other products such as milk and leather can be used
- · sheep in particular have an important role in ceremonial and tribal life
- · animals are an important long term livelihood strategy
- there were many small ruminants in all villages before the war

A participatory comparative⁴⁹ study of income (relative importance of income sources) preand post-war revealed the following:

Pre-war income		
Income source (identified by participants)	Score assigned ⁵⁰ (proportional piling)	
Rice	48	
Goats and sheep	23	
Groundnuts	21	
Chickens	19	
Garden vegetables	11	
Petty trading	11	
Fishing	7	
Fruit from trees	6	
Manual labour	3	

Post-war income		
Income source (identified by participants)	Score assigned (proportional piling)	
Rice	46	
Groundnuts	28	
Chickens	22	
Manual labour	15	
Fishing	12	
Garden vegetables	11	
Petty trading	11	
Fruit from trees	6	
Goats and sheep	0	

This reveals how small ruminants were an essential part of the rural economy, but are not any more due to the loss of virtually all animal stocks during the war. Manual labour (stone, gravel and firewood collecting, farm labour etc) is replacing income in many households.

Small ruminants have been distributed in 2 ways; the first being unsuccessful, the second being (so far) successful, solving problems associated with the first attempt. The new and improved version, redesigned after up to 90% of the first tranche of animals died from disease, has the following important supply elements:

animals are sourced as locally as possible

⁴⁹ Mashereku village, with 18 participants

⁵⁰ These figures represent relative importance only

- supply is assisted by a Fullah⁵¹
- animals are vaccinated prior to delivery
- animals in the destination village (if present) are also vaccinated

The following important elements govern delivery:

- animals are distributed to vulnerable households, who own and care for them
- communal ownership and management has been shown to be unsuccessful
- after breeding offspring are distributed to other vulnerable households, thus reducing costs for Concern and encouraging community responsibility for the upkeep and equitable sharing of benefits of the animals

The following are the important elements of care:

- each beneficiary village has 2 caretakers, known as 'paravets'
- they are trained to be able to respond to disease outbreak, inform MAFS veterinary officer of emerging issues, work alongside them in treatment of disease, and provide guidance and support to animal owners
- MAFS veterinary officers have been assisted with motorbikes or bicycles to ensure they can get to outbreak locations in a timely manner
- Paravets have a bank account for collection of funds (fees, sale of drugs etc)



Suggestions are:

- Include the paravets when choosing animals to purchase: this requires increasingly complex logistics but would put some of the responsibility for the choice onto community representatives
- Paravets need incentives to keep going with their jobs into the long term (as they are voluntary)

It is recommended that paravets become 'brown flags' (or yellow flags?), in much the same way as blue flags for primary health and green flags for crop production:

- Paravets given recognition in their community for the position they hold and the training they have received
- T-shirts and a coloured flag would help with visibility and esteem
- · Certificates should be given after training courses
- Paravets should be provided with bicycles, as an essential part of their job is to monitor disease and inform the MAFS veterinary officers, who are some distance away (Mile 91 or Magbaruka)
- As a pilot paravet income generator:
 - o the best paravet in a cluster should be identified
 - o assist with a 'starter kit' of simple drugs and equipment
 - o provide with basic small business training
 - support with monitoring and troubleshooting

8.7 Working with community groups

Concern works with some community groups, normally evolved from agricultural labour groups. Concern makes every effort to support only those groups that have a chance for longer term sustainability:

- Pre-existing group
- Group has a constitution / plan

⁵¹ the Fullah people are the leading pastoral tribe of Sierra Leone. They originate from Mali and Guinea, are (or have been) nomadic (some have now settled) and own and manage large herds of small ruminants and cattle (terrain permitting)

- Group has a working, transparent and representative committee / leadership
- Group can demonstrate it's willingness to work, especially through having achieved certain goals already
- Group has willingness to assist others less fortunate than themselves (community development aims)
- Group is considered to be a good one by other people in the community

Groups can be quite large - 75 members is not unusual. Some groups are of mixed gender (CBOs), some are women's only, and some are specifically for youth. The evaluator prefers the women's groups:

- Women lack economic opportunities and are marginalised; groups are a method of empowering women
- Women more likely to invest wisely in long term options
- Mixed gender groups can be dominated by men

Groups are targeted for micro-projects, pilots, safety nets for reducing vulnerability and (originally) income generating schemes. Most groups undertake farming activities – rice and groundnuts, integrated with another activity, normally 'thrift and save' (see below).

The groups are too large for income generation – the returns to individual members are too low to be significant. The farming activities on their own are not particularly productive or profitable, and the evaluator believes the groups work because they are doing more than one activity.

However, groups are providing a number of other benefits for members:

- Farming surplus is stored, and made available as low interest loans to group members and the vulnerable, thus helping people avoid the debt trap
- Cash profits from the sale of farming products are saved, and used for unavoidable expenses for members and vulnerable people – such as health care costs and funeral expenses. Thus the group's wealth acts as an insurance policy or safety net
- Thrift and Save requires all members to provide a certain amount every month (say 500 le per month), which is collected and put in a bank account (Yoni community bank in Mile 91).
 Once there is enough Yoni bank will agree to providing a loan to the group at 20% interest. This interest, although high, is lower than they could get elsewhere, and it provides much needed capital for starting up income generation ventures
- Thrift and Save is the key to long-term sustainability
- Thrift and Save and group work is a spring-board for income generation (see box for details)
- Access to credit helps people out of the debt trap

Mathinka Lol's women's group have already had 3 loans from Yoni development bank, of 800,000le and 2,000,000le twice, as 6 month loans with a 20% interest. These loans are divided between three sub-groups: soap making; palm oil purchase and sale; and petty trading.

Their second year loan of 2 ml le earned them 300,000le, about USD \$300, in net profits (after repaying the loan) from the three groups combined. This money was split, some deposited in the bank and the rest used to cover hospital fees for a sick person.

For soap making, off 2700le investment, profits of 800le - 1300le are made. This profit is split, part of which is returned to the large group and banked, and part spent on food for the soap makers while they are making it. No part of this profit is divided amongst the workers themselves.

Individual benefit for being involved in soap making is:

- Free soap use the scraps and offcuts from the soap making process
- Relief from debt someone who needs soap during the hunger gap period may resort to borrowing money at very high interest, or selling their rice at low rates prior to the harvest; now soap making members can borrow soap at low interest

- Group's collective wealth makes it possible for the rent of a tractor and thus expand their agriculture⁵²
- Working in groups has improved community relationships and cohesion
- Community conflicts are easier solved now people are working together
- Women are treated better now that they are empowered through their groups



In conclusion:

- groups ARE achieving a significant reduction in vulnerability (coping strategy / safety net / 'insurance policy')
- group work is helping to bring in long term thinking (thrift and save)
- group working is helping to improve human rights, representation and community cohesion
- the groups are NOT achieving significant income generation (yet)

What is needed is more ideas and understanding for income generation in the groups. The ideas for income generating are always the same: gara tie-dying, gari processing, petty trading and soap making. The more people do them, the smaller the profits will be. When dealing with income generation, the bottom line must be profit. In order to get profit, groups must be much smaller (easier to manage, greater returns per member whilst keeping shared responsibilities and pools of capital), and niche markets and other opportunities should be exploited.

This is the next step in the evolution of the groups – from coping strategy to income generating. It is suggested that Concern facilitate and encourage the evolution of income generation through the groups, in the following ways:

- staff from Concern and IPs should go on two study tours:
 - to visit other livelihood projects in Sierra Leone who are doing income generating, community savings etc, to learn what is working in Sierra Leone, and the best way of facilitating it
 - to visit an area / country in West Africa⁵³ where people are enterprising, creative, using their initiative and making money, to learn about other niche markets and how best to exploit them
- encourage other NGOs to share their experiences, especially best practise; both in Sierra Leone and in the rest of the world⁵⁴
- assess the feasibility of making ideas economically viable with business planning, market research and cost-benefit analysis⁵⁵
- research ways to reduce costs of the income generation⁵⁶

Mathinka Lol women's group invested nearly half their seed in labour or mechanisation, and have not been able to expand their field, just maintain it at the same size (planting 11 50kg bags of rice seed per year). Magbondo CBO invested profits from fishing in the hire of a tractor.

Ghana? Nigeria? Senegal?
 Some NGOs specialise in appropriate technology for rural areas, such as Intermediate Technology
 Development Group (ITDG: http://practicalaction.org/), some countries are more creative in developing new technologies, such as China, Vietnam, India

⁵⁵ Options include processing of agricultural produce for the market such as soy milk, groundnut milk, citronella oil extraction, dried chilli powder, gari; maintenance such as fixing and charging mobile phones or bicycle repair; service industry such as cookery selling (by main roads), bakery; petty trading; transport etc

transport etc ⁵⁶ Such as a gari processor that is driven by bicycle power rather than using expensive petroleum fuel, or growing oil plants for use as bio fuels (in tractors or processing machinery)

- discuss feasible income generation options with group members, encouraging them to invest their loans in 'new' ideas as presented to them by Concern, and to do so in smaller, easy to manage groups
- provide appropriate training in small business management, financial management and new skills
- help in establishing markets, such as links with traders and sales outlets in large towns (Mile 91, Makeni, Bo, Freetown etc)
- provide large capital equipment and other necessary inputs, such as some machinery, in a way that ensures the group pays for it somehow⁵
- if groups know further assistance is coming their way, it will provide extra motivation to continue to save their money

Concern should consider widening the Thrift and Save idea to entire communities⁵⁸, and matching their funds with grants once they have achieved a certain amount of savings: if they have enough money in their account, the group / village can loan to members at a lower rate of interest than the bank.



⁵⁷ Could be done as matching funds: they put in a certain amount of investment and Concern matches it in cash or in kind, so the capital equipment becomes affordable. Another method is to provide equipment as a cost recovery loan, so they group repays the cost of the input (no interest) once profits are realised

58 like the Village Saving and Loan (VSL) as implemented by CARE (Links project),

9 Micro-projects

Concern has been involved in a number of initiatives that do not encompass the entire project area; either due to being geographically limited, or because they are pilots. This section analyses each one in turn.

9.1 Matuku 2 market

Governed by a committee of 12 people, 68 market stalls have been erected in Matuku 2, on the main road between Mile 91 and Freetown. In the dry season these stalls are all full. For the wet season, when produce is less plentiful, no charges are levied, but in the dry season, there is a price to use the market, for sellers (to the market committee, used for town development, market maintenance and care of orphans) and traders from as far away as Freetown (licenses bought from the paramount chief). Concern has built toilets at the market place and facilitated the management (including cleaning and composting of rubbish).

Committee members report that this year (2nd year) the quantity and diversity of produce has increased. They believe this is partly due to their promotion (through word of mouth and community radio), and partly due to the increase in production in rural areas.

This market is a highly important asset for the area. It is centralised enough to attract a large enough number of producers, is well situated on a good road to attract traders, and is growing. It is anticipated that this market will remain into the longer term, and be an essential selling point for the rural economy. The increase in productivity and diversity is a good sign that the rural economy is recovering.

In time, as animal husbandry and fishing returns to strength, it will be necessary to build a sanitary area to deal with the butchery and sale of meat products: cement skimmed tables and floors for easy washing and disinfecting, with a shade structure to keep products from quickly spoiling.

In order to properly open up the hinterland behind Matuku 1, the bridge must be rehabilitated (as mentioned in section 33).

9.2 Fishing

Fishing nets have been distributed to groups in fishing villages. The nets are long (100yds), span the river, have a mesh size of 2 inches and take out much of what is moving along the channel. One or two villages doing this is unlikely to have a large impact on fish stocks, but all riverine villages doing this kind of fishing will rapidly deplete fish availability. Discussions with villagers revealed that they don't consider this to be an issue (yet).

Both villages the evaluator visited regarding fishing⁵⁹ complained about the strength of the net, they would prefer stronger, thicker nets with larger holes, to target larger fish.

The long nets are left in overnight, and become damaged by $hanshin^{60}$, a large fish eating water mammal attracted to the struggling fish in the net. They become entangled in the net and tear large holes in it getting free. Maintenance requirements are high. Maworr has made no attempt to maintain their nets, and Magbondo has been maintaining their nets but to a limited extent only.

It is suspected that the main reason for the lack of maintenance is the large group is not the social unit of management for fishing, coupled with the nets not being the desired type. The groups are not taking on 'ownership' of their nets.

⁵⁹ Maworr and Magbondo

 $^{^{60}}$ Timni name, no idea what this mammal is. Goat sized, dark coloured, predominantly nocturnal, fish eating mammal

A sustainable fishing and maintenance system is needed:

• study what the social units of management are for the different types of fishing (large permanent nets, caste nets, drag nets etc) and distribute accordingly



- improve awareness of over-fishing, and focus on caste and drag nets
- identify net weavers in the village, and have them run training courses for all net users in net maintenance
- institute a management system whereby users must return the net in the condition they found it, or are banned from using it again (or fined): so if it gets damaged they must fix it immediately

9.3 Aquaculture

One village, Rotorble (the only suitable place in Kholifa Mabang: a semi-permanent water supply and clay soils), as a pilot project, has establised a community fish pond, facilitated by ACT-SL. The pond farms *Tilapia nilotica*.

The physical works and facilitation have clearly been done well, but nonetheless there are ownership issues here:

- some fish were lost before the first harvest in an unusually high flood, and want Concern / ACT to provide wire mesh to cover the pond with – which will also keep birds (herons etc) from eating the fish
- they also want Concern to re-stock their pond a second time, even though the remaining fingerlings are plentiful and developing well
- there has been poaching by group members they are stealing from themselves
- ACT report that their first harvest was 50kg of fish, which was shared amongst the community to give them a taste of their fish, and encourage ownership. However,
 - when the evaluator asked the community, they said they only harvested 12 fish. This 'playing one off against another' is clearly a bid to get more out of Concern, by less than honest means.
- They report that hanshin have been stealing fish, although ACT say this is the first they have heard of it

It is suggested that the reasons for this is that:

 The social unit of management for fish farming is not at a group or community level, rather at a household level



Concern should follow previously designed 'best practise':

- One ACT staff member worked with Peace Corps prior to the war, on fish farming. He
 reported that when they were trying to do communal fish farms, they were failures,
 but as soon as Peace Corps started supporting household fish farms they were
 successful
- If the community fish farm is big enough to keep water in it through the dry season, then it can be used as a fingerling bank
- At the start of the wet season, when household ponds fill, fingerlings can be loaned from the community fingerling bank
- During the dry season the empty household ponds could be cultivated for vegetables
 fish faeces fertilise the soil

9.4 Nerica rice multiplication

Nerica rice (NEw RICe for Africa) is an improved variety of rice, that is highly productive, with a three month growing period. Two communities, Rotorble and Mabai, are multiplying this rice in their swamps. These communities have been chosen because the swamp is semiperennial. Concern has bought seed surplus after multiplication for redistribution elsewhere.

Nerica is a new variety, with expensive seed, so multiplication is the primary focus for now. The farmers wish to increase the cultivation of it, but:

- Nerica has been designed for use with artificial fertiliser (NPK)
- NPK is too expensive for farmers to buy, and farmers are sceptical of organic methods
- Nerica attracts pests (insects, rodents etc) more than local varieties
- Nerica develops out of the 'local season', so attracts all the birds in the area⁶¹.



Successful multiplication and extension of Nerica to the wider community (those with access to IVS) would help reduce the cost of the seed, and as more people use it so the bird attacks will probably decrease. A highly productive variety would clearly be beneficial for food security and help to overcome difficulties of agricultural expansion. It is therefore recommended that this multiplication is extended and continued. However, caution is required:

> Illiterate farmers with little access to advice and extension agents are

likely to abuse artificial fertilisers, with negative consequences to the environment

- Nerica should only be an addition to local rice, not a replacement:
 - It is much more prone to pest and disease attack, so can fail; which makes it a riskier proposition than farming the less productive but hardier local varieties
 - o It is costly, in terms of money (fertiliser, seed) and time (vigilance, weeding, application of inputs)
 - Diversification is a more robust livelihood strategy than 'putting all your eggs in one basket'

9.5 Apiculture

Apiculture, or farming bees for honey, has been traditionally done in an inefficient manner, so Concern, through CCYA, have introduced the efficient KTB (Kenyan Top Bar) hive, with training, in 2 villages⁶².

It is unknown what the social unit of management is for beekeeping (Concern is working with groups of 15-20 people in each village), so it will be interesting to see whether these groups maintain their hives, manage their apiculture and share / invest their profits.



It is too early to see the impact of this pilot project, as it has only just been implemented, and no honey has yet been harvested, but participants are positive about it. They use protective clothing to access the hives, which, along with the other materials needed (hives, sieves and settling tanks etc), makes it difficult for others to copy without some assistance from an NGO. However, with access to capital from thrift and save, it becomes possible.

depends on the timing. With practise at least one crop can be maturing at the same time as the local varieties ⁶² Rokankarr and Rokomeh

There are clear environmental benefits for apiculture:

- Putting hives in fallow areas would provide another economic incentive for fire control.
- Bees pollinate both crops and fallow, so have a positive impact in forest regeneration and agricultural productivity

If the pilot proves as successful as it appears, using any emerging lessons from monitoring this pilot, apiculture could be replicated in other beneficiary villages, perhaps with locally produced protective clothing, with a focus on IGA groups investing money from the thrift and save loans.

9.6 Agroforestry

Concern introduced community tree planting, on world environment day in 2005; 12 plots were planted with 8 tree species (fast growing trees with economic uses). It was found that the plots were not looked after well, and fire burned many plots. Encouraging the interplanting of annual food crops (see photo), provides incentive for fire control.

The green clubs' plots, planted at the same time, have been cared for and their trees are faring well (see below).

Traditionally, trees are owned by individuals or households, so it is unlikely that a group or community will effectively manage reforestation.



Whilst reforestation is important, it should be done with the following in mind:

- Target households, not groups or communities
- Target green clubs, especially as the increased environmental awareness for children is important for the future
- Provide well known, quick growing fruit trees, at least in the first few years
- In communities with numerous livestock, fodder trees could also be introduced
- Plant trees near bee hives to encourage fire control
- Teach innovative people (green flags) backyard nursery skills, so seedlings can be produced locally, instead of relying on MAFS to produce seedlings
- This should be done through the FFS system, especially after 'green flags' have been to CFFS and learned about alternatives to slash and burn, some of which require tree planting and protection

9.7 School Management Committee Farm

The SMC at Robis has planted an enormous cassava farm, all with voluntary contributions from community members, in order to fund school rebuilding. The job they have done is amazing, and is an example to other communities. However, issues are:

- it is unclear how to do a bulk sale of cassava Concern may need to help them to find a market
- they do not have access to gari processors, which would enable them to sell the cassava slowly through time
- they wish to spend all their money immediately on rehabilitation of the school, instead
 of investing some of it on other income generating options for the future (such as a
 gari processor)

-

 $^{^{63}}$ not even for food on the day they are working

- free contributions by the community are very rare, normally food, at least, is required by participants, so there are concerns that they will not want to do the same next year
- although the successes are impressive this year, is it sustainable?
- If it turns out that this SMC are able to continually motivate their community to work for free, what makes them so different? Concern should identify why this group works better than others, and share research findings with less successful groups, in the hope that they will improve

9.8 Green clubs

Green clubs are a great way to increase environmental awareness where it is most effective – with the youth, at school. The green clubs are run through the natural science classes (geography and biology), and aim to teach children basic environmental management skills and awareness.

The green club at Robis has established a maize field, to assist in funding their green club, and planted 100 trees of various species in the school property. The saplings were sourced from MAFS nursery, but next year the green club plans to start it's own nursery as well.

Green clubs are clearly popular, fairly easy to integrate into the school activities and useful for the children both now (teaches basic agricultural skills, gets the children outside, and contributes to income generation for the school) and the future, as stewards of the environment.



Green clubs need to be replicated into other schools – in Concern areas and beyond. Ideally the idea should be formally integrated into the national curriculum, requiring Concern and as many partners as possible to advocate this to the MoEd. Other schools who are starting to implement green clubs should receive training from present green club leaders, as well as Concern staff.

9.9 Adult education

Concern, through SASDA, has piloted adult literacy and numeracy classes, in English language, in Masimo village, focused on women only. Students are very happy with their classes: with much pride the related how they could now sign their names, and do simple maths.

It is unlikely that they will ever reach 'functional literacy⁶⁴', but they would be able to attain a level of reading and writing to be able to read simple instructions. More than that, the benefits are:

- The numeracy skills are more immediately relevant to their lives (accounting in their group), and they can more quickly become functional in addition and subtraction
- Their pride in being able to read and write, even if only a little, has great impact on their self-esteem and empowerment
- Others not enrolled in the classes, mainly men, want to be involved too. They even come and stand at the back of the classes

The trial has only been running for 2 months, but has already achieved much., However, the teachers are paid.

It is suggested to establish a 'white flag' volunteer network:

⁶⁴ fluent, fast reading and writing or books, newspapers etc

- Teachers trained in small business management, and expected to charge for their services (say 50le per person per class)
- The classes are popular, people will probably pay
- Vulnerable group members who cannot afford it could be subsidised by others or get reductions
- Seek out and train more teachers in other villages (not easy: need people who are already well literate and able to speak English, as well as having teaching skills)
- Support the teachers with other incentives: black boards, more text books
- Literacy teachers could be 'white flags', to go with the blue, green and brown flags already supporting other elements of community life

Literacy teaching has been successfully integrated with HIV/AIDS awareness, by uniting REFLECT (experiential literacy learning technique) and Stepping Stones (HIV/AIDS awareness raising coupled with breaking down taboo and stigma of sexual health topics), in a package called STAR⁶⁵ (STepping stones And Reflect). It is suggested that this package is assessed for replication in Concern project areas. White flags could be contact points for all adult education and awareness raising.

9.10 Human rights monitoring

A recent pilot has been the introduction of human rights log books into 2 villages: monitors record all crime / abuse events in the village. Crimes can be discussed and resolved at a community level. In the event of a serious crime, the police are called in (although this has not happened yet).

This initiative has not been implemented long enough to see the longer term effects, but experience from elsewhere suggests that:

- · Having human rights monitors immediately reduces crime in the village
- Human rights monitoring causes the issue to be discussed instead of avoided⁶⁶.
 Having these discussions is the first step in behaviour change
- Dealing with crime at a community level only can cause perpetrators to be given lenient punishments, so it must be made clear which crimes should be sent to higher authorities (chiefdom leadership and police)
- Victim support is scarce (for serious cases such as rape) and victims can be socially marginalised

With appropriate support and information sharing in place, this is a good idea that should be more widely implemented.

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 $^{^{\}rm 65}$ already being implemented in Sierra Leone by ActionAid

⁶⁶ for example, the evaluator had a long discussion in Maworr about whether, when a husband defers to his wife, and listens to her, is due to respect or fear!

10 Conclusions

10.1 Relevance

Is it important and necessary?

The project addresses the important felt needs of livelihood security: food security, income generation, market access and skills. Furthermore it integrates in other needs (that may not be *felt* needs): HIV/AIDS awareness, environmental awareness and human rights.

The project uses livelihoods as an entry point, and can evolve into a more rights oriented project in time, once initial felt needs of livelihoods has been addressed. The project recognises that every place is different, so there is a provision for micro-projects, so regional / village differences can be expressed if needed. There are also regional needs, where commonalities are there, so some interventions are most appropriately done over a wider area. This flexibility of approach is seen as highly appropriate to the context of recent emergence from relief / emergency.

In the context of healthcare in Sierra Leone, food insecurity is clearly an issue, as indicated by the presence of malnourished people in health centres in rural areas. Farmers claim hunger gaps (often rice gaps) of up to 5 months duration, which has been brought down significantly as a result of Concern's intervention.

An essential part of diet is proteins, which is commonly short in Sierra Leone rural diets, so the interventions in ground nut seed distributions, animal restocking, fishing net distributions and pisciculture are all important in increasing access to protein sources.

10.2 Effectiveness

Do the activities achieve their purpose?

It is rather difficult to quantitatively answer this question, due to the lack of a baseline study done at the beginning of the project. It can therefore only be done using qualitative indicators and beneficiary testimony. It is recommended that in any other Concern projects a baseline study is done at the beginning of the project, so evaluations can assess effectiveness and impacts of the project activities.

10.2.1 Enhanced food production

Food production has been increased, measured by a decreasing hunger gap (from 5 months to 2 in places). Although food security is not yet assured, real advances have been made and the situation is likely to continue to improve, albeit slowly, due to:

- · Improved skills from the FFS system will help improve yields
- Increased quality of genetic resources from increasing the availability of new seed (seed distributions) will increase yield as well as providing more planting materials to start with
- Increased access to highly productive improved varieties (Nerica rice) will increase agricultural productivity
- Increased income from animal husbandry, various IGAs, pisciculture, and a gradual opening up of rural markets encouraged by improved road networks, will improve farmer's ability to invest in agriculture
- As farmer's capital investment ability increases, so their desire for longer term investments will increase, encouraged by interventions in agroforestry, integrated agricultural systems and animal husbandry. This in turn will reveal the constraints to land investments inherent in the system of land tenure.

However, it is, at present, not enough:

- Agriculture is mainly subsistence, with few market incentives for expansion
- Slash and burn agriculture is inherently unsustainable, but this issue is insufficiently addressed
- Agriculture, and the rural markets, are not diverse
- Very few processing or agribusiness opportunities exist
- IGAs are currently not significantly increasing household income, and returns from various investments have not yet come in, so income is not yet filling in gaps left by insufficient production
- Reducing post harvest losses can be done more effectively than through cluster level stores and drying floors

10.2.2 Increased markets and access

This objective is clearly achieved: improved road networks has led to increased traffic, whilst people are also producing more and thus being able to take more to the market. The establishment of the market at Matuku 2 adds a vital selling point to the marketing environment.

There is more to be done within the project:

- Finish off the roads and bridges
- Find marketing opportunities for bulk sales of cassava (Robis SMC)
- Group to evolve from thrift and save to small IGA enterprises

Changes need to occur at the macro level:

- Encourage investment in agribusiness, such as larger scale gari processing, rice milling and oil pressing
- Improve income across the country, including in urban areas, so that purchasing power increases and stimulates the domestic market, which in turn will stimulate production and rural labour
- Find and develop larger markets, especially overseas
- Improve interface between smallholders and the state (MAFS) so farmers are able to take opportunities as they arise

10.2.3 Reducing vulnerability

Vulnerability, especially for group members, has decreased significantly:

- Group farming provides access to low interest seed and food loans, and helps people out of the debt trap
- Thrift and save stimulates creation of group funds that can be used for coping with shocks and stresses: coupled with the farming, this represents an 'insurance policy' for the group members, and is an effective safety net
- Savings also help insure against the risks inherent in livelihood strategies: so in the case of a failed harvest, there is money to replace seed
- Thrift and save provides many opportunities for further investment and expansion, so group members can look forwards
- Working together improves cohesion and conflict resolution, further improving community ability to deal with shocks
- Animals, the traditional African saving scheme and coping strategy, are being distributed to the most vulnerable, so as to provide an extra layer of protection against shocks
- Household sed distributions has increased food security, thus decreasing vulnerability to hunger
- Interventions are focused towards helping the most vulnerable first
- Groups help the most vulnerable people even if they are not directly involved in the groups, such as handicapped people, the sick or orphans.



Those considered less vulnerable at the beginning of the project may be the more vulnerable now. Sierra Leone is so poor that in some ways almost everyone is vulnerable. Project interventions need to be designed to be able to expand through time and reach the maximum number of beneficiaries.

10.2.4 Strengthening responsive institutions

Line ministries at a district level (especially MAFS) and implementing partners (LNGOs) have benefited greatly from Concern, both in terms of capacity (directly through workshops and training courses, and indirectly through being involved in planning and implementation, especially in the micro-projects) and mobility (especially MAFS veterinary officers and extension staff).

It must be recognised that the process of capacity building is a slow one, and there are no advantages in trying to speed it up. Concern and DCI/MAPS are committed to long term approaches, giving sufficient time for capacity building so that partners are not pushed too far, too fast.

As time progresses, so the relationships should evolve: with MAFS taking on more leadership and advisory responsibilities in communities, being more active in coordination and extension of best practise, and IPs developing from contract winners to organisations that can operate independently, united under the same ethos and goals, and able to attract funds from other sources.

Concern has built strong ties with district level leadership; the next steps are to build similarly strong ties with the chiefdom councils and ward levels.

In communities, there are many committees, one for every element of the development process, a complex and confusing situation. Concern should build links with, and strengthen, a representative body in the community, that is inclusive and can guide village level development in a less confusing way. This body would be the start of an evolution from the livelihoods approach currently used towards a rights based approach.

10.3 Efficiency

Is there value for time and money?

Inefficiency exists in the construction component of the project. Construction is expensive, both for Concern (purchase of materials) and for communities (labour and local materials), so should only be embarked on if the benefits are worth it.

The culverts are clearly worth it, but money is wasted in the design, where the same amount of cement could have been used more efficiently in further strengthening the road banks.

Drying floors have clear agronomic value, but there are access and flexibility issues, making it questionable whether drying floors are worth the money spent on them. It would be far cheaper, and arguably more effective, to distribute tarpaulins to households.

Stores, done at the cluster level, run the risk of being 'white elephants', a situation that can be avoided with considerable mobilisation: meaning a large investment in money and effort followed by a large effort in time. It would certainly be simpler, probably more effective, and cheaper, to focus on storage at a household level.

Efficient project components worth pointing out are:

- Seed distributions do not distribute to everyone in the first round this reduces Concern costs, and puts the responsibility on the community to take control of their seed requirements
- Animal distributions rely on redistributing offspring to other households. Like the seed distributions, this forces responsibility whilst keeping project costs down

- Roads and constructions all require community participation, encouraging their
 ownership of the project and removing the labour costs in the project budget. The
 only component where this is lacking is through the contracts for the culverts.
- The project team is remarkably small, in part because Concern has not done a lot of the direct implementation, preferring to work through partners. Much has been achieved.

Long term success requires ongoing monitoring, and motivation from longer term contact with community mobilisers. The main costs of maintaining a long term presence in Kholifa Mabang would be staff time, facilitating the establishment of IGA enterprises, extending the literacy program, and more monitoring.

10.4 Impact

10.4.1 Intended impacts

10.4.1.1 Enhanced community confidence and competence in participating in the planning and implementation of rural development projects

The communities that have worked with Concern are more capable of participating in development:

- Vulnerability is reduced, so their strength to participate has increased
- As representation increases, so does their power to question and criticise, which is happening in places, and can only bode well for planning
- Training from FFS, animal husbandry, adult education and group work improves capacity for effective participation
- Communities have had considerable exposure to participatory methods, and have been able to design their own micro-projects
- Literacy, successes and community cohesion all contribute to increasing confidence

However, they are a long way from being self-reliant or breaking down the dependency syndrome. There is still resistance to taking responsibility or a lead role. Education lack has led to people not knowing the range of possible options, and so they still need considerable quidance.

10.4.1.2 Improved operational capabilities of local partners to facilitate and implement sustainable community-based development programmes

The capacity of the implementing partners has increased through time, and Concern has rigorous standards when choosing and monitoring the progress of IPs. However, there is still a long way to go before the LNGOs can compete successfully for funds, and undertake accounting, reporting and operating to an international standard.

LNGOs may need assistance with capital items and operational costs, as well as programmatic costs: they lack computers, vehicles, electricity etc. It will be difficult for IPs to find funding for operational costs from other funding sources. It may fall to Concern to do so.

MAFS is also likewise improving its ability to function, although all state services are hampered by a severe lack of resources, and it is not Concern's place to step in for the government, although MAFS are happy to let Concern do so: MAFS are less likely to focus on Kholifa Mabang because Concern are working there. However, Concern providing MAFS staff with motorbikes and bicycles, and encouraging them to visit villages (such as during the recent animal disease outbreak), is important.

10.4.1.3 Upgrade food security / livelihoods at a local level

As already stated, food security is upgraded, and a foundation for meaningful income generation built, providing a basis for stronger livelihoods, but neither have been assured yet.

10.4.2 Long term impacts

While it is too early to say what the long term impacts of the project will be, but some trends are visible:

- Not all of the groups are likely to survive. The groups are very large, and thus difficult
 to manage, and the individual benefit from the activities small. It is likely that some
 members leave and the groups reduce in size over time, or even collapse from poor
 harvests or internal disputes.
- Women's groups are most likely to survive, as they are more cohesive and have more of a reason to invest in long term livelihood strategies. In the mixed gender groups it is more likely for men to become dominant.
- Vulnerability has been reduced and is likely to continue to be reduced into the longer term, although some people will fall through the safety net. Not everyone is involved in the groups, the key mechanisms for vulnerability reduction, so those marginalised from the groups will remain at risk.
- Underlying macro causes of poverty and conflict (distorted markets, corruption, weak
 civil society, unstable political environment, poor representation, unfair justice system
 etc) are not adequately addressed. These issues will continue to hamper the
 successes of the project for many years, reducing potential long term positive
 change.
- At a local level there have been increases in representation and discussions on rights, equality, HIV/AIDS and the environment. But are these changes enough to guarantee long term behaviour change? Experience from other countries suggests that empowerment of the marginalised and victims of discrimination, and building awareness to a point of causing behaviour change, is a process that spans generations. Concern is right to focus some activities on schools (green clubs), but more could be done with the children.

10.4.3 Negative / unintended impacts

Some negative or unintended consequences of the project are occurring:

- Women, encouraged to participate in community development (decision making and implementation), are being involved in more activities than before, but with no parallel reduction in their domestic labour; meaning they have just become more busy. Labour reduction for women (men helping / labour saving technology) must go hand in hand with women's rights
- The rural poor in Sierra Leone already have a hard enough time making ends meet, and filling their stomachs. Some NGO activities – road building, construction, pond digging etc; have taken away time in the farm.

Potential longer term negative impacts exist:

- Human rights monitoring without proper links to upper levels of justice may result in serious cases being dealt with at a community level, and the perpetrators getting relatively light punishments.
- Distributing long fishing nets, and promoting pest control through more effective hunting methods, is encouraging unsustainable resource utilisation.
- Increasing access to seed without change to sustainable agriculture could lead to expansion of slash and burn.
- Introducing Nerica rice, with its associated high costs and risks, is introducing a
 higher risk livelihood strategy if it replaces traditional seeds. It should only be
 introduced as an addition for diversification, not a replacement.

10.5 Sustainability

There are three 'pillars of sustainability': economic, social and environmental. As will be shown below, the project has addressed part, but not all aspects, of each pillar. The project

has not yet reached a point where the activities are sustainable, but it is on the way to achieving it.

10.5.1 Economic sustainability

10.5.1.1 Sustainable elements

- · Group savings, and deposits in a local community bank
- Presence of a safety net through the groups
- Income generation options driven first by local market
- Income generating enterprises chosen by community participants
- Community facilitators (contact farmers and paravets) not paid but opportunities exist for them to make some money from their activities
- Concern prepared to broker small business training to ensure economically sustainable enterprises
- · Supporting both production and marketing concurrently
- Initial focus on rebuilding necessary assets before dealing with more complex and underlying issues

10.5.1.2 Unsustainable elements

- Income generation currently dependant on agricultural production, which is constrained from expanding
- Income generation through large groups provides small returns for individuals
- Some pilot projects require fairly high cost investments to start such as beekeeping, making it difficult for others to copy
- · Costs continue to rise, especially labour and fossil fuels
- Interest rates on loans, either from traders or the community banks, are high (lowest = 20%)
- Very limited market diversification the Sierra Leonean consumer has simple demands
- Little knowledge of diversification opportunities: everyone wants to do the same IGAs, which will rapidly oversaturate the already limited market
- Very limited market opportunities almost no international markets, no agribusiness buying large quantities of produce, poor transport links and low purchasing power by the consumer
- Very little long term investments, and few prospects in the short term of them coming

In conclusion, the economic environment of the country is not at all enabling for the poor rural farmer, and so increasing wealth, through primary production or any other means, is difficult. Furthermore, the low education rate, lack of maintenance culture, high amounts of dependency, and relief mentality all conspire to economically hold people back. Possibly the worst thing is that nobody has a clear vision of what to do about it.

10.5.2 Social sustainability

10.5.2.1 Sustainable elements

- Participation of beneficiaries in planning, implementation and maintenance
- Beneficiaries must invest in, and own, solutions and outcomes
- Capacity building
- Dealing with issues of gender, transparency, representation and justice
- Focus on reducing vulnerability and marginalisation
- · Inclusion of literacy into livelihoods
- Participation by local institutions (government and LNGOs) in the project
- Increased transparency and willingness to discuss sensitive issues such as corruption, human rights etc

10.5.2.2 Unsustainable elements

- Not always taking into consideration the social unit of management, especially in storage and income generation
- Very poor education level and awareness of the range of options that exist
- Overly complex community management structures without a village level, representative, guiding, umbrella body
- Not addressing some negative cultural behaviour, such as huge investments of resources in secret society ceremonies (although this should not be directly addressed by an INGO)
- Dependency syndrome, waiting to be guided by others (NGOs) instead of taking control themselves
- Relief mentality
- Too much talk, not enough action: 'human rights fatigue' and entrenched attitudes, meaning hardware outcomes are the only measurement of success
- Labour shortage in the rural areas they are all in the cities
- Lack of optimism about the justice system, politics or government
- The underlying causes of the conflict still exist, and the country is still unstable.

In conclusion, the empowering nature of the project, which will increase as the approach evolves more into a rights based approach, is socially appropriate and cause for optimism. If the project is mindful of the social unit of management, if implementation ensures that action happens alongside talking, if communities can be properly represented at all levels of leadership, and if all NGOs join hands in advocating for transparent and effective governance, there is hope.

10.5.3 Environmental sustainability

10.5.3.1 Sustainable elements

- · Raising environmental awareness in schools
- Reforestation and agroforestry
- Fuel efficient stoves
- Promotion of organic fertility management and IPM
- Multiplication of tried-and-tested seed varieties, resistant to local disease and pests

10.5.3.2 Unsustainable elements

- Reliance on fossil fuels (transportation and mechanisation) without consideration of alternatives
- No promotion of alternative agricultural systems: consolidation of the present unsustainable model
- No long term investments or strategies, and a land tenure system that does not encourage them
- History of deforestation
- Potential resource over-exploitation, particularly fish and bush meat
- Promotion of improved varieties will inevitably increase desire for chemical agroinputs
- Low awareness and sympathy of environmental issues across the country
- Poverty increases short term resource exploitation whatever the cost

In conclusion, the environment is already showing signs of degradation, and it is likely to become more pronounced through time, due to global warming, population growth and unsustainable land management. Land management behaviour should change before it becomes a crisis, although lasting behaviour change will probably only happen in response to catastrophe. The long term environmental forecast is rather pessimistic.

10.5.4 Replication

Can the beneficiaries (and indirect beneficiaries) replicate activities and outputs from the project, for themselves? If they can, then they can take control of development for themselves, without needing external support.

10.5.4.1 Replicable elements

- Farmer-led farmer field schools: once the FFS system is running, farmers can run
 their own schools independently of an external agency, and start to teach people in
 'new' areas
- Seed multiplication: there is nothing stopping beneficiaries from continuing to demand seed loans to be repaid, in order to redistribute them to others.
- Animal redistribution: as with seed, there is nothing to prevent beneficiaries from continuing to redistribute offspring to new beneficiary families
- Thrift and Save: savings and bank deposits could continue indefinitely, and 'new' groups or villages could copy the idea and start up their own savings programs. Once savings have got large enough, it may be possible to loan from the pooled resources, not from the bank (thus avoiding the high rate of interest)



10.5.4.2 Non-replicable elements

- Construction, as the cost of many materials are beyond most rural people. Would it be possible to redesign constructions without the need for external inputs?
- Community fish pond: in Kholifa Mabang this is the only suitable site, so nowhere else in the immediate vicinity will be able to replicate this idea. However, in other chiefdoms, done at a household level, it is possible that fish ponds could be replicated
- Nerica: currently the cost of seed (and fertiliser) is too expensive for the average farmer, although the more the seed is multiplied the cheaper it will become
- Apiculture: the hives are replicable, but the groups' use of protective clothing and other equipment will prevent the easy transfer of this technology, unless new groups have the resources to invest
- Adult education: whilst the teachers are being paid there will be no natural replication
 to other villages. However, if they were voluntary teachers, or paid by students, then
 other literate and motivated people in other communities could also start their own
 classes, with no external support

10.5.4.3 Constraints to replication

In rural Sierra Leone, in the Timni cultural context, information transfer is limited to within a community, normally a village. There is little information transfer from one village to the next, even amongst friends. They report that they feel unable to ask what another village has been learning (from an NGO) without putting in a formal and official request between the village elders.

This cultural barrier to information sharing will hinder the widespread replication of a number of good and appropriate ideas, and the NGOs need to be pushing the replication of successes beyond the project boundaries if it will not happen naturally.

Dependency syndrome is also a constraint to replication, as people are waiting for ideas, projects and wealth to be brought to them, either by an NGO, the government, or a rich

person⁶⁷. It is less likely that they will start something themselves, even if they have seen it working nearby. It is a reason for having a catalyst (community mobiliser) to start the ball rolling.

10.5.5 What makes a successful group?

Some groups are more successful than others: some manage to stay together even after immense difficulties⁶⁸, but others struggle even if things are going reasonably well⁶⁹.

Criteria for success include:

- A common goal that 'glues people together', like the thrift and save, or group farming
- Motivation, and a determination to see things through to the end, so look for prior successes
- The group is not formed solely with a purpose of extracting wealth from an NGO, but is formed to achieve something for themselves – so look for groups that were active prior to the NGO coming
- Decent, trusted and transparent leadership, democratically elected, and easily changed if needs be. Committee roles and responsibilities should be clear, as well as methods for choosing who does those jobs.
- Members get returns proportional to their investment (i.e. invest more time / money, get more profits. If profits or benefits are shared equally among members, then everyone must be forced to invest equally, through equal shares in the work, responsibility or capital)
- Group members have a desire to change things and to drive development, they are not fatalistic. Ask other people what they think about the group, whether they are trusted and dynamic or not
- Members are not just in the group for their own benefit, but also desire something better for the group or their community, so look for 'community development spirit'

10.6 Cross-cutting issues

Cross-cutting issues are well integrated into the project. Some opportunities exist for increasing the integration of these issues:

10.6.1 HIV/AIDS awareness

This is integrated into group meetings, training courses, and promoted through radio and drama by the local NGO COBTRIP. Given the nature of the livelihoods project, there are not many more ways of increasing the integration of HIV/AIDS awareness, other than through the adult education component:

- Literacy, especially experiential learning (REFLECT), could be easily integrated with Stepping Stones (methodology designed to raise awareness of HIV/AIDS and sexual health issues as well as break down stigma and taboo surrounding sex and gender)⁷⁰
- 'white flag' volunteers could be focal points for literacy, numeracy and HIV/AIDS awareness

10.6.2 Human Rights

Rights are considered with regards to gender equality in community decision making, promoting education for children, and the human rights monitoring.

⁶⁷ It is common for rich people (successful businessmen, politicians etc) to invest in their village of origin, assist extended family members, and become the 'patron'; but rare for people to widen their influence into other areas

⁶⁸ such as Masimo women's group, who had a disastrous groundnut harvest, but stayed together and bought replacement seed

⁶⁹ such as Rotorble fish farming group, who have members who poach fish from themselves, even though their work is exemplary with good potential for profits

⁷⁰ STAR: STepping stones And Reflect: ActionAid is already doing this in Sierra Leone

A rights based approach, and more focus on the topic of human rights, should gradually be brought more to the fore now that beneficiaries' immediate needs are satisfied through the livelihood approach

10.6.3 Environment

Environment is directly and effectively tackled through the project, especially through the green clubs, eco stoves, bush fire campaign and agroforestry components.

Opportunities for improvments are:

- Chiefdom level FFS should trial and promote an integrated systems approach to agriculture so as to modify present unsustainable farming practise
- Increase the replanting of trees by promoting economic return from trees (fast growing fruit trees)
- Seek for, and implement, simple ways of reclaiming land lost to invasive savannah grasses (again, through the CFFS)

10.6.4 Advocacy

Advocacy for reducing bush fires, and protection against HIV/AIDS, are actively pursued at a community / chiefdom level.

More advocacy that could be done by Concern includes:

- Longer term land investments by land tenure system advocate with land owners for providing long lease relationships for long term land care (but should only be approached once it becomes an issue – which it is currently not as there is little motivation for long term strategies)
- Alternatives to slash and burn, and bringing in sustainable alternatives, should be widely advocated to MAFS, other NGOs and IOs active in the agriculture sector, and the trialling and demonstration of options at CFFS
- Wider application of green clubs in schools, and even formal adoption into the curriculum by MoEd



11 Recommendations

Recommendations below are explained in detail, highlighted in bold type, in the body of the report.

11.1 Follow-up on the project in Kholifa Mabang

Although the project has, in some ways, come to an end, there is still unfinished business and opportunities for consolidating gains already made with a few more activities. The underlying principle of follow up should be to maintain contact with the communities and groups, to remind them and motivate them, and continue to monitor their progress.

Concern should aim to leave by the end of 2007. The remaining 1 year should be a gradual withdrawing of direct support, while maintaining contact and 'software' support. Beyond that date, longer term monitoring and motivating could be done, but through IPs only.

11.1.1 Continuation

11.1.1.1 Seed distributions

Not all people have yet received seeds. To date the process has been Concern collecting in the seed loans, and then redistributing them to other households. It is suggested that for the next collection and re-distribution it is done by the communities, only assisted and monitored by Concern.

In practise it would probably have little impact on the amount of work that has to be done by the staff, but if the communities can be supported to take a lead role in this process, it could be continued by them after Concern leave, if they choose.

To assist in this, seed bank stores should be constructed – see below.

11.1.1.2 Farmer field schools

Farmer field schools need to evolve from extension-led to farmer-led. To assist this, the best farmers in each village, who have been to a FFS already, should be assisted to become 'green flags', which includes building their self-esteem and their skill set.

Green flags should start up their own demonstrations (farmer-led FFS) in their farms, with Concern helping to promote what they are doing to others. Further training and support to green flags is also important.

Further training should be provided through the chiefdom level farmer field schools, which need to be established. See below in the 'new activities' section.

11.1.1.3 Small ruminant distributions

Only 12 villages have been targeted so far for the animal distributions. Given that they have been a success, they could be replicated into other villages, to get wider coverage for animals.

For the distributions to be widened, so must the paravet network be widened. The best existing paravets can be asked to train new paravets, and linked to MAFS veterinary officers.

Paravets should be assisted to become 'brown flags', which includes building their esteem, providing them with bicycles, and piloting income generation with the best paravets.

11.1.1.4 Income generating activities for groups

Groups doing agricultural activities integrated with Thrift and Save should be encouraged to 'evolve' beyond just a safety net, and start up income generating activities in small subgroups. For Concern, this would include:

- Promotion of the concept, the necessity of small groups, creativity and profits
- Training for staff in the range of IGA ideas that could be implemented through study tours in Sierra Leone and in other West African countries
- Training for selected beneficiaries in new techniques, and participatory planning to ascertain market opportunities, resource and capital sources etc
- Training for all participants in small business management, cash box management and market research
- Once a small group has secured a loan from the bank, and invested it to the best of their ability, for Concern to either match the funds or provide some impossible to access capital items
- · Monitoring of profits and challenges, and recovery of loans

11.1.1.5 Access: roads and bridges

Not all roads have been finished, so Concern should ensure that they are completed before pulling out. The same applies to bridges and culverts.

Of particular importance is the bridge between Matuku 1 and 2, which, in its current state, cuts off a number of villages from the market and school for several months a year. At least this bridge should be made safe for pedestrian traffic.

11.1.1.6 Agroforestry and green clubs

Successful agroforestry plots, and green clubs, should be provided with more fruit trees, in order to consolidate the replanting already undertaken.

Green clubs should be starting their own nurseries to supply trees to replanting and to community members (for a fee).

11.1.1.7 Apiculture

It is still not known if the beekeeping will turn out to be successful or not, so needs to be closely monitored. If it is successful, plans should be drawn up for replication of this idea into other communities who are already doing beekeeping or honey harvesting. Of particular importance are thrift and save IGA groups who can invest in the equipment.

11.1.1.8 Nerica multiplication

This component should be continued, as the more Nerica seed is available the more it will become affordable for farmers. Other suitable sites for Nerica multiplication should be selected for replication.

11.1.1.9 Adult education

Literacy and numeracy classes should be made available to more groups doing Thrift and Save, as long as there are teachers available in the village. The teachers should be trained to be literacy teachers and stepping stones facilitators, and promoted as 'white flags'. They should be supported to charge small amounts to students, and thus be able to fund themselves from their efforts.

Adult education is a long term proposition, which would go beyond the proposed pull-out date of the end of 2007. The NGO currently implementing it, SASDA, could become the long term livelihoods 'agents' in Kholifa Mabang, maintaining contact with beneficiaries, continually monitoring and motivating people to stay with their activities.

11.1.2 New activities

11.1.2.1 Storage

Concern needs to respond to the issue of storage in 2 integrated ways: household level stores and seed banks.

Household stores should be researched and improved, a selection of choices designed, and given to beneficiaries with the necessary inputs. This should only be offered (in the first instance) to a limited number of villages, that have not benefited from a cluster level store, as a pilot.

Furthermore, possibly as well as household stores, Concern should consider providing small stores designed just for the purposes of seed banking. This should only be done in villages likely to continue the seed bank and distribution indefinitely, or if the community group(s) have enough commodities to warrant the construction of the store.

11.1.2.2 Chiefdom level farmer field school

A farmer field school at the chiefdom level should be established to trial and demonstrate an integrated systems approach to agriculture, and alternatives to slash and burn. It should be run by MAFS departments, although supported by Concern.

There should be similar establishments in other chiefdoms in Tonkolili (at least in Konike and Konike Barina), which could trial different alternatives to slash and burn for eventual adoption of the most successful.

Participants in the CFFS should be 'green flags', who are supported by their communities. Concern and IPs would be instrumental in establishing this step. Some longer distance transport, such as moving participants between chiefdoms to compare strategies, may need to be supported by Concern.

The CFFS would be the institution for higher learning, the cluster level FFS for demonstration of best practise to the wider population, and village level FFS should be farmer-led, and replicate best practise for wide adoption by farmers.

The CFFS is a long term institution, and so implies that the cluster and village level FFS would also exist into the long term. MAFS need to take more responsibility in the long term management of the FFS system in Kholifa Mabang.

11.1.2.3 Bring land tenure issue into the open

Concern should explore and promote certain long term land management strategies, like fallow protection or improvements, both to promote best practise and to deliberately bring the inherent limitations in the land tenure system into the open. Once it is in the public domain, and being talked about, Concern can advocate for longer term leases from landowners, so that people can invest in long term land improvement strategies.

It may be necessary to find a sympathetic landowner to agree to certain long term land improvements, and thus be an example to others.

11.2 Lessons learned for application elsewhere

For Concern to implement elsewhere, be it in Konike or another district, here are some lessons that could be applied elsewhere.

11.2.1 Evolving system from livelihoods to rights

The relief mentality, disempowerment and livelihood insecurity are justifications for starting with a participatory livelihood security approach, which focuses on building necessary livelihoods assets, reducing vulnerability, improving food security and income generation. Beneficiaries want to see hardware results, and will become disenchanted with too much software.

Once those initial needs have been satisfied, or are on the path to being satisfied (after 2 to 3 years), beneficiaries will be more supportive of a shift to more software. It is then appropriate to gradually shift to a rights based approach, building community representative institutions, linking them to higher levels (ward, council, chiefdom, district line ministries etc), and bringing discussions about rights into the public domain.

11.2.2 Social unit of management

To further ensure long term sustainability of activities, research and design in the social unit of management into all interventions. Household level activities should include the bulk of food production, including storage, tree crops, animal management and fish farming; group activities should include safety nets and self help groups, which can split into small groups and households for income generating. Village level activities should include seed multiplication (but distributing to households) and information sharing (FFS etc).

11.2.3 Build replicable systems

Always consider whether the beneficiaries can replicate the activity themselves. Therefore, expensive constructions should be avoided wherever possible. Therefore, drying floors, which will not be replicated, could be replaced with tarpaulins which can be replicated.

Necessary constructions (like culverts and bridges) should be built to be durable, with minimal maintenance and no need to replicate.

Community positions like blue / brown / green / white flag volunteers (health, crop production, paravets, adult education) should also be designed to be replicable, so they should not be paid positions. Incentives should come from other means, preferably the volunteer being able to earn some small recompense from their labours – such as charging for their time.

Wherever possible hand over as much responsibility to the community, so that after the project has ended the activities can be continued with no further assistance. Therefore, seed distributions (loan repayments and redistribution) should be managed by the community, and only monitored by the NGO to ensure compliance.

11.2.4 Involve local development actors from the outset

Local development actors, especially line ministries and local NGOs, will be in the country for the long term, and can continue to drive the development process long after the INGO has left. The more they are involved from the beginning of the project, the better their resultant capacity will be at the end of the project, when they will be designing and implementing projects without assistance.

Furthermore, with regards to MAFS, they are being assisted by FAO and UNDP, as well as being guided by the national ministry, and so must be able to coordinate and consolidate all these directions into a coherent system. The more Concern works with MAFS from the beginning, the easier it would be for MAFS to shape Concern's work (and vice versa), and be coordinated.

11.2.5 Systems approach to agriculture

Recognising the unsustainable nature of slash and burn agriculture, and ongoing environmental degradation, it is important to approach agriculture not only from the

perspective of increasing production, but also adopting a sustainable systems approach to farming – integrating animals and tree crops into farms, adopting long term strategies, diversifying into perennial systems, and designing farms that intelligently use water and soil resources.

As the poor farmer is currently only interested in increasing production and thus food security, a systems approach must be complimentary but at a different level – the chiefdom level, and through MAFS, and complimentary to work by FAO and UNDP.

11.2.6 Integrated safety nets and income generation

Food security relies on food availability and a working market economy, as an essential part of food security is the cash component. Therefore income generation is essential for sustainable livelihoods.

Reducing vulnerability through group safety nets (group farming and thrift and save) must be recognised as an excellent foundation for starting many small and sustainable income generating activities. Indeed, it is not enough to just establish the group saving schemes without taking it to the next step of meaningful income generation.

11.2.7 Ensure short term outcomes from long term strategies

As a result of poverty and relief mentality, beneficiaries need immediate returns on any investment they make. They are not ready yet to invest in long term strategies unless there are short term benefits that can be wrought from it too.

Any long term strategy to be promoted should be creatively designed to integrate these short term gains too: such as reforestation with quick growing fruit trees, mixing perennial and annual crops together, using fallow as hive sites, and growing fodder trees to assist with animal health and reforestation. All of these can also contribute to a more sustainable agricultural system.

11.2.8 More ideas are needed

With regards to income generation, finding solutions to the high costs of agricultural expansion, and with more sustainable agricultural systems, there are simply not enough ideas or options available for people to choose from. More options therefore must be researched, adapted for Sierra Leone and promoted.

This includes appropriate technology, machines that do not rely on fossil fuels, village level food processing, cottage industries and IGAs, new market opportunities (including international markets), new productive and sustainable agricultural techniques and diversified crops.

12 Annexes

12.1 Compiled comments from the project staff

12.1.1 Good points and points to improve

What is good	What could be done better
Target vulnerables	Targeting – clear # of vulnerable households
Capacity building	Partnership
Mainstreaming	Restocking
Discourage dependency	Advocacy
Participatory approaches	Exit strategy
M&E	Capacity building for groups
Team spirit (staff)	Baseline study
Timeliness	Road network
Collaboration with key stakeholders	Vacuum after Concern disengage
Appropriate technology	Farmer field school
Seeting pace for partnership	Monitoring
Felt needs	Agroforestry
Advocacy	
Resource mobilisation	
Community mobilisation	
Ideas and competance (staff)	
Environmental awareness	
Incorporating strategies (lessons learned)	
Openness and flexibility	

12.1.2 Suggested solutions

12.1.2.1 Partnerships

- · Identify existing institutions within operational area: NGOs, CBOs, Associations, Govt
- Carry out a SWOT analysis of the institutions
- Identify capacity of the institution: vision, focus, prior experience, organisation
- Test them
- Training gap analysis
- Organise partner organisational capacity building
- Aim at no more direct implementation want them to fill vacuum when Concern leaves

12.1.2.2 Restocking

- · Identify community paravets
- Training by line ministry
- Provide drugs for treatment of animals from MAFS, they have the money for this
- Provide logistics / mobility for line ministry to do monitoring
- Line ministry meetings with paravets (refresher training)
- · Identify communities for restocking
- Beneficiary targeting vulnerable with animal husbandry background
- Succession / distribution plan for the community
- Pre-treatment of animals before restocking
- Treatment of existing animals before restocking
- Provision of monitoring tools and incentives to paravets: bikes, certificates, flags, proactive business skills, animal record cards / disease monitoring boards

12.1.2.3 Farmer Field Schools

- Choose innovators from outset
- Demonstrations, not trials
- Strengthen / improve FS at cluster / section level (3 times per year experience sharing)
- Conduct FFS in situations of emergencies (outbreaks)
- Conduct FFS for special training needs:
 - IVS development
 - Compost preparation
 - o Crop processing
 - o Etc
- Do rotational farm visits to identify good and bad practise
- Move from extension to farmer led FFS
- Strengthen linkages between stakeholders in extension: MAFS, FAO and IAR

12.1.2.4 Monitoring

- Conduct mid-term evaluation to identify gaps, strengths, weaknesses and solutions
- Staff capacity building (refresher) on monitoring skills and strategies, such as yield analysis more of new skills
- Do it with MAFS

12.1.2.5 Advocacy

- Identify advocacy issues, such as:
 - land tenure
 - o equality and representation
- Network with other institutions
- Design approaches: awareness raising through radio discussions, meet with key stakeholders, distribute handbills, banners, drama etc
- Follow up human rights log books
- Start at community level, build support, then move up to national level with support

12.1.2.6 Capacity building for groups

- ID groups
- Training gap assessment
- Training topics:
 - o Conflict management
 - Group dynamics
 - o Micro-enterprise management
 - o Basic bookkeeping
 - Credit management
 - Crop processing and agronomy
 - Outside of normal / routine activities
 - Run training courses and regular meetings
- Do M&F
- Provide credit facilities / loan schemes
- Introduce skills training for IGA to group members
- Provide certificates

12.1.2.7 Agroforestry

- Intensify sensitisation on importance, management, care and ownership (at household level)
- Enrich with cash / fruit trees, make sure there are short term benefits
- · Promote alley cropping
- Continue with green clubs, and link them with community through nursery and grafting

12.1.2.8 Exit strategy and vacuum

- Determine exit period suggest end of 2007
- Conduct in depth assessment of ideal partners and what else needs to be done
- Determine projects for ideal partners
- Build capacity of partners
- Strengthen ministries' relations to project actors
- Encourage households and communities to develop plans
- Undertake long term evaluations post project impacts

12.1.2.9 Road Network

- · Identify roads that still need to be done
- Encourage self-help roads
- In case of bridges, out of Concern's capacity, get SLRA and other donor / government actors to do rehabilitation (through ward development committees)

12.2 Project area map

