

FINAL REPORT

Africa Eco Solutions Ltd

Evaluation of Food Security Programme 2010-2012 South Sudan

The Norwegian Refugee Council (NRC) and partners



Executive Summary

Introduction

NRC is an independent humanitarian organisation and has been operational in South Sudan since 2004, providing assistance to IDPs, returnees and refugees in areas of high return. NRC operates in three states and maintains offices in Juba in Central Equatorial, Aweil in NBeG, and Alek in Warrap. NRC currently implements an integrated operation focused on four of the organisation's core competencies: Education, Shelter, Food Security and Livelihoods (from 2010) and Information, Counselling and Legal Assistance (ICLA).

NRC introduced the FSL programme in 2010 to target capacity building and material input support to IDPs, returnees, and host communities. The FSL programme aims to contribute to strengthening livelihood resilience and self-reliance at household level and reinvigorating the curtailed market system.

The FSL projects provide training and input support to:

1. Vegetable Crop Production (VCP) under irrigation during the dry season
2. Rain-fed Cereal Crop Production (CCP) during the rainy season
3. Beekeeping (under IGA component)
4. Fisheries
5. Reforestation (Environmental Protection – cross cutting issue)
6. School gardening in NRC supported schools
7. Alternative livelihoods and income generating activities, small scale business training and inputs support
8. Awareness raising: in diet diversity, food hygiene and environmental tree planting

Most of NRCs beneficiaries are returnees and IDPs who for the largest part are not farmers and have few VCP agricultural skills. Therefore, linking agriculture activities to access to markets and supporting alternative livelihood activities, NRC provides an integrated package for rebuilding their livelihoods and food security. NRC intends to continue food security interventions in NBeG and Warrap States targeting the most vulnerable households among returnees, IDPs and host communities, with a specific focus on women to help them secure a sustainable livelihood to support themselves and their families. The strategy for 2013 is to have additional food security staff based in the *payams*, closer to the beneficiaries in order to provide better follow up. FSL proposes to apply an exit strategy which includes building linkages and capacity of national actors, agencies, and government.

It should be recognised that operating in Southern Sudan is challenging due to political, economic, market, and infra-structure factors and constraints.

Evaluation Purpose & Methodology

The purpose of the evaluation:

- ❖ To provide an independent assessment of the relevance, appropriateness, connectedness, efficiency, effectiveness and impacts of NRC's FSL 2010 – July 2012 programme in Warrap & NBeG.
- ❖ To provide lessons for designing and implementing the on-going FSL programme, future organisational strategies, and lessons to share with relevant partners and donors.

The NRC research questions:

The food security programme has focused at least in theory on communities affected by displacement – but has it offered an appropriate and effective response to the returnees from the north and the communities they are returning to, as well as to emergency situations resulting from local crises such as the Abyei displacement?

The food security programme has involved a number of different programme activities targeted at different groups and in different locations. Given the resources available, has the food security programme appropriately targeted and provided effective assistance to a significant (large) target group or was our assistance too dispersed and/or insubstantial?

The returnees to South Sudan are generally being directed by the government to return to their rural places of origin but most are choosing to settle in peri-urban settlements surrounding regional urban centres such as Aweil, Wau, Bentiu and Leer. Has our food security programme adequately addressed the differential needs resulting from the range of available livelihood options in different rural and urban environments?

The evaluation's inquiry framework focused on a formative or improvement-oriented evaluation to learn lessons from gathered evidence to support NRC's utilizations-focused approach to evaluation, with the aim to inform and improve NRC's on-going interventions.

The methodology considered the project intervention logic, theory of change and the planned inputs, activities, outputs, and outcomes against the selected DAC criteria in the assessment of NRC's food security response from 2010 – July 2012. The methodology sought to gather credible quantitative and qualitative evidence in order to answer the evaluation questions against standards of performance including both the objectives and targets set in the Projects' Logframes (the causality) and also standards of best practices as outlined in SPHERE guidelines. In line with NRC's Evaluation Policy to understand the effectiveness and impact of NRC's work on target groups, the evaluation used Rapid/Participatory Rural Appraisal (R/PRA)¹ from combining focus group discussions, individual household interviews, key informant interviews, observational studies to capture and analyse beneficiary and stakeholders' opinions and identify key lessons and concrete recommendations that might be applied to future programming.

The assessment sites included villages in Twic and Gogrial West Counties in Warrap State, and Aweil Town, Aweil East, West, South and North in NBeG. After randomly selecting sites from both rural and urban project locations, the sampling for the informants was done using purposeful sampling by the consultant and NRC staff based on the BNF sampling criteria. These criteria focused on what FSL support BNF received and at what time (2011 or 2012). The interview groups included the returnee and IDP beneficiaries (mainly female) under each FSL activity – CCP and VCP beneficiaries, schools, vocational skills trainers and trainees, and non-beneficiaries in the host community, including community facilitators. The key informants also included partners (INGOs and UN agencies), donors, Government officials and NRC staff. Other key informants sampled included community leaders and chiefs who were involved in selecting/targeting the beneficiaries, local traders.

¹ www.iisd.org/casl/caslguide/pr.htm

Lessons learnt & Recommendations

RELEVANCE Lessons learnt	Recommendation
The purpose level objectives were found to be relevant i.e. agricultural support & livelihood skills. The BNFs requests for more seasonal support reflected their vulnerability and on-going needs	Invest in robust livelihood profiling, baselines & needs analysis of different target groups with seasonal analysis
Limited evidence of FSL addressing the risks associated to agricultural or flexibility/ mechanisms to respond to the recurring seasonal fluctuations	Investigate and address any potential risk associated to FSL interventions - expand risk management strategies and link to Norwegian Ministry of Foreign Affairs requirements
NRC objective of Diet Diversity via VCP was not a priority of the BNF	Reassess the relevance of Diet Diversity & HH consumption to BNF priorities and consider using other livelihood and food security assessment tools such as HEA
FSL's limited partnerships with local partners & MOAF inhibited good relationships & knowledge	Build on local staff & community facilitators knowledge to inform FSL programming design

APPROPRIATENESS Lessons learnt	Recommendation
FSL selection criteria were appropriate in theory but inadequately applied	NRC should continue & improve community based targeting of female HC, R and vulnerable IDPs upholding the "Do No Harm" principle
Farmer groups work well as long as inputs are delivered on time. MoUs were not clear about tool maintenance	Continue to organise BNF into farming groups & address the associated weaknesses
High loss of school garden tools and misappropriation of harvests/income from sales	Review and redraft the MoU arrangement with VCP school gardens, if this intervention is continued
BNFs had differing existing knowledge levels of training areas	Improve needs assessments for training skill areas between the different groups
Irrigated VCP represent a good alternative to coping in lean periods, as long as associated farming risks are addressed	Enhance appropriate agricultural training in pests and disease control techniques & on other local issues
BNF interest was in income from VCP sales rather than kilocalories benefits	Improve beneficiary participation in project design to match their interests
The beneficiaries are interested and committed in increasing their annual agricultural and income productivity to cover wet and dry seasons	Support BNF food availability and accessibility during the lean (dry season) period
CCP seed fair performed well	Continue to promote seed fairs & allow using vouchers that provide BNF to select seed varieties of their choice
Lack of risk analysis in seed selection & inputs	VCP seed selection should consider the risk of crop loss due to farming conditions
Lack of policy to guide FSL introduction of exotic species. Reforestation interventions were inappropriately designed	Develop a policy for introducing exotic species & consider more appropriate options (in collaboration with Gov't) for replacing the indigenous forest species
Fishing is very suitable to the local context & HH food/income needs but not appropriately designed	Continue & enhance sustainability of fishing interventions e.g. fishnet size
On going late delivery of inputs led to BNF frustration & lack of confidence in NRC	Review listed delivery problems of alternative livelihood tool/starter kits to improve efficiency in delivery & to avoid BNF frustration

CONNECTEDNESS Lessons learnt	Recommendation
Longer term sustainability objectives are being achieved via the FSL training	Continue to promote NRC's use of the LRRD approach
Positive emerging collaboration with local partners in line with exit strategies, yet the longer term objective remained largely unaddressed	Review and strengthen FSL's programme exit strategies by building local partnerships Build and expand the positive collaboration between FSL and SMAF and traders in Warrap
Lack of FSL implemented synergies with other NRC programmes	Develop NRC synergy agreements, objectives and action plans
FSL staff expressed an interest for alternative livelihoods training to be transferred to the NRC Education Programme due to overlap & duplication of activities	Consider transferring the FSL alternative livelihoods training activities into the NRC Education Programme
There was limited evidence of how the assumption Climate is favourable to all agricultural production was managed	Enhance management of FSL logframe assumptions

EFFICIENCY Lessons learnt	Recommendation
Data records for certain targets of inputs delivered and BNF reached were unable to be located by the evaluation study	Improve data records for output targets of inputs delivered and BNF numbers reached
Late delivery of inputs negatively impact the achievement of objectives. NRC did not explore utilising local traders and markets to enhance efficiency	Aim to deliver items on time to promote BNF perceptions of NRC & efficiency of use of inputs. Explore the use of local traders & markets by carrying out market analysis
NRC recently introduced a logistics and support team to improve efficiency	Continue to support the structure and management of the newly established logistics and support team
School garden CCP interventions largely did not achieved its desired objectives	To improve efficiency and reduce dispersal of NRC FSL capacity, consider discontinuing this intervention
NRC has a large geographical spread which inhibits quality interaction with BNF	Consolidate locations, with a rural focus
Training of trainers for FSL trainers' efficiency was found to be lacking and need of support	Improve FSL training of trainers & build capacity of local staff
There is limited project capacity to conduct efficient programme monitoring of inputs, outputs and outcomes	Improve, develop and apply efficient monitoring systems for project inputs, outputs and outcomes. Review outcome and impact indicators of Diet Diversity, coping and vulnerability

EFFECTIVENESS & IMPACT Lessons learnt	Recommendation
Most BNFs rely on rural-based production systems. Some BNF had adopted improved agronomic practices and improved harvest yields, food security and income. Dry season irrigation and high soil fertility led to good yields, whereas pests, expired seed, late delivery & climatic challenges were linked to lower yield. Alternative livelihood support achieved objected impacts in some cases & was linked to commercial viability	NRC FSL should continue working on rural farming areas and continue to start monitoring BNF production opportunities in urban settings and possible growing urban contexts.
BNFs remained vulnerable indicated by their	Understand target groups' vulnerability, negative coping

employment of negative coping strategies	in bad times & monitor impacts of self-reliance objectives
FSL was considered to be too dispersed geographically, as the programme did not have the adequate logistical support to reach all BNF and sites	Test the model being piloted in Warrap, of establishing 2-3 new sub-field stations in key BNF locations

Conclusion

NRC FSL overall has a relevant purpose and there is progress towards achieving positive outcome impacts in Warrap & NBeG States in South Sudan yet the appropriateness of the design needs to be enhanced with community participation, tailoring to context & internal capacity building to improve delivery and effectiveness of the inputs to achieve the outcomes.

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Acronyms

ANLA	<i>South Sudan Annual Needs and Livelihoods Analysis</i>
BNF	<i>Beneficiary</i>
CCP	<i>Cereal Crop Production</i>
CSI	<i>Coping Strategy Index</i>
CPA	<i>Comprehensive Peace Agreement</i>
DAC	<i>Development Assistance Committee</i>
DD	<i>Diet Diversity</i>
GMO	<i>Genetically Modified</i>
HC	<i>Host community</i>
HEA	<i>Household Economy Approach</i>
HHS	<i>Households</i>
ICLA	<i>Information, Counselling and Legal Assistance</i>
IASC	<i>Inter-Agency Steering Committee</i>
IDP	<i>Internally Displace Persons</i>
IGAs	<i>Income Generating Activities</i>
INGOs	<i>International Non-profit Organisations</i>
FSL	<i>Food Security Livelihood programme</i>
KAP	<i>Knowledge Attitude Practice</i>
MoU	<i>Memorandum of Understanding</i>
NBeG	<i>Northern Bahr el-Ghazal State</i>
NRC	<i>Norwegian Refugee Council</i>
R	<i>Returnee</i>
SMAF	<i>Staffing Management Accountability Framework</i>
TOR	<i>Terms of Reference</i>
UN	<i>United Nations</i>
VCP	<i>Vegetable Crop Production</i>

1. Introduction

The introduction presents the overall purpose of the impact evaluation of the Food Security & Livelihood Programme (FSL) implemented by the Norwegian Refugee Council (NRC) in 2010-2012 in Warrap and NBeG States of South Sudan. It also explains the evaluation criteria employed and the key evaluation questions addressed, and it outlines the overall structure of the report to provide guidance to readers.

1.1 Evaluation purpose and scope

The purpose of the evaluation:

- ❖ To provide an independent assessment of the relevance, appropriateness, connectedness, efficiency, effectiveness and impacts of NRC's FSL programme.
- ❖ To assess the programme's intervention logic and its inputs, activities, outputs, and outcomes to improve food security and livelihoods of vulnerable households and people affected by displacement.
- ❖ To provide lessons for designing and implementing the on-going FSL programme, future organisational strategies, and lessons to share with relevant partners and donors.

The evaluation focused within the following parameters:

- *Sector(s)*: Food security, all projects listed in the Evaluation TOR (see Annex 1).
- *Period*: 2010 – July 2012
- *Location*: Warrap & NBeG

The NRC research questions:

The food security programme has focused at least in theory on communities affected by displacement – but has it offered an appropriate and effective response to the returnees from the north and the communities they are returning to, as well as to emergency situations resulting from local crises such as the Abyei displacement?

The food security programme has involved a number of different programme activities targeted at different groups and in different locations. Given the resources available, has the food security programme appropriately targeted and provided effective assistance to a significant (large) target group or was our assistance too dispersed and/or insubstantial?

The returnees to South Sudan are generally being directed by the government to return to their rural places of origin but most are choosing to settle in peri-urban settlements surrounding regional urban centres such as Aweil, Wau, Bentiu and Leer. Has our food security programme adequately addressed the differential needs resulting from the range of available livelihood options in different rural and urban environments?

The three questions listed above ask whether programme's approach and actions worked, and was it an appropriate and effective response. The evaluation's inquiry framework focused on a formative or improvement-oriented evaluation to learn lessons from gathered evidence to support NRC's utilization-focused approach to evaluation, with the aim to inform and improve NRC's on-going interventions.

The evaluation aimed to:

- ❖ Review the context and evaluate the theory behind the programme and test its underlying assumptions and mechanisms partly through a comparative analysis of outcomes against retrospective and reflective baselines - to find out what happened in practice - the evidence of impacts and outcomes.

- ❖ Analyse the meaning of the impacts in this moment and in the future, such as whether the programme's actions are based on an appropriate knowledge base. Both the intended outcomes listed in the programme logical/results framework were analysed, and also any emerging, unintended and/or unanticipated outcomes.
- ❖ Present an understanding of the lessons, emerging options and opportunities for future development.

1.2 The Evaluated Intervention

NRC is an independent humanitarian organisation and has been operational in South Sudan since 2004, providing assistance to IDPs, returnees and refugees in areas of high return. NRC operates in three states and maintains offices in Juba in Central Equatorial, Aweil in NBeG, and Alek in Warrap. NRC currently implements an integrated operation focused on four of the organisation's core competencies:

1. Education,
2. Shelter (school construction, emergency shelter and WASH from 2011)
3. Food Security (from 2010)
4. Information, Counselling and Legal Assistance (ICLA)

NRC has been present in NBeG since 2006, with a field office in Aweil, the state's capital. In 2011 all programmes expanded from NRC's existing operational bases in Central Equatoria State (CES) and NBeG into Warrap State.

NRC introduced the FSL programme in 2010 to target capacity building and material input support to IDPs, returnees, and host communities. The FSL programme aims to contribute to strengthening livelihood resilience and self-reliance at household level and reinvigorating the curtailed market system.

The FSL projects include: training and inputs to support:

9. Vegetable Crop Production under irrigation during the dry season (using treadle, or motor pumps or watering cans and jerry cans)
10. Rain-fed cereal crop production during the rainy season
11. Beekeeping (under IGA component)
12. Fisheries
13. Reforestation (Environmental Protection – cross cutting issue)
14. School gardening in NRC supported schools by the Education Core Competency and ICLA counselling centres.
15. Alternative livelihoods and income generating activities (IGAs) and small scale business training and inputs support
16. Awareness raising: in diet diversity, food hygiene and environmental tree planting

Most of NRCs beneficiaries are returnees and IDPs who for the largest part are not farmers and have few agricultural skills. Therefore, linking agriculture activities to access to markets and supporting alternative livelihood activities, NRC provides an integrated package for rebuilding their livelihoods and food security. NRC intends to continue food security interventions in NBeG and Warrap States targeting the most vulnerable households among returnees, IDPs and host communities, with a specific focus on women to help them secure a sustainable livelihood to support themselves and their families.

The strategy for 2013 is to have additional food security staff based in the *payams*, closer to the beneficiaries in order to provide better follow up. FSL proposes to apply an exit strategy which includes local government and the already supported activities by further building the capacity of beneficiaries to organize themselves in groups for better access to agricultural inputs, markets and support from government and other stakeholders.

1.3 *Structure of this Evaluation report*

In the next Chapter 2, the methodology of the evaluation is outlined, including sampling, data collection, the analysis and triangulation process and limitations. Chapter 3 presents the evaluation findings as evidence and the facts relevant to the evaluation questions, and in addition presents the evaluators' concluding assessments of the intervention associated to each evaluation question. Chapter 4 summarises the lessons learned, and is followed by Chapter 5 which presents the overall recommendations for NRC and to future designing and implementing food security and livelihood interventions in its project locations in Southern Sudan.

2. Evaluation Methodology

This section describes how the evaluation was carried out. It covers the standard methodology topics, including research design, sampling and data collection methods and analytical procedures. It also presents the limitations of the selected methods as well as their strengths.

The report presents evidence that adequate measures were taken to ensure data quality, including evidence supporting the reliability and validity of data collection tools (e.g. interview protocols, observation tools, etc.)

The report describes the data sources, the rationale for their selection, and their limitations. The report includes discussion of how the mix of data sources was used to obtain a diversity of perspectives, ensure data accuracy and overcome data limits.

2.1 Evaluation Principles

The evaluation approach was designed to uphold NRC's ethical evaluation principles, and conducted according to principles of:

1. Systematic enquiry (goals focused, objective not subjective)
2. Integrity, honesty
3. Respect for people and responsibilities for general / public welfare
4. Broad participation of all stakeholders

2.2 Evaluation Inquiry and Indicators

The methodology was developed in line with the evaluation approach chosen. The methodology considered the project intervention logic, theory of change and the planned inputs, activities, outputs, and outcomes against the selected DAC criteria in the assessment of NRC's food security response from 2010 – July 2012.

The methodology sought to gather credible evidence in order to answer the evaluation questions against standards of performance including both the objectives and targets set in the Projects' Logframes (the causality) and also standards of best practices as outlined in SPHERE guidelines. A clear distinction was made between the different result levels (intervention logic containing an objective-means hierarchy stating input, output, and impact). In line with NRC's Evaluation Policy to understand the effectiveness and impact of NRC's work on target groups, the evaluation aimed to capture and analyse beneficiary and stakeholders' opinions and identify key lessons and concrete recommendations that might be applied to future programming.

To support high quality lesson learning, the evaluation gathered information from multiple sources and used a mix methods approach, using both quantitative and qualitative methods, in order to triangulate data and increase validity of the evaluation analysis and conclusions.

The evaluation focused on programme impacts including questions on self-reliance and sufficiency looking at indicators around production, food security, income and returns to household labour (see Annex 3 & 4 for field checklists). To assess the activities targeting beneficiary changes in Knowledge Attitude Practice (KAP), the evaluation assessed whether the targeted households have attained the new knowledge, have changed their attitude towards the practice, and have applied the new knowledge in practice. The evaluation also identified the reasons for effective change, and any constraints, whilst indicators of appropriateness to the beneficiary needs were assessed for the multiple programme inputs and design. The evaluation specifically focused on assessing FSL effectiveness towards the most vulnerable returnees, host community and IDP beneficiaries, in all locations, in urban and rural contexts as well as responding to emergency crises during developmental interventions. Furthermore, the team will review aspects of sustainability of the longer term adoption of their recommended food security practices and whether exit strategies are realistic.

2.3 Cross-cutting issues

- Gender appropriateness was taken into consideration.
- The evaluators considered impact and application of environmental activities, checking that the FSL activities took into account impact on the natural resource base and linked appropriately into all project interventions.

2.4 Sampling

The aim was to select a sample of beneficiaries to be interviewed that were representative of the total beneficiary group (see Annex 2 for beneficiaries interviewed). The list of project target locations that were visited were randomly chosen by the consultants and checked and approved by the NRC team based on accessibility. The assessment sites included villages in Twic and Gogrial West Counties in Warrap State, and Aweil Town, Aweil East, West, South and North in NBeG.

After randomly selecting sites, the sampling for the informants was done using purposeful sampling by the consultant and NRC staff based on the BNF sampling criteria. These criteria focused on what FSL support BNF received and at what time (2011 or 2012). Types of project beneficiaries visited included recipients of:

1. VCP 2011
2. CPP 2011
3. VCP 2012
4. CCP 2012
5. School gardens 2011
6. Tree planting and management 2011
7. Alternative Livelihood/vocational training 2011
8. Alternative Livelihood/vocational training 2012
9. Fishing 2011

The sample focus was on VCP and CCP beneficiaries from 2011, because FSL activities of 2012 were ongoing and thus difficult to evaluate impacts. The consultants managed to conduct up to 4-5 Focus group discussions per intervention type (CCP, VCP, Alternative Livelihoods) in each location and 1-2 individual interviews. The consultant selected the individual beneficiaries for the household visits whilst on location, mainly from participants in the FGDs. This allowed for a certain amount of randomisation which avoided bias.

The sampling selection criteria also included representation of the following characteristics:

- Mainly female – as they made up the largest proportion of the beneficiary group.
- Some male beneficiaries
- Mainly Returnees - as they made up the largest proportion of the beneficiary group.
- Host community beneficiaries
- IDP beneficiaries²
- Villages/farm locations in both rural and urban project locations

Other key informants sampled included:

1. Government Officials - The Ministry of Agriculture & SSRC
2. Partners - International NGOs and UN agencies

² The definition of people who have moved from Abyei is unclear. Although NRC define them as IDPs, some other stakeholders would claim them to be refugees – depending how you define where they have come from.

3. Payam Administrators
4. Community leaders and chiefs who were involved in selecting/targeting the beneficiaries
5. Non-beneficiaries in the Host Community, including community facilitators (established in 2012)
6. Trainers from 2011 & 2012 - NRC field staff for VCP and CCP & skilled professionals for vocational training
7. Local Traders – who have received sensitization in 2012 and conducted the cereal seed fair (June 2012)

The list of people interviewed during the evaluation can be found in Annex 2. The list covers interview groups including the beneficiaries under each FSL activity – CCP and VCP beneficiaries, schools, vocational skills trainers and trainees, and local market traders. The key informants also included partners (INGOs and UN agencies), donors, Government officials and NRC staff.

2.5 Data collection

Specifically, the methodology included the following techniques for data collection and analysis:

- Desk study and document review: The evaluation team reviewed secondary data such as proposals, reports and other documents associated with the programme.

Primary data collection, including:

- Key stakeholder interviews: The evaluation team conducted interviews with NRC staff in Juba, Aweil and Alek, national and international NGOs, relevant UN agencies, community based organizations, local authorities and inter-agency networks where applicable (e.g. Food Security Cluster).
- Beneficiary and non-beneficiary focus group discussions: The evaluation team met with beneficiaries and community representatives of the target population (both returnees and host communities) in NBeG and Warrap. The evaluation used Participatory Rapid Appraisal (PRA) tools such as proportional piling, pair-wise ranking, mapping, and Knowledge Attitudes and Practice (KAP) to gather data on the effectiveness and impact of the programme.
- Individual beneficiary interviews and observational studies: The evaluation team randomly visited individual beneficiary households and non-beneficiary households whilst at project locations and conducted a few in-depth case studies. The evaluators cross-checked information given by individual beneficiary interviews by using observation where possible e.g. looking at the areas cultivated around the house and food hygiene practices.

The evaluation visited all programme locations to meet the stakeholders in each location. The methodology was largely based on Rapid/Participatory Rural Appraisal (R/PRA)³ from combining focus group discussions, individual household interviews, key informant interviews, observational studies, and review of available secondary data was used to collect data. Information reviewed from all sources was triangulated and cross-checked to add validity to the assessment.

In each target area a combination of qualitative and quantitative research methods were used to explore issues related to the project. The evaluation drew up checklists to guide the interviews and discussions according to the type of each stakeholder and beneficiary group. The checklists can be found in Annex 3 & 4. In addition, proportional ranking was carried out to gather data on preferred types of interventions.

In the absence of reliable FSL baseline data, a Reflective Practice Process⁴ was used to gather beneficiaries' stories/data on performance and any common patterns. The process facilitated BNF and stakeholder feedback about what had been gained and changed since the programme activity started, and why.

³ www.iisd.org/casl/caslguide/pr.htm

⁴ Reflective Practice Cycle for On-going Development Evaluation is advocated by Michael Patton in Developmental Evaluation.

The evaluation team employed an independent external translator to work with them to gather data in the field. This was intended to promote objectivity in data gathering. The interviews with beneficiaries were conducted by the consultant and translator only.

2.6 Evaluation Limitations

- Although the scope of the evaluation was to cover 2010 – July 2012, most of the FSL activities/inputs were implemented in 2011 which became the main focus. Most activities in 2010 were in NBeG, as NRC did not move to Warrap State until 2011. In order to evaluate the full cycle of FSL interventions within the scope (2010 – July 2012), the activities needed to have been completed. However, the evaluation was restricted to activities in 2011 as activities in 2012 had only just been implemented or still pending. Certain activities planned for 2011/12 under the OFDA and SIDA projects, were delayed until 2012.
- The consultants did not use any baseline data as they were instructed by NRC that the data was unusable. FSL said that 2010 data was unreliable and 2012 baseline data was incomplete and yet to be analysed. Therefore it was difficult to measure the impact of the programme against benchmarks. It was also a challenge to fully answer whether the FSL was adequately designed for each group (IDP, returnees, refugees) as there was no needs assessments or livelihood analysis.
- To assess the impact of the interventions, the beneficiaries and non-beneficiaries were asked if they have managed to reduce the number/level of negative coping strategies that they employ. However as there was no Coping Strategy Index (CSI) baseline, the consultants were unable to compare the intended improvement on the reduced use of negative coping strategies.
- Although the Food Consumption Score was mentioned in the project proposals as a key indicator on most food security results, the consultants were unable to find a baseline on this indicator so used participatory approaches to try and gain an insight into how the project improved the beneficiaries' access to their food and non-food needs.
- FSL reliable diet diversity score were not available. Consequently, the evaluation assessed diet diversity – not looking at whether a household has added one food group (as per the logframe indicators), but whether the household is consuming the main 5 food groups to improve health and nutrition through a 24 hour recall process.
- Indicators identified above were collected using both qualitative and quantitative data, although lack of useable/quality baseline data limited the amount of comparative quantitative analysis.
- A few beneficiaries reported they hadn't received inputs from NRC as promised e.g. fishing, VCP⁵. This compromised the quality at times - either the beneficiary had received but thought they may get more if reported they hadn't received; or they hadn't actually received it – leading to questions of whether NRC FSL hadn't delivered inputs. The evaluators clarified these incidents with NRC field staff/community facilitators who reported that they had received inputs. Triangulation from different sources helped to overcome these issues but could lead to marginal error.
- Due to time limitations, the evaluators could not visit all homesteads to observe impacts. However, for the majority of locations, observational visits were made on group and individual farms and locations.
- Unfortunately the evaluation team was unable to meet some key informants due to availability which limited certain areas of investigation.

⁵ The Programme Manager (PM) explained that *“the input procurement/distribution have been delayed due to wrong booking of SDFK1105 expenses on SDFK1202 which led to suspension of activities on SDFK1202”*.

3. Findings

This chapter presents both the findings and the evaluators' conclusions.

- ❖ The findings presented capture the qualitative perceptions and judgements made by the project's stakeholders as the factual evidence, data and observations gathered during the evaluation study. The findings are presented according to the DAC evaluation criteria, the specific questions asked by the evaluation and to the project's intervention types.
- ❖ The evaluative conclusions are presented together with the underlying findings on which they are based. The evaluators' conclusions are assessments of the intervention against given evaluation criteria, performance standards and policy issues. They provide answers as to whether the intervention results are found to be positive or negative.

The findings are organised below according to the DAC evaluation criteria:

- 3.1 Relevance**
- 3.2 Appropriateness**
- 3.3 Connectedness**
- 3.4 Efficiency**
- 3.5 Effectiveness and results**

3.1 Relevance

Were FSL Programme's objectives and response activities relevant to the returnees from the north and the communities they are returning to?

Is the Programme relevant to the complex local context and country needs? Can NRC do successful rehabilitation programming within the challenging context?

Were the NRC FSL objectives consistent with the BNF a) requirements, b) needs and c) priorities? Did NRC have a valid knowledge base of a, b and c of the different beneficiary groups within the different contexts (urban and rural)?

Are the objectives consistent with the partner priorities and Government/donor policies?

Are NRC M&E systems applying lessons learnt from the first phase to inform on-going and future programme design?

3.1.1 Relevance to beneficiary groups needs and priorities

The beneficiaries largely perceived the project interventions to be relevant to their needs, customs, contexts, and vulnerability. The evaluation finds the programme successfully contributed to protecting the welfare of vulnerable groups, such as poorer returnees.

Regarding the FSL intervention areas of CCP, VCP, livelihood training and fishing, the evaluation generally found all areas to be relevant to the existing livelihood and food security needs and priorities of the BNF. Numerous BNF stated their food availability and accessibility problems were related to market availability and seasonal price fluctuations. Despite BNFs reporting these problems had not changed since the start of the programme, the evaluation finds the FSL programme relevant to sustainable livelihood needs, firstly, at aiming to reduce the BNF need to purchase food from markets by promoting own agricultural production, and secondly by supporting income generation so that they have purchasing power when needed.

The relevance of the FSL objective to conserve the environment in order to safeguard household food security and livelihoods was found to be valid in Warrap. The cutting of timber for poles, firewood and charcoal production for shelter fuel, and income generation was a common activity amongst all FSL BNFs. Numerous BNFs reported timber harvesting was their main source of income, and the rate of off-take and deforestation was reported to be high. Community facilitators reported no reforestation was generally being undertaken and the environment was being negatively affected. The evaluation finds the FSL objective to promote reforestation as valid yet inappropriately designed as exotic fruit trees and shade trees were being introduced by NRC.

The NRC Warrap Assessment 2010⁶ highlighted the importance of CCP, particularly of sorghum, as the predominant form of agricultural production for food security, and noted the existence of rain fed VCP, particularly okra for consumption. It also identified the relevance of fishing as an alternative source of protein and an important income generation source for many households. The assessment listed other income sources, livestock, firewood collection, tobacco production, local brewery, casual work and petty trade. It noted the need for improving livelihood skills and resources in line with local government and community representatives' reports, and noted that the number of traders and market access via roads and at Boma level had increased since the signing of the 2005 CPA.

The evaluation findings indicate Returnee Households (HHs) who had been resettled for four or more years followed livelihood patterns similar to the host community. The only difference was less access to milk and meat

⁶ NRC, Sudan Mission, Assessment Report, Warrap State 29/09/2010

from own livestock, less fishing and income generation opportunities. As such, the NRC and secondary assessments identified requirements consistent with the communities' needs, such as the potential to improve the HC traditional farming practices of rain-fed subsistence cereal farming, start vegetable farming under irrigation in the dry season, fishing practices, and alternative livelihoods skills through training and skill development in improved practices.

NRC and numerous International agencies stated they did not have a good knowledge base of the BNF, particularly the profile of the returnees. The FSL programme objectives were designed according to rapid NRC assessments such as the 2010 NRC Sudan Warrap Assessment, and secondary sources of information such as OCHA, FAO, WFP, ANLA Assessments, and National Bureau of Statistics and the Livelihoods Analysis Forum. None of these data sources conducted or provided an up-to-date local knowledge base, community livelihoods assessment, needs or context analysis of NRC's targeted beneficiary groups, including the returnees, IDPs and host community members.

Although the NRC FSL livelihood analysis was limited, it was consistent with the ANLA 2010/2011 assessments that presented a detailed overview of HC livelihood activities in Warrap State, highlighting the importance of agriculture as the main source of income and HH food:

The agricultural sector in Warrap state is the main source of income as reported in the 2010/2011 ANLA study. The report shows that 91% of the assessed households in Warrap cultivated crops in 2010; mostly the staple crop sorghum. This reveals the lack of diversified food production and consequently consumption, leading to poor diet diversification. An approximate 8% of the households were involved in fishing, of which 33% sell at least part of their catches. The report further shows that 32% of the households had poor and 28% borderline consumption. The main income sources were agriculture (21%) and livestock (20%) followed by sale of alcohol (18%), skilled/salaried work (13%), sale of natural resources (8%), and casual labor (7%).²⁶

Other studies show that the poor and more vulnerable get little income from crop sales. This has not changed since the CPA. Main income sources for the poor are from petty trade, fish sales, wild food, tobacco sales and labour. It should be noted that the poorer households do not own livestock so 20% income from livestock cited in the ANLA above is irrelevant. The relevance of the ANLA has been recently discredited by key stakeholders, such as international NGOs and partners. This also applies to the ANLA reports on food security and nutrition as cited below.

the ANLA 2010/2011 report describes the resulting malnutrition rates as very critical for Twic County with a Global Acute Malnutrition (GAM) rate of more than 20; whereas Gogrial West is described as serious with a GAM of 10-14.9. More specific nutrition surveys indicate GAM rates in Twic of 24.1 (GOAL) and in Gogrial West of 20 (ACF).

As for specific NRC targeted beneficiary assessments, NRC did conduct a baseline survey in June 2011 (NBeG), and in 2012, and in addition planned a system in the Field Note Books to collect data for a beneficiary stakeholder analysis. The 2011 baseline data on BNF food security, livelihood systems, and assets largely informed a Programme Evaluation Report for NBeG. NRC staff report however, that the quality of the data collected and its analysis was poor and could not be used in programming decisions. Moreover, NRC reports the 2012 baseline data (for SDFK1202, SDFK1201, SDFK1203 and SDFK1206) was incomplete and has not been analysed; whilst the beneficiary data for the Field Note Books is still incomplete. The evaluation finds NRC's attempts to generate and promote its knowledge base have possibly been undervalued and mismanaged. As such, the evaluation finds NRC did not have reliable baseline data to understand differing needs, risks and interests of the different beneficiary groups, namely returnees, host community and IDPs, and knowledge associated to the differing rural and urban locations.

The evidence indicates that NRC did not develop its FSL interventions according to consultations with the BNFs or beneficiary participation in the design of project interventions as recommended by the SPHERE guidelines. None of the sampled beneficiaries in NBeG and Warrap could explain the historical reasons behind the selection of the type of NRC projects, yet all BNF stated that they wanted the interventions to continue.

Whilst NRC approached beneficiaries with predetermined intervention designs, there were cases when NRC asked beneficiaries to list their needs according to the set intervention area, generating some evidence of NRC enquiry of participatory needs analysis. The incorporation of such listed needs by NRC into the design of the interventions was however not clear and lacks evidence.

3.1.2 Relevance to farming, climatic and market conditions

The BNF, community facilitators, NRC staff and secondary data all report that CCP and VCP are suited to the local climatic and farming conditions with abundant sources of fertile soil, water, and land. All of which are reported to generate good harvests in good years. Moreover Warrap Needs Assessment⁷ Report identified the opportunity to do VCP in dry season under irrigation which is found to be relevant to BNFs located near abundant water sources to facilitate irrigation.

Whilst this demonstrates the relevance of the FSL Programme, the climatic and farming conditions also typically include: droughts, flooding, and pests and diseases. All of which are frequently reported by BNF and stakeholders to result in high crop losses and poor harvests. The scenario was captured by a community facilitator:

“There was a drought in 2011 and then floods which resulted in poor CCP and VCP yields, resulting in estimated high losses of 70%. I don’t know of any farming techniques to cope with flooding. People coped by selling firewood and charcoal, others sold their assets (beds, shelves, clothes, tables).

In 2012, conditions were better and harvest yields were good.”

The FSL logframes indicates the assumption that *climate is favourable to all agricultural production*. There was limited to no evidence of how this assumption was being managed. There was no evidence that NRC had upheld the relevance of its interventions by tracking the climatic impacts on the interventions or adapting the activities to suit the changing climatic conditions. Additionally, there was no indication that NRC had adequately considered the contextual national ban on artificial chemical pesticides in the design of its project objectives to achieve *increased household food availability and accessibility through own agricultural production*.

There was no evidence that NRC FSL had conducted a market survey to assess job prospects, market demand and commercially viability to promote the relevance of the alternative livelihood interventions. Moreover, there was no evidence that FSL projects had identified factors and risks related to market demand in its logframe assumptions and how to manage the effect on the progress or validity of the intervention.

3.1.3 Relevance to country and context needs

There was positive evidence that the FSL programme agricultural objectives were in line with SMAF (State Ministry of Agriculture and Forestry) directives in both NBeG and Warrap.⁸ The SMAF appeared to have a strong knowledge base of FS and agriculture conditions and approved of NRC VCP activities in improving food security, income and diet diversity.

All NRC staff reported NRC should prioritise conducting livelihood profiling and needs analysis in order to review and build its knowledge base specifically at the outcome and purpose level. Understanding the livelihoods of the host community and defining returnees and reintegration was hoped to inform and guide the relevance of its future programming and targeting.

⁷ NRC, Sudan Mission, Assessment Report, WARRAP STATE 29/09/2010 – this rapid assessment was generic and did not consult any community or beneficiaries on their perspectives, needs or interests.

⁸ As the NRC Warrap Rapid Assessment and evaluation study found, SMAF is prioritising agricultural development with 1) Organization of the farming community through skill improvement and capacity building via farmer demonstration plots for improved learning of agricultural techniques, and 2) crop diversification with aims to introduce new CCP, VCP and fruit varieties. The lack of means (financial and skills & knowledge) was the main limiting factor of the SMAF, and the FSL’s programme was found to be relevant in addressing these aims and need gaps.

3.1.4 Conclusion

Table 1- Evaluation conclusions on relevance

Strengths in relevance:	Weakness in relevance:
FSL programme designed according to generic sources of data including the rapid 2010 NRC Sudan Warrap Assessment, and secondary sources of information such as OCHA, FAO, WFP, ANLA Assessments.	<p>Knowledge base from assessments & data reported by agencies to be outdated and inadequate. The ANLA reports of recent years has been heavily questioned by the GoSS and many donors.</p> <p>Lack of targeted population livelihood and context baseline data weakened the programme's relevance (reliance on ANLA 2010/2011 reports). Data referred to host community only. NRC and international agencies self-reported a poor knowledge base of returnees.</p>
Positive identification of primarily agricultural production activities and relevant alternative livelihood skills as valid opportunities to improve BNF food security, livelihood resilience and self-reliance.	<p>Limited FSL assessment of how to transform traditional HC subsistence agriculture into supplying full HH food security needs for R, IDPs, and HC BNF.</p> <p>NRC's attempts to generate its knowledge base, via NRC baseline survey in 2011 and 2012, and the FSL Field Note Books was unutilized by FSL and was possibly undervalued and mismanaged.</p> <p>Relevance was weakened by NRC lack of reliable baseline data to understand differing needs of the different beneficiary groups, namely returnees, host community and IDPs, and knowledge associated to the differing rural and urban locations.</p>
The FSL intended strategy in its project proposals was perceived by BNF as relevant by aiming to promote agricultural or livelihoods production over both wet (CCP) and dry seasons (VCP, fishing, and alternative livelihoods) for increased annual <i>household food availability and accessibility and self-reliance</i> .	The evaluation found no evidence that the FSL intended strategy for increased annual <i>household food availability and accessibility and self-reliance</i> was achieved, as the FSL targeted different BNF for each type of intervention and farming/activity season. The BNFs requests for more seasonal support reflecting their on-going needs.
<p>NRC reported that the challenging political and economic context had posed difficulties, but the severity was not regarded by NRC to significantly challenge the relevance of the FSL programme, i.e. supplies could still be procured and delivered.</p> <p>Evidence of managing climatic risks was found in one case related to the funded NBEG project of the Norwegian Ministry of Foreign Affairs, whose Directive stipulates that BNF should continue to receive FSL support after two years if BNF experience more than 60% of crop loss due to floods/droughts/pests.</p>	<p>The reoccurring negative climatic and agricultural conditions challenged the relevance of the programme agricultural objectives.</p> <p>There was limited to no evidence of FSL tracking and action upon the risks associated to the agricultural context. FSL design in Warrap did not have the flexibility or mechanisms to respond to the recurring seasonal fluctuations particularly regarding impacts of crop loss.</p>
<p>The value of NRCs VCP intervention to the BNFs was found to be linked to the commercial potential associated to the new seeds and production.</p> <p>The NRC Needs Assessment Warrap Report 2010 also noted an improved commercial market context with enhanced numbers of traders and market access via roads and at Boma level since the signing of the 2005 CPA.</p>	<p>NRC's objective of improved diet diversification via VCP was not consistent with all sampled BNF interests. All stated the predominant interest in VCP was income generation enabling BNF to have purchasing power to meet food and non-food needs.</p> <p>NRC has not adequately recognized that income from VCP sales was a priority of the BNF, and local markets are able to facilitate this.</p>

<p>The alternative livelihoods intervention was relevant to address skill gaps and needs as most returnees reported to have few formal skills.</p>	<p>No evidence of FSL market surveys to assess the job prospects and commercial viability of alternative livelihood skill sets to match context to its objective. BNF regarded driving, computer and some hairdressing skills of low relevance to <i>increase household's sustainable livelihood options due to low commercial viability</i>.</p>
<p>FSL objective <i>to conserve the environment in order to safeguard household food security and livelihoods</i> was found to be valid in Warrap with reforestation considered a need by BNF and community facilitators.</p>	<p>The FSL reforestation objective was inappropriately designed as introducing exotic fruit trees and shade trees and not replacing the cutting of indigenous forest.</p>

3.2 Appropriateness

Did NRC tailor its intervention design and types if activities and inputs to the different groups of BNF, their needs and the local context - increasing ownership, accountability and cost-effectiveness accordingly?

What was the BNF perception of the projects' appropriateness in addressing their needs?

Were the right people targeted?

Did the programme promote participation – gender & cultural and differentiate the needs of the affected population (women, men, girls and boys, different social groups)?

3.2.1 Appropriateness of the targeting criteria, selection procedure & process

FSL had numerous targeting criteria. The evaluation findings against these criteria are summaries in the table below with a conclusion. The FSL BNF selection criteria were appropriate in theory, yet were found to be inadequately defined, designed, applied, monitored and recorded in practice by FSL.

Table 2 - The findings of the FSL BNF targeting criteria and FSL's application of selection criteria

FSL BNF Targeting criteria	NRC Data	Findings
Vulnerability	<p>The NRC NBEG Evaluation Report: selected widow-headed households and labour poor female headed households. Their vulnerability was verified by the community (elders, religious leaders). The community also had the option of selecting females from other vulnerable households.</p> <p>Reported the lack of coordinated data relating to:</p> <ul style="list-style-type: none"> – The food insecurity indicator – The location of other INGO interventions. 	<p>No evidence of FSL clear definitions or adherence to food insecurity or vulnerability indicators, such as identifying groups with the greatest nutritional support needs and the underlying factors that potentially affect nutritional status, as recommended by SPHERE standards.</p> <p>Positive evidence of selection of vulnerable included cases of moderate food insecurity amongst CCP/VCP returnees, and some host community, labour-poor female farmers, and selection of BNFs relying on off farm self-employment or coping strategies for income generation (natural resource extractions and sales, charcoal, timber poles, and cutting grass, wine making, and tobacco making etc.), reported by sampled BNF, 56% in Warrap and 47% in NBEG, to be the largest contribution to total annual income. Sale of own farm produce contributed 40% in Warrap, but only 7% in NBEG. In NBEG limited evidence of selection of the most vulnerable.</p>
“Do No Harm” principle =75% R and 25% HC	<p>The NRC NBEG Evaluation Report of the total number of project's beneficiaries: Returnees: 82% of Host communities: 14%. IDPs: 4%</p>	<p>The evaluation team was unable to gather sufficient data sets on beneficiary targets and compositions.</p> <p>The policy of higher number of R selected was valid as vulnerability was found to be higher amongst R as compared to HC members. An NRC policy was lacking for the selection of IDPs who were also found to be more vulnerable than HC members.</p> <p>Sampled BNF data indicated higher returnee selection in Warrap, for vocational training at 80% and CCP at 60%; with host community at 40% CCP and 20% alternative livelihoods; and IDPs at 10% for alternative livelihood and no CCP.</p> <p>In contrast, in NBEG high FSL selection of host community members was found. In addition, in Warrap 100% tree seedling BNF sample were host community, as were most fishing BNF.</p> <p>Positive evidence in Warrap sample that project selected</p>

		<p>many recent returnees arriving in 2011-2010, rather than those returning over the period from 2007. In contrast, evidence from the NBEG sample indicated the criteria was not fully applied as approximately 50% of R had returned 5 to 8 years ago, and were found to be settled and largely reintegrated. Sites near to reintegration centres had a higher percentage of more recent Returnees.</p> <p>The definition of a “returnee” was not defined by FSL. An informal FSL definition was found to be: a graduate BNF could be classified as a host community member.</p>
Gender, mainly female	Initially 100% female, male more recently been targeted.	The evaluation team was unable to gather sufficient data sets on beneficiary targets and compositions.
FSL on site assessment at start of group selection confirms availability of group, farm land, water;		Positive evidence of FSL performance of on-site assessments reported by BNFs. BNF were happy and satisfied with this support.
VCP targeting of the group farm location with a water source for the irrigation, for both farming and school garden groups	Most of the villages targeted by the project were localized in the fertile populated low land subject to floods during the rainy season in NBEG.	<p>Mostly positive evidence with sampled BNF reporting to have a good water supply.</p> <p>Yet 50% sampled BNF reported water supply problems –for instance water source by VCP group farm dries up after time; or reliance on village borehole is challenging as the whole village uses it, or they want to change their plot to another one with a better water supply.</p>
Treadle water pumps distribution BNFs according to BNF cropping performance and BNF securing a permanent water source in dry season within 150m of access.	<p>Warrap 2011: distributed to 18 schools</p> <p>Other figures of BNF recipients not clearly accessed by evaluation team.</p>	<p>Mostly positive evidence of water access criteria adhered to. Yet a negative 33% sampled BNF reported water access problems.; and 25% of the 2011 sample of well organised farming groups reported they as yet have not received a despite good water source being nearby.</p> <p>No evidence of FSL application of BNF cropping performance criteria.</p>
BNF for motorized pump distribution according to performance and enthusiasm of the BNF group.	6 were distributed in 2012 in NBEG only, none in Warrap	No evidence of recorded data to demonstrate the level of performance and/or enthusiasm of different groups.
Graduates: a BNF who had been in the programme for more than 2 years could be classified as having ‘graduated’	<p>2012 BNF:</p> <p>VCP: NBEG 15 groups carried over from 2011 and 2010, and 43 new groups formed. In Warrap 40 groups from 2011 carried over to 2012, unknown how many added in 2012.</p> <p>CCP: NBEG 20 groups carried over from 2011 and 2010, and 10 new CCP groups added. In Warrap: 23 groups carried over from 2011 to 2012 and 7 new groups added in 2012.</p>	<p>Some positive evidence of application of criteria with third year BNF only receiving training. The evaluation was limited in its ability to assess this criteria as the FSL programme has only been operating for 2-3 years</p> <p>After two years of inputs, NRC only gives training, no materials, to the BNF in year three, with the exception of the NBEG Norwegian Ministry of Foreign Affairs project groups who experience +60% crop loss in floods.</p>

There was some positive evidence of community members’ involvement in identifying and selecting potential beneficiaries, such as County Authorities, *Payam* Administrators, *Boma* Leaders to target project locations where returnees, IDPs, and host community populations. BNF reported to be happy with the selection process including the instruction to complete an FSL questionnaire/application and FSL’s on site assessment approach. In addition, there was evidence from BNF reports of community leaders directly approaching FSL for support for VCP and

CCP BNF, and cases of individual BNF responding directly to FSL announcements/adverts for Vocational Training. Many BNF reported cases of FSL directly locating and mobilising them with limited community leader involvement.

Conclusion

The FSL BNF selection criteria were appropriate in theory, yet were found to be inadequately defined, designed, applied, monitored and recorded in practice by FSL. The intention was to target the most vulnerable BNF and there were cases of both positive and poor evidence of achievement. The evaluation suspects that there is a lack of sensitisation and capacity amongst the programme staff regarding the importance of applying the criteria in reaching the most vulnerable, rather than trying to help all in need in the communities.

Similarly, adherence to criterion relating to selection of BNF for treadle water pumps distribution was not consistently applied, and there was a lack of FSL capacity of recorded data to demonstrate the level of performance and/or enthusiasm of different groups as per the criterion which was also the case for the criteria on motorized pump distribution.

The “Do No Harm” principle and intended selection breakdown of BNF groups of 75% R and 25% HC, was found valid in prioritising R as their vulnerability was found to be higher as compared to HC members. Moreover, the policy is found valid in including HC members, as cases of evidence was found of HC vulnerability and it is valid to support the HC who have to date absorbed and catered for a large proportion of the newly settled R and IDP welfare needs (housing, land and food). Moreover, the policy approach is found positive in its attempt to reintegrate HC and R by including them together in its support interventions.

The policy however lacked a specific target for the high vulnerability levels of IDPs. Cases from the sampled evidence indicated a high FSL selection of host community members. This may be due to the randomisation of the evaluation sampling strategy, as other samples had high returnee membership. Nevertheless, the lack of reliable FSL data records (see page 40/41) on the make-up of targeted BNF compounded the finding that FSL performance in BNF selection was inadequate and unreliable.

The community based targeting and selection process of beneficiaries was not consistently applied by FSL. There was some evidence of positive participation of community leaders in community based targeting. The findings largely indicate that the involvement of the community members was well managed and had positive impacts on the project’s design and administration performance and helped improve its implementation capacity. The evaluation did not assess the benefits of the community members’ involvement in administering the project.

In contrast, there were also cases reported by BNF where FSL directly selected BNF and the role of community leaders was unclear. Such as BNF responds directly to FSL Vocational Training announcements/adverts, and many reports of FSL directly locating and mobilising FSL BNF with limited involvement of community leaders. There was limited disclosure on the monitoring of the selection criteria and procedures.

3.2.2 Appropriateness of farming groups

The findings indicate largely positive evidence that FSL had efficiently organised BNF into farming groups of 30 members. There was positive evidence that BNF approved of the group structure and operations.

Table 3 - appropriateness of farm groups in Warrap

Warrap BNF reported:	for example:
➤ Like the group organisation: 63%	<ul style="list-style-type: none"> - They want to increase the groups - They collaborate with other groups - Were already operating as a group - Members committed to group work timetable - Good relationship between HC and R and IDPs - 66% school garden BNF sample benefited from own consumption - 66% school garden BNF sample benefited income from sale of harvest

➤ Have good group leaders: 33%	<ul style="list-style-type: none"> - Well mobilised and inspired by group leader to plant rice, or to rent ox plough. - 2012 group leaders have trained other BNF
➤ Have group problems: 46%	<ul style="list-style-type: none"> - Late delivery of seed caused doubt and fractions amongst group members about whether investment into planting on group farm was worthwhile - Felt the FSL inputs were limited and did not enable them to operate as a group - Lost many seedlings on the group farm because members were lazy, whilst other members were hard working. Suggested lazy members should be excluded in future. - Initially 12 students, yet 7 dropped out because were hungry and lived far away and would need to go home for lunch and thus could not work on the garden - School garden harvested produce 44% of sampled students did not receive harvest or income generated from sale of school garden harvest - High rate of tool loss and theft at VCP school gardens: 100% of all tool types stolen at 33% of schools, and at least one tool stolen at all schools

The same picture emerged in NBEG; however the motive was not as clear as most groups reported very disappointing results. There was always a great deal of enthusiasm for more things and more NGO action – not surprisingly. However the stories of success and sustainability were not evident. This could be attributed to the short intervention period.

NRC develops a MoU with the BNF group, which FSL staff reported clearly states NRC is not responsible for any tool maintenance and farming groups are responsible. The evaluation, however, found no evidence of any specification in the MoU as to who was responsible for tool maintenance and keep. There were numerous cases indicating BNF groups perceived broken or missing FSL inputs to be hopefully repaired or replaced by NRC FSL.

The evaluation also found evidence where the head teachers' purpose for the school garden benefits, conflicted with both the intended FSL and the student members' perceived purpose of the school gardens, namely to generate harvests for HH consumption and shared group income from sales. The school group organisation was found to be inappropriately sensitised, arranged and monitored amongst 44% of the sample. Despite the students' motivation for participation, school group leaders withheld both the harvest and the income generated. Moreover, the high levels of tool loss and theft at VCP school gardens indicate inappropriate MoU agreements, management and monitoring by FSL.

Conclusion

There was a general satisfaction and commitment to working groups (CCP, VCP & school/fishing and tree planting) reported by most of the sample BNF interviewed. In NBEG this was the message from the school leaders but not the group members. There were some challenges relating to delivery times and quantities of FSL inputs, distances between the group farm's and BNF HH, and lack of some group members' commitment. The evaluation finds that given the high rate of group tool/pump breakage or disappearance, the FSL group MoU did not appropriately specify responsibility for repair, maintenance, and storage, and has not appropriately sensitised groups on responsibilities resulting in inappropriate sense of BNF ownership and accountability. Whilst the evaluation found no evidence from BNF reports of group problems with marketing their VCP products, the evaluation was restricted by the short existence period of FSL's VCP intervention, and thus as a relatively new intervention, there may be issues regarding farming groups that have yet to unfold.

3.2.3 Appropriateness of design of activities

There was limited evidence of beneficiary participation in the design of project interventions as per the SPERE Guidelines. Positive feedback from the BNF was found on the appropriateness of the activities to reduce the BNF need to purchase food from markets by promoting own CCP, VCP and/or fishing production, and secondly by supporting income generation via fishing and alternative Livelihoods training.

There was evidence of BNF prior interest, experience and investment in the NRC intervention areas before the NRC projects commenced indicating positive appropriateness, for instance:

- 60% of the sampled VCP BNF group in Warrap were already mobilized and doing VCP before they joined NRC, thus indicating VCP was appropriate to their interests. In addition, 20% VCP BNF sought VCP, support directly from NRC indicating their interest
- The programme's objective to improve CCP was found appropriate by all FSL BNFs to address their HH food insecurity. All FSL BNFs prioritised CCP of sorghum and groundnuts in the rainy season. The CCP practice cannot only be attributed to the FSL programme, as it is a historical and traditional practice, and the evaluation found clear evidence that all sampled R and IDPs are following the HC livelihood strategy and are now practising CCP in the rainy season. In addition, 25% CCP BNF sought CCP support directly from FSL indicating their interest.
- The finding was similar for the fishing BNF who stated a high interest in its benefits for food security and income generation.
- The alternative livelihoods training was found appropriate to address skill gaps as most returnees reported to have few formal skills and most were engaged in menial jobs or petty trading tea and groundnuts at markets before returning to South Sudan. 15% of the returnees had previous skills in hairdressing and masonry, and 22% of the sample BNF in Warrap reported to have some adult evening school education gained in Khartoum. Most BNF reported that alternative livelihoods work was relevant in the dry season only, and that they would like to focus on CCP work in the rainy season to produce HH food.

Positive evidence was also detected of BNF commitment and interest in the NRC interventions after the start of the programme:

- In Warrap 60% of the sampled VCP group farms observed, including returnees, had invested considerable effort and commitment into preparing, using and maintaining the well-run group VCP farms demonstrating commitment and indicating the appropriateness of the VCP intervention to their interests.
- Similarly, there was positive evidence of BNF commitment to CCP, with evidence of harvested and stored cereals from group and individual BNF farms.
- Many BNFs managed to get jobs after the alternative livelihoods training and stated that the skilled labour (carpentry, hairdresser and masonry) earnings were higher than menial jobs. However, fishing and pole cutting/selling activities were stated to earn more income than masonry work. The community facilitators reported to have observed BNF masons, hairdressers and fishermen gain salaried employment.
- Fishing BNF reported increased catches were achieved with the FSL inputs generating HH food and income from sales.
- Tree planting BNFs reported a high interest in fruit trees for HH consumption and income generation, there was observational evidence they had invested resources into tending trees on the group farm with high seedling success rates.
- In other cases there was less indication of BNF VCP interest, with evidence of 20% the BNF's had invested and applied VCP in 2011, but not in 2012 as the group farms remained unprepared for the current season which had commenced. Commitment could not be detected at another 20% of the group farms as the farms were waterlogged and showed little evidence of use, indicating a lower level of the FSL VCP intervention's relevance to this sample group.

BNF interest in VCP for income generation:

Whilst 2012 BNFs reported to have used VCP harvests for HH consumption, all VCP BNF in NBeG and Warrap clearly expressed the importance of income generation (i.e. from tomatoes) as the key benefit of VCP. The evaluation finds this potential benefit contributed to the popularity of the project. For instance, a VCP BNF used 20% of their okra harvest for HH consumption, and sold 80% to generate income. If BNF have a good VCP

harvests, they sell. The common explanation was “our aim with VCP is for income generation to buy food”. This finding indicates that BNF prefer to sell vegetable harvests in order to buy other food, namely staple grain.

In contrast, none of the sampled BNF stated an interest in diet diversification which is NRC’s objective of its VCP projects. This raises the question of whether NRC’s main objective of raising diet diversification through VCP is relevant and valid, although it can be seen as an additional benefit. The evaluation found evidence that the BNF, especially HC and increasingly R, already farm traditional vegetable crops which are consumed by households and are regarded to provide nutritional value, as were wild foods which were reported to be high in minerals and vitamins and gathered over most seasons. When asked about diet diversity, the BNF in NBeG recognized the importance of their quality of diet but reported the need for basic food security access in terms of minimum kilo calories from staple cereals was normally prioritized. In contrast, there was limited evidence that NRC had recognised this BNF priority, and limited evidence FSL VCP objectives were consistent with the BNF VCP requirements.

The BNF interest in VCP sales to generate income was found to be expressed by two categories of the BNF sample, including:

- a) Those who have experience of selling vegetable produce = indicates they have calculated from experience the investment of their VCP inputs is worthwhile in terms of income gains. There was evidence of a single case in Warrap where the BNF reported that VCP can earn more than all other income generation activities, such as off-farm self-employment activities, charcoal, timber, wine making etc.
- b) Those who are still new VCP farmers, but hope to get a good return, and expect VCP to become their main source of future income generation.

In addition, the VCP BNF interest in VCP income generation was consistent with numerous sampled CCP BNFs who also expressed the same interest and the recognition by both SMAF and other international agencies the importance of vegetable sales in order to purchase cereals/staples kilo calories.

The evaluation poses the question of whether the BNF’s interest in VCP for income generation rather full consumption of harvests and diet diversity may be linked to the low kilocalories provided by vegetables. The table below shows an individual would need to consume more than 11 times the quantity of vegetables compared to that of cereals to meet the min daily kilocalorie requirement. For instance, the average household of 6-7 people would need to consume an equivalent of 42 – 43 Kgs of vegetables per day as opposed to 3.5 Kgs of staple grains.

Table 4 - Examples of the quantities of foods required to be consumed by an individual in order to provide the minimum daily kilocalorie requirement

VEGETABLES	Kg ppcd*	CEREALS	Kg ppcd*
Okra	5.76	Maize	0.52
Pumpkin	5.28	Millet	0.52
Eggplant		Sorghum	0.54
Tomato	9.50		
Dark green leaves	3.96	OTHER	
Onion	3.96	Cassava flour	0.56
Pale green leaves	8.26	Groundnuts shelled	0.57
Average value	6.12		0.54

*Kg ppcd = the amount in Kgs of the food type needing to be consumed in order to meet the daily minimum energy requirement (2100 kcal)

The evaluation finds that VCP appropriateness to *increased household food availability and accessibility through agricultural production* in terms of kilo calorie contribution (a key consideration when determining the status of the food security of any household) will be almost insignificant unless the income from sales can be utilized to purchase additional staple. The typical pattern of the lean period in terms of limited HH food availability and

accessibility normally runs from April/May/June falling at the end of the dry season before the rains, see Table 5. Farming activities including the start of the CCP planting season, okra and some VCP farming run up until August which is the time of the CCP green harvest. BNF associate the lean period to low supplies of own stored sorghum, peaks in market demand and prices of sorghum and staples, less seasonal wild foods, and no grass. BNF reported that during the lean period, okra farming does well and certain VCP varieties may be consumed or sold.

Table 5 - Food consumption calendar gathered via primary and secondary data

	Jan	Feb	Mar	April	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Season	-----Dry-----				---Wet-----Wetter-----				----Dry---				
Purchases	p	p	P	P	P	P	P	P	p	p	p	p	
Sorghum	///	S x S x S x S				//////////							
Maize	XXXXXXX				//////////								
Ground nuts	XXXXXXX				//////////								
Sesame					//////////								
Okra and pumpkin	XXXXXXX				//////////								
Irrigated veg	C&S C&S C&S								C&S C&S				
Wild foods	//////////								//////////				
Fish	XXXX River Fishing				//////// Pool Fishing XXXX								
Milk	///	Away at Toic				At homestead				//////////			
Livestock													
Labour *													
Price of staple	Start to increase				Increasing		Peak	Peak	Low		Low		
FS lean period					I I LLLL		LLL	III					

Key for table

* = Staple cereals in kind payments or purchased

X = Can be preserved and stored for later consumption

P = Regular purchases – small amounts. Less regular and mixed depending on own harvest.

p = Reduced market purchases as own grain is budgeted and some staple accessed by labouring.

SxS = Some own production saved to support energy needs during land preparation and sowing etc. This depends on the wealth status of the household and previous harvest performance.

C&S = Consumption and sale

L = lean period

I = less acute – depending on season

Wild foods are gathered across most seasons except for one month between the rains and dry season.

Numerous CCP and fishing BNF requested VCP and alternative livelihoods support for dry seasons, with CCP BNF stating an interest in rotational cropping at group CCP farms near water sources, and fishing BNF stating requesting VCP when they are not fishing to generate food and income over all seasons. The evaluation found no evidence of annual FSL support was achieved, as the BNF were different for each type of intervention.

Table 6 - NRC support for annual food accessibility and availability according to BNF types

BNF type:	Rainy season	Dry season – in addition to traditional coping and natural resource extraction	Is BNF being supported by NRC to address the lean period needs?
CCP- all HC, R & IDP	Farm CCP	?	No
VCP- all HC, R & IDP	Farm CCP	Farm VCP	Yes
Alternative livelihoods training- all HC, R & IDP	Farm CCP	Search or gain skilled labour/employment	Yes
Fishing - all HC, R & IDP September to December	Farm CCP	Fishing in rivers	Yes
Tree planting – all HC	Farm CCP	Pole & charcoal production	? fruit trees

VCP crop failure or low yields were commonly reported by all BNFs due to pest and disease, the national ban on artificial chemical pesticides, and poor rainfall. A few key stakeholder agencies also highlighted the high risks associated to VCP particularly for the most vulnerable HH and individuals who are exposed to greater insecurity if VCP harvests fail, whilst better off households may be able to absorb the risk and fall back on alternative reserved resources. This indicates that whilst there is high BNF interest in VCP, there are also high risk levels of crop failure and loss, and this raises questions regarding the appropriateness of the current VCP design in the given context of climatic, farming and regulatory conditions. In NBEG the change in cash income and/or food access was not significant. In the CCP action, one of the main constraints to increased production, due to limited household labour, was the *Striga* weed.

Appropriate alternative livelihoods skill sets were found to include masonry, welding, fishing, carpentry where BNF reported job opportunities and/or customer and market demand was available. In contrast, skills sets including driving and computers were regarded to date as less appropriate. Many BNFs in these skills sets reported they could not find jobs and the commercial viability of income generation prospects were low. Whilst the hairdressing and tailoring BNF stated employment was limited by weak customer markets and often limited to customer spending only at Christmas or on special occasions such as weddings.

In general, there was no evidence of any NRC monitoring data had generated any lessons learnt regarding whether the FSL Programme's objectives were relevant to its differing BNF needs and contexts in differing rural and urban locations. The exception was one evident case of adapting the alternative livelihood training in computers, according to needs and contexts of the alternative livelihood BNFs and potential job market demands.

Conclusion

Table 7 - Appropriateness of FSL design conclusions

Strengths in design:	Weakness in design:
Positive evidence from the sampled BNF indicated the FSL programme was appropriate by aiming to reduce the BNF need to purchase HH food from markets by promoting own CCP, VCP and/or fishing production, and secondly by supporting income generation via fishing and alternative livelihoods.	There was limited evidence of BNF participation in the design of project interventions as recommended by SPHERE.
The FSL programme is relevant in supporting dry season activities for VCP, VT, and some fishing BNFs.	The FSL programme is not supporting any dry season/lean period activities for CCP and tree planting BNF. Sampled CCP BNFS asked to participate in NRC VCP and alternative livelihoods interventions for dry season support.
Evidence of BNF prior interest in the NRC intervention areas before the projects commenced.	VCP contribution to improved food security is almost insignificant unless the income from VCP sales can be utilized to purchase additional staples.
The purpose of some interventions such as CCP, alternative livelihoods and fishing was relevant to all the differing needs and contexts of the BNF groups of returnees, IDPs, and host community. Introducing VCP was relevant to 50% of sampled VCP BNF, predominantly R, to whom modern VCP was a new practice requiring technological skill development and input support.	The FSL BNF groups had differing VCP capacity building needs, with HC and R needs varying according to previous skill and experience.

<p>Positive evidence was indicated in BNF commitment, interest, utilization and perception of FSL intervention areas after the start of the projects:</p> <ul style="list-style-type: none"> • In Warrap 60% of the sampled VCP BNF group farms demonstrated high commitment and interest levels • alternative livelihoods BNF with hairdressing, tailoring and masonry jobs stated the skilled labour earns more than menial and some coping strategy jobs • Fishing BNF reported increased catches generating HH food and income generation • All FSL BNF reported that they did not sell any FSL inputs and were using the inputs. • high beneficiary demand for intervention inputs and requests for its expansion 	<p>The school gardens lost many tools delivered by NRC to theft and school garden indicate inappropriate MoU agreements, management and monitoring by FSL. School leaders mismanaged the school gardens and withheld income generated from school garden harvests.</p>
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3.2.4 Appropriateness of training and mentoring

Many BNF and Community Facilitators reported that they were enthusiastic to participate in the training and learning. The design of training was found to be both positively tailored to BNF needs. A positive addition to the design, especially for the agricultural interventions, was the move in 2012 to focus on a hands-on teaching approach with practical learning via demonstration on work sites rather than a theoretical focused approach, although evidence from some 2011 BNF reports indicated both theoretical and demonstration training did occur in 2011 and was perceived as appropriate. Although BNFs were highly satisfied with the training, BNFs report that training quality was limited by the availability of training tools, such as training vehicles for students learning to drive (for instance in Kuajok, only 1 car for 12 students in 2011 and for 36 students in 2012). FSL highlighted the problem of BNF illiteracy as a key problem during the 2010 and 2011 trainings. This was consistent with reports from the alternative livelihoods 2012 BNF trained in small business management skills. However, illiteracy was not reported as a challenge by any BNFs.

The FSL reported approach was to deliver training first, followed by inputs such as seed, tools, and starter kits. Whilst school gardens, trees seedling, vocational training and fishing BNFs positively reported to consistency to this approach, the reports from numerous VCP and CCP BNF conflicted with FSL as they received seeds and tools first followed by training.

Training delivery was positively confirmed by most sampled BNFs. The exceptions were three cases in Warrap, where BNF from 2011 reported training delivery did not occur or was reduced:

- 33% of 2011 sampled school gardens students were not trained; only 2 head teachers were trained, indicating noncompliance with the FSL objective of training 5 parent teacher association members and 10 students. BNF stated training must include 2 students to be appropriate. This need was due to the teachers' inability to pass on the knowledge to students given their existing busy work schedules.
- 20% of VCP sample were not trained, and only received seeds and tools
- The training period was halved for 16% of alternative livelihoods sample who reportedly did not learn the full set of required skills due to the training dates being inappropriately tailored to BNF commitments at the start of the sorghum and flooding season.
- The training days and structure varied amongst the BNF groups and was not consistent. For instance, VCP BNF received one or two days for the initial training, or no training; and some CCP BNF received 2 days, others 3 weeks, and others 4 months; and some fishing receiving 6 days or 14 days. This inconsistency could be due to programming or BNF inaccurate reports.
- Similarly, VCP 2011 mentoring, follow-up and monitoring visits happened in some cases but not all. CCP mentoring occurred only at the planting stage and did not take place on farmers' fields but in village meeting places indicating FSL's monitoring was inconsistent and inappropriate.

The VCP BNF confirmed the training objectives were delivered and included the following topics, nursery preparation, planting, transplanting, pest and disease control, weed control, and in NBEG follow-up messages on mulching and soil conservation. Of these, BNF preferences for the training inputs ranked nursery bed preparation, planting, transplanting and watering techniques, as they most appropriate and useful to their needs. All BNF

reported that the training on pest and disease was inadequate in controlling the pest and disease in practice. In Warrap 2011, no training in VCP pest and disease control was reportedly delivered.

Pests were reported to be major problem and cause of crop losses and poor harvests. Interviewees were slow to comment on any successful insect pest control measures being demonstrated by the FSL training team.

Baseline needs gathered from BNF which they reported to have communicated to FSL at the start of the programme interventions included:

- A commercial or income generation interest in VCP
- Support to address problems affecting yields: including pest attack, labour intensive, erratic rainfall patterns, and lack of irrigation systems

The content of the training was found to match the learning needs of most sampled BNFs, who reported learning new skills, whilst a significant number also reported no new techniques were taught as they already had the knowledge and it was a traditional technique (see Effectiveness and Results Chapter). The evaluation finds that whilst many BNFs regard modern VCP a relatively new practice in which they need technological training and skill development, as presumed by NRC, the learning needs vary amongst the BNFs. In Warrap, many VCP R BNF reported that the training gave them new knowledge, whilst other BNF, particularly HC farming groups with previous experience in VCP, stated that the training did not really teach them anything new. This raises an interesting point relating to the effectiveness of the NRC intervention actions to differing BNF groups, including R, IDPs and HC. And indicates the design has been tailored to unskilled inexperienced VCP farmers, mainly R, and not the more skilled and experienced HC VCP farmers.

In contrast to VCP, all BNF in NBeG and Warrap, stated previous experience of CCP, sorghum and groundnut farming, but no experience of rice farming (see Effectiveness and Results Chapter).

BNF recommendations for training:

- School garden: 33% requested more training
- VCP: 60% want more training to enhance skills, i.e. in pests and disease control, how to make organic pesticides etc. Community facilitators also requested more and longer training courses.
- CCP: a group that did not get training wanted training on modern sorghum or simsim planting techniques. Others wanted more training in rice cultivation.
- Fishing: only one returnee BNF requested more training on line catching methods.
- Tree planting: More training on tree seedling planting and management
- Alternative livelihoods: increase the training equipment required. 50% recommended training dates should occur in January – March to not clash with the BNFs' commitments in the CCP and rainy season.

As part of the new teaching mentoring and monitoring approach, positive evidence was found of appropriate collaboration between FSL and SMAF extension workers, and employment of payam community facilitators in 2012. This indicated progress towards building local institutions, capacity, and partnerships thereby enhancing appropriateness. There was evidence the SMAF extension workers and community facilitators participated in agricultural training sessions as intended, and some emerging positive evidence that community facilitators fulfilled objectives to follow-up and mentor BNF.

All sampled community facilitators identified their roles as to mentor, assist and encourage BNF to implement the new skills to generate self-sufficiency and income. Whilst the community facilitators reported to submit monitoring and monthly progress reports to FSL, they reported no evidence to indicate an appropriate communication system and working relationship had been established as FSL had not responded or discussed any of the needs, challenges or progress highlighted in the monthly reports with the community facilitators.

For instance, a community facilitator stated

“I report but do not hear back”.

This indicates a one way flow of information/communication and conflicts with the FSL objective to: *Improve communication between Field staff, office and community; sense of membership in the community; increased degree of ownership of processes and planning in communities*⁹.

The CF recommended improved communication levels via monthly meetings, and stated there are many challenges facing the BNF that NRC should be aware of.

Conclusion

There was both positive evidence and cases where evidence was lacking of FSL appropriately tailoring training design to BNF needs, thereby increasing progress towards outputs and outcomes. BNFs were keen to participate in training and there was positive evidence emerging of FSL improving its BNF mentoring capacity via employment of community facilitators and SMAF extension workers. Mixed evidence was found regarding the appropriateness of the training contents in addressing BNF learning needs. Most sampled BNFs reported learning certain new skills, whilst a significant number also reported techniques taught were not new skill areas, which was found in some cases to be linked to existing skill differences amongst the differing HC, R and IDP BNF groups. These influencing factors were not found to be appropriately recognised by FSL knowledge base and needs assessment for the training design. Indications of training appropriateness were also drawn from evidence of BNF application of the training skills, again the finding were mixed (see Effectiveness and Results Chapter).

Inconsistencies were found between the training design and actual implementation that risk negatively impacting the training quality. A key factor was the absence of appropriate training delivered in the topic of pests and disease control, despite being incorporated in the design and highlighted as a major challenge in VCP and CCP by NRC and other agency needs assessments. Another inconsistency was in the delivery of the training first followed by agricultural inputs. If the training comes after the inputs, it risks reducing the value of the training if BNF use the inputs with no improved technical knowledge. In addition, there was evidence of noncompliance with the FSL objective of training 5 parent teacher association members and 10 students resulting in knowledge not being appropriately transferred and essentially wasted. Other inconsistencies included erratic variations in training days and mentoring delivered by FSL. BNF made numerous valid recommendations for improvements for the training quality and delivery.

There was no evidence of training in tools and/or pump maintenance in both States¹⁰, which the evaluation regards as a potential missed opportunity firstly in the form of not improving BNFs' ability to maintain the inputs thereby increasing sense of ownership, accountability, and cost-effectiveness, and secondly not to build a synergy to the alternative livelihood training to address the clear need for FSL tools production, mechanics, and maintenance services.

3.2.5 Appropriateness of inputs

There was positive evidence of FSL inputs (seeds and tools) distributed to BNF was appropriately tailored to BNF needs. Most BNF and the Community facilitators reported that the programme inputs were being used, and/or were keenly waiting for NRC inputs to be delivered. Other indicators of appropriateness included the evidence of transparency and accountability with inputs being efficiently delivered to and controlled by the intended recipient individuals, with no reports of inputs being diverted by BNF or non-BNF. In addition, positive evidence was found of all FSL BNF reporting they did not sell any of their FSL inputs. The exception to this finding was the school gardens where many of the tools delivered by NRC had been stolen.

⁹ Emergency, Food Security & Distribution and Livelihood Strategy 2012 NBeG - 30th September 2011, Lesson Learned

¹⁰ The PM had reported that 3 people in each group were supposed to be trained in this. Training may not have been sufficient, but it was conducted. The evaluators found no evidence of this training.

The BNF recommendations for the future and their message to NRC also indicated an on-going interest in the inputs, with most BNF types requesting 'more of the same' and additional new related VCP, CCP, fishing, and alternative livelihoods items such as fencing, gumboots, ox ploughs, tractors, improved pest control methods, fishing motor boats, and a hairdressing salon/workplace. It was also noted that in some cases the input was received prior to the training activity which undermine the appropriateness of the process.

VCP and CCP seeds and tools

Regarding the selection of seed varieties distributed, most BNF initially reported to be happy with the varieties and were enthusiastic about access to other seed types provided by NRC. The list of items received was generally consistent among groups but did not always include the same quantity of items in each place visited. The evaluation visits were limited in the ability to assess the full appropriateness of the inputs due to constraints on observation. BNF reported that the VCP seasonal activity had just started limited access to the riverine areas due to flooding and waiting for waters to recede. The BNF rankings of the inputs were fairly similar in NBeG and Warrap with both ranking seeds highest and training lowest. Some BNFs ranked wheelbarrows highest and other ranked the training the highest. The BNF individual ranking may be linked to their levels of previous skill areas and existing capacities, and the generalised overview below is not a recommended future strategy to fit all beneficiary types.

Table 8 - BNF ranking of VCP inputs

VCP ranking	NBeG sample	Warrap sample
Seeds	1 (ranked highest)	1 with pumps
Tools	2	3
Pumps	3	1 with seeds
Training/ knowledge gained	4	4

Seed delivery was positively confirmed by all sampled FSL BNF, with only one case where BNF reported they did not get all the seeds as promised, as FSL had run out of simsim seed supplies. FSL reported to the evaluation, the initial BNF requests for seed varieties, included:

- VCP: mainly traditional - Ridgela and Khudhara; and also Okra, pumpkin, spinach, eggplant, with some cabbage, kale, tomatoes, onion, peppers. The seed request varied according to BNF that were more familiar with traditional versus new vegetable varieties.
- CCP: sorghum, simsim, maize, legumes, ground nuts
- Other: cassava cuttings

The evaluation's enquiry with BNF was largely consistent with the findings of FSL above for the CCP varieties, and the typical VCP varieties of Ridgela, Khudhara, okra and eggplant, and in addition community facilitators reported spinach/kale was also preferred. These VCP varieties were reportedly widely grown with Ridgela and Khudhara reported to be less susceptible to pest attacks. Vegetables that did not require transplanting were also preferred due to labour and time requirements. Okra was traditionally grown in both the wet and dry seasons, and was dried and stored for sale and later consumption during lean periods.

As per the SPHERE standards, there was some evidence the programme distributed seed varieties that were consistent with the BNF requests, and already in local use. However, VCP BNFs' interest for seeds with commercial potential was not clearly prioritized by FSL selection of seeds. There was some evidence of compliance with SPHERE in giving the BNF access to a moderate range of choice of seed varieties so BNF themselves could strategize about what is best for their particular farming system. This was particularly positively evident at the CCP seed fairs. There was less evidence of consistency to SPHERE standards of the seeds being assessed for proof of adaption to the local agro-ecology, BNF own management conditions, pest and disease resistance, and to local climate scenarios such as floods or droughts. There was no evidence of prior approval of seeds by BNF and local agricultural experts. Moreover, there was no evidence of a FSL policy on distributing hybrid or genetically modified (GMO) seeds. Whilst this may not be a likely factor, the evaluation found evidence

of GMO crops being currently cultivated by other actors in South Sudan, and the labelling laws for GMO on seed packets from many suppliers in African nations was not vigorously enforced.

Table 9 - BNF reports on seed appropriateness and challenges

Seeds delivered	BNF perception of seed appropriateness, quality and rates of germination/performance:
VCP: Okra. Eggplant Kale/spinach Onion Tomato Chilli Watermelon	<p>Tomato seed preference by BNF was due to its potential commercial value and income generation. The potential income from tomatoes contributed to the popularity of the project. All seed was reportedly planted.</p> <p>Good Performance of varieties: okra, eggplant, kale, and onions was better in Warrap due to fertile soil, less pests and good water sources.</p> <p>Poor performance of varieties: tomato, onion, Watermelon, and chilli was hindered by pests, disease, lack of water, lack of suitable fencing, suspected expired seed, and wrong seed in the case of chilli that was reportedly mistaken for tomato by FSL.</p>
CCP: Sorghum Ground nut Rice Millet (only some BNF) Simsim	<p>Seed preference for groundnut; sorghum, simsim, and millet by BNF, sorghum was preferred for both HH consumption and income generation.</p> <p>Good performance of varieties: sorghum, groundnut, rice, simsim due to good rainfall 50% (2012), fertile land 50%, rented ox plough due to late seed delivery 25%, and good group work 50%.</p> <p>Problems of performance was attributed to late delivery of the majority of seed in the farming season, flooding also due to late delivery/planting; poor rainfall (2011), soil infertility, infested seeds, pests, lack of experience for cases of rice, unsuitable location for rice cultivation as no swamp or water pools nearby, lack of suitable fencing to keep livestock out, and lack of funds to invest in increasing production.</p> <p>Positive evidence that all seed was planted. With the exception of 4 cases of seed not being planted: rice due to lack of water source so BNF ate it; sorghum too late to plant; sorghum due moth infested seed.</p>

VCP 2011 tool distribution was varied and not consistent, with cases of BNF still awaiting tools as promised. For instance in Warrap, some VCP BNF sampled received numerous items, whilst 25% are still waiting for receipt, and an additional 25% claimed not receiving tools which conflicted with FSL field staff reports. The evaluation's abilities to assess evidence of distribution were limited by the latter BNF's farm being waterlogged, with tools/pumps reportedly stored elsewhere.

The VCP treadle pump distribution also varied, with BNF receiving 3, or 4 or 5, or none. There was some distribution of motorized pump in NBEG only.

There was positive evidence of FSL enquiry of BNF needs assessment at the start of its predetermined VCP and CCP interventions in 2011. FSL staff reported the initial BNF requests included tools of:

- Fencing (wire). This was not procured as considered too expensive. There was an FSL attempt to research an alternative to wire with the cost of mats and poles considered, but assessed also to be too high. No further follow up has occurred.
- Water supply for irrigation.
- Welding machines, but these were not distributed to BNF due to high cost. Six welding diesel engine welding machines are under procurement process.

The evaluation's enquiry of BNF baseline needs reported to FSL was partly consistent with FSL reports, and included fencing, pumps, and pump generators, wheelbarrows, and gumboots.

Tools distributed in 2011 by FSL included:

- Irrigation equipment: Jerry cans, watering cans, treadle pumps, and or motorised pump. In Warrap evidence of treadle pump use by BNF was found on site at 50% of the sample sites who received pumps. Remaining pumps were said to be stored in group members/leaders houses for safe keeping. 20% stated pumps had broken and could not be fixed due to a lack of spare parts in the market.
- Other tools: Malodas, hoes/jembes, spades, axes wheelbarrows

BNFs reported the tools were very useful and effective in improving farming. In addition, there were a few cases where BNF linked the effectiveness of the NRC input, particularly the treadle pump and irrigation techniques, to achieving the objectives of increased harvest. The treadle pump was prioritised over jerry cans as it does not wash planted seeds away. Female BNF reported the usefulness of the wheelbarrows in helping with labour intense jobs. Other female farming groups highlighted the treadle pump required considerable labour power to pump water and often female members complained.

There was limited evidence of BNF sense of ownership of tools/pumps as indicated by numerous cases where BNF's tools and pumps had broken yet the BNF had failed to take action to repair the tools. For instance, in a single case in Warrap, 42% of spades received were reportedly broken and could not be fixed. BNF reasons listed for lack of repair included: lack of spare parts, and/or waiting for new NRC delivery of tools/pumps, especially wheelbarrows.

BNF recommendations to improve seed and tool appropriateness and performance:

- More CCP seeds
- Good quality VCP seed that is not expired - test seed for germination rates before distributing to groups
- Deliver non-infested CCP seed and seed in good quality
- New seed variety of quick maturing maize for planting in the dry season
- October /November is the recommended time for VCP seed delivery
- March/April is the recommended time for CCP seed delivery to plant in time at the start of the season
- To avoid CCP pests: plant early
- More training in CCP planting techniques and rice cultivation
- 100% VCP requested training and materials for organic pesticides, and improved pest and disease control methods
- More labour supply
- Improve soil fertility, manure is available, can do themselves, but labour intensive
- More irrigation inputs: pumps and watering cans, and/or motorised pump, Water supply at village bore hole needs fixing
- Deliver promised tools not yet received, such as motorized pumps.
- More of the same tools, and many BNF, especially women, requested more wheelbarrows
- Ox plough: ranked highest by some BNF requests, who reported traditional planting methods cannot increase yields so the best way is ox plough.
- Tractor to assist in planting as manual planting is no good.
- Pipes for rice fields near the swamp to use/rotate the same field in the dry season for VCP
- Gumboots for rice cultivation in swampy area.
- Fencing materials - 100% stated fencing materials were needed to keep livestock out of group farms.

Conclusion

There was positive evidence of high BNF interest and commitment in planting all viable (non-expired or pest infested) FSL distributed seeds. Most BNF invested considerable resources to preparing seed beds and planting and caring for seedlings. CCP seed varieties were consistent to BNF interests, whilst VCP BNF expressed high satisfaction with seed varieties; they also expressed a clear interest in varieties with commercial potential to generate income. The evaluation finds that FSL has not appropriately recognised this BNF priority in the design of its VCP intervention. In addition, the evaluation finds certain FSL VCP varieties (and non FSL VCP varieties of Ridgela and Khudhara) may be more suited to the local farming conditions partly due to higher degrees of pest resistance which was found to be critical in VCP production under irrigation. Negative indications of performance included cases of delivering poor quality seeds, late delivery, or no delivery.

There was both positive evidence and cases where evidence was clearly lacking of FSL compliance with SPHERE minimum standards. As the standards and guidelines are very concise and helpful in guiding the design of seed distribution interventions it is considered a wasted opportunity that FSL did not prioritize use of the guidelines to enhance the appropriateness of its intervention.

Tools were found to be appropriate, especially pumps for irrigation of VCP in the dry season and wheelbarrow to reduce workloads. Appropriateness of BNF attitudes towards tool maintenance was found to be inadequate, indicating a low sense of ownership and accountability, and a low sensitisation and awareness raising impact achieved by FSL on BNF behaviour and attitudes.

3.2.6 Appropriateness of tree planting inputs

Tree seedling and associated tool delivery in 2011 in Warrap was positively confirmed by sampled tree seedling BNF. Most BNF invested considerable resources in planting and caring for seedlings. In addition, as per the SPHERE standards, there was positive evidence that all FSL fruit tree seedling varieties were consistent to BNF interests. Moreover, there was some evidence of compliance with SPHERE in giving the BNF access to a moderate range of choice of seedling varieties so BNF themselves could strategise about what is best for their particular planting system.

On the other hand, there was mixed evidence indicating the appropriateness of the intervention to the FSL objective to replace high reported rates of indigenous trees being cut in the forest. Whilst FSL distributed more shade/timber trees (58%) than fruit trees (42%), the shade trees distributed by FSL were largely exotic species, and were regarded as “shade” trees rather than timber trees from which to harvest timber. There was no evidence of FSL selection of seedlings varieties that had prior approval by BNF and local agricultural experts.

Seedlings and tools distributed in 2011 included:

- Tree seedling including shade tree varieties: Teak, Mahogany, Neem, Bukur, and Umbrella Tree.
Fruit trees varieties: Mango, Lemon, and Guava.
- Tools: shared wheelbarrows and jerry cans

Fruit trees were found to have performed best being prioritised for watering by BNF. Shade trees did well along the roadside and quite well on the group farm due to available water sources, irrigation and working as a group sharing the work load. Factors of inappropriate design, included BNF lack of accessible water sources for irrigating seedlings, resulting in loss of many shade and some fruit tree seedlings on individual HH farms. In addition, there was evidence of low BNF interest and commitment with BNF reporting some group members “were lazy” which led to seedling losses on the group farm.

BNF recommendations to improve appropriateness and performance:

- Water source for irrigating seedlings
- More fruit trees to generate income from sale of fruits.
- More training on tree seedling planting and management
- Organic pesticides for fruit trees
- Forest management and reforestation of timber trees being cut can only be undertaken in collaboration with the State and county government who control and manage all state forest resources. There was no evidence FSL had designed its timber tree reforestation intervention to this factor in the local context
- They would be interested in forming a partnership with the government to manage the forest sustainably.

Conclusion

Positive evidence of appropriateness included BNF interest in receiving the inputs, particularly the fruit trees which were clearly prioritised for income generation, and subsequently were watered more and performed better. Cases where evidence of appropriateness was lacking included limited water sources for irrigating seedlings and the consequent high loss of inputs. The FSL aim to replace the indigenous trees being cut in the forest is not being achieved, yet some exotic timber and shade trees introduced by NRC are performing well. NRC is largely introducing exotic tree species yet a FSL sustainable policy guiding the introduction of exotic species was lacking.

3.2.7 Appropriateness of fishing tools

Fishing tools delivery in 2011 to all 30 members in groups was positively confirmed by 50% of the sampled BNF. An additional 50% BNF claimed not receiving tools which later conflicted with FSL field staff and community facilitator reports. The evaluation abilities to assess evidence of distribution were limited by the groups' tools reportedly stored at HH at distances too far for the evaluation to access for observation. There was positive evidence that FSL fishing inputs of hooks and nets were consistent to BNF interests with most BNFs reporting to have used fishing gear as intended, and appreciated inputs received for instance due to the high local market prices of nets (SS£150/10m net). BNF reported inputs were appropriate and useful in achieving objectives of higher catches contributing to HH food security and income generation objectives.

Challenges reported included BNF claiming not having received inputs promised by FSL such as gumboots, refrigerator (for fish preservation), and all inputs promised for 2012. Reports by community facilitators indicated *"the fishing group is complaining that they have not received their NRC fishing inputs, as now is the start of the season, September to December"*, indicating a lack of appropriateness as per SPHERE standards for timeliness and acceptability of production inputs timed to coincide with the relevant seasons. Other challenges included inputs being damaged with use over time. Whilst there was positive evidence of BNF sense of ownership of inputs, there was also evidence of BNF reliance on FSL to replace "FSL hooks and nets" which conflicted with BNF general reports that hooks and nets should last 3 years. In addition, there was limited evidence of an appropriate FSL policy to input distribution relating to longer term issues of sustainable practices to conserve fish stocks – size of nets etc. There was evidence of BNF awareness of the importance of sustainability issues.

BNF recommendations to improve appropriateness and performance:

- Tools for 2012, more nets size 9 and 6, hooks size 6 and 7, and refrigerator and gumboots
- Tools for 2011, BNF message to NRC: *"we have been trained by NRC, but what is the point if we have no equipment so we can practice what we have learned?"*
- BNF reported that to sustainably preserve fish stocks – the net size 9 should be distributed to BNF as it leaves the smaller infant fish behind and should be used in the November fishing season. Net size 6 takes all fish stock and can be used in non-breeding infant fish seasons.

Conclusion

Fishing is a key interest for BNF to generate food for HH and income via sales and is highly appropriate to the local agro-ecological conditions in Warrap. The FSL design was appropriate in delivering relevant inputs that reportedly were being used as intended. There was some confusion regarding whether some of the BNF had received the inputs from FSL which conflicted with FSL field staff and community facilitator reports, indicating perhaps a low sense of BNF ownership and accountability, a lack of FSL sensitisation on the purpose of the FSL intervention, and a lack of BNF participation in the design of the programme. The design of the intervention lacked appropriate sustainability factors regarding conservation of fish stocks.

3.2.8 Appropriateness of alternative livelihood inputs

There was positive evidence of FSL consulted with the BNF as to what skill set they would prefer at the start of its predetermined alternative livelihoods interventions in 2011. The evaluation found FSL reported the BNF requests to include tools of welding, masonry, driving and carpentry. FSL indicated to BNF they would supply starter kits with tools to the BNF after the training.

Tools for hairdressers (hair and dyes), tailors (sewing machine and cloth), and drivers' licenses were delayed but received in 2012. The BNF who received tools reported the tools were very useful when working for customers.

Delayed receipt of tools caused challenges and in some cases tools have not yet been delivered as promised to masons, welders, and computer trainees. BNF reported they had been waiting for input deliver for a whole year, and it was challenging to get jobs as the tools were an essential part of getting work. NRC did not tell them when tools would be delivered. Another BNF reported *"They have lost their expectations with NRC, they do not believe NRC will fulfil its promise"*. In addition, hairdressing BNF stated a major challenge to applying the skill in practice was the lack of a workplace/salon for customers and they were unable to afford the average cost of rent at £400/month. FSL reported it decided welding machines were not to be distributed as a tool to BNF as the price was too high. At the start of the intervention however, BNF reported that FSL indicated welding machines would be distributed. This evidence indicates design was inappropriate and misled BNF expectations and generated disappointment and confusion.

BNF recommendations to improve tool appropriateness and performance:

- Need a rented salon as a place of work to be able to receive customers, to either run with the trainee group or with kin. If you have a salon/shop you can make good money
- Need welding and masonry tool kits to be delivered; need tools to be able to work.
- For the tailoring activity, request more than 10 meters of cloth to start up business.

Conclusion

BNF reported high interest in receiving the tools which were considered appropriate to their needs. BNF who received inputs reported to be using the tools as intended. There was evidence of inappropriate design with many cases of BNF who did not receive tools promised by FSL and this resulted in frustration and loss of confidence in FSL. These BNF highlighted the tools were vital to gaining employment, and made clear recommendations for the tools to be delivered as promised. In addition, there were cases amongst the hairdressing BNF where tools could not be affectively used in the market place due to lack of a workplace.

3.3 Connectedness

How did NRC take into account the longer term contextual and inter-connected problems?

Does NRC have strong links and coordination with longer term institutional structures and partnerships?

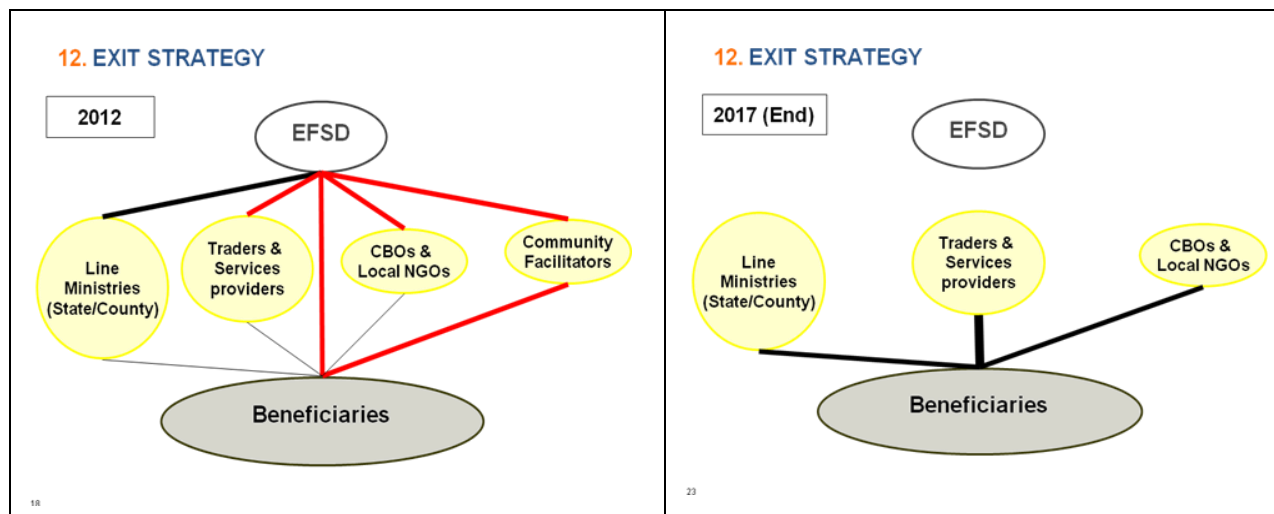
Did NRC consider the level of synergy between the different programme objectives and activities?

Does NRC design their programmes with clear and consistent exit strategies?

There was emerging evidence of NRC planning to enhance the longer term relevance of its programmes to the South Sudan context and operating environment. NRC aims to develop a “shock proof strategy” to guide its medium-term programme planning approach in its 2013 Strategy tying in response to a fluctuating context and on-going resilience building. NRC reported that whilst the risks in South Sudan posed difficulties, the severity was not regarded by NRC to significantly challenge the relevance of the FSL programme for both emergency and long term goals. Numerous key stakeholders highlighted concerns on what the road map to resilience would look like, yet few presented any options to increase longer term sustainability. Only one stakeholder suggested the option of building up local organisational and institutional capacity.

In addition, there was positive evidence of emerging and potential connectedness associated to FSL’s strategy and LRRD approach (Linking Relief Rehabilitation and Development) by including the provision of training of BNF to build capacity and skills. Cases of evidence were found of BNF utilising the skills independently to increase agricultural productivity and income generation, thus indicating a move towards ensuring the sustainability of the intervention. Potential connectedness was reported to Government interventions, with initiatives of emerging collaboration being implemented in Warrap including: SMAF extension workers participating in VCP and CCP training sessions and in mentoring the BNF; FSL support to the SMAF Aim to plant 1 million timber forest trees by Dec 2014; and to SMAF agricultural trade fairs and ox plough distributions to communities. The programme was also linking in with organisation and agency activities in programme locations, with FSL participating in the food security and livelihood cluster group meetings to share information and coordinate selection of BNF project locations to avoid duplication of efforts.

The FSL’s programme’s exit strategies¹¹ are based on building local public, NGO and trader/service providers’ institutional capacity. There was some positive evidence of the programme’s engagement in 2012 of Community Facilitators, some traders in Warrap, and collaboration with SMAF. The strategy was found to be somewhat arbitrary in practice and there was no specification or links to vocational training or the local job market contexts.



¹¹ NRC Emergency Food Security (EFS), Program Strategy 2012-2014, NRC South Sudan, Juba, November 2011

There was emerging and potential connectedness associated to FSL's strategy and approach of targeting and supporting the differing HC, R, and IDP BNF groups and NRC's "do no harm" policy. As the HC BNF were found to have provided considerable support to R in helping them to resettle (land for tukuls, farms, clothes, and food), NRC's policy and approach is linked into longer term community building by acknowledging the needs of the HC with those of the R and IDPs, and promoting integration and harmony by bringing together and including all BNF types firstly into its interventions, and secondly into future local livelihood systems.

Regarding connectedness between FSL and other NRC programmes, the evaluation found no clear plans, agreements, and communication systems for any synergies in 2011 or 2012. There was some positive evidence of random sharing of information between certain programmes. For instance, the FSL alternative livelihoods training activities and the NRC Education Programme, have shared a small business training manual and lists of graduated BNF for selection as trainers. The alternative livelihoods training activities and the NRC Education Programme were reported by FSL and Education staff to have considerable overlap in their objectives and activities, and the NRC and programme leaders' have displayed intentions to develop a synergy, but have yet to specify the objectives or a plan of action and communicate this to the programme staff.

3.3.1 Recommended potential synergies listed by NRC:

- FSL staff expressed an interest for the alternative livelihoods training activities to be completely transferred to the NRC Education Programme due to the considerable overlap and duplication of activities between the two programmes and the Education Programme was considered to have a higher capacity, resources, planned training centres and potential to deliver a good quality intervention to the BNF, to support the objective of BNF gaining sustainable alternative livelihoods options to be achieved.
- FSL collaboration with Education Programme to provide business skills and numeracy training to VCP BNF.
- FSL collaboration with ICLA to gain legal assistance for BNF to secure land for businesses and for farms at Payam level and collaboration on vulnerability criteria to guide targeting of vulnerable BNF.

3.3.2 Highlighted connectedness issues:

- There was positive evidence that the FSL programme agricultural objectives were in line with SMAF (State Ministry of Agriculture and Forestry) directives in both NBeG and Warrap¹² and with many development agencies' objectives.
- There was limited evidence of FSL management of the frequent reoccurrence of risks associated to the agricultural context.
- There was limited evidence of FSL market surveys to assess the job prospects and commercial viability of alternative livelihood skill sets to match context to the objective to *increase household's sustainable livelihood options*. The findings indicate BNF regarded certain skill sets of low relevance due to low commercial viability
- There was no evidence FSL designed its timber tree seedling reforestation intervention in line with contextual factors of reforestation of cut timber trees strictly falling under the jurisdiction of national State and county government who control and manage all state forest resources.
- There was limited evidence of an appropriate FSL sustainable policy tying its fishing input distributions to longer term sustainable practices and conservation of fish stocks.
- Evidence was limited of tying increased agricultural promotion interventions to sustainable farming methods, particularly soil conservation techniques.

¹² As the NRC Warrap Rapid Assessment and evaluation study found, SMAF is prioritising agricultural development with 1) Organization of the farming community through skill improvement and capacity building via farmer demonstration plots for improved learning of agricultural techniques, and 2) crop diversification with aims to introduce new CCP, VCP and fruit varieties. The lack of means (financial and skills & knowledge) was the main limiting factor of the SMAF, and the FSL's programme was found to be relevant in addressing these aims and need gaps.

- There was no evidence of a FSL policy on distributing hybrid or genetically modified (GMO) VCP and CCP seeds which was found to be a potential risk associated to African seed markets where labelling standards for GMO on seed packets not vigorously enforced.
- A policy to guide FSL introduction of exotic tree seedling species was lacking and failing to comply with SHERE Standards.

Conclusion

There was positive evidence of connectedness associated to emerging FSL institutional, Government, local partners' collaboration with SMAF, community and some traders. The FSL adopted the LRRD approach by including the provision of BNF training to build longer term capacity and skills.

There was a lack of FSL planned and implemented synergies with other NRC programmatic areas despite plenty of common objectives having been identified by FSL. The evaluation found an overlap and duplication of efforts for the whole project cycle (planning, market surveys, BNF mobilisation, skill sets, trainers, materials, procurement and delivery, monitoring and evaluation) of the FSL alternative livelihoods training activities and the NRC Education Programme. There was limited evidence of compliance of the SPHERE Minimum Standards of appropriate FSL sustainable policies tying its inputs to longer term sustainable practices and/or conservation of soil, fish stocks, forestry, GMO, and the commercial viability of alternative livelihood skill sets.

3.4 Efficiency

How economically resources/inputs (funds, expertise, time etc.) were converted into outputs?

Why was the programme efficient and why was it not?

Does NRC have the capacity to implement a FSL programme, recognising the challenging context?

3.4.1 Target BNF numbers and inputs

The FSL output indicators were designed according to quantitative targets in terms of BNF numbers reached and quantity of inputs distributed. The evaluation gathered data on output achievement from various FSL documents, SITREPs and staff reports. Data on outputs differed, as can be expected, between NBEG and Warrap. For instance, the SITREP data for 2011 indicates that in NBEG the agricultural input targets were effectively achieved. In Warrap however, SITREP states 63% (2900 HH) did not receive agricultural inputs.

The FSL Programme BNF targets for 2012 included¹³:

- NBEG: 3,000 HH (=18,000 individuals) + 30 schools
- Warrap: 6,000 HH (=36,000 individuals) + 20 schools

The achievement of outputs and BNF targets was not fully evaluated as the evaluation team was unable to access all relevant data during the evaluation study. The evaluation study's preliminary investigations indicate that many targets were achieved for tree seedlings training and distributions, training on alternative livelihood activities, fisheries and inputs, diet diversification and food hygiene. Moreover, a large proportion of training targets for VCP and CCP were also achieved in 2011. The evaluation was not able to fully measure and analyse output data for:

- 2011 and 2012 training in VCP and CCP
- 2011 and 2012 VCP inputs
- 2012 CCP inputs
- 2011 SIDA tree seedlings
- 2011 alternative livelihood input kits
- 2011 school gardens students training
- 2012 Cash Base Intervention (seeds and tools fairs)
- Mentoring and follow up visits
- Training in pest and disease management as per intended vcp training topics
- Organic pesticide inputs
- Treadle pumps as part of VCP inputs
- 2012 VCP inputs
- 2012 fishing inputs

FSL staff reported to the evaluation study team there was delayed delivery of certain output targets, including:

- 2011, sewing machines (delivered in February 2012)
- 2011 & 2012 welding starter kits (procurement in process)
- 2012 tree seedling inputs (cancelled)
- VCP and CCP seed and tool fairs in 2011
- VCP fairs in 2012
- 2012 tools and treadle pumps

¹³ NRC Emergency Food Security (EFS), Program Strategy 2012-2014, NRC South Sudan, Juba, November 2011

- In December 2011, NRC failed to deliver 50% of the intended SIDA activities and inputs to the BNF and had under spent by 50% since the project start in March 2011
- Numerous OFDA 2011 project inputs only delivered in 2012, in March 2012 only 12% of activities had been implemented, and had under spent by \$260,281.00.
- Procurement staff reported a list of pending items exits yet they were uncertain if this included items from 2011.

The limited evaluation analysis indicates that numerous SIDA 2011 target numbers were effectively achieved, yet numerous OFDA targets not being achieved and overall the FSL programme did not effectively reach a significant proportion of its target BNF numbers. In sum, the evaluation found the efficiency of FSL achievement of its outputs difficult to assess given the limited availability of sufficient FSL data sets.

3.4.2 Consequences of late delivery on BNF perceptions

There were numerous complaints from VCP, alternative livelihoods, fishing BNFs and community facilitators regarding late delivery out inputs, some BNF claiming to have waited for more than a year. FLS was aware of some of these problems stating for instance, that FSL had trained 2012 tree seedling BNF and promised them inputs, but never delivered the inputs. The evaluation finds there is a risk of reputational damage to FSL associated to late delivery of inputs.

Timing

There was and is no NRC delivery schedule for inputs according to seasonal and farming calendars. Numerous BNF in NBEG and particularly in Warrap raise major concerns associated to the late delivery of inputs. Seeds were also commonly distributed at different times to tools and other equipment. 2012 mobilised VCP farming groups in Warrap were on time for the start of the season having prepared seed beds but were anxiously waiting for FSL input deliveries. Despite the 2012 VCP season having started, no inputs had to date been delivered, and 2012 distribution was reported by FSL to be already late. 75% of CCP input deliveries were made more than 2 months after the start of the CCP season. FSL staff reported delivery delays were a major inhibitor of impact being achieved. FSL reported rates of loss associated to late distribution of tree seedlings to BNF after start of rains which caused water irrigation and storage problems. Similarly, FSL reported NRC delay from July to November 2012 in delivery of BNF driving licenses.

As per the BNF and FSL reports, the evaluation finds a high rate of input loss and wastage associated to late deliveries: BNF reported inputs were not used/planted as it was too late in the season, one group reported eating the seed as it was too late to plant it, and/or crop losses due to flooding as seeds planted late, and general poor yields associated to planting late. The CCP seed vouchers were delivered late in June, 2 months after the start of the season. Procurement delays caused the tree seedling distribution to be cancelled despite BNF having being trained and expecting the inputs.

Case examples of BNF reports of input loss and waste:

- ❖ *BNF thought and decided that it was too late to plant the sorghum seed in June. Those that did plant lost their seeds and young seedling to the floods as the sorghum was not big enough to survive as it was planted too late.*
- ❖ *They got the seeds late in June from NRC, so this meant work had to be done to quickly plant the seed before the season was over. If they had received the seed earlier from NRC they could have planted in their traditional way and would not have had to rent a plough for planting.*
- ❖ *Training in alternative livelihoods was delayed and commenced at the start of the CCP season during the rainy season, and clashed with BNF priorities and commitments to their farms and houses in the flooding. The training had to be cut from the planned 4 months to 2 months to allow the BNF to attend to their crops and homes. Because of this, the BNF did not get all the skills training they needed.*

BNF timing recommendations in Warrap included:

- All BNF reported they needed timely delivery of seed.
- VCP BNF and community facilitators recommended inputs should be delivered before October/November so BNF can plant early and in time to get a good yield and harvest.
- A community facilitator stated he had reported CCP BNF feedback to him into FSL stating that inputs should be delivered in April.
- CCP BNF and Community Facilitators stated that April¹⁴ (not June) is the recommended time to receive CCP inputs, in order to:
 - Allow the BNF to plant in time at the start of the season
 - To plant the traditional way without having to hire an ox plough.
 - Plant earlier to allow the sorghum seedling to be tall enough to have its head above the water and survive and grow in flood conditions
 - Plant early because ground nut and simsim cannot be transplanted in case of floods
 - Plant early to avoid pests and to gain better harvest.

FSL also reported delivery is not considered to be on time and for instance, late delivery of seeds was occurring too late in the farming season and negatively impacting the BNF. Despite some acknowledgement of this problem, deliveries are again too late this year and for the current VCP season.

Conclusion

It would be a loss if NRC damaged the BNF commitment and enthusiasm for the FSL intervention and potential for a good harvest and income generation opportunities by delivering late.

FSL reasons for late delivery:

FSL reported that the delays in deliveries were caused and related to factors of procurement, logistics, FSL capacity and management structure and contextual factors. Whilst evidence was found of FSL agreement, there were numerous conflicting messages regarding delays between the FSL programme staff and the NRC Programme and Logistics staff.

The evidence indicates that NRC in South Sudan regards procurement and capacity mechanisms as the main causes for delays. There was minimal evidence to suggest delivery problems were related to issues of budgetary problems or contextual factors, such as access - roads, distance to be covered, or flooding.

3.4.3 NRC Capacity

There was evidence that NRC capacity was struggling to cope work demands, negatively effecting efficiency. NRC reported that the limited capacity and skills of staff posed a challenge to achieving outputs, and that NRC was over ambitious and underestimated the time it would take to recruit and train staff to deliver, and difficulties in recruiting skilled local and international staff. Key donor stakeholders reported a concern of NRC's lack of investment in staff and capacity building for programme management and administration.

NRC staff recommended the following action to increase capacity:

- Due to the high level of international staff turnover on one year contracts, sufficient hand over periods should be achieved to avoid loss of knowledge and data.
- Recruit senior and International staff with skills and experience to deliver on the job training, mentoring, coaching and capacity building to local staff members. International staff must be given time to allocate to training and mentoring.

¹⁴ The Programme Manager stated that the FS cluster agreed in 2012 that distribution should not take place in March to prevent: seeds eaten by BNF in the lean season and seed losses due to poor stored conditions at household level. The earliest agreed period for agricultural inputs distribution in Warrap State and NBeG is from April to Mid-May.

- Capacity building of local staff members is key to NRC operations as international staff cannot operate alone without good local staff.
- Need to build up South Sudan staff awareness of accountability.
- In addition to the focus technical skills, recruit staff with operational and programmatic start up skills in challenging field offices and programmes, to set up and establish programmes and administrative systems.
- Conduct a review of capacity building training progress and needs of local staff.

3.4.4 Procurement mechanisms

Many FSL staff recognised problems in the NRC procurement mechanisms and consequences in low cost-efficiency. As FSL highlighted, the NRC programmes were still relatively new in 2011 and still establishing themselves in terms of their new projects, new teams, new NRC offices etc., often resulting in the programming support capacity lagging behind project objectives and being unable to deliver efficient procurement and distribution. It was hoped that the FSL would settle into activities in 2012 and beyond.

NRC is currently making positive investment into building up the structure and management of its newly established logistics and support team to monitor and supervise procurement. Both Warrap and NBeG were to have a dedicated international logistics coordinator, an operations manager in Juba, and a national coordinator in Juba. The performance of the new system was too new to evaluate.

Past problems reported that the logistics team was relatively inefficient, particularly in areas:

- Local staff capacity;
- Poor procurement administration and records on receipts, delivery dates and items;
- High staff turnover (3 people in less than a year), most of whom attempt to change the procurement system (PSM) which further postpones deliveries;
- Lack of follow-up, supervision, and initiative, procurement orders are sitting in people's in trays for months in juba;
- Ethical and accountability issues amongst NRC staff were raised as an issue, with a recent example of suspicion of a programme staff and procurement officer's involvement in scams on pending purchase requests (carpentry, tailoring, and tree seedlings) which delayed procurement.

There has been a disconnection between logistics and programming, which has meant that a very important relationship of logistics supporting programmes has been weak. Until recently, Logistics and FSL had reportedly never held a meeting to discuss when items need to be ordered and delivered. Recent evidence shows that NRC has taken positive action to address the long recognised problem of procurement and delivery delays. The establishment of the new logistics and support team and improved coordination efforts between logistics and programmes via a recent joint procurement meeting has demonstrated the concern and action to improve the system. There were conflicting messages regarding delays amongst the FSL programme staff and the NRC logistics staff, which is highlighted here by the evaluation as it was considered to have a negative impact on improving the overall efficiency of deliveries.

Table 10 - mixed messages regarding procurement by FSL programme and procurement staff

FSL programme reports	Logistics reports
Delays procuring goods from Uganda and Kenya via NRC Juba Logistics and Support Team.	3 months is sufficient time to fulfil a procurement order. Import delays are not an issue and does not need to take more than a month, from time of commissioning the order to time of delivery at NRC, including transport and customs clearance
Delays at NRC Juba office, items stored at NRC Juba for 2- 3 months (i.e. seeds and tools)	A lot is going wrong in management in Juba. Seeds have been stored at the Juba compound for months due to lack of initiative and follow-up efficiency. Delivery period from receiving the purchase orders to distributing from Juba to field offices is 2-4 months. Juba states there are no warehouses at the Juba office, and states that the items are delayed in the field

	warehouses. As soon as suppliers bring items in – they are dispatched to the field and there have been no incidences of losses to the packing lists before despatch or on route. The risk is thought to start at the field office level.
Programme purchase requests for VCP in 2011 and 2012 were received by logistics in Feb/March. Giving procurement 3 months to deliver according to the requested due date of April/May for seeds and tools.	The Purchase Request System (PRS) was misplaced for 3 months due to programmatic faults. The field offices did not send Juba procurement office their Procurement Plans. VCP seed was delivered by Juba to field offices in July (delayed) and then again for the second PR in mid-August.
NRC logistics and support is slow and has yet to deliver items to field. For instance, in December 2011 Alek requested 36 sewing machines, 6 months later in July Alek received only 25 and to date, 12 months later, still waiting for the remaining 6 machines. 2011 & 2012 BNF for welding starter kit have not yet been delivered to Alek	Juba procurement reports no delays in 2011. The only pending items listed for 2012 are the vouchers, tree seedlings, treadle pumps

3.4.5 Delivery of the OFDA project

NRC staff reported the OFDA project being stopped in May 2012 was an example of poor and delayed procurement capacity and programmatic planning capacity and performance within NRC, partly due to the recent establishment of the Warrap office and teams who lacked capacity. The project was intended to run from May 2011 to April 2012 yet failed to deliver its intended activities and inputs to the BNF. Certain items on purchase requests from 2011 were only received and paid for in June 2012, despite the OFDA project ending in May 2012. NRC finance staff indicated *the redirection of funding caused problems with implementation and impacts donor relation*¹⁵. OFDA reports that NRC has been slow in meeting and communicating with OFDA regarding the project delays and problems. OFDA is still keen to understand the underlying causes that led to the delays in project implementation.

NRC Staff Delivery Recommendations:

- Timing of procurement and distribution to BNF is important and must be according to farming seasonal calendars.
- Better coordination between Juba and the field offices in Alek and Aweil.
- Need to build up a strong and functioning support and logistics department to back up programmes. The new logistics and support team is expected to improve the situation and its capacity should continue to be built up.
- The logistics coordinator requests FSL to order things in advance i.e. according to farming calendar to ensure the team gets their inputs required.
- A dedicated skilled logistics and support representative should be permanently based in each field office, Alek and Aweil for FSL.
- NRC should aim to procure inputs locally rather than managing all items via Juba. This is because many items are available locally, and delays could be avoided if an efficient procurement system was established and managed locally.
- The field offices must send Juba procurement office their complete up to date Procurement Plans on time
- Need quality controls
- Improved planning should be undertaken. At the start of 2013 NRC should revise and address gaps in its planning and follow-up and its communication systems.

¹⁵ Emergency, Food Security & Distribution And Livelihood Strategy 2012 NBeG - 30th September 2011, Lesson Learned

- Every week, NRC logistics and support team and the PCs in Juba and in field should have a progress meeting via Skype.
- A review of programme efficiency and accountability in distributing items should be undertaken.

Recommended Schedule for Procurement and input distributions to BNF:

The following dates for the procurement and deliveries were recommended by BNF, community facilitators, market traders, and FSL and NRC staff in order to comply with the farming and alternative livelihoods seasonal calendars in project locations:

Table 11 – NRC and Beneficiary Recommendations for a Delivery Schedule for FSL Inputs

Intervention input	Order and Procure goods	Deliver input to BNF	Key notes
CCP Training		March	
CCP seeds	Dec/Jan	March/April	To match the start of the CCP planting season and soil preparation. early planting of CCP is key to reduce risk losing crop to flooding; and pest attack; Aweil does not recommend earlier than April as risk of BNF seed consumption.
Organise CCP Fair	Jan - Feb	April	
Direct Distribution	Dec	April	
Tools CCP	Dec/Jan	March	
VCP training, +VCP School garden			
VCP Seeds +VCP School garden		October/November	Start just before end of rainy season when soil still contains moisture, and to be able to plant in time.
VCP Direct Distribution	April	October	
VCP Tools		October	
Vocational skills training	October	January– March	To be completed before the start of the CCP season in May
Tree training Tree nursery management and environmental awareness		April/May	Before the rainy season
Tree seedling distribution		May	At onset of rainy season to promote seedling survival rates
Fishing		August	Before the fishing season: September to December

Modes of delivery:

There was evidence FSL had employed the following mechanisms of delivery for its various activities:

1. Direct distribution by FSL for training for CCP, VCP, school gardens, fisheries, and tree seedlings
2. Direct distribution by FSL and NRC for inputs for CCP, VCP, school gardens, fisheries, tree seedlings, and alternative livelihoods
3. Traders for inputs for CCP and VCP in Warrap in 2012
4. Trainers for alternative livelihoods
5. SMAF extension workers for mentoring all CCP and VCP BNF in 2012 in Warrap

3.4.6 Direct distribution of inputs and training by NRC

Regarding direct distribution of NRC training, the efficiency of FSL staff trainers to achieve the FSL output objective of *increased awareness among beneficiaries on various agronomic practices*, was linked to the BNF reports of learning. The evaluation finds both positive evidence of increased learning and cases where BNF reported they did not learn anything new. The evidence may be related to FSL staff knowledge and skills capacities linked to the training topics being delivered. The cases where training did not impart improved knowledge, compared to existing BNF knowledge, indicated FSL staff capacity as trainers was not consistently efficient in achieving the objective. FSL reported that training of trainers was needed, as was a focus on substantially increasing capacity building of staff, so that they can carry out the much needed training of the BNF.

NRC has a clear National Staff Capacity Development Programme, as well as training allowances for individual staff. NRC has a budget for staff capacity building SS pounds 700 per local staff member per year (about 7% of the total NRC budget). NRC reports uncertainty as to whether this is adequate. The evaluation finds the budget may be too low given the contextual circumstances of SS where local capacity building is a clear need as most residents have been unable to gain knowledge and experience due to the country's history.

The FSL team feel the training budget was not used and allocated, and request more capacity building support. They report to have received minimal training with a few days training per person. For instance, technical training has only included SMAF agricultural training at for some field staff in 2012, and training on how to sensitise BNF to use vouchers. Other training included first aid for field assistants, in-house training in IT and Microsoft, and project cycle management and report writing for supervisors. The reliance on in-house capacity building mechanisms was found in cases to be inefficient in terms of overloading the work demands of an already overstretched FSL and NRC staff.

FSL reports that it has increased efforts to increase staff knowledge capacity by recruiting FSL staff with agricultural production technical skills, qualifications and training skills, in order to train the FSL teams in improved knowledge and skills to be applied in all intervention activities, including training of BNF.

FSL reported capacity building needs: which reflect the staff requests in their performance appraisals:

- Agricultural crop production
- Voucher mechanisms: have had no training, currently rely on manuals
- Diet diversity and food hygiene so that the staff can do their jobs better in raising BNF awareness of these topics.
- Pruning of fruit trees
- Transplanting of VCPs
- Training in use of manuals
- Project life cycle management
- Report writing

3.4.7 Direct Distribution versus Traders

To date only one CCP fair event has been conducted in Warrap involving 7 individual traders who were contracted to sell seeds at the fair, in 7 different locations. Warrap has scheduled a second seed fair for November 2012, has

mobilised the traders, yet was still waiting for the seed and inputs whereas NBeG had yet to plan any activities. FSL reported CCP seed traders were readily available.

The low level of fairs and contracting of traders was found to be inconsistent with NRC strategy and policy approach to *utilise local traders and markets* as highlighted in FSL reports and the EMMA survey report, 2011. Numerous NRC and FSL staff reported that NRC should aim to stimulate, work with and build up local markets in line with its policy and in line with other NGOs. Many senior NRC and FSL staff were unaware of this policy and objective, and FSL linked the use of traders only to the request of the OFFA project. NRC logistics and support reported no review, planning or strategy had been undertaken to selecting the most efficient approach based for instance on the cost differences between the 2 approaches. The evaluation finds the theory has not been tested in practice.

FSL reported that its (unwritten) approach was to:

- Use traders when goods are available on the local market.
- Use direct distribution when goods are not available in adequate quantities on the local market

A definition of **“local market”** was lacking, FSL stated in general this referred to Warrap, NBeG and WBeG states. The lack of a clear strategy was found to negatively impact efficiency in procurement mechanisms.

FSL listed the following causes for lack of utilisation of local traders and markets:

- VCP seeds distribution not attractive for traders. Traders were identified but then withdrew due to concerns about opening seed tins and then only selling a few.
- NBeG markets were not developed for VCP seed and tools so do direct distribution

Conflicting evidence regarding the efficiency in terms of financial costs and timing of Direct Distribution versus Traders was reported by NRC staff. FSL and some NRC management staff reported direct distribution as more efficient and cost effective, as traders' quotes to supply inputs from outside local markets was suspected (but had not been assessed and needs further investigation) of being more expensive than NRC direct distribution, difficulties in finding suppliers, and risked failure due to trader accountability and failure to deliver. The evaluation finds this latter point to highlight FSL's lack of market strategy planning as SPHERE and numerous agency guidelines have efficiently addressed this concern.

In contrast, NRC logistics and support staff disagreed and regarded traders as the most cost-efficient method to distribute inputs to the BNF, in terms of costs and time, and regarded direct distribution to have higher costs due to:

- NRC renting of ware houses to store goods is expensive
- More staff have to be utilised
- Higher per diems when distributing to BNF
- Driver, fuel, transport costs
- More controls and supervision staff and administration time is required
- High risks and past reports of internal diversion/theft of inputs and lack of accountability
- Risk of NRC reputational damage amongst BNF if NRC staff divert inputs for themselves which were intended for the BNF.
- Most items required (such as seeds, malodas, treadle pumps, machinery, sewing machines) are available in local markets, and others in larger trading towns such as Wau market which is located within acceptable access for NRC programme locations.

NRC logistics and support reported the CCP fair using traders in 2012 to be more cost-efficient, was cheaper than using direct distribution, more efficient in terms of time, requires less administrative capacity and was more transparent with less risk of diversion/theft (with complaint mechanism desks on site at each fair and also NRC staff observers and assessors of input quality and quantity). In addition, risks of lack of trader interest were not considered an issue with traders who were already selling items such as VCP seeds, because they could return with the left over seed and sell as normal in their usual shops. NRC was generally unaware, having never

conducted a market study, of the items available in local markets such as VCP seeds, which the evaluation found evidence of local availability in Aweil from observations and other agency recent reports.

NRC Procurement Staff Recommendations:

- Identify more suppliers to make up both the item and the quantity gaps. Also to increase competition amongst the traders and increase quality of supply and choice for BNF.
- Increase number of traders.
- Use available local procurement companies that can procure anything.
- Increase all procurement of all items via traders in line with NRC's policy approach.
- Consider promoting approaches used by other NGOs of supplying local manufacturers or skilled individuals making tools, i.e. supply Blacksmiths, with materials to produce and repair tools, and thereby create a new type of BNF.

The Quality of the Inputs

The evidence indicates that whilst most BNF were happy with the quality of the inputs, although there were cases of concerns raised by the BNF regarding poor quality seed mainly due to seed being either expired or pest infected resulting in waste or failure to germinate. For instance, one group reported 210kg sorghum was moth infected and not planted.

3.4.8. FSL Monitoring and evaluation systems

The monitoring of inputs and logframe indicators has been discussed throughout this report. The finding summarised here, was that there was limited evidence that FSL has developed or applied a practical monitoring system for its inputs, outputs, and outcomes. Monitoring of input data was poorly recorded, whilst monitoring of outputs and outcomes has yet to be undertaken. The indicators listed in the programme logframes were often inappropriately designed or inefficiently applied, such as indicators relying on data on Diet Diversity scores and coping strategy indexes.

There was one case of positive FSL adaptation via monitoring and lesson learning, to restructure the appropriateness of the design of the alternative livelihood computer training to suit local context needs.

Conclusion

The data from Warrap shows certain output targets were efficiently achieved for tree seedlings training and distributions, training on alternative livelihood activities, fisheries and inputs, diet diversification and food hygiene. A large proportion of training targets for VCP and CCP were achieved in 2011. The evaluation was however unable to analyse performance against of numerous output and beneficiary targets as the evaluation team was unable to gather sufficient data sets on outputs, including the calculations for the total number of BNF for Warrap, VCP seed fairs, and tools and kits to beneficiaries, and OFDA targets.

The evaluation finds the late delivery of items negatively affected the BNF perceptions of NRC. There was and is no NRC delivery schedule for inputs according to seasonal and farming calendars. Some BNFs in NBEG and particularly in Warrap raise major concerns associated to the late delivery of inputs. FSL and BNF reported late delivery was inefficient and negative impacts on achieving project objectives and causing inefficient wastage if use of inputs and activities.

FSL reported that the delays in deliveries were caused and related to factors of inefficiency in procurement, capacity and management systems. There were numerous conflicting messages regarding the cause of delays between the FSL programme staff and the NRC Programme and Logistics staff indicating a negative impact on improving the overall efficiency of deliveries. NRC made valuable recommendations to improve efficiency of delivery and along with the BNF recommendations provided valuable suggestions for increasing efficiency of the schedule for procurement and input distributions to BNF.

FSL was found to have employed various mechanisms of delivery for its activities, including direct distribution by FSL for training and tools delivery, traders and local markets, trainers for alternative livelihoods, and SMAF extension workers for mentoring. Regarding direct distribution by FSL of training, the efficiency of FSL staff trainers to achieve the FSL output objective of *increased awareness among beneficiaries on various agronomic practices*, was found to be positive but with some limitations due to staff capacity as trainers (technical knowledge and skills). FSL reported that training of trainers was needed yet did not have a clear strategy and perhaps an inadequate budget for staff capacity building.

Whilst there was positive evidence of FSL in Warrap of utilisation of traders in 2012, there was overall lack of evidence that FSL was efficiently implementing its policy to *utilise local traders and markets* and to adhere to SPHERE minimum standards. In addition, there was evidence that many senior NRC staff were either unaware of the NRC policy or did not understand its purpose. NRC was found to not have developed any strategy or plans to implement the policy and many NRC staff had formed assumptions regarding the inefficiency of traders and local markets based on a lack of information and experience. In contrast, logistics and support staff and FSL staff with experience of the CCP fairs reported that the utilisation of traders and local markets was more efficient in terms of financial costs and delivery time. Moreover, the evaluation found evidence of some required FSL inputs were available in local or nearby markets in South Sudan. The lack of FSL/NRC action to investigate and develop a strategy to support the objective was found to be inhibiting progress.

3.5 Effectiveness & Results

- *The extent to which the interventions' objectives were achieved, evidence that FSL actions contributed to indicators of impacts and outcomes (attribution analysis)?*
- *What were the intended/unintended positive and/or negative impacts, immediate, emerging and likely future longer term and why was the programme effective, or not?*
- *Effectiveness of the NRC intervention actions to R, IDPs and HC?*
- *Did FSL adequately address the differential needs resulting from the range of available livelihood options in different rural and urban environments?*
- *Did FSL provide effective assistance to a significant (large) target group or was the assistance too dispersed and/or insubstantial?*
- *To what extent did the external assumptions in the proposal hold true and how well were the mitigating measures put into use?*

There was positive evidence that FSL actions contributed to indicators of impacts and outcomes. The evidence was based on BNF and community facilitator's perceptions only, as comparison to baseline was not feasible due to the lack of baseline data on most indicators. FSL's goal was to:

- Promote self-reliance and support durable solutions
- Contribute to food security, livelihoods and recovery in various phases of displacement

Progress against FSL indicators:

FSL reported to date they have not fully monitored or evaluated the progress to achievement of any of their outcomes, apart from the NBeG 2010 Evaluation report. The evaluation's findings on the outcome indicators are presented below under the indicators headings. These indicators are summaries from the different FSL lifelines.

Households have decreased their negative coping strategies:

It was found that all BNFs continued to utilise coping strategies to provide food and income and no reported decline in this trend was reported. Positive coping strategies included harvesting of wild fruits, and negative strategies employed timber harvesting, some returnees 'begging' for food from HC members, and for instance, to cope with poor harvests due to drought and flooding in 2010/2011, reports of BNF sale of assets (beds, shelves, clothes, tables).

The evaluation found no evidence NRC was supporting the sustainability of BNF coping strategies, as its objective to conserve the environment to safeguard HH food security and income via supporting BNF to replace trees being cut in the forest, was not being achieved. FSL's introduction of exotic shade and fruit trees was found firstly, not to be appropriately designed, and secondly not to have had any impact on the high rate of BNF deforestation and demands.

A positive unintended potential impact, was related to the FSL irrigated VCP and the potential this has on contributing to BNF self-reliance during lean periods by enabling BNF to gain purchasing power via VCP sales in order to purchase prioritised nutrition-rich staples for HH consumption. Similarly, the alternative livelihoods skills intervention also had potential to enable BNF to be more self-reliant in the dry seasons. No evidence was found however of self-reliance of wet season CCP BNF group's lean period needs being promoted.

The lack of a perceived decline in coping strategies and the need to supplement income from other sources in addition to alternative skills, indicated the BNF's self-reliance has yet to be evident, nevertheless the evaluation finds the potential of FSL to contribute to durable food security and livelihood systems was likely in the longer term, for all BNF except CCP.

Households report improved harvest

For 2011, the FSL design did not include a baseline for harvest rates, as such it is difficult to assess whether improved harvests were effectively being achieved as a result of the programmes actions and inputs.

The evaluation found mixed reports of harvest rates amongst the BNF sampled, and whether FSL had positively affected food available to the household, the quantity of food consumed or the amount of food traded or given away:

- Post-harvest monitoring has not been undertaken by FSL despite being an objective
- The evaluation found in Warrap, 60% reported improved VCP harvest for certain varieties (Okra, eggplant and kale), HH food security and income generation from sales.
- Whereas in NBeG there was no evidence suggesting improved VCP harvest yields, food security and income.
- Dry season irrigation and dry season fertility led to good VCP yields, whereas pests and expired seed were linked to lower yields.
- In Warrap, there were mixed reports for CCP harvest rates. Some BNF reported good harvests for groundnuts, moderate harvests for sorghum and simsim, whereas 75% reported poor harvest of sorghum due to late delivery of seed, flooding and pest infected seed. 50% reported poor rice production due to lack of knowledge of rice cultivation, whilst 50% reported to be hoping for a good rice harvest.
- 50% BNF in Warrap reported they had good HH consumption from CCP, whilst 25% said they didn't as yield was low.
- Additional influencing factors of harvest rates were reported as farming conditions and climatic factors such as the drought in 2011 followed by floods which resulted in poor CCP and VCP yields, resulting in estimated high losses of 70%. In 2012, climatic conditions were more favourable, and community facilitators reported many non-BNF communities gained good harvest yields, especially for CCP.

Number of agronomic practices adopted:

- In NBeG and Warrap, progress towards this target was found in that BNF were able to recount/describe the technical knowledge learnt.
- In NBeG and Warrap, the HC BNF reported new and improved agricultural practices largely related to the new inputs received such as the irrigation techniques with pumps and new seed varieties.
- 60% of the Warrap sampled BNF had adopted improved VCP agronomic practices. The BNF were mostly previously experienced VCP HC members thus making it difficult to directly attribute their demonstration of good skills directly to the programme. Nevertheless, 20% of this sample was new to VCP farming, and their demonstration of VCP learning put into practice clearly indicates the success of the FSL in achieving a positive impact of capacity building.
- Positive evidence of 80% CCP BNF reported to have learnt new planting techniques for rice and sorghum, yet only 25% reported use of the new sorghum planting techniques, 75% stated not using.
- 50% of CCP BNF in Warrap reported no new agronomic practices were adopted regarding sorghum farming
- The evidence was found to be linked to the differing levels of prior skill experience amongst the BNF groups. A typical pattern emerged of HC members having a higher prior knowledge of VCP and fishing techniques. In Warrap, 60% of sampled VCP BNF, mostly HC members and an IDP farming group from Abyei, stated they had existing experience of VCP before they joined the project (mainly traditional but also modern varieties of onions, tomatoes etc.). The finding was similar in NBeG. In contrast, most returnees stated they had limited (traditional crops only) or no VCP experience. This evidence conflicted with statements by programme staff that most BNF did not have VCP experience, indicating a knowledge gap in assessing the training needs to the differing BNF groups.

Table 12 - Warrap BNF reports of learning and applying (KAP) techniques post training

BNF Type	Number of BNF who reported new techniques taught	Number of BNF who reported no new techniques taught	Evidence of applied techniques/not by BNF sample
VCP	50%	50%	60% use on group farm
School garden	75%	25%	33% use on group farm
CCP	80% = planting techniques for rice and sorghum	50% sorghum training	25% use of new sorghum planting techniques, 75% stated not using. 50% applying the new rice cultivation skills.
Trees, Environmental protection	100%		Use on group farm
Fishing	50%	50%	40% use
Alternative livelihoods	Majority	Some hairdressing skills	66% use. 44% of sample no use as no job
Small business Management Only delivered to 2012 alternative livelihoods BNFs	Majority, but they could not recall topics		Use by 1 participant who had partnered in business with the trainer. Minimal evidence of use, illiteracy was a problem
Awareness: Improved food hygiene, dietary diversity, and Disaster Risk Reduction (DRR)	Positive evidence training in awareness had been delivered in Food Hygiene topics.		No evidence of BNF positive perception of the training as useful and appropriate to their needs and priorities

FSL Staff Recommendations for improved agronomic practices and harvests:

1. Early planting of CCP is key: to reduce risk losing crop to flooding; and pest attack;
2. Making dykes and canals to stop flood water on CCP, and encourage CCP plots in Highlands
3. Training in planting techniques continue to be important as not all BNF have learnt the practice and often disregard as it is a more time consuming activity. All BNF need more VCP training as traditional methods are still being used and these fail to deliver good yields, moreover BNF continue to focus on the traditional vegetables such as rigdela and kurdela and BNF still need to learn the new methods and the new varieties
4. Improved CCP storage
5. Match seed demand to supply and increase CCP seed quantities distributed as some BNF farms are big and require more seed e.g. 2 malwas of sorghum should be increased to 5 malwas, and 4 malwa groundnut increase to 10; demand is out stripping supply of maize and millet in some areas as evident in the trader fairs
6. Improve FSL awareness of the seed varieties favoured by BNF in different areas. In sandy soils Ground nut and simsim is favoured (GW); in clay soils sorghum is favoured (Twic)
7. Teach BNF how to extract and save vegetable seeds for next seasons planting
8. Distribute generators for irrigation pumps¹⁶ as treadle pumps require a lot of labour.
9. Distribute ox ploughs to increase production based on a feasibility assessment of this input.

¹⁶ The Programme Manager states that NRC needs to make sure that the organizational level of the targeted groups is strong enough to ensure durability of the equipment. If groups are not able to take care of treadle pumps, there is no relevance for giving them engine pumps which require a higher run cost (including maintenance).

10. VCP requires high labour commitment, replace group members failing to commit.
11. Organise exchange trips for farmers to high agricultural producing areas in SS, and to Government Agriculture Training Centres, to encourage learning via sharing of local experience and knowledge.
12. Water sources for irrigation – need further careful planning in plot site selection – some water sources dry up – recommend shallow hand dug wells as an option.

Households have increased their Diet Diversity Score

- The training was positively detected to have effectively achieved the objective of improved awareness of BNF regarding the importance of diet diversity and mixing four different food types in meal preparation. The evidence indicated BNF were applying the knowledge in practice. However, the evaluation was not able to quantify effectiveness of the capacity building and behaviour change activities success rates, as FSL had no reliable valid baseline data of DD scores against which to monitor and evaluate on improvement, and did not report any plans to gather relevant data for the future.
- Food Hygiene training topics Uptake could not be assessed but NRC staff reported to have noted fewer incidences of diarrhoea among beneficiary children.

Households report increased income:

- FSL had not monitored or gathered any data to measure the achievement of this objective for all CCP/VCP, fishing, and the alternative livelihoods BNF.
- The evaluation found the alternative livelihood support resulted in 50% BNF in Warrap reporting to have improved income, 50% reported to have acquired jobs, and the trained hairdressers reported improved income compared to previous menial work.
- Certain skill sets did not succeed in getting jobs, and some skills e.g. drivers and computers reportedly did not experience demands in the job market. Welders reported being unable to gain jobs and improve income due to not receiving their tool kits from FSL.
- Most of the BNF who had succeeded in acquiring employment, reported that they were not solely relying on the new alternative skills for their total income and had to supplement income from other sources such as seasonal agricultural production.
- Both FSL and the limited evaluation sampling of employment gained by BNF after the training had gaps in the data, limiting the assessment of the success of achieving the impact target

Table 13 - Number of BNF who gained employment after the alternative livelihoods training and the influencing factors as reported by BNF and FSL

The FSL estimates were based only on the BNF residing close to project sites visited frequently by FSL (excluded remote BNF areas). The Evaluation estimate was based on sampled BNF reports.

Skill	BNF gained employment		Influencing factors to achieving impact:	
	2011	2012	BNF report	FSL report
Driving FSL estimate	9%	12%	<ul style="list-style-type: none"> Driving/computer job opportunities limited Not sure when job market will improve. Only government and NGOs advertising a few jobs over which there is a lot of competition. Even HC find it difficult to get a job. 	<ul style="list-style-type: none"> job market/demand low NRC delay in delivery of BNF driving licenses Lack of experience beyond FSL apprentices, BNF have acquired a skill, but lack work experience Prognosis for 2013, job demand for drivers expected to increase
Evaluation estimate	0%	0%		
Hairdressing FSL estimate	?	100%	<ul style="list-style-type: none"> There are enough customers to earn a good income Yet work from home as no workplace so limits number of customers. Renting a salon is too expensive. Low market demand. Not a lot of business. Customers do not have spending money. There are only many customers during the Christmas season and weddings Expanding business from their profits of weaving hair. 	<ul style="list-style-type: none"> The starter kits was not enough and lacked items such as hair oil Need a workplace Renting a salon/workplace is expensive Suggest further NRC support such as forming them into groups of 10 to share a rented salon and materials for a year to give them experience and access to customers
Evaluation estimate	80%			
Tailoring FSL estimate	? some	?	<ul style="list-style-type: none"> Got jobs. Works full time. The customer market is not strong as the customers do not have spending money 	<ul style="list-style-type: none"> Need capital to start-up businesses Delay in delivery of starter kits, sewing machines after training in September 2012
Evaluation estimate		40%		
Masonry FSL estimate	?	2%	<ul style="list-style-type: none"> A mason was hired by the trainer as an assistant Some jobs available 	<ul style="list-style-type: none"> Delay in delivery of starter kits
Evaluation estimate		33%		
Welders FSL estimate	?	16%	<ul style="list-style-type: none"> Welders hired by trainers in their workshops Welding job opportunities and demand are available, but need tools and starter kits to gain employment 	<ul style="list-style-type: none"> Delay in delivery of starter kits for 2011 & 2012 Learnt BNF need generators for their work-welding machine
Evaluation estimate	30%			
Blacksmith FSL estimate	66%	0		<ul style="list-style-type: none"> 2012 Delay in delivery of starter kits
Computer FSL estimate	0%		<ul style="list-style-type: none"> Computer job opportunities are limited 	<ul style="list-style-type: none"> Job and employment market is limited NRC changed strategy in 2012 and only selected 3 BNF to train who were already in jobs (government).
Evaluation estimate	0%	100%		

Programme activities and outputs: were they too dispersed?

- The FSL agricultural and tree planting interventions were reported by FSL to valid and not too dispersed. However, the alternative livelihoods intervention was seen to be more valid to the NRC's Educational Programme, and would allow the FSL to focus on agricultural production activities.
- The FSL team was reported to have enough capacity in terms of staff numbers to implement and conduct programme activities, especially as the programme's activities were dispersed over the annual seasonal

calendar and this allowed FSL staff to focus on implementing specific activities at different times in line with the seasonal calendar.

- To avoid dilution of training inputs and factors of time efficiency, the FSL has changed its approach in 2012 from training all 30 members of the groups, to only training 5 lead farmers per group. The new approach is expected to reduce the number of trainings required to be delivered by FSL, and to allow FSL to focus on improving the quality of the training. The effectiveness and impact of the new training approach could not be evaluated as training activities were on-going at the time of the evaluation.

Programme locations: were they too dispersed?

The FSL was considered to be too dispersed geographically, as the programme did not have the adequate logistical support to reach all BNF and sites. This was reported by FSL to have negatively affected the quality of the programme's impact. The FSL team in Warrap felt they were not spending enough time with the BNF largely due to firstly, the distances from Alek to BNFs and secondly, the exhaustion of their allocated per diem and accommodation budget which often resulted in only having 2-3 hours with BNFs on a typical field visit day. The FSL team felt the per diem budget was not effectively planned and was underestimated for their needs as were the biggest of all NRC programmes in Warrap, and due to the geographical distances and the difficulty for staff to go and return from the field in a day. NRC reported FSL field staff are being dropped off and collected later which was not considered to be a safe approach. NRC reports that in 2013 it has tried to increase the budget allocated to per diems by approximately four times.

In Warrap, to overcome past geographical issues, the FSL is currently establishing 2-3 new sub-field stations (Kuajok, Turalei, and Wunrok) to be closer to the BNF key locations. This model could be tested and assessed to see if it tackles the challenges of high BNF geographical dispersal, or alternatively if the number of BNF sites needs to be consolidated in fewer areas. The same organization is planned to be set up in NBeG.

FSL and NRC Staff Recommendations:

- The Agricultural productivity objectives and projects should remain under FSL. Move the alternative livelihoods activities to NRC Education Programme.
- Geographically reduce the number of locations and concentrate the programme BNF sites.
- Improve the vehicle and transport fleet management. Increase field based mechanics services as cars are grounded for 2-3 weeks waiting for a single spare part to come from Juba.
- FSL is the biggest programme in Warrap and second largest in NBeG, requiring improved and proper budget planning.
- Interaction time with BNF should be increased
- Contracts for FSL staff in Warrap should remain to have Alek as the base rather than the new sub offices in Kuajok and Turalei as staff were keen not to be pigeon holed in one location and to be able to know about the other project locations, activities and BNF target groups related to their line of work. They recommend 3 months are spent at the sub offices and then staff are rotated to other offices in Warrap, although the Programme manager regards this as "*unreasonable*".

Rural versus urban focus in Programme approach?

As NRC did not conduct a needs assessment or livelihood analysis, the evaluation is unable to fully assess the appropriateness of NRC's interventions to date and to fully assess whether the "*differing needs resulting from the range of available livelihood options in different rural and urban environments?*" have been addressed.

The evaluation found no FSL definitions of what constitutes urban and rural. Most 'urban' targets were found to be small villages, which were hardly urbanised¹⁷. Many BNFs reported common patterns of moving with ease between urban and rural contexts based on their prioritised seasonal livelihood activities. For instance, alternative livelihood BNF and community facilitators reported they worked in (urban) small towns during the dry season in skilled labour, moved to their (rural) farms for the CCP season, moved to rivers or swamps for the fishing season, and purchased and sold produce at markets at intervals all year.

¹⁷ The current distances from most rural towns in NBeG and Warrap to the farming fields or fishing sites are not great, although many HC have two plots for different seasonal activities and some HC make up temporary mobile camps near fishing spots during the fishing season. Most towns in Warrap and NBeG are small and you can walk out from its centre to the farming fields in less than 15 minutes.

In addition, the R BNF were already showing signs of adopting the HC's seasonal livelihood transitional patterns between towns and farms. Most R have been given land by HC for building their tukuls (houses) or were living with their HC families. R land for farming was only just being distributed, and some still did not have land as the Government has yet to complete the Sudan Land Act and Land Surveys and officially allocate title deeds and farming land to the R. All sampled BNF reported to currently prioritise (rural) based livelihood activities for food security and income generations, such as CCP and natural resource based coping strategies. Their explanation was that the market economies were poor and there were few livelihood opportunities based in urban towns. This trend may be linked to the poor economic/commercial context due to pipeline closure.

Conclusion:

There was positive evidence emerging that FSL actions contributed to indicators of impacts and outcomes. The evidence was based on BNF and community facilitator's perceptions only, as comparison to baseline was not feasible due to the lack of baseline data on most indicators.

The extent to which the interventions' outcomes objectives were achieved varied considerably with both positive progress detected towards effectively achieving the objectives, and cases of lack of progress due to BNF listed influencing factors.

Positive progress, yet lacking substantial evidence of performance, included the unintended potential impact, related to the FSL irrigated VCP and the potential to increase BNF self-reliance during lean periods by enabling BNF to gain purchasing power via VCP sales in order to purchase prioritised nutrition-rich staples for HH consumption. Similarly, the alternative livelihoods skills intervention also had potential to enable BNF to be more self-reliant in the dry seasons. The evaluation found improved VCP harvest for certain varieties in Warrap, whilst here were mixed reports for CCP harvest and HH consumption rates, the performance of both were linked to factors of farming conditions and quality of seed and timing in FSL deliveries. BNF had adopted improved VCP agronomic practices in some cases and not in others. The evaluation found the alternative livelihood support resulted in 50% BNF in Warrap reporting to have improved income whilst the remaining BNF had not gained improved income. The evaluation finds the potential of FSL to contribute to durable food security and livelihood systems was likely in the longer term, for all BNF except CCP.

The reduction in coping strategies had not been achieved neither had the objective to conserve the environment to safeguard HH food security and income. The evaluation was not able to quantify effectiveness of the DD and food hygiene capacity building and behaviour change activities, as FSL had no reliable valid baseline data of DD scores against which to monitor and evaluate on improvement.

With regards to whether the programme approach was too dispersed, the FSL agricultural interventions and tree planting were reported to valid. However, the alternative livelihoods intervention was seen to be more valid to the Educational Programme, and would allow the FSL to focus on CCP, VCP and tree planting seasonal activities. There was positive evidence that FSL was improving effectiveness of inputs, for instance, by applying a new approach to training of VCP and CCP farmers in order to avoid dilution of training inputs.

The FSL was considered to be too dispersed geographically, as the programme did not have the adequate logistical support to reach all BNF and sites. In Warrap, to overcome this issue, the FSL is currently constructing 2-3 new sub-field stations to be closer to the BNFs.

As NRC did not conduct a needs assessment or livelihood analysis, the evaluation is unable to fully assess the appropriateness of NRC's interventions to date and to fully assess whether the "differing needs *resulting from the range of available livelihood options in different rural and urban environments?*" have been addressed. The evaluation finds that most BNF were relying on rural based production systems for food security and livelihoods, and that most BNF easily make the transition from small towns to their farming fields. Moreover, most "urban" towns were relatively small enabling BNF to travel easily between the two according to their seasonal livelihood activities. The urban based income generation opportunities were stated to be limited. This trend may be linked to the poor economic/commercial context due to pipeline closure.

4. Lessons Learnt

This chapter highlights the key lessons learnt that will have a potential for wide application and use for NRC to inform programme design and implementation.

Relevance

1. There was a positive identification of primarily agricultural production activities and relevant alternative livelihood skills as valid opportunities to improve BNF food security, livelihood resilience and self-reliance.
2. The programmes' mixed method approach in its selection of various types of agriculture and livelihood interventions was a positive attempt to ensure short term food security, whilst helping households increase livelihood security via income generation and self-sufficiency and increase household independence.
3. Whilst reliance on secondary data sources for programme needs assessment and design enables swift adaptive implementation, SPHERE emphasise the importance of rapid needs assessments and baseline data (livelihoods, nutritional, markets and coping mechanisms) and full beneficiary participation to enable appropriate design approach and measurement of achievement.
4. Lack of targeted population livelihood and context baseline data weakened the programme's relevance to supporting the different groups and the differing rural and urban locations.
5. Surveys and baselines are needed to be able to assess whether programme interventions are achieving the output and outcome targets and measure impact over time.
6. There are limited FSL assessments on how to transform traditional HC subsistence agriculture into supplying full HH food needs for R, IDPs, and HC BNF.
7. Community Facilitators and FSL Programme staff were found to have good on-the-ground knowledge that can easily be built on, structured and supported to generate high quality livelihoods surveys that would benefit any future relevance and design of interventions.
8. FSL's limited partnerships with local partners, MOAF and local organisations inhibited good relationships and on-the-ground knowledge.
9. NRC objective of Diet Diversification (DD) via VCP was not a priority of the BNF.
10. The evaluation found no evidence that the FSL intended strategy for increased *annual household food availability and accessibility* and *self-reliance* was achieved, as the FSL targeted different BNF for each type of intervention and farming/activity season. The BNFs requests for more seasonal support reflected their vulnerability and on-going needs.
11. The impact of the VCP can support households' purchasing power during lean periods by enabling BNF to generate income from VCP sales to access staple requirements. The reoccurring negative climatic and agricultural conditions however challenged the relevance of this objective and risks increasing their vulnerability.
12. There was limited to no evidence of FSL monitoring and addressing the risks associated to the agricultural context. FSL design in Warrap did not have the flexibility or mechanisms to respond to the recurring seasonal fluctuations particularly regarding impacts of crop loss.

Appropriateness of FSL design

1. The design of the CCP intervention to address agricultural production of targeted households reduces food insecurity in good years.
2. The design of VCP, fishing and alternative livelihoods to address income generation has potential to enhance BNF purchasing power and improve food security and self-reliance.
3. Positive evidence was indicated in BNF commitment, interest, utilization and perception of FSL intervention areas after the start of the projects.

4. The beneficiaries are interested and committed in increasing their annual agricultural and income productivity to cover wet and dry seasons reflecting their priority to increase the self-reliance and resilience of their livelihoods. Numerous CCP and fishing BNFs requested VCP support for dry seasons to complement their wet season production activities.
5. The FSL BNF groups had differing VCP capacity building needs, with HC and R needs varying according to previous skill and experience.
6. The kilocalorie contribution of VCP to household food security was almost insignificant unless income from VCP sales can be utilised to purchase calorie-rich staples.
7. Irrigated VCP does represent a good alternative to negative coping strategies in lean periods, so long as associated farming risks are addressed.
8. Design of crop selection should improve with beneficiary participation to incorporate preferred crops.

Appropriateness of targeting criteria, selection and process

1. The FSL BNF selection criteria were appropriate in theory, yet were found to be inadequately defined, designed, applied, monitored and recorded in practice raising questions about FSL's effectiveness in targeting the most vulnerable, and resulted in overall uncertainty of whether the vulnerable/gender targets had been selected.
2. Community based targeting of beneficiaries is an effective means to select project beneficiaries yet it was not consistently applied and lacked disclosure of the guiding principles and monitoring of the process.
3. The "Do No Harm" principle and intended selection breakdown of BNF groups of 75% R and 25% HC, was found valid in prioritising R as their vulnerability was found to be higher as compared to HC members.
4. The evaluation suspects that there is a lack of sensitisation and capacity amongst the programme staff regarding the importance of applying the criteria in reaching the most vulnerable

Appropriateness of farmer groups

1. BNF group organisation works well so long as FSL inputs are delivered on time and in adequate quantities and groups farms are appropriately located.
2. BNF groups MOUs and group sensitisation did not specify responsibilities for tool repair, maintenance and storage, and subsequently decreased BNF sense of ownership.
3. Certain challenges and weaknesses were found in accountability at the VCP school gardens, with high loss of group tools and misappropriation of school garden harvests and income from sales.

Appropriateness of inputs

1. Training follow-up, mentoring and monitoring was inconsistently applied.
2. The recent introduction of local partners such as Community Facilitators and SMAF extension workers indicates a positive start to address gaps and improve mentoring and the participation and performance of BNFs in the interventions.
3. Appropriate alternative livelihoods skill sets were found to include masonry, welding, fishing, carpentry where BNF reported job opportunities and/or customer and market demand was available. In contrast, skills sets including driving and computers were regarded to date as less appropriate.
4. There were cases of inappropriate and ineffective waste of resources and inputs, such as expired and pest infested seed.
5. The programme has yet to draw on valuable lessons and guidance from the BNF themselves, community facilitators, SMAF, SPHERE Minimum Standards and a vast pool of experience from decades of international seed and tool distribution mechanisms.

6. Tool maintenance and storage was not appropriately tailored to BNF interests or outlined in the MOU.
7. It was challenging for FSL to monitor trainees and to mentor, support and detect lessons from positive and negative cases of skill application.

Appropriateness of tree planting

1. The design of FSL's tree seedling distributions was appropriate in responding to BNF's interests in fruit trees for income generation and HH food security.
2. The appropriateness of its timber tree seedling distributions was lacking suitability due to scarce water sources for irrigation of seedling and resulted in high losses.
3. A policy to guide FSL introduction of exotic species was lacking and was not found to be appropriately designed according to SHERE Standards.
4. Indigenous forest species and environmental protection through reforestation interventions was inappropriately designed as it lacked collaboration with the State and county government who control and manage all state forest resources.

Appropriateness of fishing

1. Fishing is a key BNF interest and practice to generate food for HH and income via sales and is very suitable to the local context with minimal associated risks of production losses such as in CCP and VCP.
2. FSL's intervention was not appropriately designed to BNFs new knowledge needs.

Appropriateness of alternative livelihood

1. The tools are largely regarded by BNF as highly appropriate to fulfilling the objectives of skilled income generation.
2. The FSL design was however inappropriate in terms of efficiency due to high cost inputs, delayed delivery and non-delivery of items (partly due to cancellation of high cost inputs).
3. Late delivery of inputs led to BNF frustration and loss of confidence in FSL.

Connectedness

1. There was positive evidence found of emerging connectedness associated to FSL's strategy of targeting the differing HC, R, and IDP BNF groups, and NRC's "do no harm" policy in supporting reintegration of returnees in South Sudan.
2. Potential connectedness associated to SMAF, community facilitators and some local traders is emerging to support FSL's exit strategy and illustrates effective cooperation can be achieved between NRC and local partners.
3. Longer term sustainability objectives are being achieved via the FSL training interventions to build BNF capacities and skills.
4. There were numerous opportunities for enhanced collaboration, connectedness, and NRC synergies identified by BNF and NRC that remain unfulfilled.
5. FSL lacks policies on sustainability to guide many its input distribution interventions, relating to both short and long term sustainable contextual, environmental, food security and livelihoods sustainability issues.
6. The lack of such policies reduces FSL ability to comply with SPHERE Minimum Standards.

Efficiency

1. The evaluation team was unable to gather sufficient data records for numerous targets of inputs delivered and BNF reached, and was thus unable to assess performance against targets. FSL has yet to develop and apply a robust monitoring system to track progress inputs, outputs and outcomes.
2. Late delivery of inputs had a negative impact on the achievement of programme objectives.
3. The late delivery of items negatively affected internal NRC staff relations, especially between the programme and the logistic/support teams.
4. Delays in deliveries were caused by factors of inefficiency in procurement, capacity and management systems.
5. There was no NRC delivery schedule for inputs according to seasonal and farming calendars.
6. NRC made numerous valuable recommendations to the evaluation to improve efficiency of delivery and along with the BNF recommendations provided valuable suggestions for increasing efficiency of the schedule for procurement and input distributions to BNF.
7. NRC employed various mechanisms of delivery for its activities, including mainly direct distribution to beneficiaries by FSL for training and tools delivery and to a lesser extent traders and local markets, and SMAF extension workers for mentoring. Training of trainers for FSL trainers' efficiency was found to be lacking and need of support.
8. Whilst there was positive evidence of FSL in Warrap of utilisation of traders in 2012, there was overall lack of evidence that FSL was efficiently implementing its policy to *utilise local traders and markets* and to adhere to SPHERE minimum standards.
9. NRC was found to not have explored the opportunity of utilising local traders and markets to enhance the efficiency in procurement and delivery, with numerous advantages of doing so being listed by some NRC staff.
10. The mode of delivery of intervention input services utilising local traders can successfully comply with SPHERE Standards and indicates adequate local retail systems are in place. Traders said it is important to harmonise and increase the input value from time to time to protect households from inflation. The inclusion of local traders is likely to benefit local markets in the long-term.
11. The capacity building of project staff is important to facilitate adequate management and response to monitoring data and necessary adjustment of project operations during implementation.
12. There is limited project capacity to conduct efficient project monitoring of inputs and outputs.

Effectiveness & Results

1. The evaluation and programme was unable to measure whether the target on HH had increased their Diet Diversity score as there was no reliable baseline study conducted against which to monitor and evaluate on improvement of DD scores.
2. Indicators of on-going vulnerability found that all BNFs were employing negative strategies of timber harvesting and some returnees were 'begging' for food from HC members.
3. FSL has not adequately defined and distinguished positive versus negative coping strategies in the local context.
4. 60% of the Warrap sampled BNF had adopted improved VCP agronomic practices, and were mostly experienced VCP HC.
5. In NBeG there was no evidence suggesting improved VCP harvest yields, food security and income. Whereas in Warrap, 60% reported improved VCP harvest for certain varieties (Okra, eggplant and kale), and improved food security and income.
6. Dry season irrigation and high soil fertility led to good yields, whereas pests and expired seed were linked to lower yield.

7. In Warrap, there were mixed reports on CCP harvests and HH access to staple consumption. The poor harvest reports were related to late delivery of seed, flooding and pest infected seed, and lack of knowledge of rice cultivation.
8. There was positive indication of effectiveness and impact for about half the BNF sampled in Warrap. Yet the effectiveness has yet to be observed in the remaining and for all NBeG BNFs. Effectiveness was linked to commercial viability and job demand.
9. Most BNFs reported that they were not solely relying on the new skills for their total income – BNF were supplementing their income from other sources with seasonal implications e.g. agricultural production.
10. In order to conserve the environment to safeguard HH food security and income the FSL had planned to replace trees being cut in the forest. BNF reported the aim to replace the forest being cut was not being achieved however FSL introduced fruit trees were performing well.
11. FSL has changed from training all 30 members of the groups, by training 5 lead farmers per group to avoid dilution of training inputs.
12. The FSL agricultural interventions and tree planting were reported to be valid. However, the alternative livelihoods intervention was seen to be more valid to the NRC's Educational Programme.
13. FSL was considered to be too dispersed geographically, as the programme did not have the adequate logistical support to reach all BNF and sites. In Warrap, to overcome this issue, FSL is currently constructing 2-3 new sub-field stations to be closer to the BNFs.
14. NRC has questioned the focus of their urban vs. rural programming. As yet they have no profile data on BNF locations, needs and context in rural versus urban locations and no FSL definitions of urban versus rural.
15. All BNFs are relying on rural based agricultural, fishing and coping strategies so the NRC focus on rural context therefore remains valid, whilst appropriate urban opportunities were not yet evident.
16. The NRC reported to date they have not monitored or evaluated the progress to achievement of any of their outcomes, apart from the NBeG 2010 Evaluation report. NRC reports to have maintained regular reporting on outputs.

5. Recommendations

The recommendations indicate what actions (options and opportunities) the evaluators believe should be taken by NRC to enhance appropriateness, effectiveness, efficiency of its intervention cycle management and policy. The recommendations are based on the evaluation findings and are aimed at the evaluations' users.

Relevance

1. As highlighted as a priority by NRC staff and SPHERE standards, it is recommended that NRC invests in producing robust livelihood profiling and needs analysis in order to enhance its knowledge base of varying groups' vulnerabilities, interests and contexts, as per other international agency efforts¹⁸. Meaningful participation of different groups of women and men and appropriate local organizations at all stages of the assessment is vital.
2. Programmes design should be tailored to the local context and needs to address vulnerability and viability of production systems, including access to and availability of necessary inputs, services and market demand.
3. A situation and context analysis is also recommended to help NRC summarise the risks and opportunities in the wider SS context, including social, economic, political, tribal, environmental factors.
4. Reassess the relevance and appropriateness of the NRC objective of Diet diversification (DD) and HH consumption to BNF priorities and interests. Possibly look at Household Food and Cash Income improvements as a result of programme activities. This could be done using the Household Economy Approach (HEA) – see www.feg-consulting.com/HEA
5. Investigate and address any potential risk associated to FSL interventions, for instance:
 - Identify a NRC's strategy during a bad harvest year when yields are low so BNF are not exposed to increased food insecurity and vulnerability.
 - Recognise VCP and CCP are risk prone livelihood activities and generate risk coping mechanisms and alternatives.
 - Promote flood farming technologies from relevant global cases, that may be adapted to SS. This is in line with recommendations from the SMAF.
6. An assessment should be made as per the SPHERE guideline definition and incorporated into programme design:

The ability to manage the associated risks is determined largely by the characteristics of a household or community, particularly its assets and the coping and livelihood strategies it pursues.
7. NRC should consider expanding its risk management strategies such as the principle required by the Norwegian Ministry of Foreign Affairs (in the NBEG funded project); stipulating BNF should continue to receive FSL support after two years if BNF experience more than 60% of crop loss due to floods.
8. NRC should link in with the IPC situation analysis process to track changes in food security and adapt programme design appropriately ensuring a relevance to the changing context.

Appropriateness of targeting criteria, selection and process

1. NRC should continue targeting HC, R and IDPs as BNFs to support integration.
2. The "Do No Harm" principle should be upheld, but consider expanding it to address vulnerable IDP targets.

¹⁸ CSAR & UKAID, October 2012, *Building the Returnee State, Returnee Reintegration in South Sudan*, by Peter Biar Ajak et al.

3. Continue to use community based targeting as effective means to selecting project beneficiaries but aim to improve the design, disclosure, and monitoring of the selection criteria and procedures. Be aware that community based targeting may be prone to risks of bias. Consider learning from other agencies, and adopt a community triangulation method for targeting – dividing a community into three groups and debating their lists of needy households in a public forum, to help avoid the risks of nepotism and elite capture that have undermined other community-based methods
4. Continue using the identified set of all BNF selection criteria headings but also invest considerably in improving the definitions, design, FSL capacity of application in practice, monitoring and record keeping.

Appropriateness of farmer groups

1. Continue to organise BNF into farming groups with enhanced investment by FSL to address the associated strengths and weaknesses identified including: select good group leaders, deliver FSL inputs on time according to seasonal calendars to avoid group doubt, ensure distances between the group farm's and BNF HH are suitable to members, clearly specify in the FSL group MoU and raise awareness amongst group members about group responsibility for repair, maintenance, and storage of FSL inputs to increase sense of ownership and commitment.
2. Review and redraft the MoU arrangement with VCP school gardens to address the significant risk of lack of accountability regarding the group leaders' misappropriation of firstly, the school gardens' benefits (harvest for consumption and income generation via sales) and secondly, the groups' tools.
3. Alternatively consider not continuing the school garden activity as the appropriateness and effectiveness of this intervention was found to be low.

Appropriateness of training inputs

1. Continue to pilot the new demonstration training and practical mentoring approach via collaboration with local partners, with enhanced monitoring of performance, and interaction/communication with the community facilitators to achieve the objectives of increasing the sense of ownership.
2. Improve needs assessments for training skill areas, and review differences in existing skills and learning interests amongst the differing HC, R, and IDP BNF groups.
3. Monitor the new training approach that relies on 5 lead farmers per group being trained and transferring their knowledge of new skills to the rest of their group.
4. As per BNF recommendations, enhance appropriate agricultural training in pests and disease control techniques.
5. Improve consistency between the training design objectives and actual implementation to improve training quality.

Appropriateness of inputs

1. Improve beneficiary participation in project design as per the processes outlined by the SPHERE standards. For instance, the design of interventions should consult beneficiaries about their preferences on the type of inputs distributed, recognizing that this might vary from season to season, and between communities located closer to, or further from well-functioning markets.
2. Support BNF food *availability and accessibility* during the lean period. Continue to support activities such as:
 - Increase staple purchases enabled via VCP sales
 - An alternative income generation activity during the lean period to enable vulnerable BNFs to earn income and gain purchasing power.

3. Improve training and selection of inputs to local context i.e. pest control. The programme should draw on valuable lessons and guidance from the BNF themselves, community facilitators, SMAF, SPHERE Minimum Standards and a vast pool of experience from decades of international seed and tool distribution mechanisms.
4. To avoid inappropriate and ineffective waste of resources and inputs, and to build on its existing strengths, NRC needs to match the high BNF interest by investing in improving the appropriateness of its design, delivery and lesson learning mechanism for seed selection and distributions.
5. Match the high BNF commitment to CCP and VCP seed distributions, for application in BNF farming for both HH consumption and for VCP income generation, by investing in improving the appropriateness of the FSL design, delivery and lesson learning mechanism for seed selection and distributions. Assess the difference in objectives for HHs to access nutrient-rich foods, or for BNF income generation through commercial viability from VCP production.
6. FSL should assess viability of supporting BNF with their repeated requests of tool priorities, including fencing materials, ox ploughs, and gumboots for rice paddy cultivation.
7. Continue to promote seed fairs using vouchers that provide BNF with the opportunity to select seed varieties of their choice.
8. VCP seed selection should consider the risk of crop loss due to farming/climatic conditions beyond the control of BNF. Otherwise the FSL interventions may heighten BNF vulnerability and food insecurity.
9. Promote compliance to SPHERE standards by ensuring varieties are approved by farmers and local agricultural experts; seeds should be adapted to the local agro-ecology and to farmers' own management conditions, less susceptible to pest and disease, and be chosen with consideration to floods or droughts.
10. Farmers should be given access to a range of crops and varieties in any seed-related intervention so that they themselves can strategize about what is best for their particular farming system.
11. Develop a NRC FSL policy on distribution of hybrid seeds and genetically modified (GMO)¹⁹ seeds in line with regulatory and ethical policies.

Appropriateness of tree planting

1. To achieve the FSL objective to replace the indigenous trees being cut in the forest, it is advised that NRC develops a policy for introducing exotic species and consider more appropriate options for replacing the indigenous forest species.
2. Any option would require collaboration with Government. This represents an opportunity for NRC to collaborate with the State and county government. Reforestation was reported to be a need by all BNFs.

Appropriateness of fishing

1. Continue supporting fishing interventions in line with BNF prioritisation of this production practice as key to generating own food supplies for HH consumption and for income via sales.
2. Strengthen the design and delivery of the intervention via full participation of the BNF, who are mostly very skilled in fishing.
3. Develop a policy for ensuring the sustainability of fish stocks.

¹⁹ GMO guidelines in SPHERE www.sphereproject.org and other information on GMO at www.globalvision.org/tags/genetically-modified-crops

Appropriateness of alternative livelihood

1. FSL should continue to deliver tools and starter kits to BNF who regard the tools as vital to gaining employment to fulfil the objectives of skilled income generation.
2. FSL urgently needs to review delivery problems of numerous tool/starter kits to improve efficiency in delivery, and to enhance appropriateness of the design to avoid BNF disappointment and frustration.
3. FSL needs to recognise the investment made by BNFs in attending the training courses and improve its transparency and disclosure towards BNF regarding its ability to match this investment with inputs so that the BNF can assess the value of attending training and their prospects to gaining employment after the training.

Connectedness

1. Continue to promote FSL's targeting of differing HC, R, and IDP BNF groups, and NRC's "do no harm" policy to support reintegration of R in South Sudan, connectedness and sustainability.
2. Continue to promote NRC's use of the LRRD approach (Linking Relief Rehabilitation and Development) by including the provision of training of BNF to build capacity and skills to increase self-sufficiency, resilience and sustainability of agricultural productivity and income generation.
3. Review and strengthen FSL's programme exit strategies based on building local public, NGOs and trader/service providers' institutional capacity.
4. Build and expand the positive collaboration between FSL and SMAF and traders in Warrap.
5. Develop NRC synergy agreements, objectives and action plans to be implemented in practice.
6. Consider harmonising and transferring the FSL alternative livelihoods training activities into the NRC Education Programme to achieve enhanced efficiency, effectiveness and sustainability
7. If the alternative livelihoods training activities remain with FSL, conduct market surveys to assess the job prospects and commercial viability of alternative livelihood skill sets to match context to its outcome and purpose level objectives.
8. Build a synergy to the alternative livelihood training to address the clear need for FSL tools production, mechanics, and maintenance services.
9. Enhance management of the frequently reoccurring FSL logframe assumption: *Climate is favourable to all agricultural production* to develop a clear risk management strategy with BNFs. Management strategy should include for instance, FSL supporting improved BNF agricultural techniques to cope with the risks, such as dykes, planting early, pest and disease and other flood risk management techniques in farming.
10. Develop clear policies and guidelines, in compliance with SPHERE minimum standards, for appropriate FSL sustainable policies tying its input distributions to BNF to longer term sustainable practices and/or conservation of soil, fish stocks, exotic tree varieties, and GMO seeds²⁰.

Efficiency

1. NRC should reconsider the use of the Diet Diversity Score as it is difficult to measure. The indicators should be more linked to measuring HH food sources, both calculating calorific consumption and access to 5 food groups. NRC also needs to recognise that the DD objective is not the main focus of the VCP in terms of the BNF interests. Again consider using HEA to measure the improvements of food consumption and income levels.

²⁰ GMO guidelines in SPHERE www.sphereproject.org and other information on GMO at www.globalvision.org/tags/genetically-modified-crops

2. In terms of looking at reduction of negative coping strategies, NRC should familiarise themselves with the CSI approach to ensure they can measure this by building up their capacity to apply the CSI tool www.fao.org/crisisandhunger/root/pdf/maxwell.pdf and use the Coping Strategy indicator within their M&E.
3. Improve data records for output targets of inputs delivered and BNF numbers reached.
4. Review outcome and impact indicators of DD, coping and vulnerability, ensuring they identify appropriate indicators that measure impact/performance and are able to be monitored.
5. Aim to deliver items on time or as promised to promote BNF perceptions of NRC, efficiency of use of inputs by BNF, and achieving project objectives.
6. Continue to support the structure and management of its newly established logistics and support team to monitor and supervise procurement and aim to improve communication, joint management, coordination and relations between the programme and the logistic and support teams.
7. Consider adopting NRC and BNF valuable recommendations to improve efficiency of delivery, and the recommended schedule for procurement and input distributions to BNF.
8. Improve training of trainers for FSL staff trainers' to increase efficiency and achievement of objectives.
9. NRC should continue to base agricultural interventions on women as the main recipients.
10. Build on the FSL positive evidence from Warrap in 2012 of utilisation of local traders and markets and explore the opportunities recommended by NRC of utilising local traders and markets to improve efficiency in procurement and delivery.
11. Other development agencies are currently conducting market surveys on vegetable seed availability in NRC target locations. It is recommended that NRC does the same in order to update its strategy, knowledge and design and implementation of programming.
12. NRC should consolidate locations and reduce their geographical spread (but no scope) to improve efficiency and effectiveness.
13. Improve, develop and apply efficient monitoring systems for project inputs, outputs and outcomes. The monitoring system should be a simple, realistic and practical project monitoring tool. As a tool to match project capacity and resources - with clear monitoring objectives, SMART indicators, data collection methods, assigned project staff roles, timeframe, reporting systems, and budget allocations. Consider monitoring and evaluation capacity building/training for NRC and project staff

Effectiveness & Results

1. NRC should reconsider the use of the Diet Diversity Score as it is difficult to measure and the linkages. The indicators should be more linked to measuring HH food sources, both calculating calorific consumption and access to 5 food groups (see note on HEA). NRC also needs to recognise that the DD objective is not the main focus of the VCP in terms of the BNF interests – it is more focused on income.
2. NRC FSL should continue working on rural farming areas and continue to start monitoring BNF production opportunities in urban settings and possible growing urban contexts.
3. Consider updating the knowledge base on negative coping strategies through application of the CSI tool to effectively design interventions to target coping strategy seasonal peaks. In addition, the expandable natural resource coping strategies (charcoal, firewood, poles, grass cutting, wild foods) may be able to be managed sustainably to improve HH livelihood resilience
4. Test the model being piloted in Warrap, of establishing 2-3 new sub-field stations in key BNF locations, and assess its effectiveness in tackling challenges associated to geographically dispersed programme locations, or alternatively if the number of BNF sites needs to be consolidated in fewer areas.
5. The question of rural and urban for FSL's future focus should firstly seek to define the meaning of urban, whilst urban growth of these small towns is likely, this is not expected to occur within the period of NRC's strategy approach up till 2014.

6. FSL is advised to confirm the evaluation's finding that most BNFs relied and prioritised rural production activities. This trend may be linked to poor urban based opportunities due to weak economies and markets due to the Sothern Sudanese pipeline closure. Until there is tangible evidence that the economy is growing again with increased job opportunities, it is recommended FSL focuses on supporting BNF rural based production systems for food security and livelihoods. If borders and trade opens up and increase, NRC may consider moving to focus programming on cash income in 2013 rather than focusing on promoting own farm production.
7. In addition, until the government has completed the Sudan Land Act and Land Surveys and officially allocated title deeds, and farming land to the R and the R's response to these land allocations in terms of deciding where to settle, it is advised that NRC continues to focus on both rural and "urban" BNF.