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Comment	

CARE-TN

A Thematic Evaluation of Livelihood and Community Based Disaster Preparedness Projects

A Draft Report

by

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October, 2010

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V.J. Naidu and Team

Abbreviations Used

ADB	Asian Development Bank
AFI	Aquaculture Foundation of India
APDPIP	Andhra Pradesh District Poverty Initiatives Project
APRPRP	Andhra Pradesh Rural Poverty Reduction Project
ASSIST	An NGO Partner
BC	Backward Class
BLS	Base Line Survey
BPL	Below Poverty Line
CARE	Cooperative for Assistance and Relief Everywhere
CB	Capacity Building
CBDP	Community Based Disaster Preparedness
CBO	Community Based Organization
CDMA	Community Based Disaster Management Agency
CEO	Chief Executive Officer
CFCR	Chicks Feed Consumption Rate
CIBA	Central Institute of Brackish water Aquaculture
CIG	Common Interest Group
CREATE	An NGO Partner
CRED	An NGO Partner
CRG	Common Resource Group
DLBC	District Level Bankers' Committee
DMT	Disaster Mitigation Team
DRI	Differential Rate of Interest
EC	Executive Committee
EFFORT	An NGO Partner
EFL	Education For Livelihood
FFS	Farmer Field School
FGD	Focus Group Discussion
GO	Government Order
GOI	Government of India
GOTN	Government of Tamil Nadu
GP	Gram Panchayat
GP	Gram Panchayat
GPS	Global Positioning System
ICICI	Industrial Credit Investment Corporation of India
ICT	Information Communication Technology
IDM	Integrated Disease Management
IEC	Information, Education and Communication
IOB	Indian Overseas Bank
IPM	Integrated Pest Management
IWDI	An NGO Partner
JBY	Janashree Bheema Yojana

JFPR	Japan Fund for Poverty Reduction
JLG	Joint Liability Group
KVKs	Krishi Vignan Kendras
MACS	Mutually Aided Cooperative Societies
MDO	Mandal Development Officer
MFIs	Micro Finance Institutions
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MNTN	An NGO Partner
MPEDA	Marine Products Export Development Authority
MRO	Mandal Revenue Officer
MS	Mandal Samakhya
MSP	Minimum Support Price
NABARD	National Bank for Agriculture and Rural Development
NGO	Non-Governmental Organization
NIFT	National Institute of Fashion Technology
OBs	Office Bearers
PACS	Primary Agricultural Credit Society
pH	Power of Hydrogen
PLHA	People Living with HIV/AIDS
PLW	Para Livestock Workers
PPM	Per Person per Month
PRA	Participatory Rural Appraisal
RARS	Regional Agricultural Research Station
RSVY	Rashtriya Sam Vikas Yojana
SARDS	An NGO Partner
SC	Scheduled Caste
SHG	Self Help Group
SLBC	State Level Bankers' Committee
SRI	System of Rice Intensification
ST	Scheduled Tribe
TEAP	Tsunami Economic Assistance Program
TF	Task Force
TNAU	Tamil Nadu Agriculture University
TOR	Terms of Reference
VDS	Village Development Society
VO	Village Organization
VRDP	An NGO Partner
WHHs	Women Headed Households
ZS	Zilla Samakhya

Section – I

Summary Report

A Thematic Evaluation of TRP Livelihoods and CBDP Projects

Chapter – 1

Introduction

The Tsunami Context

1.1 The Indian Ocean Tsunami of 2004 left a vast trail of death and destruction along the coastlands of Andhra Pradesh, Tamil Nadu, Pondicherry and Kerala. The livelihoods of the people inhabiting the coastlands suffered unprecedented damage. The fisher-folk communities, small and marginal farmers, salt pan workers, agricultural labour and those dependent on backwaters for their livelihoods faced extreme loss and devastation. A vast majority of the fisher folk had their boats and nets destroyed or lost. The surging brackish water flooded the inland areas and rendered large tracts of arable land uncultivable. Ponds, wells and other water bodies were inundated and rendered unusable. The salinity levels of ground water increased and the pH content of land went up. Salt pans in vast areas were destroyed, rendering salt farming nearly impossible. The road and other public infrastructure were badly affected. Not only fishing, salt farming and agriculture but other occupations along the coastlands of Tamil Nadu, Pondicherry and Andhra Pradesh were adversely affected. The marine disturbances associated with the Tsunami also affected the aquatic resource base, the main source of livelihood for the fishing communities.

1.2 As always, CARE was in the forefront of providing relief to those affected by the Tsunami in Andhra Pradesh, Tamil Nadu and Pondicherry. As part of its Tsunami Response Program, CARE responded, along with several INGOs to the immediate food and shelter needs of the affected communities. The next task was to restore the livelihoods of the affected people. Again CARE was in the forefront rehabilitating the affected communities. With the relief and rehabilitation efforts resulting in some semblance of normalcy, CARE turned its attention to livelihood development issues for the affected communities. CARE was convinced that a long term strategy to strengthen the livelihoods of the Tsunami affected communities was necessary. However, instead of immediately undertaking livelihood development programs, CARE commissioned a few sector wise studies to understand the gaps in the livelihood value chains and identify potential intervention areas. The studies conducted on the fisheries and the non-fisheries Livelihood sectors in Andhra Pradesh, Tamil Nadu and Pondicherry provided important inputs for the design of the CARE –TRP livelihood promotion strategy, on the basis of which several sub-projects were designed and implemented during the third phase of TRP. The key issues and findings of the two studies are briefly summarized in the following.

Study on Livelihoods in Fisheries Sector

1.3 The Sectoral Study on Fisheries Livelihoods examined the possibility of securing and enhancing existing fisheries livelihoods and creating new fisheries livelihoods in southern coastal Andhra Pradesh and Tamil Nadu, for the women and men of fishing communities in the region, and especially for those in the small-scale artisanal communities. The study indicated that the fishing communities in southern coastal Andhra Pradesh, unlike their counterparts in Tamil Nadu, rely on multiple livelihood options, such as marine fisheries, fresh and brackish water fisheries, agricultural farm labour, labour in aquaculture farms, cattle rearing and wage labour in salt farms. However, the multiple options are not optimally utilized owing to shortage of infrastructure, equipment, working capital, institutional and technical support and seasonality. The multiple livelihood options provide adequate scope

for intervention to enhance the livelihoods of the fisher communities. The study points out that organizing the communities around economic imperatives should receive priority. Strengthening women's business, aggregation and collective marketing, and working capital support to scale up post harvest activities were some of the emerging imperatives.

1.4 Despite the declining trends in fish catch in Tamil Nadu, fishing and related activities continue to be the major source of livelihood, with nearly stagnant or declining income. The small fishermen working in the non-motorized sector is the most vulnerable among the fishers. The study found that the overwhelming dependence of the fishing households to informal credit system, weak forward and backward marketing linkages, poor fish handling systems, under developed fishery infrastructures, weak policy and institutional supports remain as obstacles to promoting livelihood security of the fisher communities. In addition, there are vital gaps in support systems to enable the community's access to fish resources. The study found that even in Tamil Nadu, the women's role could be strengthened in post harvest fisheries for additional livelihoods, notwithstanding their declining access to fish. Therefore, the focus of livelihood interventions should be strengthening these areas along with diversifying some of the stakeholders into new areas in fishing and allied activities. The study recommended the following livelihood activities for support under the development phase.

Table – 1.1
Intervention Areas Identified : Fisheries Sector

Fish Harvesting/Production	Fish Procurement & Processing
1 Diversification of fishing	1 Hygeinic drying of fish
2 Crab-fattening	2 Smoking of fish
3 Lobster cage culture	3 Collective procurement for vending/processing
4 Edible oyster culture	4 Running transportation infrastructure
5 On-board ice boxes	5 Production of value added fish products
6 Ornamental fish breeding	
7 Small-scale aquaculture	
8 Training for safety at sea	
Trading	**Others**
1 Packaging of smoked/dry fish	1 Outboard/Inboard engine Users training
2 Fish vending stalls	2 Engine repairs
3 Ice distribution	

Source: CARE India, Sectoral Study on Fisheries Livelihoods, July 2007

1.5 Four additional fisheries-related activities such as rope making, fishnet assembling, seaweed culture and sea ranching were recommended for Kanyakumari District. The study also found some potential for activities such as community tourism, livestock and poultry rearing, J*atropha* cultivation and merchant shipping for young males for the community. The study emphasized the importance of developing appropriate institutions and policy support for the proposed interventions to bear fruit.

Study on Livelihoods in Non-Fisheries Sector

1.6 The study on non-fisheries livelihoods of the coastal communities in Tamil Nadu and Andhra Pradesh observed that the non-fisheries livelihood portfolio is very large, though fisheries continue to be an important livelihood activity. The main sources of income include wage labour (*agriculture, salt pans and aqua culture*), primary production (*paddy, ground nut, tobacco, household dairy, poultry, fishing and aqua culture*) secondary production (*dry fish, coir, salt and food processing*) and services (*food vending, petty business, tailoring,*

handicrafts, repairs, transport, government service, domestic service, etc.,) and migration. However, the coastal communities face several constraints and challenges in their non-fisheries livelihoods as summarized below:

Table – 1.2
Non-Fisheries Livelihoods in AP and TN : Constraints and Challenges

S. No.	Livelihood Sector	Constraints and Challenges
1.	Primary production – agriculture and animal husbandry, salt farming	▪ Limited access to land ▪ Growing salinity of land ▪ Very limited irrigation facility ▪ Mono cropping practices ▪ No focus on casuarinas and other plantation crops ▪ Limited livestock assets of low grade ▪ Poor animal management practices ▪ Lack of veterinary services ▪ Inadequate linkages with markets ▪ Shortage of working capital and poor access to formal markets ▪ Inappropriate technology in salt farming ▪ Inadequate salt storage facilities
2.	Secondary production – dry fish vending, coir production	▪ Low quality fish ▪ Poor access to markets ▪ Shortage of working capital ▪ Low value addition to coir ▪ Health problems to coir workers
3.	Service sector – small business	▪ Inadequate access to credit institutions ▪ Small scale of production ▪ Lack of aggregation ▪ Poor skill base
4.	Risks and uncertainties – Cyclones and rains	▪ Degradation of land due to salinity ▪ Yield and price risks ▪ High morbidity and mortality among livestock
5.	Access to resources - Natural, physical, human, financial and social	▪ Limited private land and very low access to commons ▪ Poor road, transportation, storage and marketing infrastructure ▪ Shortage of skilled personnel – construction, hatcheries, aqua culture ▪ Inadequate information about new livelihoods ▪ High cost information credit ▪ Exploitation by intermediaries ▪ Caste system, patriarchy and patron- client relationship working against the poor

Source: Compiled from CARE, Study on Non-Fisheries Livelihoods Sector, 2007.

1.7 The study rightly points out that the non-fisheries livelihoods situation is not the same in both the States, though there are certain broad similarities. For example, access to land and multiple livelihood options is a less severe constraint in Andhra Pradesh, compared to Tamil Nadu. In respect of infrastructure, TN was better placed. While in the case of access to formal credit and the presence of CBOs, AP was better. Moreover, the range of non-agricultural livelihoods available in TN is larger.

1.8 The study recommends collectivization of the poor coastal communities on the basis of common livelihoods and constraints faced to facilitate their access to resources, skills, value added activities and markets. The study recommended the following interventions in the non-fisheries livelihood areas:

Table – 1.3
Potential Non-Fisheries Livelihoods

Diversifying Livelihoods	Strengthening Existing Livelihoods Activities	Enhancing Livelihoods through Value Addition
▪ Agriculture – Floriculture, vegetable cultivation, diverse crops, coconut plantation, seaweed cultivation, casuarinas. ▪ Animal husbandry Dairy animals, goat rearing, poultry apiculture ▪ Enterprise Development Grocery shops, margin free super market, collective marketing of agricultural products.	▪ Improved salt farming techniques ▪ Collective procurement, processing and marketing for Coir ▪ Intensive training in improved agricultural, animal husbandry, salt production and entrepreneurship practices ▪ Training and provision of paraprofessional services ▪ Mechanization, improved technology and facilities in relevant sub sectors ▪ Asset purchase and development (e.g. Land)	▪ New Coir products – mats, baskets ▪ Dry Fish packaging ▪ Organic Paddy cultivation ▪ Organic vegetables / crop production ▪ Sea Shell crafts ▪ Processing of flowers / vegetables for marketing.

1.9 After a careful examination of the interventions suggested for feasibility and liability, CARE identified the following fisheries and non-fisheries interventions for support and implementation.

- Aquaculture (Crab fattening and fisheries development);
- Dairy (milk production);
- Goat Rearing;
- Poultry;
- Agriculture *(Low input cultivation of crops / incorporating good practices)*;
- Agriculture services;
- Horticulture;
- Salt Production;
- Small enterprises *(Zari embroidery, cashew processing, coir production + value addition)*; and
- Micro-finance.

Other Interventions

1.10 TRP also had a component to promote Community Based Disaster Preparedness (CBDP). The CBDP covers all aspects of preventive, protective, preparedness and systematic organizational aspects so as to rescue and provide relief and rehabilitation operations and thus mitigate the impact of disasters on the coastal human settlements. Further, micro-insurance and functional literacy initiatives were layered on livelihood initiatives to promote empowerment of women and enhance returns from livelihoods.

1.11 Thus, as part of TRP, CARE implemented 18 livelihood sub-projects with the support of 14 partner organizations having a strong presence in the Tsunami affected coastal villages of AP (40), TN and Karaikal region of Puducherry (50). The interventions implemented target 6,146 beneficiaries, of whom 60% are women. Apart from the direct CARE support of Rs.338.00 lakh, the projects have catalyzed a total grant and credit leverage of Rs.519.00 lakh. Along with the community contribution, the interventions have resulted in a total investment of Rs.1,069.42 lakh over three years. On the average, it works out to an investment of Rs.17,400/- per beneficiary. In addition to direct beneficiaries, a larger number of people have benefited indirectly through the intervention such as training, capacity building and awareness campaigns.

1.12 The overall log-frame of the sub-projects envisaged significant changes in household income (15 to 20% for 60% of beneficiaries), savings (60% of households), essential consumption expenditure (50% of households), asset base (30% of households) and livelihood options (60% of households) and credit access (40% of households), literacy and numeracy skills. More significantly, the interventions are expected to address gaps in value chain in terms of improved access to markets (30% of households), institutional credit (40% of households), skills (20% of households) and other services from public agencies. The sub-projects also aim at creating functionally effective, self-sufficient and sustainable community based organizations (80% of households).

Objectives of the Study

1.13 As the Tsunami response program is drawing to a close, CARE commissioned a study to evaluate the appropriateness of the livelihood project interventions as well as the CBDP component. The objectives of the thematic evaluation in respect of the livelihoods project are to:

Appropriateness of Interventions

- Examine the appropriateness of the scale and type of interventions vis-à-vis the gaps identified in the value chain of different livelihoods promoted.

Additional Livelihoods and Skills

- Analyze benefits resulting from various sub-sectors/sectors in terms of additional livelihoods, improved skills and income yielding opportunities created for deepening the current engagement of the beneficiaries in the value chain and/or moving them to a more remunerative part of the value chain and assess impact of emerging outcomes on different social and occupational groups.

Reduction in Vulnerability

- Assess the impact of interventions on reduction of socio-economic vulnerability and the empowerment status of women, the SCs and the STs and other marginalized communities.

Knowledge and Skills

- Assess the adequacy of knowledge and skills of the beneficiaries available to optimize returns from existing livelihoods and identify constraints if any.

External Leverages

- Analyze the scale and forms of external leverage facilitated in terms of access to institutional credit, organized markets, technical and other livelihood services and examine their sufficiency and contribution to strengthening the livelihood system of the beneficiary.

Livelihood Services

- Examine changes brought about in the terms of trade between livelihood service providers and the NGOs and CBOs.

Functional Literacy and Numeracy Skills

- Analyze contribution of functional literacy and numeracy skills imparted to the beneficiaries as part of livelihoods promotion and their impact on the empowerment status of women/beneficiaries.

Capacities of CBOs

- Assess capacities of CBOs promoted for self-management and sustainability.

Emerging Challenges

- Identify emerging/persisting challenges to the sustainability of the livelihoods promoted.

Impact on Poverty

- Examine potential impact of the interventions to underlying causes of poverty in terms of addressing unequal power relations and failure of governance and markets.

CBDP

1.14 In respect of CBDP, the objectives of the study are to:

- assess the capacities and motivation of community level task forces and disaster mitigation committees promoted;
- examine community awareness about the relevance of structural interventions, the grain bank and the risk fund;
- analyze inclusiveness of the disaster preparedness plans in terms of taking the special needs of the aged, the differently abled and the other disadvantaged groups;
- assess sustainability of the community mechanisms created to handle disaster related problems; and
- persisting challenges and gaps.

Approach of the Study

1.15 While designing the methodology, the following factors have been taken into account:

- the central purpose of the thematic evaluation of the livelihood interventions is to examine the appropriateness of the interventions and their long-term implications rather than making a quantitative assessment of their 'net impact' on the households/communities. As such, no effort is made to assess the impact of various sub-project component and activities. However, as part of the evaluation of the strategy of interventions, the emerging outcomes are indicated;
- given the nature of the study and its timeline, it would be impractical to cover all 18 sub-project livelihood interventions implemented to benefit over 6,000 persons in about 90 villages scattered over 3 districts of AP and 4 districts of TN and Puducherry. Therefore, a sample approach has been adopted covering representative sub-projects from different sub-sectors from both Tamil Nadu and Andhra Pradesh. While selecting the sample sub-projects, districts and implementing agencies, the resources allocated and leveraged, and the outreach of sub-projects in terms of beneficiaries covered have been taken into account in consultation with the client; and
- as the disaster preparedness initiative villages and the livelihood intervention villages are not the same in all districts, exclusive CBDP villages were selected from the Prakasam district.

1.16 Thus, the following sample sub-projects have been selected for the study.

Table – 1.4
Sample Sub-Projects : Livelihoods and CBDP

S. No.	Sector/ Sub-Sector	Sub-Project	District	Lead Partner
1.	Agriculture (4)	IPM Groundnut	Prakasam	EFFORT
		SRI Cultivation	Nagapattinam	PEDA
2.	Animal Husbandry (5)	Household Dairy	Prakasam	ASSIST
		Goat-rearing	Cuddalore	REAL
		Poultry-rearing	Cuddalore	MNTN
3.	Salt (2)	Salt Farming	Prakasam	SARDS
4.	Fisheries and Aquaculture (3)	Crab Fattening	Cuddalore	DHM-ROSHINI
		Fisheries Development	Karaikal	VRDP
5.	Micro Enterprise (2)	Zari-Embroidery	Cuddalore	IWDI
6.	Micro Finance (2)	Micro-Finance Development	Nagapattinam	CREATE
7.	CBDP	CBDP	Prakasam	SARDS

Note: Figures in parentheses indicate number of total sub-projects implemented in sector/ sub-sector

Methods

1.17 Given the heterogeneity of project intervention and the vast outreach, a multi-stakeholder participatory approach was adopted to the study. The approach involved:

- desk review of all pre-project and project documents and consultation with the client/ program staff;
- review of project records at partner's office and interaction with the key project implementation staff;
- discussion with other key stakeholders *viz.,* bankers, agriculture extension officers, fisheries department staff, insurance agencies, marketing agencies *etc;*
- focus group discussions with sample beneficiaries in sample villages; and
- individual beneficiary interviews and visits to farm/non-farm livelihood activity sites in the selected villages.

Tools

1.18 The following tools were developed and used for collecting secondary data and primary information from the beneficiary groups, individual beneficiaries and stakeholders.

▪ Desk Review of pre-project studies and project documents	-	Review Checklist with focus on value chain gaps Checklist for CARE-program staff
▪ Implementation Partner Review	-	Checklist for review of project implementation process, Checklist for interaction with key implementation staff
▪ Other key stakeholders	-	Key informant interview guide for bankers and other service providers
▪ Focus group interview	-	Focus group guide for each sub-project
▪ Individual beneficiary Interviews	-	Checklist for each sub-project intervention

1.19 The FGD guides and key informant checklists used are presented in Annex-__.

Process of the Study

1.20 A three-step process was adopted to evaluate each sub-project intervention. First, a detailed review of pre-project and project documents was made. Later, on the basis of the presentation made by the lead partner on the project covering key project objectives, components and activities, implementation process, perceived results and challenges, the team had initial interaction with key project implementation staff. Second, the team visited two to three sample villages to undertake field study. As part of the field study, the study teams conducted focus group discussions with beneficiary groups, CBO leaders and members. In addition, the team had detailed interviews with select groundnut farmers using the specially designed checklists. The team also perused the records of the CBOs. As part of the field study, the team also visited sample sites such as demonstration farms, production centers, net shop, crab fattening sites, fish landing sites, ornamental fish culture centers, goat farms, zari-embroidery unit, dairy households, milk cooperatives and such other units. After the field visit, the team met with key partner staff to seek certain clarifications and share the observations.

Outline of the Report

1.21 The report is presented in three parts. Part-I is a summary report of the livelihoods component of TRP. The summary report is presented separately for each sub-sector, drawing the key findings and observations from the individual sample sub-projects. Part-II presents detailed individual reports for 10 sub-projects. In Part-III, a brief report on CBDP is presented.

Limitations of the Study

1.22 The study is based on a sample of 10 out of 18 livelihood sub-projects implemented by CARE as part of TRP. The sample of the sub-projects was broadly representative of the sectors intervened in by CARE. Even then, each sub-project being distinct in certain respects, the conclusions and implications based on the sample study cannot be generalized beyond a point. However, given the representativeness of the sample, the conclusions and implications would be relevant to most of the sub-projects and the livelihood sector as a whole.

1.23 As the focus of the study is thematic evaluation, no attempt was made to estimate the impact of the sub-project interventions on asset creation, skill formation and income generation. Further, no attempt was made to estimate the quantum of external leverages catalyzed by the projects. However, emerging changes were captured on the basis of interaction with the primary and secondary stakeholders.

1.24 While every care was taken to meet all the partner representatives, the study teams could not interact with some partners who had discontinued. For example, the team was not able to interact with partners who initially promoted crab fattening and micro finance sub-projects. However, this should not affect the major conclusions of the project based on interaction with key beneficiary groups.

Chapter - 2
Livelihood Promotion : Agricultural Sector

Strategy of CARE for Agriculture Sector Projects Implemented

2.1 The Tsunami had an adverse impact on the livelihoods of the small and marginal farmers in the coastal areas of Prakasam and Nagapattinam districts. A good part of the agricultural lands closer to the coast were rendered uncultivable because of the sharp increase in salinity levels. A large number of farm ponds providing irrigation for the small farmers were damaged and the rising saline content in water made irrigation difficult. In coastal areas of Nagapattinam district too, the farmers engaged in paddy cultivation were adversely affected because of the rising salinity of land and ground water. Located in the tail-end of Cauvery irrigation system, most of the areas were not receiving adequate quantity of water for irrigation at the right time. During the rehabilitation phase, CARE provided support for restoration of agriculture land and water bodies affected by the Tsunami under the *'cash for work'* program. It was during this phase of engagement that CARE understood the issues affecting the small and marginal farmers more closely. The most important problems affecting the small and marginal farmers were found to be:

- lack of organization of small and marginal farmers to articulate their demands and seek solutions from public agencies;
- limited access to credit and extension services, in turn limiting the adoption of new agricultural practices by the farmers;
- preference for mono-cropping practices involving excessive use of chemical fertilizers and pesticides even in the face of declining crop yields and rising costs; and
- poor access to equipment and high equipment renting charges.

2.2 On the basis of the first hand knowledge of the problems faced by the small and marginal farmers in both the districts during the rehabilitation phase, CARE provided support for implementation of the following four sub-projects.

- SRI method of rice cultivation and promotion of sustainable agricultural practices;
- vegetable cultivation;
- IPM practices in groundnut cultivation; and
- agriculture service center.

2.3 Though each of these sub-projects had distinct components and activities, certain common interventions were adopted as indicated below:

- organization of farmers into CBOs to facilitate leverage of credit, extension services, seed and fertilizer;
- provision of initial seed capital in the form of revolving fund assistance to CBOs to facilitate revolution of funds and leverage from external institutions;
- promotion of new and sustainable/eco-friendly agricultural practices such as SRI in Nagapattinam;
- promotion of adoptive trials and demonstration of results from new practices in vegetable cultivation and later promotion of IPM practices in groundnut in Prakasam; and

- support for procurement of agricultural equipment such as a tractor, threshing and winnowing equipment for the farmers to use on payment of small rent(agri. service center) and Taiwanese sprayers.

2.4 However, the agricultural sub-projects did not focus adequately on post-production problems of aggregation and marketing. Most of the inputs provided were at the input end of the value chain enabling demonstration of improved cropping practices, besides promoting access to leveraged inputs and services.

Sample Agriculture Sub-Projects

2.5 The agriculture sub-projects of IPM-groundnut (Prakasam) and SRI cultivation (Nagapattinam) were selected for the sample study. Brief details of the two sample sub-projects are presented in the following. Later, key findings and summary observations based on both the sample sub-projects are presented.

Brief Details of Groundnut Sub-Project : Prakasam

2.6 Groundnut cultivation is the second most important livelihood of the Tsunami affected small and marginal farmers in coastal villages of *Kothapatnam* and *Chinnaganjam* mandals. But, the yields from groundnut cultivation had been on a secular decline due to multiple reasons. A study conducted by CARE and its lead partner EFFORT indicated that growing salinity of land due to rising groundwater table, unseasonal rains, poor agricultural practices, excessive use of chemical fertilizers and pesticides, poor land development practices, lack of knowledge on sustainable agricultural practices and inadequate financial, marketing and other support services had contributed to the decline in the yields from the groundnut cultivation. As a result, area under groundnut cultivation had been on the decline even as per acre investment on groundnut cultivation was on the increase. Not only did the livelihoods of the small and marginal farmers suffer, but even those of the agricultural labour employed were affected as a result of the long-term changes in groundnut cultivation.

2.7 CARE with the support of its lead partner EFFORT undertook the task of promoting sustainable practices in groundnut cultivation in 10 villages of *Kothapatnam* and *Chinnaganjam* mandals. All the 10 villages had experienced the impact of Tsunami and the beneficiaries belong to both fishing and other communities. On the basis of land owned and groundnut crop cultivated, 859 farmers, each owning half to one acre of land were identified as the potential beneficiaries of the sub-project, implemented in two phases during Sept.'09 to Aug.'10, at a direct cost of about Rs.9.00 lakh to CARE.

Components and Activities

2.8 The central purpose of the sub-project is to promote sustainable agricultural practices with focus on groundnut crop through an integrated strategy of demonstration plots, IPM and IDM practices. The strategy seeks to adopt the time tested farmers field school approach to bring about the changes in the agricultural practices. More specifically, the objectives of the sub-project were to:

- sensitize the groundnut farmers to the need for adopting sustainable agricultural practices with focus on organic farming;
- enhance the skills and knowledge of farmers in IPM and IDM practices in groundnut cultivation;
- motivate farmers to take up IPM and IDM practices in demo plots;

- promote production of pesticide residue free groundnut in demo units;
- facilitate reduction of cost of cultivation by 7%;
- facilitate promotion of village level and cluster level groundnut grower associations which could promote marketing; and
- promote vermi compost technology.

2.9 In order to accomplish the above objectives, the following activities were implemented under each component.

Table – 2.1
Groundnut Sub-Project : Components and Activities

S. No.	Component	Activity
1.	Sensitisation of farmers	▪ PRA to assess agricultural practices ▪ Village level *Kalajatha* and home visits ▪ Village level mass meetings
2.	Provision of Technical Inputs	▪ Identification of demonstration plots ▪ Provision of agricultural inputs ▪ Technical guidance and support ▪ Regular visits by agricultural experts
3.	Farmer Field Schools (FFS)	▪ Setting up of farmer field schools
4.	Capacity Building	▪ Training on IPM and management of CBOs
5.	Promotion of vermi-compost	▪ Capacity building on vermi-compost technology ▪ Financial support to construct vermi compost units

Brief Details of SRI Sub-Project : Nagapattinam

2.10 Agriculture is the main source of livelihood in the Tharangampadi region of Nagapattinam district, which bore the brunt of the Tsunami. Located in the tail end of the Cauvery river system, paddy is the most important crop cultivated in the region, followed by groundnut and vegetable crops. However, the productivity of the principal crop of paddy, had been on the decline due to various factors. Inadequate and uncertain release of Cauvery water, mono cropping, excessive use of chemical fertilizers and pesticides and neglect of soil-fertility enrichment practices have affected the yields from paddy cultivation, which was the main stay of the economy of the region. Added to these problems was the lack of adequate working capital for the small and marginal farmers who constituted the majority of the farmers. Poor access to institutional credit and inadequate extension service support from the line agencies, were the other problems that affected the livelihoods of the small and marginal farmers. It is in this context that CARE supported implementation of a project to promote sustainable agricultural practices by 312 small and marginal farmers in 8 villages in 5 gram panchayats of *Sembanarkovil* block of Nagapattinam district.

Components and Activities

2.11 The principal purpose of the project is to promote sustainable organic cultivation practices by small and marginal farmers in paddy (System of Rice Intensification), vegetable and groundnut cultivation. More specifically, the objectives of the project are to:

- mobilize, organize and build functionally effective self-managed SHGs and federations of small and marginal farmers;
- encourage adoption of organic methods of cultivation (vermi-compost, organic manures and pesticides) in respect of paddy (SRI), groundnut and vegetables employing the method of demonstration;

- promote access of small and marginal farmers to credit, insurance and technical services from formal institutions (banks, insurance companies, line agencies, TNAU and KVKs); and
- restore traditional small community irrigation infrastructure (ponds, small tanks *etc.*,) to improve supplementary irrigation facility.

2.12 In order to accomplish the above objectives, the following activities were implemented under different components.

Table – 2.2
SRI Sub-Project : Components and Activities, 2007-09

S. No.	Component	Activity
1.	Institutional capacity building	▪ 312 small and marginal farmers organized into 19 SHGs and a federation; members trained ▪
2.	Revolving fund and credit leverage	▪ Revolving fund of Rs.4.5 lakh provided by CARE ▪ Bank credit of Rs.27.42 lakh leveraged under DRI
3.	Technical support, training and exposure visits	▪ 20 week long training provided to 18 farmers through farmers field school approach ▪ Exposure visit of farmers organized to TNAU (Karaikal), KVK (Sikkal) ▪ Training of farmers at federation office in Tranqubar
4.	Promotion of new agricultural technology using field school approach/ demonstrations	▪ Technical support for SRI method, vegetable, bund crop and groundnut cultivation, use of organic manures and pesticides, new seed treatment practices, vermi-compost technology
5.	Crop insurance promotion	▪ Promotion of crop insurance practices by all farmers in respect of all major crops. About 10.6 lakh insurance claims made during first two years
6.	Restoration of community irrigation infrastructure	▪ De-silting and revival of small traditional water bodies such as ponds to improve irrigation potential
7.	Support for procurement of agricultural equipment and seed bank	▪ Federation supported to procure and lease equipment such as seeder, sprayers, oil engines, conoweeder *etc.,*
8.	Support for model farm	▪ Land leased in for setting up a model farm for demonstrations

Key Findings and Observations

Appropriateness of Interventions (TOR-1)

2.13 Both sub-project interventions targeted villages affected by the Tsunami and the villages located very close to the coastline and subject to frequent cyclones. The ground water irrigation potential in both areas is rather limited as the saline content of water increases with depth of the well.

2.14 The sub-projects in the two states targeted small and marginal farmers belonging to economically and socially vulnerable fishermen community, other backward classes and the Scheduled Castes.

2.15 The interventions sought to change deep seated agricultural practices which were found uneconomical and environmentally unsustainable. Productivity of groundnut crop, the principal source of livelihood in Prakasam, had been on the decline due to unsustainable agricultural practices involving use of excessive chemical fertilizers and pesticides and exploitation of ground water. In the Nagapattinam area too, the situation was more or less similar with regard to paddy cultivation. Located in the tail-end region of Cauvery irrigation system, paddy cultivation had become a gamble. In addition, shortage of working capital, lack of exposure to sustainable methods of cultivation and marketing support affected the returns from agriculture in both the areas and contributed to the vulnerability and marginalization of the small and marginal farmers.

2.16 Thus, the sub-projects designed to promote changes in deep-rooted traditional agricultural practices in favour of organic and sustainable methods using the farmer field school approach were appropriate and timely. The Prakasam project rightly focus on promoting use of bio-fertilizers and pesticides, proper soil preparation, seed treatment, use of gypsum and other IPM/IDM practices. The Nagapattinam project too sought to promote paddy cultivation adopting SRI technology and using organic methods. Both the projects rightly emphasized capacity building and training of farmers.

2.17 However, there were a few limitations. The size of the actual pilot in Prakasam was limited to about 50 small and marginal farmers while in the case of Nagapattinam project, the number of farmers involved for a pilot is too large (300+). Both the sub-projects focused only on production end of the value chain to the relative neglect of the post-production aggregation and marketing issues. Even at the production end, no activity was designed to improve access of the small farmers to input markets such as bio-fertilizers and seed. Access to credit remains a constraint in both areas, although some effort was made to provide some additional access to credit to the beneficiaries under SRI project. The duration of the Prakasam sub-project was just about one year, which was sub-optimal to bring about changes in the agricultural practices. In Nagapattinam sub-project, there were a large number of interventions lacking in internal synergy (*e.g.,* promotion of SRI method, organic fertilizers and pesticides, vegetable cultivation, vermi compost, demo-plots, revolving fund support *etc.,*). Further, the demonstrations and institution building should have preceded other activities. Instead of undertaking demonstration on leased in land, farmers could have been provided incentives to adopt new methods that were demonstrated.

Livelihoods, Skills and Income Earning Opportunities Promoted (TOR-2)

2.18 The two sub-projects were designed to change the unsustainable agricultural practices by demonstrating results from new practices for the larger farming community to observe, learn and adopt. The results from the demonstrated practices were encouraging in both the projects. In the groundnut sub-project, an additional income of Rs.4,373/- per acre was reported due to gains in productivity and cost economies. The SRI sub-project results from sample demo-farmers shows a productivity increase of 48% per acre. But it is important to recognize the fact that the adoption rate in Nagapattinam was very low even among the demo-farmers. However, outside the demo-group, the adoption was relatively slow. But, there were clear indications to some practices being adopted by farmers outside the demo-group. These include new practices relating to soil testing, deep-ploughing, use of gypsum, seed treatment and reducing seed rate, transplantation rate, border crops, reducing irrigation intensity, use of bio-fertilizers and pesticides. However, adoption of the practices by a significant proportion of the farming community would require further efforts and some more time for the efforts to produce tangible results. The adoption rate would also depend on the availability of complementary inputs such as availability of organic

fertilizers and pesticides, adequate credit, timely irrigation facility, insurance coverage and markets for organically produced commodities.

Impact on Socio-Economic Vulnerability and Empowerment of Women (TOR-3)

2.19 Both projects were not specifically designed to address social vulnerability. However, if the practices are adopted by larger farming community, they could have some positive impact on the resilience of small and marginal farmers belonging to the SCs, the STs and the fishermen community.

2.20 Both sub-projects are designed to address economic vulnerability of the small and marginal farmers adopting the new practices. Interventions such as promotion of soil and water testing practices, use of gypsum, organic fertilizers and pesticides, reducing irrigation intensity, vermi-compost technology etc., have the potential for reducing the yield related risks in the long run. The initial yield results from the demo plots are a pointer to this. The promotion of crop insurance practices among the small and marginal farmers also has the impact of reducing the risk of farmers to environmental shocks such as cyclones and untimely rains. However, the insurance habit needs to be deepened among the farmers.

Adequacy of Skills to Manage Livelihoods (TOR-4)

2.21 The two sub-projects have contributed significantly to the knowledge and skill base of the farmers who had participated in the training activities including farmer field schools, and exposure visits. Though, the projects have had impact on certain agricultural practices of farmers outside the trained group of farmers, the demo farmers constituted the primary focus. As changing the cultivable practices is a long process of ex-communicating certain practices and nurturing certain others, the existing knowledge and skill base needs to be suitably scaled-up to achieve optimum returns. Further, certain areas which have not had the required impact need to be strengthened. These include:

- promotion of vermi-compost technology;
- IPM practices such as use of *Panchakavyam* to replace pesticides;
- post-harvest storage practices;
- aggregation and marketing of organically cultivated groundnut;
- multiple crop rotation; and
- reducing irrigation intensity.

External Leverages Facilitated (TOR-5)

2.22 Technical services were effectively leveraged under both sub-projects. The services of AP and TN Agricultural Universities and their regional research stations and ICAR funded Krishi Vignan Kendras (KVKs) were effectively leveraged and used for training the small and marginal farmers. Select farmers were taken on exposure visit to the research stations and model farms. The services of the institutions were used for testing soil and water quality for different crops, which had a cascading effect on the larger farming community. The training provided to the farmers for the selection and treatment of seed, optimization of seed use, transplantation, weeding, pesticide management, bund cropping, use of new agricultural implements, IPM technology and deep ploughing practices had a multiplier effect on the community. The linkage provided to the marketing department for assessing soil content of seed was also found to be very useful.

2.23 However, only SRI project was able to leverage bank credit for the farmers with the help of the revolving fund grant provided by CARE. Further, the SRI project was able to mobilize the farmers for crop insurance with subsidized premium for the first two years. Both the sub-projects did not focus on leveraging marketing services. In the event of extension, the sub-projects should focus on leveraging other support services from the

government such as sprinklers, sprayers, vermi-compost units, weeding machines and seeders.

Capacities of CBOs to Support Livelihoods (TOR-8)

2.24 In both cases, the institutional capacities created were inadequate and need to be augmented through systematic capacity building. The loosely knit groundnut farmers associations need to practice democratic and micro finance norms (*e.g.,* conduct of regular meetings, savings and inter-lending, taking up collective issues of aggregation and marketing, procurement of organic fertilizers and pesticides, renting of equipment *etc.,*). While in the case of Nagapattinam, the SHG-federation relationship needs to be clearly defined and nurtured. Further, the corpus of the federation which stood depleted should be rebuilt such that it can continue to undertake certain common activities. Promoting inter-lending practices among the SHGs could also be facilitated.

Challenges Ahead (TOR-9)

2.25 Risk of discontinuation of the new practices looms large over both the sub-projects. In the absence of continued input and technical support from the lead partners, some of the small and marginal farmers in the demo group may discontinue some of the practices. Further, new farmers may not take to the new practices, in the absence of a support organization. The fact that there are no developed markets for some of the critical inputs such as organic fertilizers and pesticides and organically produced commodities may affect the practices.

2.26 Further, uncertainty about release of Cauvery water for irrigation in Nagapattinam district could pose a threat to the continuity of the practices. Problems associated with leveling of land, sharing of water for vegetable cultivation and reduced financial capacity of the federation to extend loans (due to depleted corpus) could affect the new practices in the Nagapattinam sub-project area.

2.27 Inertia and resistance to change in both the areas is the most formidable challenge. The tendency to use chemical fertilizers and pesticides which have a ready market and the application of which does not require a lot of labour, is a real deterrent to change. Further, as all the demo farmers had tiny holdings, any crop failure or yield reduction was considered risky. There is no element in the strategy to offset the loss due to yield reduction if any resulting from change in the cultivable practices. Finally, the weak institutional capacity to undertake common activities for the farmers is another potential hindrance to the sub-projects.

Chapter - 3
Livelihood Promotion: Animal Husbandry

Introduction

3.1 The Tsunami had virtually devastated the livelihoods of the communities in parts of coastal Southern Andhra Pradesh and Tamil Nadu. The traditional livelihoods suffered major erosion. Even after the restoration of fishing equipment, the livelihoods of the fishermen community did not exhibit any significant improvement because of the drastic decline in the catch. The Tsunami had also devastated small alternate livelihoods that the communities had. The tiny land holdings of some households were rendered uncultivable. The wage labour available too declined for the women of the community, while the fishermen were generally reluctant to take up wage labour in the non-farm sector particularly in Tamil Nadu. Though dairy and other livestock rearing activities had potential, the livestock ownership was very limited and the enabling conditions not conducive. Limited access to institutional credit, low awareness on animal management practices, lack of milk procurement and marketing infrastructure and limited fodder availability constrained development of household dairy and other livestock based livelihoods in the coastal villages. Therefore, based on the value chain gaps, the CARE strategy for promotion of livestock based livelihoods focused on:

- community mobilization and institution building;
- support for purchase of livestock assets through direct support or revolving fund assistance or credit leverage;
- support for filling in all gaps in the value chain viz., fodder cultivation, veterinary care, feed and marketing tie-up;
- capacity building on animal care and feeding practices;
- community based veterinary care support through para-vets; and
- facilitating linkage with existing markets and/or support for exploration of new markets.

3.2 Unlike agriculture sector interventions which focused on production end of the value chain, animal husbandry interventions focused on both production and post-production value chain gaps including marketing. Five sub-projects were implemented under the animal husbandry sector, of which three sub-projects viz., household dairy sub-project implemented in partnership with ASSIST in Prakasam district, community based goat-rearing sub-project implemented by MNTL and poultry-rearing sub-project implemented by REAL in Cuddalore district were sampled for intensive study. Brief details of the sub-projects are furnished in the following.

Brief Details of Sample Sub-Projects

Household Dairy Sub-Project – Prakasam (ASSIST)

3.3 The central purpose of the sub-project is to promote household dairy as a sustainable complementary livelihood in 24 Tsunami affected fishermen villages in Prakasam district during Aug.'07 to Aug.'10. More specifically, the objectives of the sub-project include:

- creation of an alternative livelihood option of dairy for the fishermen communities experiencing decline in income due to diminishing fish catch;

- capacity and skill-building of the community to manage household dairy profitably and sustainably;
- promotion of CBOs such as village cooperatives to overcome finance, marketing and other service related constraints; and
- facilitating access of the community to veterinary care and other services provided by the line departments.

3.4 The activities undertaken as part of the project fall under two components named as *'software'* and *'hardware'* villages.

Table – 3.1
Household Dairy Sub-Project : Components and Activities

S. No.	Component	Activity	Number Trained/ Assisted
1.	Software (20 Villages)	Training of para-livestock workers	48
		Training on animal management practices	2016
		Training on community based monitoring	220
		Training on self-management of milk co-operatives	267
		Exposure visits for cross-learning	94
2.	Hardware (4 Villages)	Direct project financial support for purchase of milch animals	135
		Insurance with 50% subsidy from government	135
		Purchase of feed with 50% subsidy from co-operative dairy and mineral mixture	135
		Leasing in of land for fodder development (in acres)	4
		Indirect financial support for purchase of milch animals	183
		Support for institutional credit leverage for purchase of milch animals (Total Credit Leveraged – Rs.22.5 lakhs)	151
		Support for promotion of green fodder (acres)	58
		Construction of animal sheds with community support	170
		Veterinary camps organized	64
		Promotion of milk co-operative societies	4

Source: Project Records of ASSIST

Brief Details of Goat-Rearing Sub-Project – Cuddalore (REAL)

3.5 A goat-rearing sub-project was promoted by CARE in partnership with REAL in six Tsunami affected villages of Thiyagavalli panchayat in Kurinjipadi block of Cuddalore district during Aug.'07 to Sept.'07 at a total cost of Rs.25.10 lakh. Primarily designed to promote the livelihoods of about 400 marginalized and vulnerable households belonging to the Scheduled Castes and Backward Class communities, the sub-project sought to address value chain gaps at both the production and marketing ends. Besides, the sub-project attempted to promote a unique livestock asset sharing practice within the beneficiary community which could have a cascading effect on the livelihoods. More specifically, the objectives of the sub-project were to:

- provide additional income earning opportunity to goat-rearing for the vulnerable communities;
- fill-in all gaps at the production (feed, fodder, veterinary care, breed upgradation) and marketing ends of the value chain and ensure quality production of goats;
- create and sustain a community based system of passing on goat kids from the first line beneficiaries (200) to the second line beneficiaries (200);
- build capacities of the beneficiaries to manage livelihood centered CBOs; and
- empower women through greater access to livelihood assets and income and enhanced role in decision-making.

3.6 An innovative feature central to the project was the transfer of female goat kids by the first line beneficiaries (200) to the second line beneficiaries (200). The activities undertaken under different components of the sub-project are briefly summarized in *Table-3.2*.

Table – 3.2
Goat Sub-Project : Components and Activities

S. No.	Component	Activity	Number Trained/Assisted
1.	Institution Building	Promotion of CIGs of 400 beneficiaries	24
		Promotion of federation	1
		Conversion of CIGs into SHGs during second year	24
		Registration of federation as a society in the third year	1
2.	Capacity Building and Training	CIG functioning	200
		Federation strengthening	
		Training in goat bank concept	200
		Training in goat management and fodder cultivation	
		Training of animators and representatives in transformation of CIGs into SHGs	
		Community para-vet training for one week	12
		Training in goat management and marketing	350
		Management training for board members	24
		Intensive training for para-vets	12
		Traditional goat management practices	
		Exposure visit to functionally effective federations and Tellicherry goat farms	18
3.	Support for Purchase of Goats	Support for purchase of goats for 200 first line beneficiaries	800 F 200 M
		Support for purchase of male goats for second line beneficiaries	200 M
		Support for purchase of 12 male Tellicherry goats for breed upgradation	
4.	Support for Other Activities	Construction of goat bank office	
		Support for promotion of vermi-compost unit adjacent to the goat bank office	
		Grant for revolving fund of SHGs (Rs.1.2 lakh)	
		Support for setting up of feed shops	3
		Support for beneficiaries for raising of green fodder	10
5.	Goat Multipli-cation	Total goats procured	1,200
		Increase in goat population (net of mortality)	6,500
		Total goat population at the end of third year (including 2,700 kids)	7,700

6.	Market Support	Support for procurement of weighing scales	
7.	Production of Vermi-Compost	Production of vermi-compost from dung (in kg)	750
8.	Insurance	No. of goats insured (first year)	650
		No. of redemption claims made	nil

Note: M-Male; F-Female
Source: Fact Sheet on Livelihoods Project, Cuddalore CARE District Office

Brief Details of Poultry Sub-Project – Cuddalore (MNTN)

3.7 A community managed poultry farming sub-project was promoted by CARE in partnership with MNTN in four villages (Kalaingnar Nagar, MGR Nagar, Killai Thaikkal and Ponnanthittu) of Killai town panchayat of Cuddalore district at a cost of Rs.14.26 lakh. Primarily designed to promote the livelihoods of the *Irulars,* an aboriginal tribe inhabiting the plain areas of the district, the sub-project was implemented during Nov.'07 to Apr.'10, for the benefit of 72 women members of 6 SHGs brought into a federation. The *Irulars* were engaged in the past in protecting the paddy crop from the rat menace, gradually shifted to foraying in backwaters for fish and prawns and as farm servants and agricultural labour. The fishermen community does not allow them to enter the sea for fishing. As a result, the *Irulars* came to depend on marginalized and declining occupations. The Tsunami rendered them much more vulnerable by affecting the potential for fishing in backwaters. Known for their loyalty to their masters, the *Irulars* were not given to community living and the condition of their individual housing was very poor. On the other hand, the *Irulars* were subject to exploitation by the middlemen financier-traders in terms of charging high interest rates on the loans advanced and offering lower prices for the fish sold by them.

3.8 Thus, CARE took up the task of promoting the well-being of the *Irular* community by first promoting permanent housing and later by diversifying their livelihoods through poultry farming. As part of the housing project, 30 *Irular* households were supported for backyard poultry with encouraging results. Recognizing the potential of the *Irular* and a few most backward households, CARE catalyzed development of commercial poultry farming with the support of Government of Tamil Nadu (ADB-TEAP and JFPR). The goal of the sub-project was to empower the *Irular* and other most backward communities by involving them in broiler poultry rearing as an additional but sustainable livelihood economic activity. More particularly, the objectives of the sub-project include:

- to provide sustained income earning opportunities in commercial broiler rearing by intervening in both the production and marketing components of the value chain; and
- to promote the enterprise managing capabilities among the vulnerable women.

3.9 A four-pronged strategy was adopted by the sub-project involving:

- development of infrastructure for broiler-rearing;
- facilitating tie-up with key market players for supply of chicks, feed, veterinary services, insurance services and buy back;
- training the beneficiaries in poultry-rearing and enterprise management; and
- institution building for enterprise management and financial linkage with the banks.

3.10 The activities undertaken under different components of the sub-projects are summarized in Annex Table-_.

Key Findings and Observations

Appropriateness of Interventions (TOR-1)

3.11 The three sample sub-projects examined clearly reveals that the interventions were appropriate to the regions and the social and occupational groups targeted. All the sub-projects targeted Tsunami affected vulnerable households from fishermen community, the Scheduled Castes (SCs) and the Scheduled Tribes (STs). All the interventions sought to diversify the livelihoods of the targeted communities away from their traditional occupations. Thus, fishermen households were introduced to household dairy, the landless SCs to goat-rearing and the asset less STs (Irulars) to poultry-rearing. All the three activities are women-friendly and do not call for high level of skills. The interventions are potentially women empowering. More significantly, all the three sub-project interventions are closely linked to the existing markets and are designed to make the markets work for the poor. Thus, the household dairy sub-project (ASSIST) is designed to take advantage of the vibrant competitive market for milk in Prakasam district of AP. The community based goat-rearing project in Cuddalore district is also conceived to take advantage of the expanding market for meat. The poultry project is another classical example of a market linked initiative for the poor.

3.12 The beneficiary coverage of the sub-projects was optimal to reap economies of scale. The interventions had a built in cascading effect. Though the direct financial support is limited to beneficiaries in four core villages (hardware), capacity building, training and technology diffusion activities were taken up in 16 villages. Similarly, in the goat sub-project there was an inbuilt strategy to reach out to a larger number of beneficiaries through institution of a strategy involving voluntary transfer of goat kids from the first line beneficiaries to others. Good early results from poultry could result in a larger number of households from the vulnerable communities taking up the activity.

3.13 The three sub-projects addressed critical gaps in the value chain reflecting both the failure of market and the government for the poor. The activities seek to address constraints associated with credit, insurance, veterinary services, animal management capacities, feed and fodder issues and infrastructure. The interventions do not focus on post-production activities which are fully developed and market driven. This is true of poultry sub-project as well. However, in respect of goat sub-project, there is scope for intervening in market aggregation. Finally, the interventional activities are designed to promote convergence with the line departments (*e.g.,* Agriculture Department, Animal Husbandry Department, KVKs, Agriculture University *etc.,*).

Livelihoods, Skills and Income Earning Opportunities Promoted (TOR-2)

3.14 The animal husbandry sector interventions were productive in terms of enlarging the individual asset and skill base of the households. There was a steep increase in the number of milch animals from 31 to 929 in the dairy villages as a result of the intervention. The number of goats, both male and female, also registered an exponential growth in the goat sub-project villages under Thiyagavalli panchayat. In respect of poultry sub-project, there was no change in the household asset base, but the community infrastructure (poultry sheds on land leased in for 10 years) was created.

3.15 In addition, all the three sub-projects promoted the skills of the community around livestock asset management (livestock health, feed and fodder practices, veterinary care, vermi-compost *etc.,*). Both dairy and goat sub-projects also resulted in the creation of a

cadre of community based para-vets/livestock workers which would have a long term positive effect on the livelihoods. The early success of the sub-projects had certain externalities. The non-target households were also found adopting some of the new practices and getting benefited from training and other services provided at the community level.

3.16 The enlarged asset and skill base of the beneficiary households had its impact on their incomes. A majority of the households started receiving incomes from the new livelihoods, which were significantly higher than their incomes from previous occupations (agricultural labour *etc.,*). While on the average, one animal household dairy units reported a net income of Rs.10,500/- per calving, the households engaged in goat-rearing realized an additional income of Rs.3,500/- on the average. The Irulars engaged in poultry rearing reported Rs.3,000/- to Rs.5,000/- per cycle of rearing (35 to 40 days for 4 to 6 persons). These incomes are most likely to increase with the scale of the activity and experience. What is valued more by the households is the regularity of income from the activity on which they have larger control. Further, the livestock assets are near-liquid and can be sold to meet any family emergency. Finally, the sub-projects also had certain secondary benefits in the form of improving the domestic consumption of milk and meat.

Impact on Socio-Economic Vulnerability and Empowerment of Women (TOR-3)

3.17 The three sub-projects have contributed to the reduction of economic and occupational vulnerability of the fishermen community, the SCs and the STs. The addition of new and more productive livelihoods have reduced the vulnerability and uncertainty associated with fishing (fishermen), agriculture labour (the SCs) and foraying in backwaters (the STs). The sub-projects have contributed to a decline in the seasonal unemployment and distress migration among target communities. Further, insurance cover provided to the new assets, at least initially, mitigated the risks associated with the new livelihoods.

3.18 The sub-projects have contributed to a reduction in the social vulnerability of the Dalits and the Irular tribe. Organization of women from three different communities into SHGs and a federation around common livelihoods have minimized the inter-community frictions noticed in the past. All the three sub-projects were women empowering. The assets provided and the income generated by them enlarged the intra-household economic space for the women. Interviews with sample beneficiaries suggest that they were able to use a portion of the income for their personal requirements.

3.19 The sub-project studies, however, points to a problem. The milch animals as well as goats were not being regularly insured to protect against loss of mortality and theft. The poultry sheds too were not insured against natural calamities and fire accidents. Insurance of the new livelihood assets should receive top most priority, failing which the households could be exposed to new forms of vulnerability. Further, in order to protect the households from idiosyncratic risks, they should be covered under micro insurance.

Adequacy of Skills to Manage Livelihoods (TOR-4)

3.20 The average size of the household dairy and goat units was less than optimal. The skill base currently available with the beneficiary community is by and large adequate to manage the dairy and goat units if they are scaled-up to an optimum level. As pointed out earlier, the households were adequately trained in management of livestock health, feed and fodder practices, accessing veterinary care and milking. In respect of dairy sub-project, however, the focus of training was on 'hardware' villages. Therefore, the training needs of

the 'software' villages need to be assessed and provided for to optimize the returns from dairy activity. Further, the communities should retain the para-vets trained under the sub-projects, by making payment of necessary service charges. Breed upgradation is another area which requires improvement in both dairy and goat sub-project villages. In respect of poultry-rearing, the Irulars need additional support for managing their negotiations with the poultry companies. The federation needs to be strengthened to provide necessary support to the Irular households in dealing with the poultry companies.

External Leverages Facilitated (TOR-5)

3.21 All the three sub-projects facilitated leverage of bank credit. While dairy sub-project was the most successful in this regard with a total credit leverage of Rs.22.5 lakh (156 women), poultry sub-project was able to leverage an amount of Rs.6.00 lakh. The goat sub-project on the other hand facilitated credit-linkage of 29 SHGs for a still smaller amount. There was need for leveraging additional bank credit through the SHG route to facilitate scaling-up of the activities. This would in turn require functionally efficient SHGs. Further, apart from substantial direct support by CARE to the poultry sub-project, an amount of Rs.21.73 lakh was mobilized from ADB (TEAP and JFPR) through GOTN. This was a significant leverage which facilitated construction of poultry sheds.

3.22 In respect of insurance, however, the interventions were not very successful. The dairy animals were not insured in the second and third phases. This was true of the goats as well. The poultry groups were not able to facilitate insurance coverage of poultry sheds, although premium was collected in held in the federation account. Promoting asset insurance should receive top priority as that would minimize the risk of asset loss to the beneficiaries.

3.23 All the three sub-projects were successful in accessing services from the Animal Husbandry Departments of GOAP, GOTN and GOP, veterinary colleges (e.g., Rajiv Gandhi Veterinary College, Puducherry), private goat farms *(Vijay Goat Farm, Ennayiram and Seenu Farm, Kongrampatti, Bahour)* and private poultry networks (Suguna/Guhan/ Sivasakthi).

3.24 With regard to marketing services, both dairy and poultry sub-projects were successful in facilitating effective tie-ups/buyback arrangements. While the dairy sub-project linked the beneficiaries to the Ongole government dairy and its procurement network, the poultry groups were linked to the big poultry networks (Suguna/ Guhan/ Sivasakthi). The poultry groups were also facilitated access to the services of district poultry association. The good offices of the District Collector, Cuddalore, were used to facilitate land lease for 10 years. Thus, all the three projects were successful in catalyzing sustained access to services from the line departments as well as market players.

Capacities of CBOs to Support Livelihoods (TOR-8)

3.25 In addition to the existing multitude of SHGs and village organizations (VOs), dairy cooperatives were promoted in four 'hardware' villages of the sub-project in Prakasam district. The institution of Village Development Society (VDS) comprising traditional leaders from the fishermen community and the beneficiaries was used by the project to provide direct financial support (?) and later manage the revolving fund (?). While the cooperative societies promoted had the required staff capacity to manage procurement of milk, supply of feed, fodder and medicines and veterinary services, the VDSs had relatively limited capacities. While VDS was the appropriate institution for receiving, distributing and revolving the fund, it had no capacity to leverage external funds. The ability of the VDS to maintain its

books of accounts was also limited. In the absence of lead partner staff, the VDS would not be able to maintain the books of accounts. While the VDS would continue to be relevant to recover and revolve the fund provided, it is not a suitable institution for accessing bank funds. In the existing policy environment, only SHGs and VOs can access funds from the banks. In view of this constraint, SHGs in the project villages need to be strengthened to enable them to access larger bank funds, while the cooperatives can continue to play their present role.

3.26 In respect of goat sub-project, SHGs and an activity federation were promoted simultaneously. The federation was promoted upfront to facilitate transfer of project funds, and therefore, has not evolved from the SHGs. The link between the two institutions is very weak and the federation directly advances loans to its members. The capacity of the federation is very limited and is not involved in marketing or post-rearing activities.

3.27 The capacities of six SHGs and the federation promoted around poultry-rearing also had limited capacities. They do not appear to be capable of managing negotiations with the private poultry farms, in the absence of support from lead partner and CARE. Thus, overall, the capacities of the institutions promoted are limited and unless nurtured and strengthened. Further, they would not be able to manage the collective activities sustainably in the future.

Challenges Ahead (TOR-9)

3.28 There were a few common problems affecting the three sub-projects.

Optimizing Size of Units

3.29 First, the average size of dairy and goat units was sub-optimal and need to be scaled-up to reap economies. Sub-optimal units promote sale of livestock assets particularly, during the dry period. Scaling-up would in turn require additional credit support. The poultry infrastructure on the other hand could be more effectively used to avoid excess capacity.

Insurance Coverage of Assets

3.30 Second, promoting insurance coverage of all livestock assets and poultry sheds is an important step required to minimize loss due to unexpected events. Sustained insurance education could motivate the beneficiaries to prefer insurance cover for the assets.

Loan Recovery

3.31 Third, recovering the loans advanced from the project fund for further lending among others is another step required to improve the impact of the sub-projects. This would in turn require institution of appropriate recovery mechanisms in the federation and SHGs. Closely related to this issue is the promotion of SHG-bank linkage which requires both capacity building of SHGs and advocacy with the bankers.

Para-Livestock Workers

3.32 Fourth, retaining the community based cadre of para-livestock workers is another important challenge for the dairy and goat sub-projects as there was considerable reluctance on the part of the community to pay for their services. The federation could take

over the responsibility of maintaining the trained para-livestock workers in the community by paying suitable service fee.

Breed Upgradation

3.33 Fifth, upgrading the breed for productivity enhancement is another challenge for both the dairy and the goat sub-projects. The high cost of the animal as well as maintenance deters the households from going in for high graded Murrah, although the potential returns are substantially higher from the graded Murrah. With additional financial leverage and continued technical support, at least some households could go in for these high value buffaloes. Similarly, beneficiaries of the goat project should be motivated to procure Thellicherry variety of male goats to improve the breed. Here again the federation has an important role to play.

Fodder Supply

3.34 Sixth, shortage of fodder could affect dairy as well as poultry. The initiatives taken to promote fodder cultivation in both the projects were not very successful. This is another area which needs to be addressed to sustain the benefits from the sub-project.

Surplus Sharing Mechanism

3.35 Further, in respect of poultry where the rearing-activity is collectively undertaken, it is essential to institute profit/surplus sharing mechanisms to avoid misuse or misappropriation of funds.

Chapter - 4
Livelihood Promotion : Fisheries and Aquaculture

Introduction

4.1 The Tsunami affected the livelihoods of the communities engaged in small scale fishing activity severely. The fishermen lost a good part of their fishing equipment. The Tsunami had also exasperated the declining fish resource base. As fishing was the primary livelihood for most of the coastal communities, there was an urgent need to address this issue by diversifying the livelihood base within that sector. Further, the communities had very limited access to inputs within the production and post-harvest sectors. Besides, value added activities were nearly non-existent. Lack of effective organization to articulate their issues and undertake financial and marketing intermediation was another problem facing the fishermen community. More significantly, the livelihoods of the fisherwomen engaged in fish vending and processing were getting marginalized due to declining catch, shortage of working capital and inadequate technical support for post-harvest activities.

4.2 Post-Tsunami, there was no significant support from any agency for promoting involvement of fisherwomen either in the production or post-harvest activities. The situation of women from the Irular and other backward communities engaged in fishing in backwaters with very primitive technology was even more distressing. While a good deal of financial and technical support was provided to production end of the fisheries sector, no significant support was provided to promote involvement of the women either in production/harvest or post-production activities.

4.3 Given this scenario, CARE designed a strategy to move the women from post-harvest and low return activities to production/harvest activities. The mud crab fattening activity promoted illustrates this strategy. However, realizing that the potential for such activities would be limited, CARE adopted a strategy to provide micro-credit to women for fish vending, as well as training for women to undertake value added activities, organize the fishermen community around input-supply end through interventions such as a 'net shop', a boat and engine repair unit and a spare part unit. Further, to strengthen and diversify the involvement of the women in the post-harvest activities, a strategy was devised to support women for improved rack drying of fish, fish pickle making and other value added activities. In addition, ornamental fish rearing was promoted to diversify the engagement of the women in fishing related activities. However, the strategy was rather limiting in the sense that it does not envisage any intervention at the marketing end which is actually critical for fisheries sector experiencing uncertain harvest and associated price fluctuations.

4.4 Three sub-projects were implemented under this sector and of which two were selected for the sample study *viz.,* crab fattening sub-project at Killai, Cuddalore implemented by DHM-ROSHINI and post-harvest fisheries implemented by VRDS at Karaikal.

Brief Details of Sample Sub-Projects

Brief Details of Crab Fattening Sub-Project

4.5 The ***'crab fattening'*** sub-project was intended to promote the livelihoods of 104 marginalized women belonging to the fishing community, the SCs and the *Irula* STs in four villages of Killai Town Panchayat in Cuddalore district. The four villages were severely affected by the Tsunami and the households were relocated in relatively safe places, not far from the coast. While the fisherwomen were primarily dependent on fish vending and

processing of dry fish for the livelihoods, the Irula women were involved in catching fish and prawn in the back waters using very primitive technology. The returns from the livelihoods were very meager, and as a result, the women were heavily dependent on their men folk for their economic requirements.

4.6 The backwaters of Killai was a natural resource that was considered suitable for starting crab fattening activity and there by moving the women from the less remunerative post-harvest activity to more lucrative production processes. In addition to the economic betterment, the intervention was also expected to promote harmony among the social groups of fishing community, the Irulars and the SCs. The fishing community considers fishing including foraying in backwaters as their social monopoly and are not generally favorably disposed to the Irulars getting into any form of fishing. The intervention was thus seen as a bridge to build livelihood harmony between the fisher folk and the Irulars. Further, by moving the disadvantaged women to the production activity, the sub-project also aimed at enabling the women to break the barriers imposed by the gender construct, particularly, in the fishermen community. Thus, the crab fattening sub-project activity through specially erected PEN structures in backwaters of Killai aimed at both economic and social empowerment of marginalized women. Promoted a total cost of Rs.19.14 lakh to CARE, the three year sub-project attracted ADB funding of Rs.8.00 lakh coupled with a bank loan for a similar amount.

4.7 The specific objectives of the sub-project were to:

- strengthen the livelihoods of economically and socially marginalized women through environmental free aquaculture production;
- build related capacities of the women to manage the activity in a sustainable manner (from sourcing of inputs to marketing of live crab); and to
- build and strengthen a community based institution which would eventually promote the interest of the women engaged in fisheries sector.

Activities Undertaken

4.8 As part of the sub-project, CARE undertook the following activities:

- mobilization and organization of women into 7 SHGs and later the SHGs into a federation around crab fattening activity;
- training of members in group dynamics, management of federation and crab culture as well as guided exposure visits;
- leveraging technical support from CIBA and local NGO partners to build crab fattening skills among the women;
- facilitating SHG and federation credit linkage with the primary co-operative bank;
- facilitating leverage of ADB (TEAP) funding support in the form of grant through GOTN – Directorate of Town Panchayat for the 7 SHGs;
- investing in PEN infrastructure and facilitating insurance cover for the structures;
- handholding support for crab fattening – letting in juvenile crab, feeding, harvesting and instituting security system;
- facilitating support for procurement of soft shell crab and sale of fattened crab through buy back arrangements;
- monitoring procurement, production and sale activities; and
- facilitating liaison with other stakeholders such as the ADB, GOTN, CIBA, Forest Department, AFI and district government.

4.9 A total of 17 PEN structures (43,200 sq.ft.) were set up for the benefit of 7 SHGs (9 PENS for Irulars, 4 for fisher women and 4 for others). Each PEN structure could be used for fattening 215 to 270 crabs of XL size and 500 crabs of small and medium size per cycle. Each PEN structure can complete ___ cycles per year. On the average, each SHG had access to 2 PEN structures.

Brief Details of Fisheries Sub-Project

4.10 The fishermen community along the Karaikal coast suffered from multiple disabilities following the Tsunami. The community was vastly disorganized and did not have a functionally effective collective forum to articulate their genuine demands for a better deal from the line agencies and formal financial and marketing institutions. In the absence of adequate support from the formal institutions, the fishermen were subject to multiple types of exploitation. The big trader-financiers, often from the same community exploited them by advancing high cost tied loans with buyback arrangements. Apart from the usurious practices, the trader-middlemen were leasing out fishing equipment at exorbitant rates and had a disproportionate share in the catch. The small fishermen with limited equipment found it difficult to mobilize credit resources for replacement/repair maintenance. On top of it, there had been a decline in the fish catch over the years due to larger environmental factors such as the decline in the mangroves and deep sea fishing. The price uncertainty was another factor affecting the livelihoods of the fishermen community. Even when faced with multiple problems, the fishermen community was reluctant to adopt new livelihoods or diversify the existing fishing centered livelihoods.

4.11 It is in this context that CARE along with its local partner VRDP undertook multiple but inter-related interventions to promote the livelihoods of the fishermen. The central purpose of the project is to promote, diversify and sustain the livelihoods of the fishermen community in 12 villages of Karaikal district of Puducherry. The interventions targeting 735 direct beneficiaries absorbed a total funding support of Rs.21.19 lakh from CARE over the three year period, at an average cost of Rs.2,882/- per target beneficiary (including NGO cost). The sub-project was expected to result in improved incomes for the target community, improved credit leverage from formal institutions, lower dependence on traditional trader-financiers for credit, equipment and repairs, diversified livelihoods and above all a sustainable federation providing multiple services to the fishermen community such as aggregation and sale of catch and advocacy for better support from formal institutions. The activities undertaken as part of the sub-project are furnished in *Table-4.1*.

Table – 4.1
Fisheries Development Sub-Project : Components and Activities

S. No.	Component	Activity	Indicator
1.	Institution and Human Capital Building	Promotion of men and women SHGs	384 members mobilized into 5 men SHGs and 20 women SHGs
		Promotion and registration of mixed federation	"Karaikal Oruginantha Meenavar Koottamaipu" registered under Trust Act with a 24 member executive covering 548 members
		Training of women members in fish-rearing	100 members
		Training of women members in ornamental fish culture and breeding	25 members
		Training of women in waste dry fish and fodder making	25 members
		Alternate livelihood training for vulnerable women	25 members
		Training of youth in boat repair and engine work	5 men
		Capacity building of federation staff	57 members
2.	Support for Working Capital	Women engaged in post fishing activities provided working capital loan of Rs.2,000/- each	100 women fish vendors
3.	Support for Other Activities of the Federation	***Net shop*** established under the federation with hand holding support from the lead partner	7 types of nets were procured and sold on 50% credit basis, benefiting 3,476 members; A total sale value of Rs.11.68 lakh reported. 152 members provided credit for purchase of nets
		Use of **GPS** promoted by fishermen	10 GPS instruments distributed by the federation
		Spare part units established within close proximity of net shop	Repairs undertaken for 14 boats and spare parts were Rs.58,860/- were supplied
		Inland fishing promoted	In two ponds in Kalikuppam and Pattinacherry
		Ornamental fish breeding and sale unit	An SHG started ornamental fish rearing unit with project support
		Village marketing cooperative established at Vanjure	12 member cooperative unit established with project support; undertaking aggregation and marketing
4.	Leverage	Funds leveraged from VRDP-rural bank and federation	An amount of Rs.7.20 lakh was leveraged by SHGs from lead partner run micro-finance

S. No.	Component	Activity	Indicator
			organization.

Key Findings and Observations

Appropriateness of Interventions (TOR-1)

4.12 The crab fattening and fisheries sub-projects were implemented in the Tsunami affected villages *viz.,* villages around Parangipettai and Karaikal regions. Both the sub-projects target most vulnerable communities. The crab fattening targeted the marginalized Irular women and women from fishing community. While the fisheries sub-project was exclusively meant for both fishermen and women from ___ villages of Karaikal region. The crab fattening sub-project sought to move the marginalized women to the core aquaculture (Crab fattening) activity, the fisheries sub-project sought to address key value chain gaps affecting the livelihoods of the fishermen at both ends of the value chain.

4.13 The selection of activities for the two sub-projects was also appropriate. Crab fattening was the only activity that the women with low level of skills and experience could take up in the crab value chain. Given the policy regime, the scale of the activity was also appropriate, as a higher scale could not have been allowed in the backwaters of Killai.

4.14 In respect of fisheries sub-project, however, a wide range of activities were undertaken to address value chain gaps such as a net shop, a sub-net shop, a boat and engine repair unit, training of youth in boat and engine repair unit, working capital support for fish vending and processing of waste fish, ornamental fish rearing, cooperative society for fish sale, supply of GPS, inland fishing *etc*. However, multiple activities undertaken as part of the fisheries sub-project, though inter-connected, could not generate the required synergy in the actual implementation.

Livelihoods, Skills and Income Earning Opportunities Promoted (TOR-2)

4.15 For the women from both the Irular and fishing community, the crab fattening intervention constitutes a certain deepening of their engagement in the aquaculture value chain. Though crab fattening is an altogether new activity to all the women, the Irulars were engaged in the past in the collection of wild crab juvenile and fish in the backwaters, while the women from the fishing community on the other hand, were engaged in post-harvest activities. Both the groups are now moved to the core production activity.

4.16 The training and cross-learning opportunities provided and the actual involvement in the fattening activity had contributed to the skill base of the women. Their current engagement in fattening is potentially lucrative. However, the sustained returns from the activity would depend on the continued availability of water crab and the ability of the groups to overcome the yield and price related risks and uncertainties. The intervention has benefited all women equally, although in a relative sense, the Irular women are relatively better off than others.

4.17 Though the sub-project interventions were identified to address the critical value chain gaps, the results emerging, however, do not indicate any significant sustainable impact on the livelihoods and skills of the target community. Their involvement in fishing has not deepened significantly as a result of the intervention, nor have they moved to a more remunerative part of the value chain. Thus, the interest free loans advanced to the members for purchase of nets and equipment and fish vending had a limited impact on easing the credit constraint. The ornamental fish-rearing unit had an insignificant impact in terms of the number of women involved and benefited. The engine repair and maintenance unit, the sub net shops, the inland fishing and the supply of GPS were also insignificant in terms of their livelihood impact. However, the training provided for boat and engine repair and

maintenance and ornamental fish-rearing and marketing had some impact on the skills of a small number of the beneficiaries. The recently promoted cooperative fish sale unit could eventually result in improved livelihoods, if the intervention is scaled up.

Impact on Socio-Economic Vulnerability and Empowerment of Women (TOR-3)

4.18 Both the sub-projects attempted to reduce social and economic vulnerability of women. The crab sub-project was successful in reducing the discrimination against Irula women through changes brought about in the perceptions of women from other communities and in the CBO governance structures. A harmonious relationship has been built between the Irula and the fisherwomen around common livelihood of crab fattening. Both are members of the same federation and pursue common livelihood. There is a perceptible change in the attitudes of fisherwomen towards the Irular tribe. It is gradually spreading to the community level resulting in lesser occupational frictions between the fishermen and the Irulars. For the fisherwomen, the crab fattening activity has opened up a new livelihood activity and has reduced their dependence on the earnings of the male members.

4.19 The sub-projects have reduced the economic vulnerability of the two communities, *viz.,* Irular and fishermen. The Irular women who were engaged as domestic servants and farm labour for low wages earlier, have now moved to a new livelihood activity fetching higher income. Further, there is a decline in the distress migration among the Irular households engaged in crab fattening. Both the sub-projects have reduced the economic dependence of fisherwomen on male household members by contributing to their individual earnings. The easing of working capital constraint through subsidized loans appears to have reduced the economic vulnerability of the fishermen households.

Adequacy of Skills to Manage Livelihoods (TOR-4)

4.20 The skill base that is currently available with the beneficiaries is adequate to manage crab fattening activity at an optimum level, provided other complementary inputs such as working capital and water crab are available to optimize the activity. However, the fisherwomen need to improve their skills in letting in and harvesting crab. Further, the functional effectiveness of SHGs and federation needs to be improved.

4.21 In respect of fisheries sub-project, the skill base available for the traditional fishermen households is adequate to manage fishing activity. However, for boat and engine repairs, the fishermen need to depend on the trained mechanics. The training provided for a small number of youth appeared to be inadequate to provide repair and maintenance service for small boats and engines. The skill training provided for ornamental fish-rearing was limited to a very small number of beneficiaries and it needs to be expanded to cover other women. The skills of the fisherwomen need to be improved in the areas of fish processing and fish fodder making.

External Leverages Facilitated (TOR-5)

4.22 While the crab sub-project was very effective in leveraging external financial and technical support services, the fisheries sub-project had a limited success. The crab sub-project was able to mobilize a grant from ADB-JFPR (through GOTN) and matching loan from cooperative bank (GOTN). However, the SHGs under the crab sub-project were not able to link themselves with the commercial banks. The fisheries sub-project was able to mobilize only Rs.90,000/- for an SHG undertaking ornamental fish culture. However, the lead partner (VRDS) was able to provide a loan of Rs.6.00 lakh from its micro-finance outfit (Rural Bank).

4.23 The crab project was also successful in facilitating insurance cover to PEN structures erected in the first year. However, the insurance needs to be renewed.

4.24 The crab sub-project leveraged a wide range of technical support from CIBA, MPEDA and AFI to train and handhold the community groups in crab fattening, an altogether new activity for the women. The feasibility assessments conducted by these institutions also enabled the groups to access ADB financial support. The fishery sub-project also leveraged some services from the Puducherry government for training women in ornamental fish-culture.

Capacities of CBOs to Support Livelihoods (TOR-8)

4.25 Both the sub-projects have promoted SHGs and their federations. While 7 SHGs of crab project beneficiaries were promoted, 25 SHGs (5 men and 20 women SHGs) were promoted and strengthened under the fisheries sub-projects. A federation was promoted in each sub-project, initially to facilitate transfer of project funds and later to support the SHGs in their livelihood activities. However, the institutional capacities created are not adequate to manage the activities of the sub-project sustainably in future.

4.26 Not all the SHGs promoted under the two sub-projects were functionally efficient. Most of them were not adhering to the core democratic and financial norms. The functioning of the SHGs was largely driven by a few articulate members. Only one of the 32 SHGs from both the sub-projects was bank credit linked, indicating the need for promoting their functional effectiveness. The SHGs are not organically linked to the federation through systematic financial and other relations. The federation promoted under crab project was by and large playing an advisory role and was not actively engaged in procurement, aggregation and marketing of crab. While the mixed federation, dominated by men, under the fisheries project lacked capacities to manage the 'net shop' and other activities. As a result, the lead partner NGO was virtually running the activities in the name of the federation. Both the SHGs and the federations would require further support to improve their autonomous functioning. Further, appropriate mechanisms should be instituted to promote transparency and accountability. The SHGs engaged in crab fattening need to institute mechanisms to promote equity in the distribution of surplus/profits. Finally, participation of Irular women needs to be mainstreamed in the federation promoted under crab sub-project. In sum, the CBOs promoted as part of the intervention are not strong enough to take over the activities from the lead partner. A radical rebuilding of the SHGs and the federation (separately for men and women) would be necessary to facilitate smooth transition of the activities promoted under the project to the CBOs.

Challenges Ahead (TOR-9)

4.27 There are a few common challenges to both the sub-projects.

Shortage of Working Capital

4.28 Shortage of working capital, largely due to the inability of the SHGs promoted to access bank loans, is a major problem that could affect the livelihoods promoted under the sub-project. The PEN infrastructure created was partly underutilized due to shortage of working capital. The number of cycles of crab fattening was limited by the working capital available. It was also pushing the members to enter into buyback arrangements with trader-financiers with unfavourable conditions. The scale of activities of fishermen and women vendors was also constrained by shortage of working capital, which in turn was pushing

them into the trader-financier trap. The working capital constraint can be overcome only by strengthening the SHGs to borrow from the commercial banks.

Under Utilization of Capacity

4.29 There were a few problems specific to crab sub-project. Under utilization of PEN infrastructure created for crab fattening (to the extent of 60% of capacity created) was a principal factor limiting the returns from the activity. The infrastructure was not put to any other suitable activity such as poly culture or crab grow-out culture.

Insurance Cover

4.30 Risk exposure of PEN infrastructure for want of renewal of insurance was another problem. Lack of a suitable provision at federation/ SHG level for maintaining infrastructure created was yet another problem.

Shortage of Juvenile Crab

4.31 A more serious constraint was the short supply of soft shell crab collected from the wild, which constitutes the critical input for the fattening activity.

4.32 The fisheries sub-project is confronted with several formidable problems.

Recovery of Loans

4.33 First, recovery of outstanding loans advanced by the federation to the fishermen through the net shop is most important on the list.

Small Scale of Ornamental Fish-Rearing

4.34 Second, scaling up ornamental fish-rearing does not appear t be feasible in view of the high investment required and limited market for ornamental fish.

Revival of Net Shop

4.35 Third, reviving the 'net shop' and running it along at least on *'no profit-no loss'* basis is another difficulty. Finally, the most important task is to make the mixed federation work for the women.

Rebuilding of CBOs

4.36 The situation does not afford easy solutions. The SHGs and the federations need to be rebuilt and strengthened. The CBOs need to be guided and mentored for at least one year to make them autonomous of the lead partners. They should be prepared to take over collective activities such as revolution of common fund, aggregation and other post-harvest activities. The mixed federation promoted under the fisheries sub-project needs to be reorganized by separating men and women federations. Further, wherever possible, decentralizing the collective activities should be undertaken for better results. Collectives always do not provide solutions to address value chain problems.

Chapter – 5
Livelihood Promotion : Micro-Enterprises

Introduction

5.1 Two micro enterprise projects have been implemented as part of TRP livelihoods project *viz.,* one for coir workers and another for Zari embroidery workers**.** While the coir micro enterprise sub project was designed for those already engaged in the sector, the Zari sub-project targeted the Muslim women who had to be trained in embroidery which was suitable to their cultural norms. The genesis of the sub-project could be traced to the adult literacy program implemented by CARE. As part of the adult literacy program, CARE sought to build functional literacy and numeracy skills among illiterate women so as to enable them to derive larger benefits from their livelihoods. While working with the Muslim women from Parangipettai region of Cuddalore district, CARE observed that a large number of them were engaged in low-end tailoring and chamki work. It was found that a large number of them were inclined to get engaged in more productive home based work around tailoring-embroidery-chamki making.

5.2 The strategy for the zari sub-project involved organization of women workers, provision financial resources as grant or loan to the CBO, skill training, infrastructure and marketing support that helped them start up/deepen engagement for better incomes.

5.3 In the case of coir, the strategy involved provision of financial support for inputs and machinery to overcome working capital and infrastructure constraints and revolve the earnings to keep the production cycle going without getting indebted. Though the strategy did focus on increasing scale of production and value addition there were some constraints. The constraint in this case was that the community was content to stay at its current scale of operation and was unwilling to try out value added products in which some of them were trained.

Brief details of Sample Sub-Project: Zari

5.4 The sub-project seeks to build on the pre-existing tailoring-embroidery related livelihood skills of about 100 women belonging to the backward *Labbai* Muslim sub-community inhabiting the coastal *Parangipettai* Town Panchayat in *Cuddalore* district. Technically designed to overcome the scale diseconomies and market disadvantages faced by individual tailoring-embroidery workers, the sub-project seeks to pool and improve the skills of the women and collectivize procurement, production and marketing activities through the agency of an activity federation. Apart from upgrading the existing skills, the sub-project is expected to create new skills, improve access to both input and output markets and enhance incomes of the participating Muslim women sustainably. In the process, the sub-project aimed at promoting a self-managed and self-governed activity federation.

5.5 In addition to a direct funding support of Rs.7,51,500/-, CARE has facilitated sanction of a JFPR-ADB grant of Rs.17,50,000/-, of which an amount of Rs.6,93,000/- was released up to September 2010 through the GOTN Department/ Directorate of Town Panchayat. The local partner of CARE *viz.,* IWDI which has vast experience in promoting production and marketing of textile handicrafts, provided multiple types of support inputs to the beneficiaries including:

- formation and strengthening of federation including bookkeeping support;
- structured training in tailoring and embroidery through dedicated staff (coordinator, tailoring and zari teachers, part-time accountant and insurance facilitator);
- organization of cross-learning visits to National Institute of Fashion Technology (NIFT) and best practitioners;
- setting up of a local marketing outlet, support for procurement of appropriate infrastructure; and
- initial handholding support for production of embroidered garments and exploration of markets.

5.6 CARE and its lead partner had also facilitated access of the beneficiaries to certain services provided by the Government of India such as the issue of identity cards for garment entrepreneurs/workers by the Ministry of Textiles and provision of subsidized health insurance cover to garment workers (first under *ICICI Lombard* and later under *Janashree Bheema Yojana*). Further, CARE has also opened up a possibility for the federation to access bank loan. Though the sub-project activities commenced in Jan.'09 with the promotion of federation, actual production of garments was started only in Jun.'10, due to delays in the sanction and release of JFPR fund.

Key Findings and Observations

Appropriateness of Intervention (TOR-1)

5.7 The micro-enterprise intervention seeks to promote livelihood of women around zari-embroidered garment making and marketing. The intervention targets backward Muslim women facing multiple disabilities. Apart from the cultural restrictions on their physical and occupational mobility, the women, primarily housewives, had a very poor asset base. But most of the women were engaged in low-end zari-hand embroidery/chamki work as a supplementary livelihood. However, because of socio-cultural limitations, the women had no opportunity to augment and market their skills for better livelihoods. Consequently, their domestic economic space was very limited. The intervention identified, mobilized and collectivized the disadvantaged women and provided them advanced training in embroidered-garment making at the community level. The sub-project also supported setting-up of a common garment making facility at the community along with technical support and advice for procurement of raw materials and marketing through a lead partner experienced in garment making and marketing. Thus, the micro-enterprise intervention was appropriately selected with respect to the value chain gaps addressed and beneficiaries selected.

Livelihoods, Skills and Income Earning Opportunities Promoted (TOR-2)

5.8 The sub-project involved training of women in embroidered garment making skills including zari-chamki making. The additional training and handholding support provided have contributed to the skill base of the Muslim women. The intervention has also resulted in the creation of common infrastructure for production of embroidered garments at the community level with the support of ADB-JFPR, the TATAs and the Town Panchayat. It has improved the knowledge and awareness of women about the markets at both ends of the value chain. At least 40% of the target beneficiaries (100) had completed advanced embroidered garment making training including exposure visits by Sept.'10. The training, common infrastructure, working capital support and design and marketing advice provided have created necessary conditions for the women to deepen their engagement in garment making for a sustainable livelihood. If the activity federation gains experience in aggregation

and marketing, the sub-project interventions could move the women to a more remunerative part of the value chain.

Impact on Socio-Economic Vulnerability and Empowerment of Women (TOR-3)

5.9 As the production and marketing components of the intervention have just begun, it is a bit premature to assess the impact of the sub-project on reduction of economic vulnerability. However, with additional income from garment making, the intra household economic space for women could improve. Further, the community based intervention, without interfering with the cultural limitations seeks to improve the status of Muslim women both within the household and at the community level. A more active engagement of women in the garment making activity could result in the women's contribution being recognized in the household. Further, the participation of the women in the SHGs and the federation and their constant interface with the Town Panchayat could also contribute to their role in the larger community issues. Thus, the sub-project is potentially women empowering.

Adequacy of Skills to Manage Livelihoods (TOR-4)

5.10 While the skill training provided is good enough for making of garments which can meet local demand, exploration of the external markets would certainly require additional training for making newer varieties of garments. Exploring tie-up arrangements with leading garment houses in Chennai, Puducherry, Cuddalore and other places would call for additional training to suit the tastes and preferences of the customers.

External Leverages Facilitated (TOR-5)

5.11 The project has facilitated leverage of financial assistance from ADB-JFPR through the GOTN-Directorate of Town Panchayat for setting up a common production center (Rs.8.00 lakh out of Rs.17.5 lakh sanctioned). The project also leveraged a subsidy of Rs.80,000/- from the Ministry of Textiles towards insurance premium for covering the garment workers. However, the project was not successful in mobilizing Rs.5.00 lakh from the Indian Overseas Bank towards working capital, as originally envisaged. The Parangipettai Town Panchayat permitted the federation to set up its common production facility in the community hall gifted by the TATAs. Besides, the lead partner IWDI provided training and technical support for garment making. The trainees were exposed to the NIFT and a few best practitioners in garment making. However, in order to speed-up the implementation of the project as envisaged and optimize its livelihood outcomes, release of the balance amount of JFPR grant and sanction of bank loan would be essential. Further, additional technical support could be mobilized from NIFT and other garment designers.

Capacities of CBOs to Support Livelihoods (TOR-8)

5.12 Notwithstanding the significant early outcomes of the sub-project, the CBOs promoted as part of the sub-project did not exhibit features of self-sufficiency and sustainability. The SHGs had no direct role in the micro-enterprise activity. The SHGs were not organically linked to the federation. There were no financial relations between the SHGs and the federation. The federation did not evolve from the SHGs. It was promoted to facilitate transfer of project fund and the JFPR grant. The functioning norms of the federation remained to be internalized by the members. Though there was an executive committee and key office bearers managing the federation, it was not clear as to who they were accountable to. The functional responsibilities of OBs and EC were not clear. A few members were running the federation under the guidance of IWDI.

5.13 Further, the role of the federation needs to be mainstreamed in the common production facility. There were no clearly established procedures for selection of designs and products, procurement of raw materials, distribution of raw materials among various trained members for garment/product making, pricing and marketing, payment of compensation for the workers and related matters. The operations of the production centers in the initial phase were managed by a few OBs/executive members under the close supervision of the IWDI. It is time that the systems are fully instituted in the federation such that the livelihood activity becomes sustainable.

Challenges Ahead (TOR-9)

5.14 There are a few challenges to the sustainability of the micro-enterprise.

Skill Upgradation

5.15 First, skills of women workers need to be constantly upgraded in line with the changing market preferences. Second, the slow learners and low end workers should be provided additional training support. For both these tasks, the continued support of IWDI or another competent agency would be required till the federation takes over the responsibility. Such an agency could also facilitate tie-ups between the women workers and leading market players for integrated raw material supply – buyback arrangement.

Minimizing Collective Activities

5.16 Given the functional limitations of the federation (limited leadership, lack of adequate transparency and accountability), minimizing the role of collective activities could ensure sustainable results. The role of the federation should be essentially limited to procurement of designs and orders as well as raw materials and marketing of products. This would in turn presume distribution of certain essential infrastructure such as the zari cots and sewing/embroidery machines and minor equipment to all the women such that the work can be undertaken at the household level. However, certain facilities such as computerized design making can still be provided for a price at the federation common facility. Reducing the need for and scale of collective activities appears to be the only way to promote the zari livelihoods on a sustainable basis. However, it may be noted that the federation would still have weighty responsibilities to discharge as a transparent intermediary.

Role of Federation

5.17 The garment workers would continue to find the federation relevant only as long as it provides the collective role expected of it. Apart from procuring orders, raw materials and taking up marketing of finished products, the federation should also provide them necessary financial and technology support. In the ultimate analysis, the federation should distribute profits/surpluses among the members. Only then, the federation would engender a feeling of ownership among the members.

Strengthening of Federation

5.18 Adherence of the federation to the democratic and financial norms is the first necessary condition for sustaining its activities. This would presume conduct of meetings at regular intervals, member attendance and participation at meetings, democratic decision making and documentation of the proceedings of the meetings. Further, change of leadership as for the norms is another important dimension. Regular bookkeeping, promotion of member awareness of transactions and, finally, auditing of transactions could alone promote the sustainability of the institution.

Autonomy of Federation

5.19 Further, the federation should emerge as an autonomous institution, capable of managing its own affairs, independent of the Town Panchayat and other promoters. While it has benefited substantially from the Town Panchayat, the federation needs to protect its independence and autonomy from politically sensitive governance structures. This is a difficult process but early steps for promotion of independent functioning are essential.

Chapter-6
Livelihood Promotion : Micro-Finance

Introduction

6.1 Following the Tsunami, most of the affected households were provided relief, rehabilitation and livelihood support by the government and the non-governmental agencies. However, woman and widow headed households and the disabled without the required social and political bargaining capacity were found left out. These households were not represented at the panchayat/village level meetings organized to identify the beneficiaries for different types of assistance. Their voice was not heard and their genuine demands rarely met. The livelihood concerns of these households did not find proper place particularly, in the development phase. The widows and the physically challenged face multiple disabilities, particularly, in the fishermen community. Apart from the poor asset and skill base, these households had very limited access to credit and other services from formal institutions. The households are highly vulnerable to both external shocks as well as market and governance failures.

6.2 In order to address the genuine livelihood concerns of the widow headed households and the physically challenged, CARE implemented two sub-projects. The strategy adopted was to organize the widows, the single women and the disabled into exclusive SHGs and federations and enable them to undertake micro-finance activities with the support of the seed money grant provided by CARE. The micro-finance support is expected to meet both the consumption and production requirements of these vulnerable groups. Along with improved access to credit and additional incomes, the sub-projects are designed to foster social support networks that would promote their collective security and well-being, particularly, of those in distress.

6.3 Of the two micro-finance sub-projects implemented, the micro-finance sub-project implemented in Nagapattinam by CRED/CREATE was chosen for the sample study. Targeting 742 vulnerable women (widows, single women, the destitute and the separated) from 20 villages, scattered over three blocks of Nagapattinam district, the sub-project sought to organize the vulnerable woman into SHGs and a federation and promote micro-finance and micro enterprise activities, at a total project cost of Rs.13.07 lakh. Thus, the three year project had the following specific objectives:

- to promote exclusive SHGs of women headed households comprising single woman, widows, the destitute and the disserted woman;
- to promote a federation of the woman headed households and to facilitate its registration as a society;
- to promote sustainable income earning activities of the members through micro-finance support as well as external leverage;
- to train SHGs and federations to the preparation and implementation of business development plans; and
- to introduce the households to alternate livelihoods and diversify the livelihood portfolio.

6.4 CARE also leveraged cashew processing infrastructure from the government for the federation to undertake cashew processing activity, employing the federation members. On the basis of the early success of the federation in cashew processing, Wal-Mart came forward to extend further support to the women as a separate project.

Activities Undertaken

6.5 The following activities were undertaken as part of the sub-project *(Table-6.1)*.

Table – 6.1
Micro-Finance Sub-Project : Activities

S. No.	Activity	Indicator
1.	Formation of exclusive SHGs of widows and single women	▪ 53 SHGs over three years covering 742 members
2.	Capacity building of SHGs	▪ Select members and leaders on group dynamics, roles and responsibilities
3.	Strengthening of SHGs	▪ Handholding support for group functioning
4.	Training of animators and representatives	▪ Representatives of 53 SHGs and animators twice on bookkeeping, leadership and SHG management
5.	Formation and registration of Vidivelli federation	▪ Federation registered as Society
6.	Capacity building of federation Office Bearers	▪ Training provided to OBs twice – 42 members
7.	Strengthening of federation	▪ Exposure visits to Madurai district – 25 members ▪ New 9 member executive body promoted including the partner representative (CEO) as a key member with financial powers
8.	Establishment of Social Support Committees (Udhavum Ullangal)	▪ Promoted social support committees in 30 villages with 2 to 3 members each
9.	Social support activities	▪ Quality groceries procured and distributed among beneficiaries (once) ▪ Cultural events organized for WHHs (1 event)
10.	Preparation of business plans	▪ Five plans prepared by SHG members for fish vending, goat rearing, petty shop, vegetable business and coconut leaf knitting
11.	Financial leverage	▪ Federation provided Rs.6.5 lakh as initial deposit, revolving fund and for collective purchase ▪ CRED leveraged Rs.1.5 lakh but fund returned when it left the project ▪ 58% of members provided loans (Rs.5.3 lakh) ▪ Indian Overseas Bank provided three DRI loans of Rs.10,000/- each
12.	Infrastructure leverage	▪ Leveraged cashew processing infrastructure from the district government for use by the federation
13.	Support for cashew activity	▪ Exposure visit organized for 50 WHHs from Education For Livelihood (EFL) villages

Key Findings and Observations

Appropriateness of Interventions (TOR-1)

6.6 The sub-project was designed to promote the livelihoods of one of the most marginalized categories of women, cutting across all social groups *viz.,* widows, single women and the destitute. Lack of access to adequate financial resources to meet essential consumption and production needs is the single most important constraint these women

face. The mixed member female SHGs do not generally mainstream their issues and concerns. The sub-project, designed to mobilize and organize them into effective micro-finance plus SHGs and federation, was appropriate to promote their livelihoods and minimize their vulnerability. The micro-finance and leverage initiatives undertaken under the sub-project were central to the livelihood concerns of the women who were employed/self-employed as fish vendors (31%), agriculture labour (23%), daily wage earners (19%), small farmers (18%) and petty traders (0.2%).

Livelihoods, Skills and Income Earning Opportunities Promoted (TOR-2)

6.7 The sub-project was successful in mobilizing and organizing about 730 widows, single women and the destitute suffering multiple disabilities into exclusive CBOs (SHGs and a federation). As a result of the revolving fund support provided by the project, the federation provided consumption and production loans to 496 members (68% of the total) at an average rate of Rs.3,317/- per member (a cumulative total amount of Rs.16.45 lakh). The loans were used for both family consumption and for meeting working capital requirements of the micro-enterprises/self-employed activities (e.g., fish vending, food vending and petty shops). With good repayment performance, the recycling process was gaining momentum. However, the SHGs were not able to leverage any significant amount of bank loan. As a result of the limited credit access, the members were not able to diversify and scale-up their livelihoods.

Impact on Socio-Economic Vulnerability and Empowerment of Women (TOR-3)

6.8 The sub-project has contributed to a reduction in the vulnerability of the widows, single women and the destitute. Organization of exclusive SHGs and a federation promoted '*bonding'* among the vulnerable women. Organizing women from different socio-economic groups has also contributed to a reduction in the distance between women from different social groups. Thus, the sub-project has contributed to both the '*bonding'* and '*bridging'* social capital, which were later reinforced by the cashew intervention. The coverage of women under a specially designed micro-insurance has also minimized the insecurity among the women. Further, the promotion of '*social support groups'* with the underlying concept of '*all for one – one for all'* has begun to create a sense of collective security among the women. However, the social support groups need to be networked and instituted on a firm footing.

Adequacy of Skills to Manage Livelihoods (TOR-4)

6.9 The capacity building provided for the members to manage the SHGs and the federation, however, was not adequate to promote self-management and self-governance. The one-day training provided in the preparation of business plans was also limited to a very few members and it had no cascading effect on other SHGs. There is a vast scope for identifying potentially viable and feasible micro-enterprises and training the women in such activities. Cashew processing, as the subsequent Wal-Mart project has demonstrated, holds potential for training a larger number of women. Post-harvest fish processing activities could be another area with potential. A market scan could identify other activities in which the skill base of the women could be enlarged.

External Leverages Facilitated (TOR-5)

6.10 The first lead partner CRED was able to leverage a fund of Rs.1.50 lakh from external sources. However, with the exit of CRED, the amount was refunded. Later, CREATE facilitated leverage of only Rs.30,000/- from the IOB under DRI, that too with the

intervention of CARE. In addition, the cashew processing unit leveraged about Rs.60,000/- for its initial working capital. About 330 households were mobilized into micro-insurance covering both life and general assets. Thus, the financial leverage, other than the CARE revolving fund support of Rs.6.00 lakh, was very meager. This is an area which requires further focus.

6.11 The cashew infrastructure leveraged from the district government created under Rashtriya Sam Vikas Yojana (RSVY) resulted in a later day improvement in the skill base of the members (through Wal-Mart support).

Capacities of CBOs to Support Livelihoods (TOR-8)

6.12 The SHGs promoted were relatively weak and not functionally efficient. The adherence of the SHGs to democratic and micro-finance norms needs to be promoted. The capacity building inputs provided appeared to be very meager, considering the number of SHGs (53) and the membership (742). Unless the SHGs are strengthened and made effective in terms of the five core principles (regular meetings, saving, inter-lending, repayment and bookkeeping) the bankers would be reluctant to admit them to credit linkage. The SHGs, therefore, require further capacity building and close mentoring support. The federation did not appear to be in a position to provide the kind of support required for the SHGs. In fact, the federation itself requires further support to strengthen its functioning autonomous of the lead partner.

Challenges Ahead (TOR-9)

6.13 Promoting access of SHGs to formal financial institutions remains a formidable challenge. Unless the fund base of the federation and SHGs is enlarged, the credit constraint affecting the WHHs cannot be eased. Strengthening SHGs is the only way to convince the bankers. This in turn calls for further capacity building and nurturing support for regular conduct of meetings, savings and inter-lending and bookkeeping. Besides, the organic financial linkage between the SHGs and the federation needs to be strengthened by introducing the practices of SHGs saving with and borrowing from the federation. Further, as the federation is currently involved in cashew processing, a part of the profits could be set apart for lending among the SHGs for micro-enterprise activities. The federation also requires further mentoring such that it can emerge as an autonomous institution, *al beit* slowly and leverage funds from the market including banks and MFIs.

6.14 The second challenge is to prepare the individual WHHs to take up small but viable micro-enterprises and other activities to diversify their livelihood portfolio. This requires technical and marketing advice and support. The federation could outsource such support for the SHGs for a small fee. Though it is slightly pre-mature to make the federation autonomous, it is imperative that the lead partner is guided to making the institution autonomous after instituting necessary systems for its efficient functioning.

Chapter - 7
Livelihood Promotion : Salt

Introduction

7.1 Two sub-projects have been implemented in the salt sub-sector as part of TRP. However, only one of them *viz.,* sub-project implemented by SARDS in Prakasam district qualifies for a livelihood sub-project. The other project in Nagapattinam works only with the salt pan workers focusing on SHG strengthening. Attempts were made to involve the salt workers of Nagapattinam in income generating activities such as salt packing and groundnut cultivation. However, the efforts were not successful as the workers were not able to access the resource base required viz., salt pans. Therefore, of the two sub-projects, the salt sub-project implemented by SARDS in Prakasam was selected for the sample study. The sub-project seeks to address all gaps in the value chain including a limited effort to promote value addition.

Brief Details of the Sample Sub-Project

7.2 *Prakasam* district is the second largest salt producing district in Andhra Pradesh, after Srikakulam. Salt farming is one of the major livelihoods in 6 coastal mandals of the district. The activity is concentrated in 18 villages in an extent of about 6,500 acres of land and about 5,100 small and marginal farm households are engaged in salt production. The Tsunami had adversely affected salt farming in about 1,400 acres along the coast line. On the basis of a value chain analysis and a livelihood situational assessment, CARE intervened to promote and sustain the livelihoods of the small salt producers in 8 villages of *Kothapatnam* and *Chinnaganjam* mandals by addressing several value chain gaps and constraints. Implemented in four phases during Aug. '07 and Aug.'10, the interventions of CARE were targeted to benefit about 1,450 small salt farming households belonging to the socially backward communities. The core objectives of the CARE intervention include:

- promotion of self-managed CBOs of the salt producers for delivering livelihood support services;
- promotion of infrastructure in conjunction with other stakeholders;
- building the capacities of the CBOs for undertaking marketing and value added activities;
- upgradation of salt farming practices through appropriate technical inputs;
- diversification of livelihood portfolio of the salt farming households through appropriate skill and marketing support; and
- mitigation of yield risk through pilot insurance initiatives.

Activities

7.3 Based on gaps identified in the value chain, the following activities were implemented as part of the sub-project.

7.4 The following progress was reported at the end of Aug.'10 in different components.

Table – 7.1
Salt Sub-Projects : Components, Activities and Progress

S. No.	Component	Indicator	Indicator Value (Aug. '10)
1.	Institution Building	CRGs	79 covering 861 farmers
		Producer MACS	1 District level MACS
		Vendor MACS	1 Women Salt Vendor MACS
		Other Institutions	2 MACS strengthened
		Cumulative savings of Vendor MACS	Rs.2.28 lakh
		Thrift of Vendor MACS	0.93 lakh
		Loans mobilized by Vendor MACS	20.50 lakh
		Internal lending	Rs.7.31 lakh
2.	CB and Skill Building	Trainings	53 CRGs trained
		Exposure visits	11 farmers
3.	Leverage	Bank loans under DRI	Rs.40.00 lakh; 171 members
4.	Marketing and value addition	Infrastructure created	1 permanent processing unit and 2 mobile units
		Value of raw salt procured	Rs.22.29 lakhs
		Value of processed salt	Rs.25.32 lakhs
		Value of processed salt sold	Rs.25.07 lakhs
		Value of raw salt to be processed	Rs.14.65 lakhs
		Net profit	Rs.35/- per bag
5.	Insurance – Weather Based	Coverage of salt farms – First year	423 acres
		Redemption – First year	Nil
		Coverage of salt farms –Second year	447 acres benefiting 466 salt farmers affected by "*Laila*" cyclone
		Redemption – Second year	Rs.5,000/- per acre (to be released)
6.	Worksite facilities	Protective gear distributed (hats, gum boots, goggles, glouses)	50 sets
		Health camps conducted	2
		Resting shelters	3
7.	Advocacy efforts	Land titles	D-Pattas issued (temporary titles) to 105 farmers
		Concessional electricity tariff	Electricity tariff reduced to Rs.1.03 per unit
		Compensation for cyclone damage	Compensation secured for salt producers affected by cyclones on par with farmers at the rate of Rs.600/- per acre from GOAP
		Construction of access roads	Construction of approach road and bund strengthening benefiting 5 villages

Key Findings and Observations

Appropriateness of Interventions (TOR-1)

7.5 The small and tiny salt producers experienced several disadvantages due to pre-production and post-production value chain gaps and issues. First, a majority of the small producers had no title to land used for salt production. The salt pans were subject to frequent damage due to recurrent cyclones. No compensation was paid to the salt farmers for the damage caused to the salt pans on par with other farmers. The farmers were experiencing shortage of water with adequate saline content. The cost of lifting water was also found to be expensive and there was no subsidy on power tariff. The technology adopted was obsolete with a large proportion of salt pan being used for condensing salt. There was little emphasis on drainage and reducing magnesium content. The number of cycles was sub-optimal. There was no focus on productivity and quality enhancement. On top of these problems was critical shortage of credit, pushing the small salt farmers into a debt trap. Given the background, the banks were unwilling to finance the small producers. In addition, there was critical shortage of infrastructure in the form of storage platforms, road connectivity and sheltered warehouses. Further, insurance companies were reluctant to insure the salt pans as well as the stocks. From the point of view of well-being of the salt workers, there were a few problems. Protective gear (shoes, hats, gloves *etc.,*) was rarely used. There were inadequate resting sheds and shortage of drinking water.

7.6 The small salt producers also faced certain problems in the post-production part of the value chain too. Poor aggregation, lack of stock withholding capacity for a better price, inadequate storage/warehousing facilities, practice of credit-tied sales of salt to trader-middlemen, absence of value added activities such as powdering, packaging and branding and lack of sufficient information on market prices and conditions were found affecting the returns to the small and tiny salt producers.

7.7 Thus, the choice of salt sector was appropriate in view of the multiple disadvantages faced by one of the numerically strong coastal communities, after fishermen. The interventions undertaken were appropriately designed to address the gaps in the value chain such as:

- mobilization of small producers into CRGs and MACS (federation) to promote common activities and facilitate policy advocacy;
- training and technical support to modernize the farming practices and enhance productivity and quality;
- development of joint irrigation facility through CRGs;
- procurement for aggregation and processing for value addition;
- piloting a weather based insurance coverage of salt pans;
- promotion of worksite facilities (resting sheds and water) and supply of protective gear;
- liaison to facilitate sanction of DRI loans to the small farmers at 4% interest rate; and
- advocacy for better road connectivity, subsidized power tariff and sanction of lease pattas for the salt farms.

7.8 The scale intervention was also appropriate and optimal enough to reap all the economies to scale. The sub-project targeted 1,452 small salt producers from 8 villages of the two most affected mandals viz., Chinnaganjam and Kothapatnam, of whom 860 were the direct/ indirect beneficiaries of the intervention. However, the district MACS promoted

has a total membership of 1,172 members, about one-fifth of the total salt farmers in the district. It may be noted that other INGOs viz., Concern World Wide and German Agro Action Aid had also participated in the restoration and promotion of the livelihoods of the salt farmers in the early years following the Tsunami. The CARE support has taken these efforts forward. Apart from the direct benefits provided to the small salt producers in the target villages, the successful advocacy efforts taken up by the MACS and the lead partner have created a very favourable policy environment in the state. The institutions created and the synergy of the convergence efforts taken up will have a multiplier effect on the well-being of the salt farmers in the future.

Livelihoods, Skills and Income Earning Opportunities Promoted (TOR-2)

7.9 As a result of the multiple interventions undertaken for the small salt producers, some significant changes have resulted. These include:

- reduced cost of production of salt due to subsidized electricity tariff (made possible by successful advocacy and amounting to a saving of Rs.3,000/- per acre);
- reduced burden of interest (made possible by DRI loans at 4% rate of interest amounting to Rs.3,000/- per loan);
- improved farming practices (change in the land use pattern, improved drains and harvesting practices);
- reduced labour cost consequent on the change in the reservoir-condenser ratio and other improved practices;
- improved yield of salt from about 800 quintals per acre to 1200 quintals per acre;
- better market prices for the producers due to competition engendered by the entry of MACS sub-committee into procurement and value added activities;
- improved returns for the women salt vendors due to bulk purchase and reduced interest charges on loans; and
- external benefits to the salt vendors such as free supply of smokeless stoves and reduced subscription to the mobile phone.

Impact on Socio-Economic Vulnerability and Empowerment of Women (TOR-3)

7.10 The salt producers are subject to three sources of vulnerability or shocks *viz.,* environmental shocks, trade and exchange related shocks and non-environmental endogenous or institutional shocks. First, the piloting of weather based insurance to protect the salt farmers from the yield risks associated with environmental shocks such as cyclones, excessive and unseasonal rains and floods, is a well thought out strategic innovation. Engaging private insurance operators of *ICICI Lombard* and *IFFCO TOKYO* for piloting weather based insurance cover for salt producers is a unique intervention. As a result of persistent efforts by the project and partner staff, more than 400 acres of salt farms were brought under insurance covering both the production phases (1st January to 15th March, 2009 and 16th March to 31st May 2009) at a small premium of Rs.750/- to Rs.800/- per acre with a potential redemption claim of Rs.6,500/- per acre. However, as the loss sustained due to bad weather was considered to be less than the threshold (TLI), no compensation was made.

7.11 During the second year, the farmers opted for insuring the yield risk only for the second phase (March 16th May 31st) of production with the reduced premium of Rs.375/- and a potential redemption claim of Rs.6,500/- per acre. The *"Laila"* cyclone and the persistent rains that it brought affected all the insured farmers. After some persistent lobbying, the insurance company agree to pay Rs.5,000/- per acre of salt farms insured.

But, because of the huge outgo the insurance company appears to be unwilling to provide the insurance cover for the coming season. The early experience with the insurance pilot points to the need for refining the insurance product to securing the redemption of genuine claims made by the affected farmers.

7.12 Second, to minimize trade and exchange related impacts on the salt farmers, a salt aggregation and processing unit was set up under the MACS. The setting up of salt processing unit is a significant step in the direction of minimizing trade and price related fluctuations. The direct sale of procured salt by MACS committee to external industrial users such as *Al-Kabeer*, *Global Green* and *Alana* had reduced the exposure of the small farmers to price fluctuations and unfavourable credit-tied sale conditions. However, MACS needs to involve itself on a much larger scale to engage in direct sales and forward contracts with large market buyers to insulate the farmers from price fluctuations. Further, the bank credit linkage facilitated by the project and the working capital loans advanced by the MACS, have together improved the withholding capacity of the farmers which is also contributing to reduced exposure to price fluctuations.

7.13 Third, the institutions promoted as part of the project have minimized the potential 'endogenous' or 'institutional' shocks to the salt producers. There were no adverse policy reversals affecting the salt farmers during the project life. On the contrary, the advocacy efforts of the district MACS has brought in favourable changes in the policy environment. The GOs extending subsidized power tariffs, flood related compensation and sanction of D-Pattas (temporary titles to land) bear testimony to the successful advocacy efforts to improve the policy environment for the small salt producers.

7.14 In addition, the other interventions such as the free health screening camps, promotion of individual health, life, accident and asset insurance through *Bajaj Allianz* and *Royal Sundaram* at a nominal premium (Rs.50/- to Rs.125/- per person), the distribution of protective gear to 50 salt producers free of cost, the construction of resting sheds for salt workers have contributed to a significant reduction in vulnerability to work related stresses and shocks. More importantly, the federation of women vendors has minimized the risk exposure of the women to natural hazards such as cyclones by diversifying their livelihoods. Thus, the multiple interventions undertaken as part of the salt sub-project have contributed to the resilience of the households primarily dependent on salt farming for their livelihoods. Further, the CBOs promoted are in a position to prevent a natural hazard in the form of a cyclone or a flood into a social disaster. The communities are in better position today in terms of their capacity to anticipate, cope with, resist and recover from the impacts of shocks, both environmental and non-environmental.

Adequacy of Skills to Manage Livelihoods (TOR-4)

7.15 The skill training and support provided on the other hand laid emphasis on changing the production practices to achieve higher levels of productivity and quality. Out of the 79 CRGs, farmers from 53 CRGs were trained on model farming systems. About a dozen farmers were taken on exposure visit to *Tuticorin* in Tamil Nadu. IEC materials developed in local language were widely distributed. A wall writing campaign was undertaken to disseminate scientific practices for quality salt production. A group of women were also provided training on iodizing salt. The scale and content of training have had intended effects in terms of changing land use pattern, water use and drainage practices. The knowledge and skill base of the farmers appeared to be sustainable and adequate to optimize production of quality salt in future.

7.16 In order to enable the salt producers to reap larger benefits from the post-production value chain, it would be essential to strengthen the skills of the CBOs in the areas of value addition (iodizing *etc.,*) branding and marketing.

External Leverages Facilitated (TOR-5)

7.17 The sub-project has facilitated three types of external leverages *viz.,* finance, marketing and technical support. First, 20% of the target farmers were facilitated access to DRI loans from the Indian Overseas Bank. The MACS was provided a loan of Rs.20.00 lakh from Swasakthi Livelihood MACS promoted by SARDS. However, neither the MACS nor the salt vendor SHGs were bank linked. Second, the MACS committee responsible for procurement, aggregation and processing of salt undertook sale of salt directly to some companies in Hyderabad. However, because of the delays involved in payment of sale proceeds, the committee was selling salt local buyers at relatively lower prices. This is another area which could be improved. Market opportunities need to be scanned and the services of dedicated professionals may be hired for this purpose.

7.18 In respect of technical support, the project was able to mobilize some support from the Salt Department of GOI to establish a model 10 acre salt pan at Chinnaganjam. Besides, the services of technical staff were utilized for providing training and handholding support to the small salt producers. There is some scope for improving convergence with the Salt Department which has a field office located at Chinnaganjam. The department could provide support for resting sheds, water tanks, protective gear, scholarships for school going children and medical camps.

Capacities of CBOs to Support Livelihoods (TOR-8)

7.19 The institutional capacities created as part of the sub-project are adequate to manage the salt production activity in future. The CRGs (79) promoted (each around a common irrigation bore well) had the capacities to carry on with the salt cultivation. Apart from saving and inter-lending, they were able to maintain the bore well and the pump set and access working capital loans from the MACS. The members were convergent with the new salt farming practices.

7.20 The federation (registered MACS) is functioning with the support of the lead partner and with the funds received from other agencies. It is essential to promote autonomous functioning of the MACS and the partner should take the lead in nurturing independent functioning of the MACS. The funds received from multiple agencies and held in different accounts could be eventually transferred to the MACS, with the lead partner providing technical oversight and guidance during the transition. The CRGs and the MACS should be more organically linked with clearly laid down functional and financial relations.

7.21 The salt vendor SHGs and MACS promoted, however, require additional support and training. The fund base and the capacity available with the MACS are not adequate to meet the livelihood needs of the women. The SHGs and the MACS need further strengthening and mentoring support from the lead partner.

Challenges Ahead (TOR-9)

7.22 Notwithstanding the early success of the salt sub-project, five issues could pose a challenge to its sustainability in the near future.

Autonomy of MACS

7.23 First, the status of MACS needs to be clearly established. Though it is a registered society under MACS Act, its operations are not totally autonomous of the lead partner. The

MACS continues depend on the lead partner for day to day management. While control by the lead partner is essential in the initial stages, the society should be gradually prepared to take over the reins of control and manage its affairs, failing which the MACS could become a perpetual burden on the lead partner.

Working of Salt Processing Unit

7.24 Second, the working of the salt processing unit needs to be assessed. It is not clear whether the committee managing the unit is a sub-committee of the MACS or a committee of the CRGs. The relationship between the committee and the MACS needs to be properly defined. The current status of the processing unit (profit and loss) needs to be determined. The stock available should be insured against risk as the monsoon is the round corner.

Insurance Cover for Salt Pans

7.25 Third, reluctance of the insurance providers to come forward to insure salt pans could be a real threat to the farmers. An appropriate insurance product needs to be introduced and the producers educated about their rights and obligations under insurance.

Shortage of Working Capital

7.26 Fourth, shortage of working capital is another challenge that could affect the salt farming. Apart from strengthening corpus management at the MACS level for lending across the CRGs, efforts could be made to promote CRGs as joint liability groups to access bank credit.

Minimum Support Price

7.27 Finally, the successful advocacy efforts should be continued to secure a minimum support price for salt.

Chapter - 8
Key Findings and Implications of the Study

Introduction

8.1 An attempt is made in this chapter to summarize the key findings of the study and their implications for future strategy. In *Section-1*, the overall contribution of the CARE-TRP project to the promotion of livelihoods is examined. As part of this, an inter-sectoral and inter-regional comparison of the sub-projects implemented is presented. Later, the quality of CBOs promoted and their capacities and limitations to support livelihoods are examined. In *Section-3*, the extent and quality of financial, technical and other leverages facilitated are examined. The sustainability of the livelihoods promoted is examined in *Section-4*. The contribution of the TRP livelihoods project to addressing underlying causes of poverty is presented in *Section-5*. Finally, certain implications for future livelihood strategy are explored in *Section-6*.

Section-1: Overall Contribution of CARE-TRP Livelihoods Project

Inter-Sectoral Comparison

8.2 The livelihoods component of the CARE-Tsunami response program has intervened in six distinct sub-sectors *viz.,* agriculture, salt farming, animal husbandry, fisheries and aquaculture, micro-enterprises and micro-finance. In all 18 sub-projects have been implemented in the Tsunami affected areas of Andhra Pradesh and Tamil Nadu. A study of 11 sub-projects across 6 sectors brings out certain important findings, notwithstanding the differences in size, component activities, scale, cost and duration of the sub-projects. It may be noted that these findings are based on early indicative results and no attempt was made to precisely estimate the impact of each sub-sector in terms of additional income, employment and other economic benefits.

Animal Husbandry

8.3 Of the 6 sub-sectors, animal husbandry, followed by salt, performed better than all other sectors with micro-finance being a relatively poor performer. The following factors have contributed to the better performance of the animal husbandry sector sub-projects viz., household dairy in Prakasam, goat-rearing and poultry-rearing in Cuddalore.

Address Both Pre and Post Production Gaps

8.4 Sub-projects designed being able to address most of the pre-production and some post-production gaps such as infrastructure (poultry sheds), credit constraint through revolving fund support, community level veterinary services through para-vets or as a part of buyback arrangement (poultry), training on animal/poultry management practices including feed and fodder practices, promotion of fodder cultivation through collective plots and feed shops and market linkages (poultry and dairy).

Women Friendly and Require No Special Skills

8.5 Activities being women-friendly requiring skills which can be easily provided and acquired.

Effective Market Linkage

8.6.1 Sub-projects designed being closely linked to the markets:

- presence of a robust and competitive milk market with collection infrastructure well developed up to the village level;
- the private commercial dairies willingly coming forward to provide animal veterinary care and feed/fodder to the dairy households with buyback arrangements;
- expanding markets for milk with very attractive prices and quick payments;
- goat sub-project having a natural market for goat kids and meat;
- poultry sub-project being effectively linked to the market through buyback arrangements under which the poultry companies provide chicks, feed, veterinary and insurance services, besides ensuring buyback; and
- effective buyback arrangements facilitated for poultry.

Relatively Low Yield and Price Risks

8.7 Perceived low yield and price risks and projects efforts to provide subsidized insurance during the first-phase of the project.

Effective Convergence for Technical Services

8.8 Effective convergence efforts made with the animal husbandry department for training, insurance (AP only) and with a government dairy for marketing (AP only).

Self-Generating Assets

8.9 All the three sub-projects being in the nature of reproduction activities adding to the livestock.

Innovative Feature

8.10 The goat sub-project having an innovative feature of passing on the goat kids from the first line beneficiaries to second line beneficiaries.

Appropriate Institutional Arrangements

8.11 Creating appropriate institutional arrangements, (SHGs, cooperatives and federation) and working through the existing community organization (VDSs comprising traditional leaders in Prakasam).

Near Liquid Assets

8.12 Above all, being near liquid, the animal husbandry assets are preferred by the community to tide over family emergencies.

8.13 Thus, the relative success of animal husbandry interventions could be attributed to *(i)* selection of women-friendly and household based activities that have effective market links at both ends of the value chain; *(ii)* provision of key inputs and services to address pre and post production gaps; and *(iii)* effective linkages with the line departments and formal institutions. The activities could yield higher returns if the scale of the activity increases.

8.14 Within the animal husbandry sector, household dairy performed better than the other two, for two important reasons. First, dairy activity was pursued more as a supplementary livelihood. Second, it was effectively linked to the markets and the activity ensured regular returns during the lactation period. The goat based livelihood, also pursued as an additional livelihood was the next best. The poultry, a new and full time activity for the Irular women, was group based and the returns from the activity depended on the services provided by the poultry company, the growth of the chicks and the market price. There was also risk of mortality.

Salt

Addresses Key Pre-Production Issues

8.15 The salt sector interventions have addressed most of the pre-production issues faced by the small salt producers. Apart from organizing the salt farmers and vendors into CRGs and federations (MACS), the interventions facilitated credit leverage (DRI loans and credit from MACS), training for productivity enhancement, support for infrastructure (platforms, bunds and resting sheds), piloting of weather-based insurance, effective policy advocacy (for subsidized power tariffs, compensation for floods, issue of D-Pattas) and individual insurance coverage.

Small Post-Production Intervention

8.16 In the post-production component, the interventions attempted to promote salt processing activity for value addition and direct sales to external buyers.

CBOs and Successful Advocacy

8.17 The salt interventions were successful in building the institutions (CRGs and MACS) of the small farmers, partly alleviating the credit constraint of the farmers and vendors and undertaking successful advocacy efforts

Technical Inputs

8.18 The other important reason was the technical inputs provided to change the farming practices, particularly, change brought about in the reservoir-condenser ratio and improving drainage channels.

Unsustainable Insurance Product

8.19 However, the insurance intervention was not successful in mitigating yield risk perpetually through the design of a weather based insurance product.

Inadequate Post-Production Initiatives

8.20 The salt intervention was not quite successful in promoting aggregation, value addition and marketing linkages too.

8.21 Thus, the vulnerability of the salt farmer is not fully addressed, although the intervention has contributed a significant enhancement in the productivity of the small salt producers. Therefore, it can be said that the salt interventions have not sustainably mitigated the yield and storage risk through appropriate insurance intervention. Further, the

aggregation activity promoted through a sub-committee does not appear to be potentially sustainable under the present conditions (lack of warehousing/storage facility, lack of insurance for the stock, debt burden, absence of viable market linkages *etc.,*).

Agriculture

Improved Knowledge and Awareness

8.22 The small agricultural projects supported under the TRP brought about certain visible changes in both the target and non-target farmers, the outcomes of which can be seen in the long run. These include improved knowledge and awareness on *(i)* the adverse effects of using chemical fertilizers and pesticides; *(ii)* awareness on soil testing, preparation and upgradation with gypsum, vermi-compost and organic manures; *(iii)* preparation and treatment of seed; *(iv)* use of optimum seed/ transplantation rate; *(v)* need for early transplantation under SRI; *(vi)* awareness of good and bad insects and trap crops; and *(vii)* reducing irrigation intensity for paddy and groundnut *etc*. Though the immediate adoption rate by the farmers was not encouraging, the practices promoted through training and exposure visits and FFS would have a long term impact.

Agriculture Requires Long Duration Interventions

8.23 The agriculture sub-projects attempted to bring about substantial changes in farming practices and motivate the small farmers towards sustainable agriculture (organic methods, SRI cultivation *etc.,*) which would minimize costs and optimize returns. However, deep rooted agricultural practices can be changed over a long period of time, with both the government and the NGOs acting in tandem. The success of sustainable agricultural practices also hinges on the availability of markets for new inputs (organic fertilizers and pesticides) and commodities (organically grown groundnut, paddy, vegetables *etc.,*). However, more sustained and large scale interventions by the government and the non-government players are required to bring about the desired changes in agriculture.

Fisheries and Aquaculture

8.24 The two sub-projects under this category reveal distinctly different trends.

Crab Fattening - A New Livelihood

8.25 The crab fattening sub-project intervention is innovative and seeks to promote an altogether new livelihood for the Irular and fisherwomen by providing access to credit, training, inputs and markets through partnerships with a wide range of stakeholders (ADB-JFPR, CIBA, AFI, MPEDA, GOTN *etc.,*) in order to ensure its viability. The principal contribution of the intervention lies in moving the marginalized women from subsistence level to high potential value chain that could enable them to overcome gender bias in the labour market. The other visible result is the new skill acquired by the vulnerable women in crab procurement, fattening and marketing activity.

Critical Sustainability Issues

8.26 However, the sustainability of the livelihood critically hinges on continued availability of juvenile crab, access to sufficient working capital, maintenance of PEN infrastructure and the ability of the women to overcome the yield related risk. More importantly, the infrastructure created needs to be optimally utilized to avoid excess capacity. Finally, the CBOs (SHGs and federation) need to be strengthened for more democratic, efficient and

transparent functioning. The innovative sub-project beneficiaries require continued handholding support to enable them to overcome the challenges.

Fisheries

Limited Impact

8.27 Though the fisheries sub-project interventions were identified to address the critical value chain gaps, the results emerging, however, do not indicate any significant sustainable impact on the livelihoods and skills of the target community. Their involvement in fishing has not deepened significantly as a result of the intervention, nor have they been moved to a more remunerative part of the value chain. Thus, the interest free loans advanced to the members for purchase of nets and equipment and fish vending had a limited impact on easing the credit constraint. The ornamental fish-rearing unit had an insignificant impact in terms of the number of women involved and benefited. The engine repair and maintenance unit, the sub net shops, the inland fishing and the supply of GPS were also insignificant in terms of their cumulative livelihood impact. However, the training provided for boat and engine repair and maintenance and ornamental fish-rearing and marketing had some impact on the skills of a small number of the beneficiaries. Further, the male dominated federation is less likely to promote women's participation and interests.

Micro Enterprises

Innovative Project

8.28 The zari embroidered garment making micro-enterprise intervention was selected on the basis of the value chain gaps affecting backward Muslim women both at the pre-production and post-production levels. Targeting poor Muslim women facing multiple disabilities including low-end poverty and restrictions on their physical and occupational mobility, the micro-enterprise sub-project organized about 100 women and provided them advanced training in embroidered garment making at the community level. Besides, the women were provided working capital support, equipment and infrastructure by facilitating leverages from the ADB-JFPR, Town Panchayat, Ministry of Textile and GOTN.

Address Production Issues

8.29 Organizing Muslim women into a livelihood federation and deepening their engagement in garment making and value added activities are principal outcomes of the intervention. However, the focus of the interventions was on the production side of the value chain rather than on aggregation and marketing. The micro-enterprise which has started collective production very recently needs to address several challenges before it becomes sustainable.

Skill Upgradation

8.30 First, skills of the women workers need to be constantly upgraded in line with the changing consumer preferences. The women workers need continued technical support for training and promoting market tie-ups.

Minimizing Collective Activity

8.31 Second, given the functional limitation of the federation (limited leadership, lack of adequate transparency and accountability), minimizing collective production and marketing activities could promote sustainability of the livelihood. As far as possible, the production activity should be decentralized except for the use of common infrastructure such as computerized design facility. The role of the federation should be limited to procuring designs and orders, providing financial and technology support and marketing and maintenance of infrastructure. The equipment and infrastructure required should be distributed to the individual members who have completed required level of training and are actively engaged in zari embroidery activity. The total funds sanctioned under ADB-JFPR should be mobilized for this purpose.

Improving Transparency Systems

8.32 Third, the functioning of the federation needs to be improved by instituting appropriate transparency and accountability systems as well as surplus sharing mechanisms.

Market Linkage

8.33 The livelihood can become sustainable in the long run only if the individual skilled women are transformed into garment makers, receiving designs and raw materials from the textile showrooms and companies and supplying them back finished garments. The women should be freed from the responsibility of procurement of raw materials and marketing.

Micro Finance

Organization of Most Vulnerable Women

8.34 The sub-project designed around micro-finance seeks to address the livelihood concerns of one of the most marginalized categories of women, cutting across all social groups viz., widows, single women and the destitute. Mobilizing the most vulnerable women (730) into exclusive SHGs and a federation is an important outcome of the sub-project.

Credit Facility

8.35 The second result is the credit facility provided to the vulnerable women through the federation. An amount of Rs.16.45 lakh was provided as loans to 68% of the total members at an average rate of Rs.3,317/- per member to meet important consumption and working capital needs.

Bonding Social Capital

8.36 The third visible outcome is the '*bonding*' social capital promoted through 'social support groups' to provide collective support for women in distress and those living in difficult circumstances. However, the social support groups promoted under the sub-project needs to be networked and firmly instituted so that they can articulate and work for resolution of the problems faced by the WHHs.

Limited Self-Management Capacity

8.37 The micro-finance centered federation, however, had several problems to reckon with. The capacity of the federation for self-management was very limited and depended on

the lead partner for its management, including management of its finances. The capacity building input provided was very limited.

Limited Fund Base

8.38 The fund base available with the federation was very limited and it was not able to access external funds, including bank funds. Even the SHGs were not bank linked (except DRI loans for three members). The impact of the sub-project built around the Vidivelli federation could be increased only by enlarging its fund base though external leverages and use such funds for meeting the livelihood requirements of a larger proportion of WHHs.

Lack of Organic Linkage between SHGs and Federation

8.39 There was no organic financial relationship between the SHGs and the federation. The inter-lending practices among the SHGs were not widely prevalent either.

Limited Involvement in Income Generating Activities

8.40 The credit was by and large used for consumption purposes and the households were not guided to undertaking viable livelihood activities, other than engaging them as paid labour in cashew processing.

Autonomy of Federation

8.41 The lead partner would do well to guide the federation to functional and financial autonomy, *al beit* progressively.

Inter-Regional Comparison

8.42 Apart from inter-sectoral variations in emerging outcomes and their production sustainability, certain inter-regional variations were observed in the environment in which the sub-projects were implemented, which in turn had their impact on the outcomes of the sub-projects.

Size and Capacities of Partner NGOs

8.43 In terms of experience, size, outreach, human resource capacity and rapport with the community, the NGO partners from Andhra Pradesh appeared to be better. Both ASSIST and SARDS are fairly big organizations as indicated by their turnover, pre and post tsunami projects implemented with INGO/donor support, size and composition of human resources, the range of projects implemented, experience in promoting and working with CBOs and the rapport the enjoy with the community. Both the partners were funded by international NGOs such as German Agro, Concern World Wide -------- for post-tsunami relief, rehabilitation and livelihood projects. The partners also enjoy the confidence of the government agencies, having been involved in several of their projects. The EFFORT, a relatively small organization in relation to SARDS and ASSIST is also an experienced organization funded by several international donor agencies. The resources, experience and expertise of the agencies had their impact on the outcomes of the CARE supported sub-projects implemented by them. The large NGOs were able to promote CBOs, facilitate SHG-bank linkage and leverage technical services from the line departments. Their advocacy efforts were relatively more successful.

8.44 On the contrary, the financial and human resource base of the sample NGO partners in Tamil Nadu was relatively limited. Their capacities and outreach were also limited. Moreover, several NGOs which had no presence in the Tsunami affected areas worked in

Cuddalore and Nagapattinam areas, particularly, during the relief and rehabilitation phase and left the scene thereafter, with the declining funding support. The outcomes of the CARE supported projects were also influenced in part by the size and resources of the partners. Further, there was attrition among the partners in Tamil Nadu. The crab and the micro-finance sub-projects witnessed exit of first set up partners. The NGO partner for the fisheries sub-project left the project area for different reasons.

Policy Environment

8.45 The two project states also differ significantly in terms of the environment for CBOs. Andhra Pradesh has witnessed a very vibrant SHG movement. The state accounts for highest number of functioning SHGs, village organizations and their higher level federations at mandal and district levels, in the country. The CBOs have been nurtured under two major World Bank assisted programs *viz.,* APDPIP and APRPRP (Velugu/IKP). The policy environment is conducive for the growth of CBOs in Andhra Pradesh. The MACS Act has facilitated promotion of registered federations of SHGs at village (VOs), mandal (MSs) and district (ZSs) levels. Several government departments use the services of CBOs to deliver their programs. Andhra Pradesh is credited with a successful SHG-bank linkage program with about ____ SHGs being currently bank linked in the state. Even some registered VOs are allowed to borrow bulk amounts from the banks.

8.46 Though Tamil Nadu is not a late comer to the SHG movement, the proportion of functionally effective SHGs in Tamil Nadu is relatively low. There is no enabling legislation to facilitate registration of federations at gram panchayat, block and district level along the lines of MACS except the Public Societies Registration Act. The SHGs are not effectively used by the government departments to deliver their program services. More significantly, the SHG bank linkage in Tamil Nadu has not caught up. The bankers are extremely reluctant to lend the SHGs, particularly, after the Tsunami. The wide-spread distribution of grants and subsidies after the Tsunami created an unfriendly environment for bank loans. The situation prevailing in the state adversely affected leveraging of external funds which was so vital for sustaining the livelihoods promoted under several sub-projects.

Section-2 : Quality of CBOs Promoted and their Capacities and Limitations

8.47 As part of the sub-projects implemented in two states, CBOs were promoted to facilitate: *(i)* mobilization of the target groups around livelihood activities; *(ii)* training for livelihood skill development; *(iii)* leverage financial (credit and insurance) and technical resources; *(iv)* access to common infrastructure; *(v)* aggregation and access to markets; and *(vi)* maintenance of common infrastructure and asset created. The CBOs were expected to adhere to democratic and financial norms including transparency and accountability. Further, the CBOs are expected to acquire self-management skills and emerge as autonomous institutions.

CBOs in Andhra Pradesh Projects

8.48 All CBOs created in Andhra Pradesh were around livelihood activities. Thus, in household dairy sub-project milk cooperatives (in four 'hardware' villages) and VDSs were promoted/ strengthened. In salt sub-project, CRGs, salt producer MACS and salt vendor MACS were promoted. In the agriculture sub-project farmers associations were promoted. Except salt vendor MACS, other CBOs promoted had only male members. The CBOs facilitated mobilization of members, organization of skill-training, conduct of exposure visits and transfer of project funds to the members. Except salt CBOs, others were not able to

access any external fund. Salt CBOs were able to mobilize funds from other MACS promoted by the lead partner. However, some of them were savings and inter-lending (salt sub-project and only saving by CBOs under groundnut project). In respect of policy advocacy, the salt MACS was successful, while others did not take up any advocacy issues. The salt MACS and the CRGs had some capacities for self-management, others did not exhibit such skills. Systems of transparency and accountability need to be promoted in all CBOs. Further, the lead partners should nurture them to become autonomous and self-managed.

CBOs in Tamil Nadu Projects

8.49 Unlike in Andhra Pradesh, a two-tier institutional development model was adopted in Tamil Nadu in all the 7 sample sub-projects. Women SHGs and their sub-project level federations were promoted in all of them. Fisheries sub-project, however, promoted both men and women SHGs and a mixed federation. It may be noted that in all sub-projects, federations did not evolve from the maturing SHGs. On the contrary, federations were promoted more or less simultaneously with SHGs to facilitate transfer of project funds and funds from the GOTN (ADB-JFPR). Though there is an organizational link between the SHGs and the federation, financial linkage between the two did not get strengthened. Both the institutions were not functionally effective in leveraging external funds, technical and marketing services. The capacity building inputs provided were inadequate to both the SHGs and the federations. The SHGs were by and large not bank-linked and the bankers were not convinced about the sustainability and repaying capacity of the institutions.

8.50 The federations were not autonomous of the lead promoters. Even in the matter of financial powers, the lead partners exercised control over the federation. The key functionaries of the NGOs held joint cheque drawing powers with the representative of the federation. However, the federations were providing some advice and guidance to the SHGs in all sub-projects. They were also involved in maintenance of infrastructure (poultry, goat-rearing and embroidery). The CBOs require sustained capacity building and handholding support to improve their capacities for self-management, transparency and accountability. The federation should be nurtured further to enable them to take up procurement, aggregation and marketing issues.

Section–3 : Extent and Quality of External Leverages Facilitated and Persisting Gaps

Finance

8.51 As pointed out earlier, the CBOs promoted under different sub-projects were not able to mobilize bank credit as expected. Except household dairy and community poultry, no other sub-project was able to mobilize bank loans either under the NABARD bank linkage scheme or as direct loan to the federation. Even the micro-enterprise (Zari) and the micro-finance sub-projects were not successful in mobilizing bank funds. However, crab, poultry and zari sub-projects were able to leverage ADB-JFPR fund through the GOTN, but not on the strength of the federations. Salt sub-project, on the other hand facilitated sanction of DRI loans to individual farmers, besides enabling access to the funds with the other MACS promoted by the lead partner. Even under the fisheries project, a small number of DRI loans were sanctioned, in addition to a lone SHG being admitted to SGSY loan.

8.52 The inability to leverage bank loans remains a serious gap as it affects scale-up as well as working capital requirements. The SHG bank linkage is a potentially lucrative area which could be exploited to leverage substantial funds from the banks. But this would

require substantial capacity building of the SHGs as well as strong advocacy with the bankers at SLBC, DLBC and JLBC levels.

Technical

8.53 Leveraging a wide range of technical support services is an important contribution of the sub-projects. All sub-projects were able to leverage services from the relevant government departments and agencies and universities. The agriculture sub-projects successfully leveraged support services from Agriculture Universities, KVKs and RARS for training, soil and water testing and propagation of other new practices. The dairy, sub-project successfully leveraged support from the Animal Husbandry department for subsidized insurance. The poultry sub-project was able to access services from poultry companies and animal husbandry department. The crab project leveraged sustained support from CIBA, MPEDA, AFI and other institutions. For the zari sub-project, the services of Ministry of Textiles were leveraged.

Marketing

8.54 The CARE livelihood project is also successful in catalyzing marketing support for a few sub-projects. The dairy sub-project was effectively linked to bulk milk cooling centers run by the Ongole Dairy. Effective buyback arrangements were promoted for poultry sub-project. Some early efforts were made to promote marketing of processed salt to large companies. Support was also provided to facilitate buyback arrangements for crab for supply of juvenile crab and purchase of fattened crab with market players at Chennai and Chidambaram. However, aggregation and marketing efforts have not received adequate focus in all sub-projects except poultry and dairy. This is an area which needs to be improved to promote sustainability of the livelihoods intervened in.

Other Services

8.55 The livelihood projects were also successful in leveraging support from the district/ state governments for promoting the livelihoods. The District Collector of Cuddalore intervened to help establish PEN structures in the backwaters of Killai for crab fattening. Similarly, the collector intervened to facilitate leasing in of land for the poultry sheds. The Town Panchayat of Killai provided the community hall for setting up common production center for zari embroidered garments. The Collector of Nagapattinam permitted the Vidivelli federation to make use of the cashew infrastructure built under RSVY project. The Prakasam Collector intervened to secure higher compensation from the insurance providers for the salt farms affected during *'Laila'* cyclone. Thus, the CARE-TRP was able to leverage support and services from the government to promote livelihoods for the poor.

Advocacy

8.56 A notable contribution made by TRP was in the realm of policy advocacy for the benefit of small salt farmers. The advocacy efforts of district salt forum and salt producers and vendors MACS have resulted in substantial benefits for the small salt producers. The GOAP reduced power tariffs from Rs.3.75/- per unit to Rs.1.03/- per unit to benefit the small salt farmers. The salt farmers were made eligible to receive compensation from the government for the salt pans affected by floods, on par with other farmers. Sustained advocacy efforts also resulted in D-Pattas (Temporary Titles) being given to the salt farmers.

Section-4 : Sustainability of the Livelihoods Promoted

8.57 The wide range of sub-projects promoted indicates different degrees of potential sustainability.

Animal Husbandry

8.58 Animal husbandry sub-projects promoted under the TRP appear to be more sustainable. Apart from being women-friendly activities, they are not highly skilled and can be pursued in conjunction with other livelihoods and household responsibilities. The two key features that promote their sustainability are that they are individual household based activities and are effectively linked to the market at both ends of the value chain.

Poultry

8.59 Though poultry-rearing is a group activity, the social group involved (Irulars) is closely knit and are able to share the work and proceeds without any friction. With higher scale and regular insurance arrangements, the animal husbandry livelihoods (dairy, goat-rearing and poultry-rearing) are bound to yield better returns.

Salt

8.60 Salt based livelihoods are sustainable for the small farmers. The intervention has brought about a significant improvement in productivity and returns due to changes promoted in the farming practices, credit linkage and successful advocacy efforts resulting in cost economies (reduced power tariff).

Agriculture

8.61 The agricultural sector interventions need to be strengthened and scaled-up to make a difference to the livelihoods of the small and marginal farmers. A lot of other factors need to be addressed to make the interventions successful.

Crab Fattening

8.62 Crab fattening based livelihoods can be sustained only if the three existing bottlenecks *viz.,* shortage of juvenile crab, working capital and regular maintenance of PEN structures are addressed.

Fisheries

8.63 The fisheries sub-project does not appear to be sustainable in its present form. Ideally, the sub-project is transformed into a micro-finance sub-project managed by the fisher-women. The existing assets may be transferred to the federation after suitable restructuring of the federation.

Micro-Enterprise

8.64 The micro-enterprise sub-project interventions can be sustained if the collective production activities are minimized and actual garment making is decentralized and made a household activity, after providing necessary training, equipment and infrastructure support to the women. Ultimately, the activity can be sustained only if the women are transformed into value adding garment makers with textile companies/showrooms supplying designs and raw material and buying back the garments made (concept of piece rate workers). Under

such a system, the women need not undertake the responsibility for procuring raw materials and marketing the finished garments.

Micro-Finance

8.65 The micro-finance sub-project can be sustained only if the fund base of the federation is enlarged and the SHGs are organically linked to the federation, both organizationally and financially. Further, the federation needs to be nurtured for self-management and autonomy from the lead partner. The social support network component of the sub-project also needs to be mainstreamed.

Section-5 : Implications of Findings for Underlying Causes of Poverty

Power Relations

8.66 The CARE-TRP livelihood sub-projects address some of the underlying causes of poverty. All the sub-projects undertaken mobilized and organized women and men from the socially vulnerable SCs, STs and most backward communities and occupationally marginalized groups such as small and marginal farmers including salt farmers, cattle and poultry rearers, fishermen and women, widows and the destitute. The CBOs promoted have contributed to their '*bonding'* and *'bridging'* social capital. The common activities undertaken by different social groups have contributed to greater social harmony and reduced livelihood frictions among them (*e.g.,* fisherwomen and Irulars). Further, most of the interventions seek to improve the economic space of the woman within household and thus could be considered as women empowering. The awareness and capacity building provided to the women have contributed to their livelihood knowledge base, capacity to manage collectives and negotiating skills. The visible change in the levels of confidence of the SC and the Irular women, the emergence of new leaders among them and the new skills acquired clearly point to emerging changes in the power structure, *al beit* at a slow pace. The micro-enterprise sub-project intervention clearly demonstrates that poor Muslim women facing several socio-economic limitations can also be mobilized, organized and trained for potentially viable livelihood activities, consistent with their cultural norms. The capacity building and training provided to women have also improved their bargaining skills to negotiate with different livelihood service providers.

Failure of Governance

8.67 The livelihood project also addressed several key areas of failure of governance for the poor. Promotion of knowledge and awareness of various government programs and services is a significant first-step towards enabling the poor to redeem their rights, entitlements and access to government services. Equally significant was the actual access facilitated by the sub-projects to the services provided by the government agencies. Notable among the services provided include soil and water testing, supply of gypsum, new varieties of seeds, community based artificial insemination for buffaloes, insurance subsidy, access to ADB-JFPR fund, permission to take up crab fattening in back waters, technical advice and support from CIBA and MPEDA for crab-rearers, reduced electricity tariff and sanction of D-Pattas for salt farmers, provision of link roads, resting sheds, setting up of model salt pan, worker identity cards from Ministry of Textiles, permission to use community hall to set up common production center in Parangipettai, transfer of cashew processing infrastructure to Vidivelli federation *etc.* But for the sub-projects, the poor households could not have accessed these services to improve their livelihoods. However, there are other areas in which the project was not able to address governance issues. For example, the project was

not quite successful in facilitating access to institutional finance. However, a project of this magnitude cannot be expected to address all structural issues affecting the poor.

Market Failure

8.68 Both input and output markets have not been working effectively for the poor. The TRP livelihood project has successfully addressed several issues of market failure and enabled the poor to benefit from the market forces. By providing substantial amount of funds directly to the beneficiaries, CARE has attempted to address the failure of the formal credit institutions to be inclusive. Besides, the revolving fund support provided to the CBOs has partly addressed the failure of credit market to provide for the needs of the poor by facilitating revolution of limited resources. The other area of market failure that the CARE strategy sought to address was insurance of livelihood assets of the poor. The weather based insurance product promoted for salt farmers, the efforts to promote insurance of livestock and the life and accident insurance promoted (as part of another project, but covering some of the present project beneficiaries) were clearly efforts to address failure of insurance markets for the poor. That not all the insurance initiatives were successful is a different matter and does not diminish the value of interventions. Further, the attempts to link poultry-rearers, crab-rearers and household dairy farmers to the market were intended to improve the access of the poor to the market.

8.69 However, given the resource, time and spatial limitation of the project, the livelihood sub-projects could not have addressed all governance and market failures. For example, the SHG-bank linkage could not take-off despite best efforts by the project management due to 'subsidy oriented' post-Tsunami environment and apathy of the bankers. The CBOs promoted were not able to speed-up the process of revolution of credit by improving recoveries. Similarly, insurance of all assets could not be promoted as the concept of the livelihood asset insurance was relatively new for the poor. The agricultural projects could not facilitate access of the farmers to organic input and output markets, which are in a nascent state. The salt processing initiative introduced was not completely successful in moving the farmer up the value chain as there were market bottlenecks. The zari sub-project remained to be effectively market linked. But these limitations are not unusual to sub-projects which seek to address multiple livelihood problems in a relatively short period of time with limited resources and in a policy environment which is not entirely conducive for catalyzing such fundamental changes.

Imperatives for Future Livelihoods Program

8.70 The CARE-TRP livelihoods program is by and large well conceived in terms of strategy, components and activities. The area and the households targeted are most appropriate. However, implementation of the well conceived sub-projects has thrown-up certain issues which could inform the future livelihoods promotion strategy of CARE. The issues are briefly indicated below.

Optimum Sub-Project Period

8.71 The duration of each sub-project is ideally related to its core objectives. Sub-optimal project duration affects not only the outcomes of the sub-project but also the viability and sustainability of the livelihoods promoted. For example, the sustainable agriculture sub-projects (groundnut in Prakasam and SRI in Nagapattinam) are designed to bring about changes in the deep seated agricultural practices in favour of organic methods of cultivation. As the changes envisaged are fundamental and require sustained efforts, the project period should be optimal enough to bring about the desired changes. The propagation of changes from the demo farmers and the collective farm experiments to the larger farming community requires optimum amount of time, apart from efforts. The groundnut sub-project had duration of about one year, while the SRI cultivation project had a project period of less

than three years. Therefore, apart from the scale, the duration of the sub-project should be long enough to catalyze desired changes.

Optimal Investment

8.72 Not only duration of the project, but the size of investment provided for livelihood activities per household should be optimal enough to produce intended outcomes. This is particularly important in respect of households which have very poor access to institutional or other sources of finance. Sub-optimal investments render activities unviable and affect their long-term sustainability. If there is a resource limitation, then it would be better to take up smaller number of sub-projects than to spread the limited resources thinly.

CBO Model

8.73 Every sub-project implemented recognizes the need for CBOs for undertaking certain activities such as training, selection of beneficiaries, distribution of direct financial assistance, revolution of common fund, procurement of raw materials, collective production, aggregation of produce, marketing and advocacy. However, there is no uniformity in the development of CBOs and the activities undertaken by them.

8.74 In the household dairy sub-project, the existing village development societies and cooperatives were made use of. In salt sub-project, CRGs and MACS were promoted. In agriculture sub-project, village level associations of farmers were promoted. In Cuddalore and Nagapattinam, SHGs of beneficiaries and their federations were promoted around the livelihood activities in all sub-projects.

8.75 The functional role of the lower and higher level CBOs are not clearly delineated and mainstreamed. Not all the SHGs conduct regular meetings and undertake savings and inter-lending and other core activities. The SHGs and their federations are not strongly inter-linked through financial relations. Further, federations had not evolved as a logical culmination of SHG development. On the other hand, federations were promoted upfront by the lead partners to facilitate project fund transfer. While federations were stronger in some cases (those with fund like Vidivelli federation, fisheries federation, zari federation), SHGs were stronger in others (*e.g.*, crab sub-project).

8.76 Most of the CBOs promoted do not relate themselves with the existing CBOs in Andhra Pradesh and Tamil Nadu (*e.g.,* CBOs promoted under IKP in AP and VKP in Tamil Nadu). More significantly, not all the CBOs are eligible to be bank linked under NABARD bank linkage program which has enormous potential. CRGs comprising male members are not eligible for bank linkage. The men SHGs under fisheries project are not eligible either. While bank funding of VOs is found in Andhra Pradesh, bank lending of federation is very rare in Tamil Nadu. Thus, the following questions emerge from the nature of CBOs promoted and their functioning:

- What are the ideal size, composition and structure of CBOs? What is the ideal federal arrangement? What type of relations should be promoted between the lower and higher level CBOs?
- Why does a project need to promote CBOs? What are the project activities which can be efficiently and transparently undertaken through the agency of CBOs – mobilization, awareness promotion and training, collective procurement and production, financial intermediation, aggregation and marketing.

- What are the activities that can be decentralized and entrusted to the individual households for better results?
- Is it always necessary to promote new CBOs? How can the existing CBOs be used for implementing livelihood sub-projects?
- Can the new CBOs promoted be sustained? When can they acquire skills required for self-management? What are the sustainable features of the CBOs? If they are not sustainable, who will take over the community infrastructure, assets and funds provided?
- Should the federation evolve from the lower level CBOs or should both be promoted simultaneously?

8.77 Obviously, these and other possible questions do not lend themselves for direct and simple answering. These issues need to be debated at length. An important point that emerges from the sub-projects is that CBOs do not provide answers to all underlying causes of poverty. Developing and sustaining CBOs itself is a major time consuming task. And there are no successful models to adopt. But clearly, there is a strong case for examining the rationale behind entrusting several activities to the nascent CBOs. As far as possible, collective production, procurement and marketing activities need to be avoided as CBOs are not successful in establishing transparent and accountable systems of managing these activities. As the markets for inputs and commodities are developing and deepening rapidly, it would be better to promote individual household based livelihoods and link such livelihoods to the emerging markets. Such emerging markets were effectively linked to the dairy, poultry and goat sub-project households. This is not to argue that CBOs are not relevant. They would still be relevant to undertake certain community level activities such as awareness building and training.

Financial Leverage

8.78 The sub-project experience shows that unless suitable financial linkages are firmly established to supplement project efforts, the livelihood activities promoted are less likely to be viable and sustainable. All sub-projects promoted were found to be experiencing shortage of capital for regular working and scaling-up. The underlying strategy that the lead partner would facilitate CBO access to funds from the banks and other external sources did not materialize except in a small way, and that too with the intervention of CARE (DRI loans for salt farmers *etc.,*). As pointed out earlier, not all the institutions promoted were suitably designed to facilitate bank linkage. The key learning is that unless suitable CBOs are developed and nurtured, additional resources cannot be easily mobilized. Further, the macro policy and institutional environment and the expectation of the beneficiary households should be taken into account while making assumptions about the potential financial leverage.

Sustainability of New Livelihoods

8.79 A few livelihood sub-project activities require further support to make them viable and sustainable. These include the crab fattening and zari embroidery based livelihoods. The activities are not effectively linked to the markets at both ends for various reasons. These activities require further support and guidance. The zari sub-project was awaiting release of the second installment of JFPR grant. The crab sub-project had been experiencing serious supply side bottlenecks. The federations promoted as part of these sub-projects do not have the wherewithal to support these activities. Therefore, it is imperative that a clear exit strategy is built into all sub-projects.

Coordination among INGO/Donors

8.80 After the Tsunami, a large number of international NGOs, faith based organizations and government agencies provided support for relief, rehabilitation and livelihood promotion. However, there was no effective coordination among the NGOs providing support for livelihood promotion, resulting in some areas and certain social groups receiving support from multiple agencies for same or similar activities (*e.g.,* salt). As a result, there appeared to be certain amount of overlapping coverage and duplication of effort. If the INGOs/ donors come together to form a consortium for development of livelihoods of the poor, it could have a greater impact. Such a coordinated approach could address certain critical gaps in livelihoods promotion such as shortage of working capital and infrastructure gaps *(e.g., salt)*.

Asset Insurance Promotion

8.81 The limited success of asset insurance promoted under the livelihood sub-projects clearly points to the need for sustained insurance education to break the inter-temporal myopia of the poor. Insurance awareness education should focus on the entitlements and obligations of the insured.

Land Leasing and Collective Agricultural Experiments

8.82 The practice of leasing in land to demonstrate new agricultural practices may be avoided. Instead, all experimentation is ideally conducted on the private farms. Sustaining collective farms is neither cost effective nor propagation – effective.

Section – II

Community Based Disaster Preparedness Project

Chapter – 1

Community Based Disaster Preparedness

Introduction

1.1 As part of Tsunami response program, CARE undertook a Community Based Disaster Preparedness (CBDP) project during May'07 to Apr.'10 to prepare, organize and capacitate the vulnerable villages for any environmental covariant shocks that might arise in future. Thus, the goal of the CBDP project is to strengthen the community based institutional mechanisms to mitigate the adverse effects of natural disasters on human settlements by establishing collaborations with line departments and other resource agencies. More specifically, the objectives of the project are:

- to empower communities to develop solutions to a diverse range of adverse natural disasters;
- to provide communities with a high degree of security from natural disasters;
- to promote and capacitate community based disaster management committees such as DMTs and task forces;
- to promote community level infrastructure to mitigate the adverse effects of disasters;
- to converge the project interventions with the on-going line department programs such as MGNREGS to build community infrastructure;
- to promote preparation of contingency mitigation plans and integrate such plans with PRIs;
- to sensitize the service providers at district, sub-district and village levels to the need for convergence and coordination in the event of the disasters;
- to identify the vulnerable pockets in the target villages and address through joint initiatives; and
- to strengthen the ICT center and access to TF and DMT and other CBOs.

1.2 The CBDP activities were implemented in 15 vulnerable villages of Singarayakonda mandal of Prakasam district, targeting about 8,000 households and a population of 32,000. These villages are prone to natural disasters such as floods and cyclones during the last two decades. A majority of the households belong to fishermen, Yanadi (ST) and other backward communities. While the first phase activities focused on sensitization and awareness building, and promotion of institutional mechanisms, the second phase laid emphasis on 'community based disaster management'. The activities implemented include:

Mapping and Planning Exercises

- participatory development of vulnerability and resilience mapping including updating exercises; and
- development of village contingency and mitigation plans.

Formation and Training of Task Force Committees

- formation of task force committees (6);
- training of task force members including repeat training;
- disaster drills (mock drills) at village levels;
- conduct of monthly review of task force members at GP and DMT members at mandal level; and

- training of CDMA.

Supply of Hardware

- supply of floating and other disaster management aids;
- establishment of ICT center; and
- construction of hardware activities to promote mitigations of risks.

Sensitization and Capacity Building

- orientation and capacity building of SHG members;
- sensitization of service providers and PRIs;
- training of PRI members on CBDP and CBDM;
- awareness programs for school and out of school children; and
- development of community resource person pool.

Promotion of Safety Nets and Insurance

- promotion of boat registration and insurance;
- promotion of school level safety net; and
- promotion of social safety nets such as fistful rice/grain bank and emergency fund.

Sample

1.3 The study team visited Ullapalem and Chellammagaripalem villages in Singarayakonda mandal of Prakasam district to understand and evaluate CBDP project with reference to the specific TORs. The team interacted with the district, mandal and village level DMTs, 6 task force committees in the two sample villages, child disaster committees, school teachers, gram sarpanch and members, MRO and MDO, members of SHGs, field staff of NREGS and select trainers. The study team also met with members running the fistful rice program in Chellammagaripalem village and interacted with the beneficiaries. The key findings and observations emerging from the sample study are furnished in the following.

Key Findings and Observations

CBDP Process Adopted in Prakasam

1.4 As a first step, 15 active volunteers from the CBDP villages were identified and provided two-day training in concept of CBDP and risk reduction measures. The volunteers were trained in preparing village maps in a participatory manner to identify vulnerable areas and groups. Using the trained volunteers as catalysts, the project staff then organized and trained task-force committees *viz.,* early warning committee, rescue team, first-aid equipment committee, food and shelter committee and water and sanitation committee, in each village. Later, a DMT was promoted in each village, drawing from the service providers, PRIs, active task-force members and others and was provided training. Following the training, disaster drills were conducted in each village with the involvement of the task force members.

1.5 Each DMT was provided equipment such as stretches and floating aids, made of locally available material. The teams were also guided to constructing temporary toilets and bathrooms as well as shelters. Finally, the DMTs were guided to undertaking advocacy for

securing certain common benefits such as drainage system, bund constructions, repairs to cyclone shelters and connecting roads.

Capacities and Motivation of Community Level Task Forces and Disaster Mitigation Committees (TOR-1)

1.6 The activities undertaken under CBDP for three years had capacitated and motivated the village level task forces and disaster mitigation committees. Interaction with the village level DMTs and task-force committees in the sample villages of Ullapalem and Chellammagaripalem suggested that they were highly motivated and had the required awareness, knowledge and skills to undertake disaster mitigation activities in the event of natural calamities.

Improved Awareness

1.7 Interaction with men, women and children of the two sample villages suggested a very high level of awareness of natural calamities and the preparedness required on their part to face the natural events. The sample groups also indicated that the CBDP activities, along with the post-Tsunami mass awareness programs undertaken by the government have contributed to their present level of awareness and the confidence to reckon with the calamities.

Meetings of Committees

1.8 The records of the DMT and the task-force committees at the Ullapalem village and gram panchayat indicated that meetings of the task forces were being held though not regularly every month and the attendance at the meetings was more than 50% of the total membership. Further, a large number of sample focus group members *(Nagaraju, Brahmaiah, Gayatri, Tirumala Babu, Harish, Gopi Raj, Venkataramana, Rajya Lakshmi, Edukondalu, Sreenu, Siddu etc.,)* were able to recall the issues discussed at the meetings. Further, the task forces were able to recall the activities undertaken by them during the pre-depression/cyclone/heavy rain announcements made by the revenue authorities. The younger members and the children present at the focus groups were able to demonstrate the kind of activities undertaken by them to alert the community about the impending natural calamities. However, only relatively younger members of the DMT and the task forces were found to be active in the functioning of the meetings. The attendance and participation of the women members was relatively lower and needs to be improved.

Interface with PRIs

1.9 Interaction with the panchayat level DMT headed by Mr.B.V. Muralidhar Rao, Sarpanch also clearly indicated how the gram panchayat was supporting the village level DMTs and task force committees in promoting disaster preparedness. The records of the panchayat level DMTs indicate a fairly good amount of convergence between DMTs and GPs. Further, the agenda discussed in the meetings and the representations made to revenue authorities as a follow-up of the meetings clearly demonstrate the motivation of the committees. Several representations were found made to the District Collector and mandal revenue authorities for support following the severe cyclones. The press clippings maintained at the village level also points to this.

Involvement of Children

1.10 Interaction with the school teachers and anganwadi workers indicates that they were provided training on disaster preparedness and mitigation efforts. It was also understood from the teachers in the two villages that some effort was made to integrate disaster risk reduction education into the formal school system. A focus group conducted with children in Ullapalem village indicates that they were not only aware of the uncertainty of the natural disasters but were trained to undertake mitigation activities. The children were reported to be participating in mock drills. In fact, the lead partner indicated that about 2,200 members were provided training in mock drills and use of floating devices. The only concern was that despite some efforts girl children were not coming forward for swimming.

Improved Knowledge of Topography

1.11 The effect of the DMTs could also be seen in terms of improved knowledge of the community of the topography of the neighbourhood. The adult and child members in the group were able to identify different parts of the village, public infrastructure, high and low lying areas, wells, ponds and other water bodies, backwater streams, safe places including cyclone shelters and churches. The preparation of contingency plans to identify vulnerable areas and population also contributed to the knowledge of the community. The children participated in the focus groups took the study team on a tour of the village, indicating different vulnerable areas and the improvements made to certain areas (e.g., filling up an abandoned dry-well, a low lying area etc.,).

Improved Knowledge of Recurrence of Cyclones

1.12 The communities exhibited knowledge of frequency and recurrence of natural events such as cyclones, gales and winds and persistent drains. The community, by and large, does not allow its fishermen to get into disease during cyclonic storms. The members are aware of the need to keep the fishing equipment safe during the cyclones when the tidal activity is very high. The high rate of equipment insurance is an indication of the improved level of awareness of the natural events and their consequences.

Leverage of Support

1.13 The DMTs were also able to leverage support from the District Collector for completion of link roads, bunds, filling of low level areas, school buildings, play grounds, repair of cyclone shelter and other public works, some with the support of MGNREGS.

Community Awareness about the Relevance of Structural Interventions, the Grain Bank and the Risk Fund (TOR-2)

Structural Interventions

1.14 The sample village communities were aware of the 'hardware' activities undertaken with the support of the district government, NREGS and community contribution. Three types of activities were undertaken in this regard *viz.,* restoration and repair of public infrastructure rundown by rains and floods, construction of new infrastructure and development of low lying areas including drainage development. The three types of works were taken up in the sample villages with the support of the financial allocations made by the District Collector from on-going programs including MGNREGS. Apart from construction of an important bund that provides access to the sea, several intra and inter habitation roads were developed. Low lying areas such as unused ponds and water bodies were

identified and filled in with soil. Further, drainage system was developed in the two sample gram panchayats, besides contributing to the repair of cyclone shelters with the support of World Vision.

1.15 Interaction with the task-forces and DMTs as well as children clearly indicated that they were aware of the activities completed under CBDP. The community groups also valued the critical improvements to infrastructure undertaken. However, the community complained that the road connectivity between Ullapalem village and Singarayakonda was poor and the existing road was vastly run down and not motorable and demanded that its development is taken up on a priority basis. Several representations made earlier could not yield results. The sarpanch, however, indicated that under MGNREGS only gravel top roads can be taken up and the mandal road is an all-weather road which requires special budget allocation from the district government. Therefore, there are some areas which require inter departmental coordination and district government should intervene to make priority allocations to such works.

Grain Bank

1.16 The CBDP initiated a grain bank on a pilot basis during the first phase. Later, it was scaled-up to 10 villages. The initiative is based on the concept of *'all for one and one for all'*. Under the initiative, each SHG member household sets apart everyday a fistful of rice and contributes the quantity so accumulated to a community managed grain bank. The bank themselves rice at a lower rate of Rs.5/- per kg to the women in need on credit basis. The amounts recovered with 24% rate of interest are held in a bank account. The amounts are used for meeting community level as well as individual emergencies. Women headed households and single women without support were given preference in the distribution of community rice bank built out of small donations.

1.17 The functioning of the community driven grain bank initiative in Chellamagaripalem was impressive, with the village mobilizing 100 to 150 kgs of rice every month. In this particular village, rice collected was sold at Rs.5/- per kg during rainy days, giving preference to women in distress. The funds so collected were used for common purposes. A small amount of donations made out of this fund to victims of Thungabadra river floods in Kurnool district illustrates the high level of motivation and sensitivity of the women members. Four bags of rice (about 200 kgs) were donated by the community to the flood victims.

1.18 The management committee of Chellammagaripalem grain bank indicated good awareness of the issues involved in running the grain bank. The leaders *(V. Mangamma, P. Ankamma, P. Polamma and V. Parvathamma)* were fully aware of the issues affecting the grain bank such as the declining quantity of rice mobilized every month, increasing overdue payments and the bookkeeping costs. Notwithstanding these limitations, the members were interested in running the grain bank. However, the study team found that the quantity of rice mobilized was on the decline and the groups were not able to get contributions from the village emergency fund maintained by the community leaders. Unless the size of the bank is suitably increased, its relevance to the community would gradually diminish. Further, a portion of the rice needs to be set apart for supporting extremely vulnerable families who cannot afford to buy rice even at the subsidized rates. Appropriate transparency and accountability systems need to be instituted to ensure sustainability of the initiative. On the whole, the grain bank demonstrates the ability of the community to run a 'safety net' program on its own strength.

Risk/Emergency Fund

1.19 Closely related to the grain bank is the community mobilized and managed emergency fund in most of the CBDP villages. The fund is generated with the contributions mobilized by the DMTs and task-force members through campaigns and 'hundi' (receptacle) collections from each household in the village. In some villages, the minimum contribution is Rs.5/-, while it is optional in a few others. The funds so mobilized are held in the bank/ post-office account of the DMT. The DMT management is responsible for utilizing the fund for emergencies on the prior approval of the DMT. The mandal level DMT coordinates utilization of emergency fund in different villages during emergencies without awaiting the support from the government. Though, the size of the fund is small (Rs.19,000/- in Chellammagaripalem, it was used to meet emergencies in the community following recent cyclones. The community needs to augment the size of the fund and develop suitable guidelines for its transparent management. The PRIs as well as the traditional village community councils can contribute to the fund. The involvement of the women in the mobilization as well as utilization of the fund needs to be mainstreamed.

Inclusiveness of the Disaster Preparedness Plans in Terms of Taking of the Special Needs of the Aged, the Differently Abled and the Other Disadvantaged Groups (TOR-3)

1.20 A unique feature of CBDP was the participatory preparation of contingency plans or disaster preparedness plans and disseminating such plans among DMT and task force committees. An important feature of these plans was the mainstreaming of the concerns and needs of the aged, the disabled, the single women, pregnant women, the orphaned, children and other disadvantaged groups. In times of emergency, the interest of these groups should receive priority. In the contingency and mitigation plans prepared by the sample villages, the interests of these groups were adequately reflected. The youth and children participating in the focus groups clearly indicated that they would evacuate the pregnant women, the aged, the physically challenged and persons suffering from chronic diseases on a priority basis in case of emergencies. The members were able to identify the location of such people in the villages, indicated in the village social maps. The members also demonstrated use of equipment supplied to evacuate the different vulnerable groups to places of safety including the cyclone shelters. The culvert and the small road works completed were undertaken primarily to facilitate transportation of the aged and the sick in the event of emergencies. The contingency plans also identified antenatal and post-natal women, infants and children as disadvantaged groups and were accorded priority in evacuation during emergencies. The child committees were also oriented to the roles and responsibilities during emergencies. Visit to the DMT resource center at Ullapalem indicated that it had all the equipment required to evacuate the vulnerable (15 jackets, 6 wheels, 30 head-gear, 4 pairs of leather boots, 4 torch lights (without cells), stretchers *etc.,*). However, two concerns were apparent. The DMTs had no fund of their own to maintain the equipment provided and to acquire additional equipment. Second, the role of the women and girl children was very limited in the preparation of contingency plans as well as in other related activities.

Sustainability of the Community Mechanisms Created to Handle Disaster Related Problems

1.21 The community mechanisms created to handle disaster preparedness problems include the CDMA, the DMTs at various levels, the task-force committees, the emergency fund and the grain bank. While the project has promoted community awareness, knowledge and skills required to manage emergencies to a certain extent, the sustainability of the mechanisms promoted, however, is in doubt after the exit of the project partner from the villages. The associations promoted are loosely knit informal organizations without funding base or recurrent receipts. Both the emergency fund and the fistful rice initiatives also depend on the munificence of the community. Given the general inter-temporal myopia among the poor households, it would be difficult to sustain the mechanisms which require effective community participation. The only way the mechanisms can be sustained is to link them effectively with the village organizations of SHGs which have some fund base. But these are women's organization and the traditional fishermen community councils may not accept such an arrangement. Alternatively, the mechanisms may be tagged to the traditional councils in the fishermen villages. In either case, the sustainability of the mechanisms does not look bright. But, strengthening of the cadre of community resource persons in all villages could still promote the objectives of CBDP. A larger number of devoted resource persons could be identified and trained by the revenue administration, who could act as link between the community and the government during emergencies.

1.22 Thus, the principal contribution of the CBDP should be seen in terms of the community awareness it has promoted. The knowledge and skill base it has created within the communities to manage emergencies and mitigate disasters constitute the foundation on which other initiatives can be built.

Section – III

Individual Sub-Projects

Sector : Agriculture

CARE-TN
An Evaluation Report on Promotion of Sustainable Agricultural Practices in Groundnut Crop in Prakasam District, Andhra Pradesh

Background of the Sub-Project

1. Groundnut cultivation is the second most important livelihood of the Tsunami affected small and marginal farmers in coastal villages of *Kothapatnam* and *Chinnaganjam* mandals. But, the yields from groundnut cultivation had been on a secular decline due to multiple reasons. A study conducted by CARE and its lead partner EFFORT indicated that growing salinity of land due to rising groundwater table, unseasonal rains, poor agricultural practices, excessive use of chemical fertilizers and pesticides, poor land development practices, lack of knowledge on sustainable agricultural practices and inadequate financial, marketing and other support services had contributed to the decline in the yields from the groundnut cultivation. As a result, area under groundnut cultivation had been on the decline even as per acre investment on groundnut cultivation was on the increase. Not only did the livelihoods of the small and marginal farmers suffered, but even those of the agricultural labour employed were affected as a result of the long-term changes in groundnut cultivation.

2. On the basis of the study and with the support of CARE, EFFORT undertook the task of promoting sustainable practices in groundnut cultivation in 10 villages of *Kothapatnam* and *Chinnaganjam* mandals. All the 10 villages had experienced the impact of Tsunami and the beneficiaries belong to both fishing and other communities. On the basis of land owned and groundnut crop cultivated, 859 farmers, each owning half to one acre of land were identified as the potential beneficiaries of the sub-project, implemented in two phases during Sept.'09 to Aug.'10, at a direct cost of about Rs.9.00 lakh to CARE.

Purpose and Objectives

3. The central goal of the sub-project is to promote sustainable agricultural practices with focus on groundnut crop through an integrated strategy of demonstration plots, IPM and IDM practices. The strategy seeks to adopt the time tested farmers field school approach to bring about the changes in the agricultural practices. More specifically, the objectives of the sub-project were to:

- sensitize the groundnut farmers to the need for adopting sustainable agricultural practices with focus on organic farming;
- enhance the skills and knowledge of select farmers in IPM and IDM practices in groundnut cultivation;
- motivate select farmers to take up IPM and IDM practices in demo plots;
- promote production of pesticide residue free groundnut in demo units;
- facilitate reduction of cost of cultivation by 7%;
- facilitate promotion of village level and cluster level groundnut grower associations which could promote marketing; and
- promote vermi compost technology.

Activities Undertaken

4. In order to accomplish the above objectives, the following activities were implemented under each component.

Table – 1
Promotion of Sustainable Practices in Groundnut Cultivation
Components and Activities Undertaken

S. No.	Component	Activity
1.	Sensitisation of farmers	▪ PRA to assess agricultural practices ▪ Village level *Kalajatha* and home visits ▪ Village level mass meetings
2.	Provision of Technical Inputs	▪ Identification of 50 demonstration plots ▪ Provision of agri-inputs ▪ Technical guidance and support ▪ Regular visits by agricultural experts
3.	Farmer Field Schools (FFS)	▪ Setting up of farmer field schools
4.	Capacity Building	▪ Training on seed treatment, IPM practices, management of farmers associations, pests and diseases, sustainability of CBOs, vermi-compost technology, summer cultivation practices, seed treatment, consequences of excessive chemical usage, nutrition management in groundnut, soil testing and fertiliser management, application of Organic fertilisers in groundnut cultivation
5.	Promotion of vermi-compost	▪ Sensitisation to vermi-compost technology ▪ Financial support to construct vermi compost units

Methodology and Process of Study

5. A three-step methodology was adopted to evaluate the sub-project intervention. First, on the basis of a detailed presentation made by the lead partner on the project covering key project objectives, components and activities, implementation process, perceived results and challenges, the team had initial interaction with key project implementation staff. Second, the team visited one of the sample villages *viz*., *Kothapatnam* to undertake field study. As part of the field study, the team conducted focus group discussions with groundnut farmers, committee leaders and members. In addition, the team had detailed interviews with select groundnut farmers using the specially designed checklists. The team also perused the records of the groundnut farmers committee. As part of the field study, the team also visited sample demonstration plots. After the field visit, the team met with key partner staff to seek certain clarifications and share the observations.

Key Findings of the Study

Appropriateness of Type of Intervention

6. Prakasam district is a leading producer of groundnut in the state of Andhra Pradesh accounting for 18,000 hectares of total cultivated area. In the identified villages, groundnut cultivation is the first or second major source of livelihood for most of the small and marginal farm households. The light loamy and sandy soils, with a pH content of 5.8 to 8.6 in the coastal villages, were suitable primarily for groundnut crop. The salinity of the ground water is within the recommended/tolerable limits for groundnut crop (0.16 mm/ ccm). All the farmers identified belong to marginal and small farmer categories. The groundnut crop had been experiencing a progressive decline in area, productivity and returns for over a

decade. Rising cost of cultivation primarily due to excessive use of chemical fertilizers and pesticides and poor cultivation practices were attributed as the major reasons for the declining yields and returns. Soil testing and enrichment practices were not common in the area. Testing of water for salinity was rarely undertaken. Seed was not properly treated before sowing. Seed rate per acre was higher than the required rate. Unscientific use of ground water for irrigation, partly encouraged by zero rated electricity tariff, lack of knowledge of use of gypsum and inappropriate choice of harvest period were adversely affecting the yields from groundnut cultivation. Cyclonic rains, untimely rains, rise in salinity, pesticide resistant pests, on the other hand were contributing to the uncertainty of yields. The farmers were also affected by uncertainties on the price front. There is no comprehensive crop insurance coverage for groundnut crop. Above all, the small and marginal farmers had very poor produce withholding capacity after the harvest. And a majority of them were dependent on trader-financier middlemen for credit linked sales.

7. Thus, the selection of the intervention, though belated, was appropriate to the area and the small and marginal farming community engaged in groundnut cultivation. The focus of the sub-project on changing the cultural practices with emphasis on use of bio-fertilizers and pesticides, proper soil preparation, seed treatment, use of gypsum and other IPM/IDM practices is most appropriate. However, it may be noted that the duration of the project is sub-optimal as deep seated cultivable practices can be changed only through sustained efforts over a long period of time.

8. It is also pertinent to note that the sub-project is designed primarily to bring about a change in the agricultural practices. The project interventions do not address certain pre and post-production gaps in the value chain. For example, the project did not seek to promote procurement of bio-fertilizers and pesticides and seed. The lead partner did provide some support for the demo plot farmers but not others. No system has been developed as part of the farmers association to undertake such procurement. Similarly, there is no component or activity to promote aggregation of sale produce and its marketing. The project does not address the credit constraint as well. No effort was made to promote credit linkage of farmers either through DRI or through JLGs or through the agency of women SHGs. However, these activities are clearly outside the scope of the small one year pilot and an integrated project with a longer duration can address all the gaps in the value chain.

Appropriateness of the Scale of Intervention

9. The scale of the intervention is appropriate for a pilot. The selection of 52 farmers in the first phase was appropriate. However, during the second phase, the number of farmers could have been increased as the project had already generated some synergy in the first phase. The second phase was also limited to demos by 50 farmers (including some first year farmers). It is not clear as to how many other target farmers (out of 859) had taken to sustainable agricultural practices as a consequence of the results emerging from the IEC, demo-plots and other interventions.

Emerging Outcomes

10. It was too early to assess the emerging outcomes of the one year project, which was more in the nature of a pilot. The emerging results, based on the data furnished by the lead partner, clearly point to positive outcomes for the demo farmers as indicated below:

Table - 2
Economics of Groundnut Cultivation in Demo (Treated) and Control Plots

Per Acre; in Rs.

S. No.	Item	Demo Plot	Control Plot	Difference
1.	Land Preparation	1282	1317	35
2.	Seed and Sowing	7033	8401	1369
3.	Border Crop	110	7	103
4.	Organic Manure	850	881	30
5.	Chemical fertilizers	1497	1719	222
6.	Pesticides	2019	2245	226
7.	Weed Killer	2328	2493	166
8.	Water	247	207	40
9.	Harvesting	3974	3734	240
10.	Yield (Number of Bags)	31	28	3
11.	Value of Produce	30910	27860	3049
12.	Total Cost	19680	21004	1324
13.	Net Income *(11 - 12)*	11230	6856	4373

Note: Average cost of cultivation and returns were estimated on the basis of information furnished for 52 one-acre demo plots (Kothagollapalem, Pathagollapalem, Pedaganjam, P. Pallepalem, Kothapatnam, DD Colony, K. Pallepalem and Pinnivaripalem)
Source: Records of EFFORT

11. The data furnished in the table suggests that there is a cost saving of Rs.1,324/- per acre and a gain in yield equal to Rs.3,049/-. The total gain due to the new practice works out to Rs.4,373/- per acre. This is indeed a substantial difference. However, the data is internally generated and should be taken with a pinch of salt. Further, the cost does not include the value of subsidized inputs provided by CARE-EFFORT. In any case, the change reported is only in respect of the demo plots. It is pertinent to note that even in demo plots, the use of chemical fertilizers and pesticides had not come down substantially. What is important, however, is the impact of the reported changes in practices on the rest of the farming community targeted, which is premature to capture at this stage.

12. The study team's interaction with sample farmers indicates that certain new practices promoted were adopted by some farmers outside the demo group as well. These include practices relating to seed treatment, deep ploughing, use of gypsum, optimum seed rate, use of neem cake, promotion of border crops, bird parches, reduction in irrigation intensity and use of chemical fertilizers and pesticides. However, sustained promotion would be required to facilitate adoption of these practices by a majority of the farmers in the long run. The sample farmers indicated that there were visible changes in the cultivable practices as briefly summarized in the following *Table-3*.

Table – 3
Emerging Changes in Cultivable Practices

S. No.	Pre-Intervention Practice	Emerging Practices
1.	Soil and water were not subject to test before cultivation	A number of farmers subjecting soil and water for testing before sowing
2.	Bio-hazard chemicals used for seed treatment	Non-hazardous bio-chemicals being used for seed treatment
3.	150 – 160 Kg of seed rate per acre	90-100 Kg of seed rate per acre
4.	Comprehensive crop protection practices not adopted	Insect traps and mixed crops being adopted
5.	Excessive use of fertilizers and pesticides	Reduced use of fertilizers and pesticides
6.	Crop rotation not practiced	Some shifting to crop rotation
7.	Low use of bio-fertilizers	Higher use of bio-fertilizers
8.	Farmers not able to hold produce for long for better price	Some farmers willing to wait for better price
9.	Most farmers borrowing high cost loans for working capital	Farmers exploring low cost loans for working capital from banks and Primary Agricultural Credit Society (PACS)

Source: Field data

Impact on Social and Economic Vulnerability

13. The small and marginal farmers engaged in groundnut cultivation were exposed to three sources of vulnerability or shocks *viz.,* environmental shocks, yield and price related risks and non-environmental endogenous or institutional problems.

14. First, environmental shocks to the small and marginal groundnut cultivators arise in the form of cyclones, excessive and untimely rains, rising salinity of ground water, degradation of land due to excessive use of chemical fertilizers and pesticides as well as unsustainable agricultural practices. The project interventions in the demo plots clearly had some impact on the use of chemical fertilizers and pesticides. The change in cultivable practices could also be attributed to the project interventions. Though, the outcomes of project interventions suggest adoption of certain practices in the control group, the impact of the interventions on the large farming community could be assessed only in the long run. The early outcomes point to a reduction in the vulnerability arising out of change in the agricultural practices in favour of organic cultivation which may have some positive impact on the eco-system. Adoption of the practice of border and trap crops was a visible change.

15. Second, interventions such as promotion of soil and water testing practices, use of gypsum, organic fertilizers and pesticides such as neem cake and reduced use of chemical fertilizers and pesticides have the potential of reducing the yield related risks in the long run, if the initial yield from the demo plots is any indication. The increase in productivity and quality of groundnut in the demo plots points to the potential for the future. However, the interventions need to be scaled-up and sustained for a longer period to minimize the yield risks. There were no interventions to minimize the price related risks such as aggregation of produce so as to move the farmers up the value chain. No markets were explored either for organically cultivated groundnut and perhaps it was too early to undertake such market tie-ups. In the event of the project extension, specific interventions may be designed to address post-production gaps in the value chain such as aggregation and sale of produce, value added activities such as deseeding.

16. Further, the project did not have any component or activity to address the possible endogenous/institutional risks associated with groundnut cultivation, including crop insurance. However, there was minimum support price (MSP) for groundnut, which acted as a kind of a cushion to protect the farmers from price related risks.

17. Though, the sub-project was not designed to address social vulnerability or the differential impact of multiple stressors and shocks on different social groups as well as men and women, the sub-project activities could have some positive impact on the resilience of the small and marginal farmers belonging to the Scheduled Castes, the Scheduled Tribes and the fishermen community.

Adequacy of Knowledge and Skills

18. The sub-project in the nature of a small pilot intervention, has improved the knowledge and skill base of the small and marginal farmers engaged in groundnut cultivation in 10 villages. The regular conduct of training of farmers through the field school and exposure visits to RARS had a catalytic impact. However, the primary focus of the IEC and skill training was on farmers undertaking cultivation in demo plots. As changing the cultivable practices is a long process of ex-communicating certain practices and nurturing certain others, the existing knowledge and skill base needs to be suitably scaled-up to achieve optimum returns. In particular, certain areas which have not had the required impact need to be strengthened. These include:

- promotion of vermi-compost technology;
- IPM practices such as use of *Panchakavyam* to replace pesticides;
- post-harvest storage practices;
- aggregation and marketing of organically cultivated groundnut;
- multiple crop rotation; and
- reducing irrigation intensity.

External Leverages

19. The project created several institutional linkages for technical services. First, the project facilitated testing of soil and water to assess their suitability for different crops by the Agriculture Department. After testing of water and soil, the results were supplied to the farmers in the form of a Soil Health Card with suitable advisory on crop cultivation and other precautions to be taken. Though the testing services were provided to the demo farmers, the practice had a cascading impact on other farmers as well as the advisory was found useful and the testing charges were nominal. Second, the exposure visit of the demo farmers to the Regional Agricultural Research Station (RARS) at Tirupati was found to be a great learning experience. The farmers gained good understanding of selection of right seed *(Gulabi, Jaya, Gooty, ICG, S44)*, treatment of seed with Trichoderma, optimum seed rate (90 to 100 kgs per acre) and IPM technology and its uses. The visit to RARS also exposed the farmers to new ploughing implements, sprayers and other technology. After the visit, some farmers were guided to procuring Taiwan sprayers from the Agriculture Department. Further, samples of groundnut produce using new methods were sent to the marketing department for assessing oil content and the results were awaited. However, the project did not focus on leveraging financial and marketing services, as the project duration was only one year. In the event of extension of the project, the following areas should receive attention:

- leveraging credit resources from the banks;

- enabling greater use of services provided by the government such as subsidies for sprinklers, sprayers, vermi-compost units, weeding machines, seeders *etc.,*; and
- facilitating sustained linkage with RARS and KVKs.

Promotion of CBOs

20. As part of the project, 10 groundnut farmers association at the rate of 1 per village were promoted. Apart from promoting, savings and inter-lending, the associations are expected to address the common problems of the groundnut farmers such as procurement of seed, fertilizer, equipment, subsidy from the government and marketing. However, only three associations started monthly savings and the cumulative saving stood at Rs.69,000/-. Inter-lending remained to be introduced. All the associations were provided books of accounts by the project. However, the functioning of the groups needs to be improved by facilitating regular conduct of meetings around common issues and their resolution. The groups need to be trained on self-management skills. The associations need to be guided to accessing financial, marketing and technical services from the formal institutions. The association should focus on undertaking common activities benefiting all the small and marginal farmers such as renting of equipment, facilitating soil and water testing, procurement of organic fertilizers and pesticides, aggregation of produce and marketing.

Emerging/Persisting Challenges

Resistance to Change

21. The most formidable challenge to the promotion of sustainable agricultural practices is the resistance of the farmers to change the cultivable practices in general and the practice of using chemical fertilizers and pesticides in particular. There appeared to be two fold reasons for resistance. First, aversion of small farmers to take up risks associated with shifting from traditional practice to new practices. The yield risk associated with the shift appears to be the real deterrent. As all the demo farmers had tiny holdings, any crop failure or yield reduction was considered risky. There is no element in the strategy to offset the loss due to yield reduction if any resulting from change in the cultivable practices. Further, conceptually, selecting small and tiny farmers as change agents needs to be reexamined as historically it is the large and medium sized farmers who have successfully propagated new agricultural technology and practices. Further, some sample farmers indicated that the new practices are more labour intensive and procurement and preparation of organic fertilizers and pesticides is time consuming. Some of the suggested bio-organic materials such as neem cake, neem oil and gypsum are not readily available in the market. Preparation of *Panchakavyam* and other organic pesticides is perceived to be labour-intensive. On top of all, the doubts about the effectiveness of the organic methods are a big hindrance to change. Lack of development of markets for organic produce is another limiting factor. Further, the farmers opined that low seed rate leads to weed growth and consequent rising expenditure on weeding. However, with deep ploughing and proper soil preparation, the weed threat can be minimized.

Risk of Discontinuation

22. The project provided several inputs to bring about changes in sustainable agricultural practices, free of cost. Each farmer was provided Jowar and Castor seed, Neem cake, Trichoderma, Pheromone traps, Lures (Heli spodo), B.T. medicine, Yellow sticky traps, NPV heli and NPV spodo, Vermi compost and Gypsum, valued at Rs.2,500/-. The demo farmers adopted certain new practices as the inputs were supplied free of cost. In the absence of project support, it is not clear if the farmers would meet the additional cost and continue the

new practices. Moreover, procuring the multitude of inputs could pose a problem to the farmers.

Participation and Commitment

23. The implementation of the sub-project was done in a participatory manner. The process had resulted in a certain visible participation by the beneficiaries. The following activities engendered participation and commitment by the farming community:

- participatory methods employed for BLS;
- sensitisation of farmers (through Village level *Kalajatha* and home visits);
- village level mass meetings;
- setting up of farmer field schools; and
- frequent visits of NGO staff.

Social Impact

24. The project targeted only small and marginal farmers belonging to all social groups including some women headed households. However, as the ownership of land was the basis for inclusion, the proportion of the SC and the ST was relatively low. However, all communities were represented on the executive committees.

Economic Impact

25. The project interventions had a positive impact on the incomes of small and marginal farmers in the demo group. The early results indicate a positive net economic benefit to those who had adopted new practices. The organic methods adopted may have had some small impact on generation of additional employment opportunities as well.

Environmental Impact

26. The sub-project has promoted appropriate technology available. The technology is eco-friendly and seeks to mitigate the current adverse impacts of indiscriminate use of chemical fertilizers and pesticides on land and hydrological resources. The eco-friendly practices promoted include:

- promotion of soil and water testing practices among the farmers;
- provision of agricultural inputs such as seed for border/trap crops, supply of Gypsum, Neem cake, Trichoderma, Pheromone traps, yellow stick traps, NPV heli, NPV Spodo sufficient for demo plots;
- promotion of vermi-compost technology;
- focus on replacing bio-hazardous chemicals; and
- promotion of reduced water use practices through sprinkler/drip irrigation and irrigated dry crops and the consequent reduction in consumption of electricity.

Sustainability and O&M Arrangements

27. As part of the project, 10 groundnut farmers association at the rate of 1 per village were promoted. Apart from promoting, savings and inter-lending, the associations are expected to address the common problems of the groundnut farmers such as procurement of seed, fertilizer, equipment, subsidy from the government and marketing. However, only three associations started monthly savings and the cumulative saving stood at Rs.69,000/-. Inter-lending remained to be introduced.

28. All the associations were provided books of accounts by the project. However, the book-keeping needs a lot of improvement. The groups need to be trained on self-management skills. The associations need to be guided to accessing financial, marketing and technical services from the formal institutions. The association should focus on undertaking common activities benefiting all the small and marginal farmers such as renting of equipment, facilitating soil and water testing, procurement of organic fertilizers and pesticides, aggregation of produce and marketing.

Contribution of Sub-Project to NGO and CBOs

29. The sub-project has enabled the NGO to strengthen its capacity to implement sustainable agriculture practices in Agriculture during the post-rehabilitation phase of the TRP quite effectively. The frequent visits of the project staff to the villages helped in developing good rapport with the community. The sub-project has also contributed to the strengthening of the capacities of groundnut farmer committees to undertake regular monthly savings and organize monthly meetings. The project also promoted the self-management capacity of the committee.

Impact of Interventions on the Delivery of Services by Government Agencies

30. The interventions have some positive impact on the delivery of services by government agencies in the agriculture sector. The IEC activities motivated the groundnut farmers to access the soil and water testing services provided by the government. The Agriculture Department also extended its services to institute maintenance of Soil Health Cards on the basis of which suitable crop advice was provided. The RARS also facilitated the farmers to gain relevant knowledge and skills in the agriculture practices.

Implications of the Project to Underlying Causes of Poverty

31. Mobilization and organization of farmers belonging to different socio-economic groups into village level associations for undertaking common activities could promote social harmony and eventually contribute to more equal power relations. Improved returns from new agricultural practices could also reduce the economic inequalities in the long run.

32. The project interventions also address some issues arising out of failure of governance. Dissemination of information on new agricultural practices and propagation of new technology is the primary responsibility of the Agriculture and Horticulture Departments and the regional research laboratories of the Agriculture University. However, the small and marginal farmers were not able to access the services provided by the government agencies effectively. The strong IEC component, coupled with the exposure visits to RARS facilitated access of the farmers to relevant knowledge and skills. The soil and water tests facilitated and the supply of gypsum to the farmers clearly met a long felt need arising out of the functioning of the government organizations.

33. The project activities, however, did not address issues arising out of market failure. One of the important areas of market failure is reflected by the credit constraint of the small and marginal farmers. Though farmers associations have been promoted, they remained to be linked with the formal financial institutions for credit. This is also true of insurance. There is no insurance coverage of small and marginal groundnut farmers of the 10 villages. There are no developed markets for organically produced groundnut. This is another area, the development of which could result in better returns for the farmers undertaking organic cultivation.

Key Learning

34. The following key learning emerges from the sub-project:

- ***Duration of Project:*** As change of deep seated agricultural practices requires sustained efforts, the duration of the project should be long enough to catalyze such changes;
- ***Selection of Farmers:*** Technological and cultural changes undertaken by large and medium sized farmers tend to have a greater multiplier effect on the farming community. As such, a mix of farmers from different size classes may be selected for interventions of this nature;
- ***Scale of Project:*** The number of farmers supported for adopting of new practices under the demonstration component should be large enough to create necessary synergy for propagation. The area involved should also be large enough to create an impact on the neighbourhood;
- ***Yield and Price Risks:*** As perceived yield and price risks generally deter small farmers from undertaking new practices, the project may provide for risk mitigation measures at least during the project period;
- ***Incentivize Adoption***: Instead of providing some subsidized inputs to catalyze changes in agricultural practices, an alternative method of providing incentives to successful adopters could also be tried;
- ***Explore Input and Output Markets:*** In the absence of suitable markets for organic inputs and market for organically cultivated crops, the new practices involving organic methods of cultivation may be difficult to sustain;
- ***Credit Support:*** In the absence of suitable interventions to augment credit supply to the farmers, it would be difficult to catalyze changes in agricultural practices by the small and marginal farmers; and
- ***Focus on CBOs:*** Unless the farmers federations is strong enough to handle common issues such as supply of equipment, aggregation of produce and procurement of inputs it would be difficult to sustain the new practices by the small and marginal farmers. Promotion of sustainable agricultural practices among small and marginal farmers, therefore pre-supposes functionally effective self-managed and self-governed federation/association.

CARE-TN
A Report on Evaluation of Promotion of Farming System through Enhancing Sustainable Livelihoods of Small and Marginal Farmers

Background of Sub-Project

1. Agriculture is the main source of livelihood in the Tharangampadi region of Nagapattinam district, which bore the brunt of the Tsunami. Located in the tail end of the Cauvery river system, paddy is the most important crop cultivated in the region, followed by groundnut and vegetable crops. However, the productivity of the principal crop of paddy, had been on the decline due to various factors. Inadequate and uncertain release of Cauvery water, mono cropping, excessive use of chemical fertilizers and pesticides and neglect of soil-fertility enrichment practices have affected the yields from paddy cultivation, which was the main stay of the economy of the region. Added to these problems was the lack of adequate working capital for the small and marginal farmers who constituted the majority of the farmers. Poor access to institutional credit and inadequate extension service support from the line agencies, were the other problems that affected the livelihoods of the small and marginal farmers. It is in this context that CARE supported implementation of a project to promote sustainable agricultural practices by 312 small and marginal farmers in 8 villages in 5 gram panchayats of *Sembanarkovil* block of Nagapattinam district.

2. The principal purpose of the project is to promote sustainable organic cultivation practices by small and marginal farmers in paddy (System of Rice Intensification), vegetable and groundnut cultivation. More specifically, the objectives of the project are to:

- mobilize, organize and build functionally effective self-managed SHGs and federations of small and marginal farmers;
- encourage adoption of organic methods of cultivation (vermi-compost, organic manures and pesticides) in respect of paddy (SRI), groundnut and vegetables employing the method of demonstration;
- promote access of small and marginal farmers to credit, insurance and technical services from formal institutions (banks, insurance companies, line agencies, TNAU and KVKs); and
- restore traditional small community irrigation infrastructure (ponds, small tanks *etc.*,) to improve supplementary irrigation facility.

Activities

3. In order to accomplish the above objectives, the following activities were implemented under different components.

Table – 1
Components and Activities Undertaken: 2007-09

S. No.	Component	Activity
1.	Institutional capacity building	▪ Identified and organized 312 small and marginal farmers into 19 farmer SHGs and the SHGs into a federation (of whom 166 were direct beneficiaries) ▪ Federation registered in Aug.'08 and 5 member executive promoted (of whom 3 belong to the SCs) ▪ Training of executive members in federation management and bookkeeping
2.	Revolving fund and credit leverage	▪ Revolving fund of Rs.4.5 lakh provided by CARE ▪ 240 farmers in the first year, 158 in the second year and 59 in the third year provided a total bank credit of Rs.27.42 lakh under DIR
3.	Technical support, training and exposure visits	▪ 20 week long training provided to 18 farmers using farmers field school approach ▪ Exposure visit of farmers organized to TNAU (Karaikal), KVK (Sikkal) ▪ Training of farmers at federation office in Tranqubar at frequent intervals in different agricultural practices (SRI, Vegetable cultivation, Vermi-composting, cash crops, use of agricultural implements, water source, marketing *etc.,*) by trained staff of TNAU and KVK
4.	Promotion of new agricultural technology using field school approach/ demonstrations	▪ Technical and handholding support for promotion of SRI method, vegetable, bund crop and groundnut cultivation, use of organic manures and pesticides, new seed treatment practices, vermi-compost technology
5.	Crop insurance promotion	▪ Promotion of crop insurance practices by all farmers in respect of all major crops (in addition to micro-insurance covering the individual farmers). An amount of Rs.4.02 lakh in the first year and Rs.6.6 lakh in the second year were reported to have been received by the farmers as insurance claims.
6.	Restoration of community irrigation infrastructure	▪ De-silting and revival of small traditional water bodies such as ponds to improve irrigation potential
7.	Support for procurement of agricultural equipment and seed bank	▪ The federation was supported to procure and lease equipment such as seeder, sprayers, oil engines, conoweeder *etc.,*
8.	Support for model farm	▪ Land was leased in for setting up a model farm for demonstrating different methods of cultivation; income from the farm is utilized for running the federation

Progress of Implementation and Early Results

4. The sub-project was implemented during Sept.'07 to Aug./Sept.'09. The data furnished by the lead partner indicates that only a small number of farmers undertook SRI method of cultivation. While only 6 farmers adopted SRI during first year, the number rose to 12 in the second year and decline to 10 in the third year. However, some farmers

adopting the new method in the first and second years reverted to traditional methods later. The data furnished further shows that the average yield of paddy per acre from SRI method was 42 bags, while in the traditional method of cultivation it is 28 bags. The difference of 14 bags implies an additional income of Rs.6,000/- per acre. The small number of adopters was attributed to be due to the delays and uncertainties affecting the release of Cauvery water and the reported high cost of weeding and other activities in SRI cultivation.

5. In respect of vegetable cultivation, the data furnished by the lead partner suggest that only 30 farmers adopted vegetable cultivation after paddy season to supplement income and some of them were reported to have made an additional income of Rs.2,100/- while a large number of farmers lost due to unseasonal rains.

6. As far as bund cropping was concerned, only 80 out of 158 targeted farmers were reported to have secured an additional income of Rs.180/- on the average. In respect of vermi-compost, only 9 out of 16 targeted farmers continued the activity, though the returns were not encouraging. In respect of groundnut, about 30 farmers were reported to have adopted the new practices during the second and third phases and the results show better yields in one of the three villages in which the new groundnut cultivation practices were mainstreamed.

Methodology and Process of Study

7. The purpose of the present evaluation is to assess the appropriateness of the sub-project "promotion of farming system through enhancing livelihoods of small and marginal farmers in 8 villages of Sembanakoil block" and its impact on the 312 farmers targeted. The evaluation study adopted a three-step process. First, discussions were held with the CARE Nagapattinam district staff and the lead partner PEDA to understand the process of implementation, the key results and the persisting challenges. Detailed internal project implementation data as well as data on the emerging results of the sub-project was collected from the partner agency. This was followed by a visit to sample villages (Manikkapangu, Erukattancherry, Santankudy, Ananthamangalam, Vepancherry, and Chandrapady). Focus Group Discussions were held with sample farmers engaged in organic methods of cultivation including SRI, vegetable cultivation and groundnut. Discussions were also held with executive members of the farmers' federation. In-depth interviews were also conducted with select beneficiaries to assess the change in the cultural practices adopted by the small and marginal farmers and extent to which the changes had manifested in improved yields and returns. In addition, discussions were held with the project staff at all levels to understand their views on the different aspects and problems encountered by them in the process of implementation. The study was undertaken during Sept.'10 by a team comprising three consultants. The list of participants in the FGD and others interviewed is presented in Annex-___. The focus group guide and the key interview checklist are presented in Annex-__.

Key Findings of the Study

Appropriateness of Type and Scale of Intervention

8. The sub-project was designed to promote the livelihoods of the small and marginal farmers in the tail-end of Cauvery river system through a package involving: *(i)* SRI; *(ii)* short duration vegetable cultivation after the main Samba crop; *(iii)* organic methods of cultivation (organic manures and bio-pesticides, seed treatment, spray solutions, bund crops, production and use of vermi-compost); *(iv)* collective demonstration plots; *(v)*

revolving fund support for collective activities; *(vi)* training and capacity building; and *(vii)* market linkages for collective production.

9. The design of the sub-project component elements was based on the emerging agricultural situation of declining productivity, increasing cost due to excessive fertilizer and pesticide use and the consequent decline in returns. Promotion of SRI and vegetable cultivation, employing organic methods was certainly an ideal strategy to improve productivity and returns from agriculture for the small and marginal farmers. The strategy of demonstrating the experiments in a collective farm and the training and capacity building components were also appropriately designed. However, the choice of the area (8 villages scattered over 5 GPs of Tranqubar region) experiencing uncertainty about availability of irrigation water year-after-year did not appear to be appropriate. Further, selection of small and marginal farmers exclusively for the propagation of the strategy did not appear to be sound, for, it is the medium sized and large farmers who set replicable models for the small and marginal farmers. As far as market linkages are concerned, there did not appear to be any emphasis, perhaps because of the small number of the farmers that took up cultivation of SRI and a still smaller number of farmers taking up vegetable cultivation.

10. A close examination of the component elements and activities suggest that the internal consistency and synergy are lacking to a certain extent. The purpose and timing of collective demonstration is not clear. If the collective activity is meant for propagating new technology by live demonstration, then it should have preceded all other activities. Similarly, institution building (farmers SHGs and federation) could have received more emphasis in the first year, as the project was expected to last only for three years and the mature federation could have taken over the activities at the end of the project.

Scale of the Intervention

11. The scale of intervention appeared to be rather large and ambitious targeting 312 farmers scattered over 8 villages for a sub-project which is essentially in the nature of a pilot. While revolving fund is provided for as many as 250 beneficiaries, only 6 farmers in the first year, 12 in the second year and 10 in the third year adopted SRI for paddy cultivation. Further, only 2 farmers of the first year continued in the second year and 4 of the 12 farmers of the second year continued in the third year with SRI method. There is a clear mismatch between the number trained by different agencies under the project and the number actually adopting new methods. Even in respect of vegetable cultivation, only about 40 farmers were reported to have responded to the vegetable cultivation initiatives promoted under the project. There is an equally clear mismatch between the number of farmers trained and the number adopting new methods of cultivation. However, bund cropping, about 80 farmers reported to have responded to the new practices promoted. In respect of adoption of vermi-compost technology, the progress was even more limited. Only 9 out of 16 farmers continued with production of vermi-compost. The adoption rate in respect of groundnut was also reported to be limited. Thus, the potential target and the adoption rate of farmers appeared to be diverging over the three years.

Outcomes

12. The real test of success for a project designed to promote sustainable agricultural practices is the rate of adoption by other farmers in the target villages. However, no data is available on the adoption of the new practices by the farmer community outside the target group. Discussions with the lead partner and the sample farmers suggest that the rate of adoption was not quite significant. Even among the target community of 312 farmers, the adoption rate was pretty limited. As the new agricultural practices require a lot of lead time

to alter traditional practices, it is premature to come to a firm conclusion in this regard. However, the scale of adoption of SRI method, vegetable cultivation, bund- cropping and groundnut cultivation was not encouraging.

13. Notwithstanding the scale of adoption, the yield cost return data furnished by the lead partner shows encouraging results. The relative output from SRI cultivation vis-à-vis Japanese and traditional model by the same farmer, presented in the following *Table-2* shows that the new method is vastly superior over the others in terms of output. In terms of cost of labour used in weeding is slightly higher under SRI. The puzzling issue however, is the low rate of adoption, although the per acre yield under SRI is nearly 48% more than the output under the traditional method. This requires a much deeper study of the factors affecting the adoption of new technology. One needs to go beyond the issues relating to availability of water for irrigation.

Table – 2
Relative Yields of Paddy Cultivated Using Three Methods

Item	SRI model	Japan model	Traditional model
Extent of Area (in Acres)	1	1	1
Age of seedlings used (in days)	15	30	30
No. of times field tilled before seedling	4	4	4
No. of seedlings used per bunch	1	4	5
No. of sprouts per bunch	50	20	10
Space between spots of plantation (in Cms)	22.5	12	8
Number of times watered per week	1	7	7
Number of times weeding undertaken	4	1	1
Number of labourers used in tilling and land preparation	4	4	4
Number of labourers used in weeding	6	12	12
Number of labourers used in harvesting and threshing	16	16	16
Output per acre in bags	42	28	27

Source: Lead Partner

14. In respect of vegetable cultivation, the data furnished by the lead partner indicates that only 40 farmers undertook vegetable cultivation, each farmer making on the average an yield of Rs.2,100/- over a three month period. Even assuming 50% cost, the farmer would be left with a net income of over Rs.1,000/-. Why then was the rate of adoption low? The bund cropping was also reported to have produced a gross income of Rs.180/- per farmer and only about 80 farmers were adopting the practice seriously. In respect of vermi-compost technology, only 16 farmers had set up the units, but only 9 continued the practice. The rate of adoption in groundnut was no better. However, as pointed out earlier, the poor rate of adoption should not lead to the conclusion that the sub-project has not had the intended effects. Given the nature of the project targeting deep seated agricultural practices, sustained and focused further efforts are required to bring about the change. More significantly, the covariant factors influencing choice of agricultural practices should also move in tandem to have the desired effect. The most important of the covariant factors are irrigation water, access to institutional credit and insurance.

15. The study team's interaction with sample farmers indicates that certain new practices promoted were adopted by some farmers outside the demo group as well. These include practices relating to seed treatment, deep ploughing, optimum transplantation rate, use of neem cake, promotion of border crops, reduction in irrigation intensity and use of bio-fertilizers and pesticides. There is also an improvement in the knowledge base of the farmers as a result of sustained demonstration done on the model collective farm. However, sustained promotion would be required to facilitate adoption of these practices by a majority of the farmers on a sustainable basis.

Impact on Social and Economic Vulnerability

16. The small and marginal farmers engaged in paddy cultivation were exposed to three sources of vulnerability or shocks *viz.,* environmental shocks, yield and price related risks and non-environmental endogenous or institutional problems. First, environmental shocks to the small and marginal paddy cultivators arise in the form of cyclones, excessive and untimely rains, rising salinity of ground water, degradation of land due to excessive use of chemical fertilizers and pesticides as well as unsustainable agricultural practices. The introduction of crop insurance with support from CARE covering 250 farmers in the first year and 300 in the second year minimized the loss due to crop failure sustained by the farmers. However, the insurance needs to be renewed after the cessation of CARE support. The project interventions in the collective demonstration plot clearly had some marginal impact on the use of chemical fertilizers and pesticides. However, the impact of the interventions on the large farming community could be assessed in the long run. The early outcomes do not point to a significant reduction in the vulnerability arising out of change in the agricultural practices in favour of organic cultivation, SRI and vegetable cultivation.

17. Second, interventions such as promotion of quality seed selection and bio treatment of seed, production and use of panchakavya, leaf extracts, fish meal extracts, Amudha Karisal, preparation of spray solutions and demonstration of the adverse impact of spraying chemicals on the beneficial insects have the potential to reduce the yield related risks in the long run, if the initial yield from the demo plots is any indication. The increase in productivity and quality of paddy and vegetables in the demo plots as well as farmer plots points to the potential for the future. However, the interventions need to be scaled-up and sustained for a longer period to minimize the yield risks. There were no interventions to minimize the price related risks such as aggregation of produce so as to move the farmers up the value chain. No markets were explored either for organically cultivated paddy, vegetables and groundnut and perhaps it was too early to undertake such market tie-ups as the number of farmers adopting new methods was very small. In the event of the project extension, specific interventions may be designed to address post-production gaps in the value chain such as aggregation and sale of produce, value added activities such as deseeding.

18. Further, the project had components to address endogenous/institutional risks associated with paddy cultivation such as crop insurance. About 400 farmers were insured, with CARE subsidizing the insurance premium during the first two years. In addition, there was minimum support price (MSP) for paddy, which acted as a kind of a cushion to protect the farmers from price related risks.

19. Though, the sub-project was not designed to address social vulnerability or the differential impact of multiple stressors and shocks on different social groups as well as men and women, the sub-project activities could have some positive impact on the resilience of the small and marginal farmers belonging to the different social groups.

Knowledge and Skill Base

20. The sub-project has improved the knowledge and skill base of the small and marginal farmers engaged in paddy cultivation in 8 villages through participatory approaches adopted to promote new technology. The farmers field school approach focusing on demonstrations in the collective farm had a significant impact. Training by experts drawn from TNAU and KVKs and exposure visits to model farm sites had a positive impact on the community. However, as changing the cultivable practices is a long process of ex-communicating certain practices and nurturing certain others, the existing knowledge and skill base needs to be suitably scaled-up to achieve optimum returns. In particular, certain areas which have not had the required impact need to be strengthened. These include:

- promotion of vermi-compost technology;
- IPM practices such as use of *Panchakavyam* to replace pesticides;
- post paddy harvest vegetable cultivation practices;
- aggregation and marketing of organically cultivated paddy, vegetables and groundnut;
- crop rotation; and
- development of supplementary sources of irrigation.

External Leverages

21. The project created several institutional linkages for technical services. First, the project facilitated technical training of farmers on SRI, vegetable cultivation and vermi-compost production. The services of KVK at Sikkal and TNAU (Pajancoa) were used to provide technical advice and guidance to the farmers on soil and fertility management, nursery raising, transplantation, weeding, pesticide management, bund cropping, usage of cono-weeder, drum seeder and power sprayer.

22. The project also facilitated access to bank credit through an initial revolving fund deposit of Rs.4.5 lakh on behalf of the *Join Hands Federation* of the farmers. Later, sanction of crop loans to the farmers was facilitated. In addition, crop insurance premium was subsidized in the first two years to encourage the farmers to subscribe to the crop insurance scheme in order to minimize the risk of crop loss. However, the project did not focus on leveraging marketing services. In the event of extension of the project, the following areas could receive attention:

- continued leveraging of credit resources from the banks;
- enabling greater use of services provided by the government such as subsidies for sprayers, vermi-compost units, weeding machines, seeders *etc.,*; and
- facilitating sustained linkage with KVKs and Pajancoa.

Promotion of CBOs

23. As part of the sub-project, 8 SHGs of farmers and a federation (Join Hands Federation) were promoted. The federation was registered under the Trust Act (Enainthakaikal Farmers Development SHGs Federation, Regd. No.131/Aug 2008). The federation had a representative executive body which was meeting at monthly frequency to facilitate implementation of project activities, take decisions on the utilization of revolving fund and rent equipment procured with the fund. However, it is not clear as to why the federation is registered under Trust Act instead of Societies Act. It is also not clear as to the relationship between the SHGs and the trust/federation except that all members of the SHGs

are the members of the federation. Further, the revolving fund assistance of Rs.4.5 lakh to the federation was largely depleted and only an amount of Rs.1.00 lakh was reported to be available in Sept.'10. The diminishing financial basis of the federation could affect its long term relevance and sustainability, unless effective steps are taken to rebuild the corpus. The SHGs which were found undertaking monthly savings (Rs.50/- ppm) were not reported to be inter-lending the amounts. There did not appear to be an organic linkage between the SHGs and the federation which could sustain both.

Emerging/Persisting Challenges

Uncertainty of Water Release

24. The sub-project area located in the tail-end of Cauvery irrigation system has been experiencing delays and uncertainty in release of water. As a result, the farmers were not able to take timely decisions for raising the nursery and preparation of land for transplantation. Due to the unexpected delays in release of water, the farmers were not able to complete transplantation within 15 days of raising the nursery, an important practice for SRI. Thus, uncertainty relating to the duration of water availability is another factor affecting the choices of the farmers as well as their incentives. Absence of alternative sources of irrigation is another factor that affects cultivation of paddy. The ground water (beyond a depth of 15 feet) available in the region is not suitable for cultivation.

Leveling of Land

25. Paddy under SRI method is cultivated as an irrigated dry crop, requiring wettings at stipulated weekly intervals. However, dry irrigation method requires even surface of land cultivated to prevent run-off of top soil and avoid water logging. The sample farms visited were found to be uneven and the farmers indicated that lack of adequate water was one of the reasons for not being able to level up the holdings. Irrigating paddy grown on uneven land resulted in water logging in low lying areas defeating the very purpose of promoting SRI method.

Failure of Water Sharing Arrangements in Vegetable Cultivation

26. Nine farmers were identified for vegetable cultivation and formed into a CIG. Three shallow ponds were dug to provide irrigation on a sharing basis. An agreement was created for this purpose. Small oil engines were procured for lifting water for vegetable cultivation. Improved seeds, purchased from government seed farm, were provided to all 26 farmers. Each farmer was given money for raising bamboo fencing for their vegetable farms. However, only 3 farmers finally undertook vegetable cultivation due to problems in the water sharing arrangement. The water yield from the shallow ponds was not adequate for all farmers to take up vegetable cultivation. Further, the pump sets and oil engines purchased remained under utilized for want of sufficient water. Besides, the farmers were not able to hire the oil engines after making a caution deposit of Rs.500/- with the federation. Thus, promotion of vegetable cultivation after the Samba crop remains a big challenge.

Resistance to Change

27. The most formidable challenge to the promotion of sustainable agricultural practices is the resistance of the farmers to change the cultivable practices in general and the practice of using chemical fertilizers and pesticides in particular. There appeared to be two fold

reasons for resistance. First, aversion of small farmers to take up risks associated with shifting from traditional practice to new practices. The yield risk associated with the shift appears to be the real deterrent. As all the demo farmers had tiny holdings, any crop failure or yield reduction was considered risky. There is no element in the strategy to offset the loss due to yield reduction if any resulting from change in the cultivable practices.

Selection of Small and Marginal Farmers

28. Further, conceptually, selecting small and tiny farmers as change agents needs to be reexamined as historically it is the large and medium sized farmers who have successfully propagated new agricultural technology. Further, some sample farmers indicated that the new practices were more labour intensive and procurement and preparation of organic fertilizers and pesticides is time consuming. Some of the suggested bio-organic materials such as neem cake, neem oil and others were not readily available in the market. Preparation of *Panchakavyam* and other organic pesticides was perceived to be labour-intensive. On top of all, the doubts about the effectiveness of the organic methods are a big hindrance to change. Further, the farmers opined that low seed rate leads to weed growth and consequent expenditure on weeding. However, with deep ploughing and proper soil preparation, the weed threat can be minimized.

Discontinuation of New Practices

29. As part of the project, several new practices were promoted to encourage SRI cultivation, vegetable cultivation and bund cropping. Apart from the revolving fund support of Rs.4.5 lakh, a bank loan of over Rs.25.00 lakh was leveraged by the farmers. In addition, training and handholding support was provided by TNAU and KVK staff. Despite these efforts, the number of farmers adopting the new methods of cultivation had not increased. And not all those adopting the new methods in the first and second year continued in the third year. Promoting continuous adoption of new technology by at least a critical minimum member of farmer is essential to propagate the technology.

Relatively Weak CBOs

30. The SHGs and the federation are not effectively linked, except that all members of SHGs are members of the federation and that each SHG pays Rs.250/- to the federation per annum in three installments. SHGs do undertake savings at the rate of Rs.50/- ppm, but inter-lending is not promoted. The institutions remained to be nurtured as autonomous institutions.

Implications of the Project to Underlying Causes of Poverty

31. Mobilization and organization of farmers belonging to different socio-economic groups into federation for undertaking common activities could promote social harmony and eventually contribute to more equal power relations. Improved returns from new agricultural practices could also reduce the economic inequalities in the long run, if a larger number of farmers were to adopt new methods.

32. The project interventions also address some issues arising out of failure of governance. Dissemination of information on new agricultural practices and propagation of new technology is the primary responsibility of the Agriculture and Horticulture Departments and the regional research laboratories of the Tamil Nadu University of Agricultural Sciences and ICAR funded KVKs. However, the small and marginal farmers were not able to access

the services provided by the government agencies effectively. The strong IEC component, coupled with the exposure visits facilitated access of the farmers to relevant knowledge and skills. The access of the farmers to bank credit and crop insurance promoted under the project could also be considered as interventions designed to mitigate financial market imperfections. However, there is need for sustain the interventions to have a lasting impact on the access of the farmers to sustainable credit and insurance services.

Key Learning

33. The following key learning emerges from the sub-project:

- ***Selection of Area***: Area selected for sub-project implementation or piloting of sustainable agricultural practices should have all essential pre-requisites such as assured irrigation, suitable land and access to important markets.

- ***Support from Government***: In the absence of active support from the government agencies, agricultural university research and extension wings and KVKs, projects involving change of agricultural practices are not likely to succeed. Further, the changes envisaged under any sustainable agriculture project should be consistent with the plans and programs of the government departments. Isolated experiments tend to fail due to lack of critical mass and synergy.

- ***Duration of Project:*** As change of deep seated agricultural practices requires sustained efforts, the duration of the project should be long enough to catalyze such changes.

- ***Selection of Farmers:*** Technological and cultural changes undertaken by large and medium sized farmers tend to have a greater multiplier effect on the farming community. As such, a mix of farmers from different size classes may be selected for interventions of this nature.

- ***Scale of Project:*** The number of farmers supported for adopting of new practices under the demonstration component should be large enough to create necessary synergy for propagation. The area involved should also be large enough to create an impact on the neighbourhood.

- ***Yield and Price Risks:*** As perceived yield and price risks generally deter small farmers from undertaking new practices, the project may provide for risk mitigation measures at least during the project period.

- ***Incentivize Adoption***: Instead of providing some subsidized inputs to catalyze changes in agricultural practices, an alternative method of providing incentives to successful adopters could also be tried.

- ***Explore Input and Output Markets:*** In the absence of suitable markets for organic inputs and market for organically cultivated crops, the new practices involving organic methods of cultivation may be difficult to sustain.

- ***Credit Support:*** In the absence of suitable interventions to augment credit supply to the farmers, it would be difficult to catalyze changes in agricultural practices by the small and marginal farmers.

- ***Avoid Land Leasing and Collective Agricultural Experiments:*** The practice of leasing in land to demonstrate new agricultural practices may be avoided. Instead, all experimentation is ideally conducted in the private farms. Sustaining collective farms is neither cost effective nor propagation – effective.

- ***Focus on CBOs:*** Unless the farmers federations is strong enough to handle common issues such as supply of equipment, aggregation of produce and procurement of inputs it would be difficult to sustain the new practices by the small and marginal farmers. Promotion of sustainable agricultural practices among small and marginal farmers, therefore pre-supposes functionally effective self-managed and self-governed federation/association.

Sector : Animal Husbandry

CARE-TN
A Report on Evaluation of Household Dairy Development in the Tsunami Affected Fishermen Villages of Prakasam District

Background of Sub-Project

1. The coastal fishermen villages of Prakasam District experienced a serious threat to their livelihoods after the *Tsunami*. Even after the restoration of fishing equipment, the livelihoods of the communities did not exhibit any significant improvement because of the drastic decline in the catch. The Tsunami also devastated small alternative livelihoods that the communities had. The tiny land holdings of some households were rendered uncultivable. The wage labour available too declined for the women of the community, while the fishermen were generally reluctant to take up wage labour in the non-farm sector. As most of the fishermen in the district were migrant-settlers *(Pattapu Community)*, the community faced a certain amount of social exclusion from the social mainstream. Except for the traditional caste councils, the fishermen villages had no functionally effective community based organizations to mediate with the government agencies and formal institutions for development support. The excessive dependence on fishing with all its attendant uncertainties had rendered them more vulnerable than ever before.

2. The choice of household dairy was made on the basis of its potential viability and feasibility. Apart from being women-friendly, household dairy does not require specialized skills. Further, the dairy enjoyed excellent backward and forward linkages in the district. Besides, the household dairy emerged as a profitable livelihood enterprise in the non-fishermen villages. However, limited access to institutional credit, low awareness on animal management practices, lack of milk procurement and marketing infrastructure and limited fodder availability constrained development of household dairy in the fishermen villages. In order to address some of these constraints, CARE-INDIA in partnership with ASSIST, undertook promotion of household dairy in 24 Tsunami affected fishermen villages of Prakasam district during Aug.'07 to Aug.'10.

Purpose and Objectives

3. Thus, the central purpose of the sub-project is to promote household dairy as a sustainable complementary livelihood in 24 Tsunami affected fishermen villages. More specifically, the objectives of the project include:

- creation of an alternative livelihood option for the fishermen communities experiencing decline in income due to diminishing fish catch;
- capacity and skill-building of the community to manage household dairy profitably and sustainably;
- promotion of CBOs such as village cooperatives to overcome finance, marketing and other service related constraints; and
- facilitating access of the community to veterinary care and other services provided by the line departments.

4. The activities undertaken as part of the project fall under two components named as *'software'* and *'hardware'*, for easy dissemination.

Table – 1
Household Dairy Development : Components and Activities

S. No.	Component	Activity	Number Trained/ Assisted
1.	Software (20 Villages)	Training of para-livestock workers	48
		Training on animal management practices	2016
		Training on community based monitoring	220
		Training on self-management of milk co-operatives	267
		Exposure visits for cross-learning	94
2.	Hardware (4 Villages)	Direct project financial support for purchase of milch animals	135
		Insurance with 50% subsidy from government	135
		Purchase of feed with 50% subsidy from co-operative dairy and mineral mixture	135
		Leasing in of land for fodder development (in acres)	4
		Indirect financial support for purchase of milch animals	183
		Support for institutional credit leverage for purchase of milch animals (Total Credit Leveraged – Rs.22.5 lakhs)	151
		Support for promotion of green fodder (acres)	58
		Construction of animal sheds with community support	170
		Veterinary camps organized	64
		Promotion of milk co-operative societies	4

Source: Project Records of ASSIST

Early Results

5. The early results from the sub-project as indicated by the lead partner are quite promising. The intervention had contributed to a significant increase in the population of milch animals in the 20 villages. The number of milch animals was reported to have increase from 30 to 929 during Aug. 2007 to Apr. 2010 clearly pointing to the emergence of household dairy as a principal complementary livelihood for the fishermen community. Further, the data on milk yields presented for the 'hardware' villages in the *Table-2* indicates high returns on investment.

6. Further, indicative results of household dairy furnished by the lead partner for select software villages (*Motumala* and *Koduruvaripalem*) also point to the emergence of dairy as a principal supplementary source of income. A sharp increase in the number of milch animals, milk yields and returns from dairying were reported, although the average per animal milk yield in software villages is reported to be lower than the hardware villages.

Table – 2
Household Dairy Development : Some Results

Mar.'10

S. No.	Item	Quantity/ Value
1.	No. of milch animals purchased with direct support	135
2.	No. of animals lactating	115
3.	Average milk yield per animal per day (in litres)	4.3
4.	Average fat content *(Percent)*	6.8
5.	Average sale/procurement price of milk (Rs.)	28
6.	Average gross income per day (Rs.)	121
7.	Average duration of lactation period (months)	7
8.	Total income per calving per animal (Rs.)	25410
9.	Average cost feed, fodder per day (excluding labour and interest charges on loan) (Rs.)	40
10.	Total cost of maintenance of animals per calving (during lactation period) (Rs.)	13650
11.	Net surplus per calving (during lactation) (Rs)	11760
12.	Cost of animal maintenance during dry period (Rs.)	1200
13.	Net return from animal (Rs.)	10560

Source: Project Records of ASSIST

Methodology of Evaluation

7. The purpose of the present evaluation is to assess the appropriateness of the intervention and its impact on the livelihoods of the Tsunami affected communities in Prakasam district. The evaluation study involved three steps. First, discussions were held with the lead partner to understand the process of implementation, the key results and the persisting challenges. Detailed internal project implementation data as well as data on the economics of household dairy farming was collected from the partner agency. The CARE project management staff also provided key inputs at this stage on the progress of the project and emerging outcomes. This was followed by a visit to two sample villages *(Chenchupapayapalem and Madanur Swarnandhra Pattapupalem)*. Focus Group Discussions were held with sample dairy farmers to understand different aspects of the household dairy and changes in the livelihoods of the households. In-depth interviews were also conducted with select beneficiaries to assess the economics of household dairy. In addition, discussions were held with the project staff at all levels to understand their views on the different aspects and problems encountered by them in the process of implementation. Besides, discussions were held with a few key officials of the Animal Husbandry department who had extended support to the program in the form of veterinary services including training of para-livestock workers and insurance coverage of milch animals. The study was undertaken during Sept.'10 by a team comprising four consultants. The list of participants in the FGD and other dairy farmers interviewed is presented in Annex-___. The focus group guide and the key interview checklist are presented in Annex-__.

Key Findings of Evaluation

Type of Intervention

8. The intervention to promote household dairy among the Tsunami affected fishermen households was most appropriate and timely as indicated below:

- first, fishing as a major source of livelihood had been experiencing a decline due to the diminishing catch on the one hand and the uncertainty and risks associated with the catch, prices and incomes on the other;
- second, women in the fishermen community were under employed due to lack of adequate opportunities in the post-fishing operations;
- third, the men-folk on the other hand were generally reluctant to undertake any activity other than fishing, even in the face of declining catch, though some of them were engaged in agricultural labour for short periods;
- fourth, notwithstanding the potential, household dairy was not undertaken by the fishermen households due to lack of awareness, poor access to credit resources, inadequate veterinary services and shortage of milk collection infrastructure. Of the two sample villages, fishermen households had little awareness of dairying in *Chenchu Papayapalem* before the sub-project. While in *Madanur Swarnadhra Pattapupalem*, however, a few households were reported to be rearing milch animals on a sharing basis (obtaining calf free of cost from the owner, rearing till it becomes a milch animal and sharing its sale proceeds equally between the owner and the rearer); and
- fifth, even the few households that had one or two milch animals of non-descript variety had very poor knowledge of animal management practices. Their access to veterinary services was equally limited. As a result, the milk yields were very low and there was hardly any sale of milk. The mortality rate of calves was reported to be very high. There was no insurance cover for the milch cattle. The only source of financial assistance was the middlemen-financier who advances money to the fishermen households and procures fish. The rate of interest on such tied loans was reported to be very high (36 to 60%).

9. The major facilitating factor was that the women were willing to undertake household dairy which was potentially viable and feasible. Apart from being women-friendly, the activity did not call for any special skills. But development of household dairy as an alternative livelihood certainly required community mobilization, awareness building, financial assistance, training in animal management practices, veterinary service support, insurance cover and milk collection infrastructure. The sub-project was designed to address these deficiencies identified in the value chain analysis, to a large extent. Thus, the choice of the intervention was most appropriate to the livelihood situation of the fishermen households.

Scale of Intervention

10. The scale of intervention promoted was optimal to ensure economies to scale as indicated below:

- first, direct project financial assistance in the form of loans was provided to 135 households to purchase one milch buffalo (low graded local variety) in four core villages, known as 'hardware' villages. From out of the repayments to the revolving fund, an additional 183 women were provided loans for purchase of

milch animals. In addition, 151 households were supported to leverage bank credit for purchase of milch animals. The project assistance and the bank credit enabled about 200 households to acquire the second milch animal;

- second, milk cooperative societies were organized in the four 'hardware' villages to facilitate aggregation and marketing of milk;
- third, as envisaged the project identified and trained 48 community youth as para-livestock workers to provide veterinary support to the households; and
- fourth, to promote animal management practices, about 2,100 women were trained from both 'hardware' and 'software' villages on feeding and rearing practices, milking practices, calf-rearing and fodder cultivation. As planned, 94 women were taken on exposure visits to successful dairy farmers in *Kurnool* district. A series of 64 veterinary camps were conducted in the project villages to provide animal health care services.

11. Thus, the strategy adopted to limit direct financial support to four villages and provide training in animal management and other services including credit leverage in all villages is potentially sound. The synergy generated in the hardware villages could eventually produce a multiplier effect on the software villages.

Emerging Outcomes

Asset Base

12. The most important outcome of the intervention is the improvement in the livelihood asset base of the fishermen households. Before the launch of the program, only 3% of the households in 4 'hardware' villages possessed milch animals. In September 2010, almost all the households in these villages had at least one milch animal each and a few up to 3 animals each. The number of milch animals had increased from 31 to 929 in the four villages. The number includes both male and female calves. The female calves will eventually replace the mother animals and contribute to the sustained growth of the livestock assets.

Additional Income

13. The improving asset base has had its impact on the household incomes. The data available with the lead partner indicates that there is a significant increase in the incomes of households from dairying. Further, households with more than one animal had a regular income. The internal data suggests that on the average, each household with one milch animal was making a net monthly income of Rs.1,500/- to Rs.2,500/- during the lactation period (6 to 8 months). The average net income from single animal was estimated to be around Rs.10,500/-. If the interest cost is accounted for, then the net return may still be lower. Even if the value of calf and dung are added to the net return, one animal unit can at best provide supplementary livelihood and not the principal livelihood. Therefore, if two animal units are promoted, dairy could become financially viable and emerge as principal source of livelihood for most of the households.

Skill Base

14. The second important visible outcome was the improved skill and animal management practices in the hardware villages. A large number of women are now familiar with animal management practices as a result of training and early handholding support provided. Visit to the sample villages reveals that the women were providing excellent

animal care (*e.g.* erection of sheds, washing of animals, preparation of feed, growing fodder, caring for the calf, providing veterinary care, accessing artificial insemination services *etc.,*) and the women were more comfortable now with dairying than fish processing and vending. Interaction with the sample dairy farmers indicates that they can make right animal procurement decisions now than before. Even the men who were reluctant to their women taking up household dairy now appreciate the contribution of the dairy to their livelihoods.

Social Capital: Para-vets

15. The availability of community based para-livestock workers is a significant contribution of the project. The comprehensive training provided to 48 livestock workers has resulted in a significant improvement in the community's stock of social capital.

Consumption of Milk

16. A secondary benefit from the sub-project was the improvement in the consumption of milk by the fishermen households in general and the children in particular. The sample beneficiaries indicated that they were able to retain some milk (up to half a litre) for domestic consumption. Some of them admitted to giving milk and curds to their children. This is an important change in the food basket of the fishermen households.

Regular Income for Household Expenses

17. Further, regularity of income from dairying contributed to reduction of socio-economic vulnerability of these households. This is vindicated by the ability of beneficiaries to send their children to convents in the main village, affordability to pay the transport charges, and absence of school dropouts in the sample villages for want of payment of school fees.

Impact on Different Social and Occupational Groups

18. The emerging outcomes of the livelihoods sub-project have had certain important positive impacts on the fishermen community. First of all, the intervention has contributed to occupational diversification of the households, with dairy emerging as an important supplementary livelihood. For the women headed households, it has emerged as the principal source of livelihood. As a consequence of dairy, some women who are engaged earlier as agricultural labour have taken to dairying and the consequent local shortage of labour was reported to have led to an increase in agricultural wages. Even fish vending was not pursued by some women on account of their productive engagement in dairy. This was particularly noticed in the households with two milch animals.

Economic Empowerment of Women

19. As the women were primarily engaged in dairying and receiving income, there were certain intra household changes. Women not only had larger access to income but greater control over its use. The sample beneficiaries indicated that they were able to purchase certain household items as well as personal effects including small gold ornaments with the additional income. This is a pointer to the improved empowerment of women.

Reduction of Socio-Economic Vulnerability

20. The fishermen community was subject to three sources of vulnerability or shocks *viz.,* environmental shocks, trade and exchange related shocks and non-environmental endogenous or institutional shocks. Environmental shocks to the fishermen arise in the form of cyclones, excessive rains and other weather events that affect fish catch and the livelihoods based on the catch. Trade and exchange related shocks arise in the form of sudden slumps in demand from markets and unforeseen price changes. The non-environmental/endogenous shocks arise due to institutional causes in the form of lack of infrastructure and access to financial and technical services.

21. The dairy intervention has attempted to minimize the adverse impact arising out of three sources of uncertainty of the fishermen community. First, by promoting an alternative source of livelihood for a considerable number of households (about 450), the intervention has minimized the adverse impact of the fluctuations in fish catch due to adverse weather events. Regarding the dairy activity *per se,* insurance of milch cattle could minimize the loss due to death. In fact, insurance payments were made to three out of four farmers claiming redemption due to death of the animal (Insurance could not be claimed in one case, as the animal was buried before the insurance company staff arrived in the village due to pressure from the neighbours on the apprehension that it might lead to spread of the suspected disease). However, there is no insurance against infertility and the survival of the calf. Further, all animals procured in the second phase were not insured.

22. Second, the trade and exchange related risks in the dairy activity were partly addressed. The milk co-operatives and the procurement infrastructure had facilitated aggregation and minimized the market access problems. Third, the project had partly addressed the financial constraint that the fishermen households experienced by diversifying their livelihoods. The direct financial assistance, the revolving fund created and the lending made out of the fund and the leverage facilitated to bank credit had mitigated the credit constraint faced by the community.

Knowledge and Skills of the Beneficiaries

23. The project has contributed to the knowledge and skill base of the women in different aspects of household dairy, including animal management practices in the project villages. The outcomes of training are clearly visible in the selection of milch animals, feeding practices followed, quick veterinary care provided for sick animals and milking practices. The sample women respondents were able to clearly articulate the difference in SNF content between the first few streams of milk and the rest. The women clearly indicated that they were using the milk drawn in the first few streams for self-consumption, while selling the rest with high SNF at higher prices. The women were also found cleaning the dung at frequent intervals to keep the animal hygienic and maximize sale proceeds of dung. Though animal management training was provided to women from software villages as well, in the absence of simultaneous livestock asset building, these villages may require additional skill building as and when the livestock assets are actually acquired.

24. Further, there appeared to be a progressive improvement in the animal health management practices over the three year period as reflected in improving milk yields from cycle to cycle and declining calf mortality rate. The women also exhibit awareness about the need to facilitate artificial insemination of the animal as and whenever it comes to heating. The study team also observed the recent practice of feeding the milch animals with *'Beer Pottu'* (Hops waste) for higher milk yields and reduced the cost of feeding. These observations clearly indicate that the awareness and skill base created are sustainable enough to optimize the returns from the household dairy. Further, the training provided

PLWs and the milk cooperative committee members could also contribute to optimization of returns in the foreseeable future.

External Leverages Facilitated

25. The sub-project has facilitated leverage of important services such as credit, insurance, marketing and technical support for training as summarized below:

- 156 women were facilitated access to bank loan for purchase of animals. The total bank credit in the hardware villages amounted to Rs.22,50,000/-;
- all the milch animals purchased in the first phase were provided insurance cover for three years at a 50% subsidized premium of Rs.1,000/-;
- milk collection centers were established in four villages by the Prakasam District Co-operative Dairy to facilitate aggregation and procurement as well as supply of feed and veterinary medicines and to facilitate receipt of bonus from the dairy;
- the services of the Animal Husbandry Department were utilized for training the para-livestock workers (48), the women dairy farmers (2,800), conduct of animal health camps (64) and supply of fodder seed;
- further, the entry of Reliance to procure milk from the villages had resulted in better prices for the dairy households; and
- technical services provided include training of PLWs and women dairy entrepreneurs by the officials of the Animal Husbandry department.

26. All the external leverages had a positive impact on the livelihoods of the beneficiaries as reflected by improved capacities, increased incomes, reduced dependence on money lenders and reduced risk of loss from dairying due to death of milch animals.

Service Providers and CBOs

27. The CBOs (milk cooperative committees) promoted and strengthened (VDSS) in the project villages were facilitated access to the Ongole Dairy, Animal Husbandry Department and Insurance Companies for different services. The better price for milk, the community based procurement infrastructure created and the insurance services provided have contributed to the livelihoods of the households.

Contribution of Functional Literacy and Numeracy Skills

28. Though the beneficiaries were not covered under functional literacy program, training provided to women beneficiaries on animal management and community based monitoring system helped them to derive higher returns from dairying, besides gaining in self-confidence. Women in fishermen communities generally do not express themselves in the presence of village elders. But, a change could be noticed in the project villages where women voiced their problems and articulated freely in FGDs even in the presence of village elders. This serves as a pointer to not only economic but also social empowerment of women as a result of the interventions. Women had come to play a more active role in family decision-making process now than before as a result of the improved income sources.

Capacities of CBOs Promoted for Self-Management and Sustainability

29. The CBOs promoted/strengthened/supported under the program include milk cooperatives and Village Development Societies (VDSs) in the project villages. The VDSs consisted of the village elders and traditional leaders of fishermen communities, besides a

few active women beneficiaries. Training was provided to 237 cooperative committee members on principles of cooperation and roles and responsibilities of members. The VDSs are basically responsible for operating the revolving fund and to provide loans to women beneficiaries and take decisions in other matters.

30. In addition, there were SHGs of women and their federations in the project villages. Members were found borrowing from multiple sources. Apart from ASSIST, several other NGOs were also found operating in the villages providing different types of support. The Dairy cooperatives and procurement centers were also providing certain services to the households including loans for milch cattle, feed and veterinary services with buy back arrangements. As a result of the multiplicity of the organizations, it was found difficult to identify who exactly was benefiting from which agency and by how much. It was also found difficult to relate the assets distributed with the agencies providing support.

Emerging/Persisting Challenges to the Sustainability of the Livelihoods Promoted

31. Household dairy as it obtained in September 2010 in the sample villages exhibited all features of sustainability. The women have acquired necessary skills of managing the household dairy. The women have no other equally lucrative livelihood opportunity. The villages have all other features required for dairy. Availability of grazing lands, willingness to undertake fodder cultivation and the infrastructure established for procurement and marketing of milk, the availability of para-vet services and the entry of new players into the milk market could sustain the activity in future. The emergence of inter-linked markets is another sustainable feature. The willingness with which the dairy companies come forward to supply animals (or loans), feed and veterinary services and buyback milk is a pointer to the sustainability of the activity.

32. But, there were a few challenges to the sustainability of household dairy. First, dairying as a main source of livelihood for the households is unlikely to be sustainable with one milch animal. At least a two animal unit per household is required to ensure continuous flow of income. As the labour input required up to two to three milch animals is nearly the same, a two animal unit would minimize the cost and maximize the return. This would in turn require improved access of the households to credit.

33. The second challenge is to link all dairy households to one or the other commercial dairy and its forward procurement units. The commercial dairies in the district are increasingly coming forward to provide all pre-production services including a loan for purchase of animal, fodder, feed concentrates and veterinary care and recover the cost of services provided from the milk sale proceeds. The households should be encouraged to take advantage of the emerging dairy market. The households can focus only on animal management.

34. The third area of improvement is insurance. It was found that some animals provided under the second and third phase were not insured. Not all those animals insured had retained the insurance ear tags. The animals need to be retagged after keeping the insurance company informed. Renewal of insurance after three years is another challenge. In the absence of the services of the lead partner, renewal of insurance may prove to be difficult, unless the VDSs/cooperatives take up the responsibility.

35. Yet another potential problem could be the recovery of loans made out of the revolving fund. In the absence of the lead partner, the VDSs need to institute an effective recovery mechanism and continue revolving. But, the VDSs being dominated by traditional leaders of community may find it difficult to continue revolution of funds in the absence of

bookkeeping support. Further, mainstreaming the principals of micro-finance may be difficult in a traditional organization.

36. The institution of PLW needs to be integrated with the functioning of the milk cooperative committees. The PLWs also need additional training and some secured source of income to ensure that their services are available to the community.

Assessment of Institutions Created

37. The institution of milk cooperative committee in each fishermen village comprising the traditional leaders and representatives of the dairy households were fairly representative. The committees were responsible for operating the revolving fund and recovering loans from the beneficiaries. However, their capacities for self-management and governance were limited. The institutions need to be strengthened for managing not only thrift and credit but more importantly milk procurement and marketing.

Participation and Commitment

38. The process of participation of women beneficiaries in the program followed both traditional and democratic principles. The choice of beneficiaries for financial assistance for purchase of milch animal was made by the cooperative committee based on the felt-needs. It was understood that single women and widows were given priority in the sanction of loans. Similarly, the selection of women for providing training on animal health management and community based monitoring system was largely based on the interest evinced by the members. As such, the process followed in the selection resulted in effective participation and commitment. Other efforts such as supply of fodder seed and fertilizer, establishment of milk collection centers and tie-up with government dairy and insurance of milch animals under subsidized government schemes also promoted participation of the members.

Long Term Implications of the Interventions

39. The interventions are potentially women empowering. The improved access of women to income could improve their status within the household and outside and contribute to their empowerment. The improved asset base of the vulnerable households could progressively reduce economic disparities and enable them to overcome social disadvantages. The cooperatives of the dairy farmers could improve the bargaining capacity of the households. Thus, the intervention has the potential to address unequal power relations in the target community.

40. The interventions also appear to be addressing failure of governance. The improved knowledge base and awareness levels could result in the women demanding improved services from the veterinary/animal husbandry department.

41. The interventions also address certain areas of market failure. The promotion of credit through lending from revolving fund is a clear effort to address the failure of the formal credit market to reach out to the poor households. Facilitating access to subsidized insurance services provided by the government is another effort to improve the access of the households to the insurance market. The promotion of cooperative societies and their linkage with dairy companies is also an effort to link households with the market.

Social Impact

42. All the beneficiaries in 4 'hardware' villages belong to fishermen community (OBCs). Most of the households belong to BPL category. The target community in the software villages also belongs to fishermen community. A very small proportion of them were women headed households. Thus, the intervention was exclusively focused at the vulnerable fishermen community.

Economic Impact

43. Milch animals were provided to the fishermen households in a phased manner. Those women provided with or possessing second animal (about 20%) had improved their household income significantly and nearly all of them were expected to cross the poverty line. Even among others, the supplementary income from dairying had a significant impact on improving their income status. A majority of them could cross poverty line if an additional milch animal is provided to ensure continuity of income. In terms of generating self-employment and an occupational shift, all households in the hardware villages had experienced significant change. The improved income and the resulting changes in household consumption may be expected to have impacted the quality of life of the household members as could be observed from the use of additional income for purchase of essential household items, clothing and entertainment gadgets. The improved consumption of milk in the households is another positive feature. The intervention has also contributed to the member understanding of the importance of sending children to good schools.

Technical Standards

44. Low graded buffaloes were procured as part of the sub-project. The selection was appropriate to the conditions in the village.

Environmental Standards

45. The sub-project had no adverse environmental impact. On the contrary, it was eco-friendly and promoted organic farming.

Key Learning

- ***Viable Unit Size:*** The one-animal household dairy units are not economically viable. The tendency on the part of the households to dispossess the animals during the dry period only suggests that one-unit animals are not economically viable and the households found it difficult to manage them during the dry period. The statement of Polamma of Chenchupapayapalem that "*oka chudidi oka paadidi unte aa illu eppudu vangadu"* (a household with a conceived animal and a lactating animal will never suffer) aptly summarizes the learning. Other beneficiary Jalamma of the same village opined that "*oka gayde unna okay chaakiri rendu gaydelunna ade chaakiri"* (whether you have one buffaloe or two it is the same drudgery). While it is a good to start with one animal, to make the units viable, a second animal needs to be added. This would require improved credit access and availability of fodder.

- ***Breed Upgradation:*** Closely connected with the size of the household dairy unit is the breed of the animal. The animals in the sample villages were found to be of a very low grade and limited milk yields. It is essential to promote breed upgradation progressively to improve returns from dairying. This would in turn call for larger amount of credit, improved veterinary services, feed and fodder conditions.

- ***Link Each Household to the Commercial Dairy:*** The sample villages enjoy multiple market linkages. Apart from the Ongole dairy promoted by the government, the Tirumala dairy, the Reliance and other private operators are willing to supply the animal, feed and even veterinary services and enter into buyback agreement. The competitive dairy industry is slowly converting the dairy farmers into value adding processing units required to undertake only animal management. The emerging market scenario is advantageous to the farmer and should be facilitated to take advantage of it.
- ***Dovetailing Repayment Schedule with Lactation Cycle:*** The repayment of loan amount should be linked to the lactation cycle to prevent defaults and reduce burden on the households during the dry period.

- ***Insurance:*** Risk of death of animal can be mitigated only by ensuring coverage of all animals under insurance. A large proportion of animals procured during the second phase were not found to be insured. Promotion of universal insurance of milch cattle is an important learning. In view of the high mortality of calves and the consequent decline in the milk yields, insurance of calves may be explored. Further, insurance could be made a pre-condition for sanction of all loans including loans from revolving fund.

- ***Sustained Support for PLWs:*** The system of PLWs can be sustained only if the community owns them and pays for their services. Alternatively, the VDS/ cooperative society may be made responsible for making suitable payment for the PLWs, as observed in a sample village.

- ***Uniform Interest Burden:*** Loans given for milch animals should be advanced at the same terms and conditions for all households. Differential interest and repayment conditions affect the incentives of the dairy farmers.

- ***Community Oversight on Support from Multiple Agencies:*** In order to prevent misuse of funds or avoid excess funding of certain households, it would be essential to institute a coordinated mechanism at the federation/VDS level. As several NGOs and other agencies were found working in the same villages, it would be essential to avoid excess funding of the same households. Community oversight can result in more equitable distribution of grants/subsidies and avoid excessive debt burden on some households due to borrowing from multiple sources. Further, this could also minimize misutilization of grants/subsidies provided to different households.

- ***Livestock Asset Register at Village Level:*** Maintenance of a livestock register (at least for milch animals) by the VDS or any other CBO could minimize misutilization of donor funds/subsidies and contribute to insurance coverage. Each milch animal purchased or sold in the village could be photographed and enter into the register to avoid misuse of funds and dispossession of animals during the dry period.

CARE-TN
A Report on Evaluation of Community Driven Goat Project

Sub-Project Details

1. A goat-rearing sub-project was promoted by CARE in partnership with REAL in six Tsunami affected villages of Thiyagavalli panchayat in Kurinjipadi block of Cuddalore district during Aug.'07 to Sept.'07 at a total cost of Rs.25.10 lakh. Primarily designed to promote the livelihoods of about 400 marginalized and vulnerable households belonging to the Scheduled Castes and Backward Class communities, the sub-project sought to address value chain gaps at both the production and marketing ends. Besides, the sub-project attempted to promote a unique livestock asset sharing practice within the beneficiary community which could have a cascading effect on the livelihoods. More specifically, the objectives of the sub-project were to:

- provide additional income earning opportunity to goat-rearing for the vulnerable communities;
- fill-in all gaps at the production (feed, fodder, veterinary care, breed upgradation) and marketing ends of the value chain and ensure quality production of goats;
- create and sustain a community based system of passing on goat kids from the first line beneficiaries (200) to the second line beneficiaries (200);
- build capacities of the beneficiaries to manage livelihood centered CBOs; and
- empower women through greater access to livelihood assets and income and enhanced role in decision-making.

2. In pursuance of the above objectives, a series of activities were undertaken the components of institution building, capacity building and training, support for purchase of goats, revolving fund for SHGs and other activities such as insurance, vermi-compost and marketing during the project period of three years. An innovative feature central to the project was the transfer of female goat kids by the first line beneficiaries (200) to the second line beneficiaries (200). The activities undertaken under different components of the sub-project are briefly summarized in *Annex-1*. The sub-project has had multiple outcomes, the important of wage is the substantial increase in the goat stock in the six project villages, contributing to the livelihoods of the 400 vulnerable households. The outcomes of the project as visualized and captured by the project management are presented in *Annex-2* and *Annex-3*.

Methodology of Evaluation

3. The purpose of the present evaluation is to assess the appropriateness of the intervention and its impact on the livelihoods of the six Tsunami affected villages in Thiyagavalli panchayat of Kurinjipudi block of Cuddalore district. The evaluation study adopted a three-step process. First, discussions were held with the CARE Cuddalore district staff and the lead partner to understand the process of implementation, the key results and the persisting challenges. Detailed internal project implementation data as well as data on the emerging results of goat-rearing was collected from the partner agency. This was

followed by a visit to three sample villages *(Nandan Nagar, Ambedkar Nagar and Thiyagavalli)*. Focus Group Discussions were held with sample dairy farmers to understand different aspects of the goat-rearing and the emerging changes in the livelihoods of the households. In-depth interviews were also conducted with select beneficiaries to assess the change in the livelihoods of the goat farmers and extent to which the value chain gaps in goat- rearing were addressed. In addition, discussions were held with the project staff at all levels to understand their views on the different aspects and problems encountered by them in the process of implementation. The study was undertaken during Sept.'10 by a team comprising three consultants. The list of participants in the FGD and other goat-rearers interviewed is presented in Annex-___. The focus group guide and the key interview checklist are presented in Annex-__.

TOR-1: Examine the entire length of the value chain(s) intervened in and comment on the extent and suitability of intervention to yield higher benefits to the actor/ beneficiary within that value chain

Type of Intervention

4. The selection of goat-rearing as the sub-project activity was found to be most appropriate to promote the livelihoods of the beneficiaries belonging to the *Dalit* community. The principal source of livelihood of the beneficiaries was agricultural labour. Some of them were marginal farmers, while a few were engaged in inland fishing. A few households had some livestock including goats. However, all the beneficiary households were familiar with the livestock rearing in general and goat and sheep rearing in particular. The beneficiaries had no other special skills. Therefore, in the absence of any other significant asset holding and skill base, selection of goat-rearing for support appeared to be most appropriate. Further, access of the beneficiary community to the commons in the neighbourhood satisfied the necessary backward linkage. Availability of a flourishing market for purchase of goat kids in the villages around was another encouraging feature. At the marketing end, there was an elastic demand for male goats for meat and female goats for reproduction. However, ***inadequate access to credit, insurance, veterinary services, fodder and animal management practices were formidable constraints to adopting goat-rearing as a sustainable main or supplementary source of livelihood.*** The sub-project was appropriately designed to address these constraints to goat-rearing. Further, by introducing a system of transfer of goat kids from the first line beneficiaries to the second line beneficiaries, the sub-project has engendered greater harmony in the community for pursuing a common livelihood.

Scale of Intervention

5. The scale at which the sub-project activity was taken up also appeared to be appropriate to ensure economies to scale. Selection of 400 households in Thiyagavalli gram panchayat, (which had a total number of ____ households) for support under the ***sub-project appeared to be optimal to ensure the required amount of synergy and minimize costs of capacity building, training and provision of other services. Further, the scale was appropriate to undertake common procurement and marketing activities.*** What was more significant was the inter-linking of first line and

second line beneficiaries through an innovative goat transfer scheme, which resulted in a progressive build-up of the community's goat stock. The transfer scheme also facilitated internal learning and rearing practices.

TOR-2: Analyze the various sectors/ sub sectors identifying which ones have resulted in yielding significant benefits by way of additional livelihoods, improved skill based and income yielding opportunities for the beneficiaries deepening their current engagement in the value chain and/ or moving them to a more remunerative part of the value chain and which categories of beneficiaries in heterogeneous groups have benefited the most

Asset Base

6. The most visible and significant outcome of the sub-project is the sustained increase in the goat stock in the villages over three years. The goat population recorded a steep increase in the Thiyagavalli gram panchayat. As a result of the sub-project intervention, the total goat population net of mortality at the end of Sept.'10 stood at 7,700. Considering the initial support for 1,000 goats, the reported stock of 2,594 (net of sales and mortality) is a significant result of the project. In addition, the infusion of Tellicherry breed could progressively result in breed upgradation and higher productivity.

7. The construction of goat bank building (1,600 sft) and the provision of water supply is a valuable addition to the community's stock of livelihood capital. The infrastructure provided to facilitate marketing in the form of weighing scales and other accessories as well as the tricycle provided to collect dung for promoting vermi-compost is another important contribution of the project.

Additional Income

8. While no internal data is collected and maintained on incremental household income, there is a clear evidence to suggest that the income earning capacity of the beneficiaries has gone up and the raising goat stock, particularly, male stock, is an indication of the potential income. Further, the data furnished by the lead partner suggests that 971 goats were sold during the last three years. Assuming an average weight of 12 kgs per goat, the gross income reckoned at a sale price of Rs.120/- per kg would amount to Rs.14.00 lakhs. On an average, each beneficiary would have earned Rs.3,500/-. This is only realized income. As the stock increases, each household would stand to benefit significantly.

Skill Base

9. The other tangible outcome of the project is the improved awareness and goat management practices among the beneficiary households. Apart from the training provided under the project, the hands on experience gained in the actual management of the livestock, has contributed to the community's skill base. In addition, the availability of para-vets in the village, the experience gained in vermi-compost technology and fodder cultivation have also contributed to the skill base of the community.

Social Capital: Para-vets

10. The intensive training of 12 community based para-vets is another important contribution of the project. The para-vets were able to provide emergency veterinary care for foot and mouth disease/blue tongue. In addition, there services were used for administering de-worming drugs to the goats at nominal service charge. They were also found advising the community on good feed and fodder practices.

TOR-3: Looking at the benefits that have accrued to the individual beneficiary through various inputs provided through the CARE supported interventions comment on how and whether it has resulted in reduction of social and economic vulnerability and contributed to the empowerment of women and marginalized communities like Dalits and Tribals.

Social Harmony

11. The other significant outcome of the intervention was the harmony that the federation had engendered between the SCs and the BCs. The institution and capacity building had contributed to greater social harmony and a feeling of oneness among different households. More importantly, the FGDs suggest a decline in distress migration as a result of the sheep intervention.

Women's Access to Income

12. The access of the women beneficiaries to income had increased along with the additional work burden the goat sub-project had brought in. As the women were the direct beneficiaries, the project may be said to have contributed to their economic status within the household, at least to some extent. If the responses of the sample beneficiaries are any indication, then along with the incremental income, their role in household decision-making appeared to have improved. The intra-household disharmony was also reported to have declined as a result of the improved asset base of the women.

Reduction of Socio-Economic Vulnerability

13. The goat-rearing livelihood promoted was new to most of the beneficiaries. As such they were not exposed to the vulnerability associated with this livelihood earlier. The project however, has provided for reduction of vulnerability associated with the mortality of goats. The insurance cover provided to the goats initially was an effort to minimize the loss due to mortality. The community based para-vet services also had the intended effect of reducing mortality from the second year. The promotion of CIGs (later SHGs) and the federation were intended to protect the community from the trade and exchange related vulnerability. The decision of the federation to promote sale of livestock at a price not less than Rs.120/- per kg (live stock) was intended to protect the goat farmers from distress sale. The financial assistance provided in the form of one time grant and the transfer of goat kids from one set of beneficiaries to another free of cost also had the impact of protecting the goat farmers from the exploitation of the financier-trader intermediaries. The interventions as a whole had a positive impact on the livelihoods of the *Dalit* community. The dependence of the women from this community on agricultural labour had declined. The distress migration also seemed to have declined marginally. The improved asset holding of the vulnerable community had the desired impact of promoting a sense of security and well-being among them. The very possession of near liquid assets in the form of goats was a definite source of empowerment. The fact that women were the actual recipients of project support including the training had had a positive impact on their status in the household.

TOR-4: Comment on the skills base that is currently available with the beneficiary to manage the particular economic activity at an optimum level and the opportunities or constraints if any for further growth within the concerned value chain.

14. The sub-project has contributed to the knowledge and skill base of the women in different aspects of goat-rearing, in the six villages of *Thiyagavalli* panchayat. The outcomes

of training were visible in the grazing and feeding practices adopted and the veterinary care provided to the sick goats. The decline in the mortality rate among goat kids and the rapid increase in the stock reflect the good knowledge and skill base of the beneficiaries. Despite the initial reluctance, the fact that all the first line beneficiaries passed on female goat kids to other beneficiaries demonstrates healthy dynamics built into the federation. The willingness of the members to undertake breed upgradation by procuring Thelicherry goats is another aspect of their knowledge and skill base. New feed and fodder practices adopted also suggest that the community is poised for a big leap forward in goat-rearing. However, some households need to augment their livestock to insure optimal returns. This could require linkage of the SHGs to bank credit. The other practice that the beneficiaries need to revive and continue is to provide insurance cover to the goats to minimize the loss due to mortality associated with seasonal diseases.

TOR-5: Analyze the external leverages in the form of finances, market and technical services and other inputs and comment on their sufficiency and contribution to strengthening the livelihood system of the beneficiary.

15. The sub-project has facilitated leverage of **veterinary services** from multiple line agencies. The services of key officials of the Veterinary Department of the Government of Tamil Nadu, Rajiv Gandhi Veterinary College, Puducherry and other agencies were used for providing training and technical support to the beneficiary community. Exposure visits were organized to private goat farms for cross-learning *(Vijay Goat Farm, Ennayiram and Seenu Farm, Kongrampatti, Bahour)*. In addition, project veterinary doctor and consultant provided services to the beneficiary community throughout the project by making frequent visits to the project villages.

16. **Insurance** coverage was also provided to the goats in the first year through National Insurance Company. Micro-insurance products were also promoted to cover the beneficiaries. However, as there were no claims in the first year, the beneficiaries were reluctant to renew the insurance. The beneficiary community needs to be educated to the need for renewing the insurance to mitigate the potential risk of mortality.

17. **Credit linkage** with commercial banks is another area that needs to be promoted to facilitate expansion of the individual goat units. It was understood that only 29 SHGs were bank linked and efforts were being made to link others. The functioning of the remaining SHGs needs to be improved to make them attract loan funds under NABARD bank linkage scheme. The culture of repayment also needs to be strengthened to make the SHGs eligible for further and higher doses of bank loans. It was understood from the lead partner that the SHGs were being prepared to receive revolving fund from THADCO. Such infusion of external funds could be used to strengthen the SHGs and leverage bank funds. In the ultimate analysis, the individual goat units can be expanded and developed into a sustainable livelihood option only if the credit linkage is strengthened. Here in lies the source of long term sustainability.

18. **Marketing** is another area that needs to be improved. No effort was made to move the goat-rearers up the value chain by **facilitating aggregation or market tie-ups.**

TOR-6: Analyze and comment upon how access to livelihoods services have been addressed and how institutions have started looking at NGOs/ community structures as potential clients for them

19. Several changes were brought about in the terms of trade between the beneficiaries (and their CBOs) on the one hand and the other service providers on the other. The

conversion of CIGs into SHGs and promotion of new SHGs (3 in Nanthan Nagar and 2 in Thiyagavalli) could result in mobilization of additional bank credit. The THADCO has been considering several SHGs for revolving fund. The National Insurance Company has come to recognize the 400 goat-rearing households as potential clients.

20. The Animal Husbandry Department of Tamil Nadu and the Rajiv Gandhi Veterinary College of Puducherry provided technical services to the project. Both the institutions recognize the lead partner and the CBOs promoted as potential clients for them. On the basis of the linkage facilitated, the goat-rearing community should be able to access their services in future. Thus, the project has catalyzed several changes in the terms of trade between the community and livelihood service providers. However, further efforts are required to facilitate credit linkage of all the SHGs, insurance cover to the goats and provision of veterinary care to the livestock on a regular basis.

TOR-7: Contribution of Functional Literacy and Numeracy Skills (Imparted to the Beneficiaries as part of Livelihoods Promotion and their Impact on the Empowerment Status of Women/Beneficiaries)

21. Though the beneficiaries were not covered under functional literacy program, trainings provided to women on goat-rearing and their involvement in procurement and marketing had a positive impact on their functional skills.

TOR-8: Comment on the Capacities of CBOs Created to Manage the Activities Sustainably in Future

22. As part of the sub-project, CIGs, and later SHGs of beneficiaries were promoted. A livelihood federation of CIGs/SHGs was also promoted. The SHGs were practicing savings and inter-lending regularly and maintaining books of accounts. An executive committee of the federation comprising two members from each CIG/SHG was running the affairs of the federation under the close guidance of the lead partner. The federation had a total fund of about Rs.4.00 lakh in Sept.`10. Built largely with the funds received from CARE (Rs.1.8 lakh towards revolving fund for goat purchase, Rs.0.6 lakh for purchase of Thellicherry goats, Rs.0.85 lakh for developing fodder crops and setting up feed shops etc.,) the fund was used to provide loans for breed improvement, fodder cultivation and setting up feed shops. The repayment of the loans was reported to be according to the schedule. Thus, there was a federal structure with both SHGs and the federation functioning around micro-finance. The federal relationship needs to be strengthened. The practice of the federation directly advancing loans to the members should be discontinued. All financial transactions between the federation and the members should be conducted through the SHGs. Besides, the federation should be gradually strengthened to take up livelihood activities such as marketing of goats. This would in turn call for efforts to strengthen the federation. Support from the lead partner for some more time could strengthen the federation. But eventually, the partner should be prepared to make the federation autonomous.

TOR-9: What are the probable factors which might pose as challenges in the near future (*e.g.* access to markets/continuous access to entitlements *etc.,*) Recommend steps to be taken.

23. The goat project exhibits several features of sustainability. The assets are individually owned and managed and the role of the collective (federations) is limited to providing revolving fund/credit support for purchase of goats and for undertaking common activities such as fodder cultivation and running feed shops. The livelihood activity is women-friendly

and fits into the larger socio-economic situation of the *Dalit* and backward class households. However, in the near future, certain problems could crop-up.

24. First, recovery of loans advanced by the federation could affect its ability to advance additional loans. In the absence of support from the project/lead partner, the federation at its present level of capability may not be able to recover and revolve the refunds efficiently. Further support from the project/lead partner would be required to strengthen the federation and make it functionally effective.

25. Second, it was found that despite the project support, fodder cultivation was not taken up on the required scale. As raising of fodder crop in the coastal areas was found to be difficult, suitable tree crops may be promoted to provide necessary fodder for the goats. In the absence of development of alternate fodder crops, the goats could pose a threat to the cashew plantation in the area and some households may dispossess the assets.

26. Third, goats were insured only for the first year. Though seven goats were reported dead, no claims were made due to the elaborate redemption procedural requirement. Non-availability of veterinary doctor to certify death and the difficulties involved in supplying photographic evidence made filing of redemption claims very difficult. As a result, the goat farmers were not inclined to renew the insurance in the second year. Even the insurance premium collected remained unutilized with the federation. In view of the recurring foot and mouth disease, the mortality could affect the asset base of the households. Therefore, providing insurance cover to all goats remains a challenge.

27. Fourth, the size of the individual goat unit needs to be suitably increased to promote economies to scale and ensure good returns from goat-rearing. At present, shared rearing-grazing practices were undertaken by certain households as dedicating one worker for grazing was found to be uneconomical. This would in turn call for additional financial support and the federation was not in a position to provide the scale of finance required for all the members. Facilitating bank linkage of new SHGs and additional loans for the old SHGs will be a major challenge for the sub-project.

28. Fifth, the efforts made to aggregate dung and produce and sell vermi-compost did not appear to be sustainable in view of the labour cost involved. The services of a dung collector were hired for this purpose which was clearly unsustainable. The sale proceeds of vermi-compost were not being credited to the federation account. Therefore, the dung collection could be left to the individuals and a few households could be encouraged to take up vermi-composting.

29. Sixth, there was no system to monitor the stock of goats on a dynamic basis. The federation was not maintaining any record of the growing stock of male and female goats. As a result, facilitating transfer from one beneficiary to another was found difficult, although the giver and the receiver were identified in advance. This is something that the federation can do very easily.

30. Finally, breed upgradation had not evoked adequate response from the beneficiaries, although some Thellicherry goats were procured with the project support. This is an area which requires further support to promote productivity enhancement.

TOR-10: What are the long term implications of the intervention? How has it affected the underlying causes of poverty in terms of: *(i)* Addressing unequal power relations; *(ii)* Addressing failure of governance; and *(iii)* Addressing failure of markets?

31. The sub-project has implications for underlying causes of poverty of the *Dalit* and backward class community in the region. Apart from providing a potentially elastic livelihood asset base (goats), the intervention has nurtured community based institutions which can undertake certain collective activities to promote the livelihoods. The SHGs could enable the households to overcome their credit constraint. The federation, with additional support, could effectively deliver other support services such as supply of fodder, loans out of revolving fund and market intermediation.

32. Further, the interventions are potentially women empowering. Apart from the provision of asset, the skill training provided to the women has contributed to their knowledge base. The capacity building provided for self-management of CIGs/SHGs and the federations have enabled the women to demand services from the line agencies. The access of the women to additional income and near liquid asset of goat stocks provide necessary handles to the women to tide over household emergencies.

33. The improved access to veterinary services is in fact an attempt to address the failure of governance. The involvement of the line agency staff in training and capacity building has built the much needed rapport with the line staff. Further, the efforts made to promote bank linkage and insurance cover to goats reflect the efforts of the project to address market failure issues.

Annex – 1
Activities Undertaken Under Community Driven Goat-Rearing Sub-Project : 2007-10

S. No.	Component	Activity	Number Trained/ Assisted
1.	Institution Building	Promotion of CIGs of 400 beneficiaries	24
		Promotion of federation	1
		Conversion of CIGs into SHGs during second year	24
		Registration of federation as a society in the third year	1
2.	Capacity Building and Training	CIG functioning	200
		Federation strengthening	
		Training in goat bank concept	200
		Training in goat management and fodder cultivation	
		Training of animators and representatives in transformation of CIGs into SHGs	
		Community para-vet training for one week	12
		Training in goat management and marketing	350
		Management training for board members	24
		Intensive training for para-vets	12
		Traditional goat management practices	
		Exposure visit to functionally effective federations and Tellicherry goat farms	18
3.	Support for Purchase of Goats	Support for purchase of goats for 200 first line beneficiaries	800 F 200 M
		Support for purchase of male goats for second line beneficiaries	200 M
		Support for purchase of 12 male Tellicherry goats for breed upgradation	
4.	Support for Other Activities	Construction of goat bank office	
		Support for promotion of vermi-compost unit adjacent to the goat bank office	
		Grant for revolving fund of SHGs (Rs.1.2 lakh)	
		Support for setting up of feed shops	3
		Support for beneficiaries for raising of green fodder	10
5.	Goat Multiplication	Total goats procured	1,200
		Increase in goat population (net of mortality)	6,500
		Total goat population at the end of third year (including 2,700 kids)	7,700
6.	Market Support	Support for procurement of weighing scales	
7.	Production of Vermi-Compost	Production of vermi-compost from dung (in kg)	750
8.	Insurance	No. of goats insured (first year)	650
		No. of redemption claims made	nil

Note: M-Male; F-Female

Source: Fact Sheet on Livelihoods Project, Cuddalore CARE District Office

Annex - 2
Growth of Goat Stock : 2007-10

Beneficiaries	Distribution		Production	Pass on Kids	Sales	Mortality	Balance stock	
	M	F					M	F
First Line	200	800	1903	496	692	132	621	972
Second Line	124	496	768	-	215	74	453	646
First Line	621	972	1170	288	35	08	964	1446
Second Line	76	288	141	-	29	04	71	113
Total balance stock with the beneficiaries							1035	1559
Total Talacherry Goats balance stock							12	08

Source: Lead Partner Records

Annex – 3
Village-wise Livestock (Goats) : June 2010

Village	Total Families	Total SHG Members	Adult Animal		Kids	
			M	F	M	F
V. Nagar	90	65	342	316	142	106
N . Nagar	90	65	292	303	191	176
A. Nagar	160	118	476	492	265	267
P.Nagar	95	58	362	372	226	190
L.Nagar	95	60	295	325	162	158
T. Valli	270	114	752	672	432	394
Total	800	480	2519	2480	1418	1291

Source: Lead Partner Records

Annex – 4
Project Outputs and Achievement

Year	Training component	Beneficiaries
2007-08	Goat Health care management practices	200
2008-09	▪ Capacity Building of Goat Bank Board Members	24
	▪ Para Vet Training to Volunteers and staff	12
	▪ Exposure visit	27
2009-10	▪ Fodder Cultivation and Goat Management	129
	▪ Capacity building of Village Advisory Committee members	77
	▪ Para Vet training to community volunteers	32
	▪ SHG Members Capacity Building	372
	▪ SHG Animators & Representatives training	200
	▪ Goat Management and Marketing	129
	▪ Animal Husbandry Practices (Rajiv Vet College)	27
	▪ Capacity Building Goat Bank Board members	27
2010-11	▪ Goat Bank Board members training	31
	▪ Capacity building training to GB Board members	27

Source: Lead Partner Records

CARE-TN
A Report on Evaluation of Community Managed Poultry Project

Background of the Sub-Project

1. A community managed poultry farming sub-project was promoted by CARE in partnership with MNTN in four villages (Kalaingnar Nagar, MGR Nagar, Killai Thaikkal and Ponnanthittu) of Killai town panchayat at a cost of Rs.14.26 lakh to CARE. Primarily designed to promote the livelihoods of the *Irulars* an aboriginal tribe inhabiting the plain areas of the district, the sub-project was implemented during Nov.'07 to Apr.'10, for the benefit of 72 women members of 6 SHGs brought into a federation. The *Irulars* were engaged in the past in protecting the paddy crop from the rat menace, gradually shifted to foraying in backwaters for fish and prawns and as farm servants and agricultural labour. The fishermen community does not allow them to enter the sea for fishing. As a result, the *Irulars* came to depend on marginalized and declining occupations. The Tsunami rendered them much more vulnerable by affecting the potential for fishing in backwaters. Known for their loyalty to their masters, the *Irulars* were not given to community living and the condition of their individual housing was very poor. On the other hand, the *Irulars* were subject to exploitation by the middlemen financier-traders in terms of high interest rates on the loans advanced and unremunerative prices for the fish catch offered by them. Thus, CARE took up the task of promoting the well-being of the *Irular* community by first promoting permanent housing and later by diversifying their livelihoods through poultry farming. As part of the housing project, 30 *Irular* households were supported for backyard poultry with encouraging results. Recognizing the potential of the *Irular* and a few most backward households, CARE catalyzed development of commercial poultry farming by with the support of Government of Tamil Nadu (ADB-TEAP and JFPR). More specifically, the goal of the sub-project was to empower the *Irular* and other most backward communities by involving them in broiler poultry rearing as an additional but sustainable livelihood economic activity. More particularly, the objectives of the sub-project include:

- to provide sustained income earning opportunities in commercial broiler rearing by intervening in both the production and marketing sides of the value chain; and
- to promote the enterprise managing capacities of the vulnerable women.

2. A four-pronged strategy was adopted by the sub-project involving:

- development of infrastructure for broiler-rearing;
- facilitating tie-up with key market players for supply of chicks, feed, veterinary services, insurance services and buy back;
- training the beneficiaries in poultry-rearing and enterprise management; and
- institution building for enterprise management and financial linkage with the banks.

3. The activities undertaken under different components of the sub-projects are summarized in Annex Table-_. The project-activity mapping done by the lead partner is presented in Annex-_. The project feasibility analysis undertaken before the start of the sub-project is summarized in Annex-_. While the phase-wise project progress indicated by the lead partner is presented in Annex-_.

Methodology of Evaluation

4. The purpose of the present evaluation is to assess the appropriateness of the community based poultry farming intervention, its impact on the livelihoods of the 72 vulnerable ST, SC and BC households and its sustainability features. The evaluation study adopted a three-step process. First, discussions were held with the CARE Cuddalore district staff and the lead partner MNTN to understand the process of implementation, the key results and the persisting challenges. Detailed internal project implementation data as well as data on the emerging results of goat-rearing was collected from the partner agency. This was followed by a visit to sample villages *(*Kalaingnar Nagar, MGR Nagar, Killai Thaikkal and Ponnanthittu*)*.

5. Focus Group Discussions were held with sample women engaged in broiler rearing to understand different aspects of the activity and the emerging changes in the livelihoods of the households. In-depth interviews were also conducted with select beneficiaries to assess the change in the livelihoods of the women beneficiaries and extent to which the value chain gaps in poultry-rearing were addressed. In addition, discussions were held with the project staff at all levels to understand their views on the different aspects and problems encountered by them in the process of implementation. Besides, discussions were held with District Poultry Farmer Association to understand the common problems. The study was undertaken during Sept.'10 by a team comprising three consultants. The list of participants in the FGD and others interviewed is presented in Annex-___. The focus group guide and the key interview checklist are presented in Annex-__.

TOR-1: Examine the entire length of the value chain(s) intervened in and comment on the extent and suitability of intervention to yield higher benefits to the actor/ beneficiary within that value chain

Type of Activity

6. The selection of broiler-rearing as the sub-project activity was appropriate for the *Irulars* experiencing decline in their previous occupation of fishing in back waters. It was also appropriate for the other communities dependent on agricultural labour and small/ marginal farming. As the beneficiaries were by and large landless people and without any special set of skills, promotion of market linked poultry-rearing was a potentially feasible, viable and sustainable activity. The district had been experiencing a rapid growth in commercial poultry farming. A large number of poultry companies had emerged on the district scene providing live chicks, veterinary care, feed, insurance and other services to the rearers with assured buy-back arrangement. All that the rearers were required to have was infrastructure in the form of suitable rearing sheds, water, labour and small working capital. The provision of infrastructure grant by the GOTN (ADB-TEAP and JFPR) and the loan by the Canara Bank provided the necessary infrastructure. The CARE support filled in the critical gaps in infrastructure, besides the much needed capacity building and training required. Thus, with infrastructure, training and key inputs provided and with an assured buy back arrangement, it was more of a value added activity. Further, the uncertainties arising out of external shocks such as natural calamities and mortality of chicks were largely covered under insurance. The buyback arrangement essentially mitigated effects of price fluctuations on the rearers. Moreover, poultry-rearing is a labour intensive and women-friendly activity. Thus, with the vastly subsidized infrastructure and comprehensive training provided in poultry-rearing, the sub-project activity, effectively linked with the market at both ends of the value chain, was an ideal choice.

Scale of Activity

7. The scale at which the sub-project activity was taken up also appeared to be appropriate. Though poultry-rearing is not a scale-neutral activity, the infrastructure created in the form of six large rearing sheds was adequate to ensure scale economies for the 72 households identified. In fact, the rearing infrastructure had surplus capacity to scale up the activity. In any case, the scale was good enough to attract market players.

TOR-2: Analyze the various sectors/ sub sectors identifying which ones have resulted in yielding significant benefits by way of additional livelihoods, improved skill based and income yielding opportunities for the beneficiaries deepening their current engagement in the value chain and/ or moving them to a more remunerative part of the value chain and which categories of beneficiaries in heterogeneous groups have benefited the most

Asset Base

8. The sub-project was not designed to promote individual asset base. As such, no individual assets were created by the project. However, community assets in the form of 6 semi-permanent sheds with required facilities for chick-rearing were created. However, the land on which the sheds are constructed is leased in initially for three years, but could be extended up to 10 years with a price escalator clause pegged at 5%. Unless the lease is renewed beyond three years, the infrastructure created at huge cost could be appropriated by the land owner.

Skill Base

9. Improvement of capacities and skills among the women, particularly *Irulars*, is a most visible and significant outcome. Apart from the improved capacity to manage their SHGs and the federation, the *Irular* and other poor women engaged in the activity, appear to have improved their poultry-rearing and management skills. Interaction with the sample women suggest that they had acquired good skills in multiple areas of poultry rearing *viz.,* feeding, watering, maintenance of temperature, removal of waste, application of medicine and weighing. In addition, the women had a good understanding of the conditions of buy back agreement.

Additional Income

10. While no internal data is collected and maintained on incremental household income, there is a clear evidence to suggest that the income earning capacity of the beneficiaries has gone up. The estimates made by the lead partner suggest that each SHG could earn up to Rs.22,000/- in a span of about 50 days i.e., about Rs.1.3 lakh per annum. The Samanthi SHG of Kalaigngar Nagar is reported to have earned Rs.21,870/- during the rearing cycle Dec.'09 to Feb.'10. After meeting all expenses (including wages) and monthly loan repayment obligations, each SHG was reported to be making Rs.3,500/- to Rs.5,000/- per unit of 3,630 chicks. With better prices for value added and with reduced mortality, the SHGs could make higher income. Further, optimizing the number of chicks per shed/ enclosure could also maximize the returns for the SHGs. Further, women from all social categories appeared to have benefited more or less equally from the intervention.

Social Capital

11. The intensive training provided to the women in poultry-rearing could be viewed as a significant addition to the community's stock of cognitive social capital. On the other hand, the promotion and strengthening of SHGs and their federation, primarily around livelihood promotion could be viewed as development of bonding and bridging social capital among the most vulnerable *Irular* and other communities.

Consumption

12. An indirect benefit from the poultry-rearing activity was the increase in the consumption of chicken by the households. Though the women were not entitled to a share for domestic consumption, the poultry companies did allow the women to use small quantity of chicken for domestic consumption.

TOR-3: Looking at the benefits that have accrued to the individual beneficiary through various inputs provided through the CARE supported interventions comment on how and whether it has resulted in reduction of social and economic vulnerability and contributed to the empowerment of women and marginalized communities like Dalits and Tribals.

Social Harmony

13. The other significant outcome of the intervention was the harmony that the federation had engendered between the *Irulars* and other communities. The institution and capacity building had contributed to greater social harmony and a feeling of oneness among different households. More importantly, the FGDs suggest a decline in distress migration as a result of the poultry intervention among the *Irulars*.

Gender Relations

14. Though, the sub-project was conceived and designed during 2007-08, the delays in the release of assistance (ADB-TEAP and JFPR through GOTN) and the construction of sheds (including reconstruction of a shed following 'Nisha' cyclone) resulted in the actual rearing activity being taken up only from Dec.'09. Thus, the first stream of income was realized only in Feb.'10. Interaction with the women suggests that they had a relatively larger access to income from poultry rearing. For the severely marginalized *Irular* women, the greater access to income catalyzed by poultry-rearing is a source of empowerment. However, it may be noted that the activity has also created disproportionate burden of work on the women.

Socio-Economic Vulnerability

15. The commercial poultry-rearing livelihood promoted was new to most of the beneficiaries. As such, they were not exposed to the vulnerability associated with this livelihood earlier. The project design, however, has provided for reduction of vulnerability associated with the mortality of chicks for which premium is subscribed by the poultry company. However, for the poultry sheds, the beneficiaries are required to pay the insurance premium. It was understood that the application made by the beneficiaries for insuring the sheds was pending with the National Insurance Company. Given the fact that a shed constructed early as part of the project suffered extensive damage due to *'Nisha'* cyclone, it is imperative that the infrastructure created at huge cost is insured against

natural calamities and fire accidents. The beneficiaries were not directly exposed to any trade or market related risks due to the buyback arrangement.

16. The poultry intervention as a whole had a positive impact on the livelihoods of the *Irular* and other communities. The dependence of the women from this community on fishing in backwaters and agricultural labour appeared to be on the decline. The distress migration also seemed to have declined marginally. The fact that women were the actual recipient of project support including the training had had a positive impact on their status in the household.

TOR-4: Comment on the skills base that is currently available with the beneficiary to manage the particular economic activity at an optimum level and the opportunities or constraints if any for further growth within the concerned value chain.

17. The knowledge and skill base of the beneficiaries appeared to be adequate for continuing the poultry-rearing activity and to maximize returns from it. However, being mostly illiterate, the women require further support and guidance to undertake negotiations with the poultry companies. In the absence of the lead partner and CARE, the groups and the federations may not be able to negotiate effectively with the market players. As the actual rearing activity was taken up very late, the women require continued support at least till the end of the land lease agreement. In the meantime, the federation needs to be strengthened such that it takes over the larger responsibilities of market negotiations, extension of lease and other activities.

TOR-5: Analyze the external leverages in the form of finances, market and technical services and other inputs and comment on their sufficiency and contribution to strengthening the livelihood system of the beneficiary.

18. The sub-project has catalyzed a wide range of external linkages. First, a substantial grant-cum-loan from GOTN (ADB-TEAP and JFPR of Rs.21.73 lakh) is the most important leverage which had contributed to the establishment of the basic infrastructure required for the poultry farming, without which the intervention itself could not have been taken up. In addition, an effective credit linkage with Canara Bank was promoted under which adjunct loan finance was provided to the groups for construction of sheds (Rs.6.00 lakh). Further, insurance premium was collected and negotiations were in progress with the National Insurance Company.

19. Second, technical support in the form of advice and services came from the veterinary department. The District Licensing Authority provided the necessary permission for setting up poultry units. The good offices of the District Collector were used to facilitate land lease agreement for a period of 10 years, but to be renewed at the end of every third year at an additional cost of 5%.

20. Third, effective linkages were made with the poultry company (Suguna/Guhan/ Sivasakthi) for supply of chicks, feed and poultry health services as well as buyback agreement. MOUs between the federation and the poultry company were facilitated as part of this linkage.

21. Fourth, the poultry groups were made members of the District Poultry Farmers Association which would improve their collective bargaining for better rates from the poultry companies and other benefits from the government.

22. The range of linkages promoted has had positive impact on the livelihoods of the beneficiary households. However, the full impact of the leverages remains to be exploited and internalized. This would require a more optimal utilization of the infrastructure created.

TOR-6: Analyze and comment upon how access to livelihoods services have been addressed and how institutions have started looking at NGOs/ community structures as potential clients for them

23. Several changes were brought about in the terms of trade between the beneficiaries (and their CBOs) on the one hand and the other service providers on the other. The *Irular* and the other member beneficiaries are in a better position now to access credit from the banks as well as technical support from the veterinary department. The loan from the Canara Bank and its regular repayment has improved the credit worthiness and bankability of the groups. The willingness to purchase insurance cover for the poultry sheds could also promote a long term relationship between the beneficiaries and the insurance provider. The fact that new poultry companies are interested in tying up with the poultry farmers is recognition of their productive potential. Further, the willingness of the poultry farmers association of the district to admit the new poultry farmers into its fold also demonstrates that there is a significant change in the terms of trade between the livelihood service providers and the beneficiary groups.

TOR-7: Contribution of Functional Literacy and Numeracy Skills (Imparted to the Beneficiaries as part of Livelihoods Promotion and their Impact on the Empowerment Status of Women/Beneficiaries)

24. Though the beneficiaries were not covered under functional literacy program, trainings provided to women on poultry-rearing had a positive impact on their livelihood educational skills.

TOR-8: Comment on the Capacities of CBOs Created to Manage the Activities Sustainably in Future

25. Six SHGs promoted in 2005 were brought into the sub-project fold and strengthened through capacity building. A federation was promoted around poultry-rearing. The SHGs were meeting two to three times in a month, though not according to a schedule. Initially, the members were saving Rs.50/- per person per month. In addition, each member was contributing Rs.5/- every month towards administrative expenditure. However, two SHGs discontinued savings for some time, but resumed later and fell in line with others. The latest rate of saving was Rs.100/- ppm, in addition to a contribution of Rs.5/- towards administrative cost. The SHGs were undertaking inter-lending at 24% rate of interest. The repayment rate was about 90%. The bookkeeping was supported by the lead partner. In addition, the SHGs were maintaining the poultry sheds (cleaning and washing and disposal of waste), chicks (vaccination, feeding, administering medicines, growth monitoring, loading and unloading), bank transactions and maintenance of accounts.

26. The poultry federation was expected to articulate collective issues and negotiates with the external stakeholders on behalf of the poultry farmers. It was expected to negotiate with the poultry companies, bankers, external funding agencies and the District Poultry Association. More importantly, it was required to collect and disseminate information on market trends. However, the nascent federation, a registered society was yet to grapple with the multiple responsibilities. The 18 member executive (3 members from each SHG), was meeting once in a month under the guidance of the lead partner. The federation was

used as a conduit for receiving project funds. The federation needs further support and guidance to play its functional role.

TOR-9: What are the probable factors which might pose as challenges in the near future (*e.g.* access to markets/continuous access to entitlements *etc.,*) Recommend steps to be taken.

27. The most important challenge to the sustainability of the poultry livelihood is the continuation of the land lease agreement beyond three years, although the total lease period is 10 years. If the lease agreement is not extended, it could result in the entire poultry infrastructure built at huge cost going out of the possession of the beneficiaries. Therefore, every effort should be made to secure extension of lease at agreed conditions to the present beneficiaries. Alternatively, the government may be approached to purchase and transfer the land to the *Irulars* and other members.

28. The second important issue is to optimize the utilization of sheds for chick- rearing. Assuming that each cycle takes around 45 days for rearing, three to four cycles could have been completed between Dec. '09 and Sept. '10. However, only two cycles of rearing were completed in almost all the sheds. Therefore, optimizing the number of cycles is an important challenge. This would require certain amount of handholding for at least next one year from CARE/lead partner. Further, it was found that the space created in each shed was not put to full use. Besides, only 5 out of 6 sheds constructed were operational. This is another area which requires improvement. In fact, more number of groups could be involved in poultry-rearing to ensure optimal utilization of the infrastructure created.

29. Third, providing insurance cover to the poultry sheds is an important step required to minimize the risk associated with the environmental events such as cyclones, gales and fire accidents. Though, premium amount was subscribed by the members, the National Insurance Company had not finalized the agreement. In view of the past experience (serious damage caused to a shed by cyclone), it is imperative that the insurance cover is provided to all the sheds. The federation should be entrusted with the responsibility of securing appropriate insurance cover for the infrastructure. However, in the short-term, CARE/lead partner could facilitate the insurance coverage.

30. Though the women were trained to adopt certain precautionary measures to protect themselves from potential health problems, visit to the sample sites revealed that some were working with bear hands and feet. Cleaning of excreta, watering and spreading of husk was done without using any protective gear. This could result in dermatitis and other problems for the women workers. The CARE/lead partner could focus on promoting precautionary measures among the workers, if necessary by supplying protective gear. Alternatively, the poultry companies may be required to supply the gear. Further, CARE/ lead partner may also explore the possibility of covering the women under suitable health/life insurance.

31. Further, interaction with the women rearers suggest that they were not very clear about the basis on which payment was made to them. None of them was clear about the Chicks Feed Consumption Rate (CFCR) on the basis of which they were paid. The members were not familiar with the CFCR table presented in a 29X6 matrix. The services of the federation could be used to protect the interest of the individual SHGs. However, this would in turn require building the capacities of the at least key members to handle such tasks.

32. There appeared to be some truth in the allegation of the sample members that a poultry company (Guhan) caused substantial loss to them by prematurely terminating the rearing cycle to avoid mortality due to a suspected epidemic. The poultry company may be required to make payment for a minimum weight if it decides to pre-terminate the rearing cycle. Further, the rearers may be protected from the loss due to unusual mortality. The company may be required to share its insurance redemption claims with the poultry farmers.

33. The role of the federation in the livelihood activity needs to be determined clearly and mainstreamed. Further, the federation should be gradually nurtured to become autonomous of the lead partner, whose representative continues to hold cheque drawing powers jointly with the federation member at present.

TOR-10: What are the long term implications of the intervention? How has it affected the underlying causes of poverty in terms of: *(i)* Addressing unequal power relations; *(ii)* Addressing failure of governance; and *(iii)* Addressing failure of markets?

34. The sub-project has important implications for the underlying causes of poverty of the most backward *Irular* and other social groups engaged in backwater fishing and seasonal agricultural labour. The intervention seeks to shift the women from low end activities to more remunerative and market linked poultry-rearing activity. Mobilization of the women into a livelihood federation has improved their collective bargaining and brought about certain amount of harmony between the *Irulars* and other communities.

35. Apart from the provision of collective infrastructure, the skill training provided to the women has contributed to their knowledge base. The capacity building provided could result in better management of the CBOs and eventually contribute to the negotiating and intermediating skills of the poor. The intervention is potentially women-empowering.

36. The buyback market arrangements made with poultry companies partly address the imperfections in the poultry market, including the information asymmetry. Further, the efforts made to promote bank linkage and insurance cover to poultry birds and sheds reflect the efforts of the project to address market failure issues.

37. The project has also addressed some governance issues. The intervention of the district administration (District Collector) in facilitating land lease agreement and the sanction of ADB assistance (50% loan and 50% grant) to undertake construction of poultry sheds was intended to enable the target households to overcome capital market imperfections. The improved access to veterinary services is in fact an attempt to address the failure of governance. The involvement of the line agency staff in training and capacity building has built the much needed rapport with the line staff.

Sector : Fisheries and Aquaculture

CARE-TN
A Report on Evaluation of Mud Crab Fattening by Vulnerable Women

Background of the Sub-Project

1. As part of Tsunami Response Project, CARE through its partner NGOs, facilitated implementation of a ***'crab fattening'*** sub-project to promote the livelihoods of 104 marginalized women belonging to the fishing community, the SCs and the *Irula* STs in four villages of Killai Town Panchayat in Cuddalore district. The four villages were severely affected by the Tsunami and the households were relocated in relatively safe places, not far from the coast. While the fisherwomen were primarily dependent on fish vending and processing of dry fish for the livelihoods, the Irula women were involved in catching fish and prawn in the back waters using very primitive technology. The returns from the livelihoods were very meager and as a result the women were heavily dependent on their men folk for their economic requirements. Post-Tsunami, the production end of the fisheries sector, attracted a lot of financial and technical support, while the post-harvest activities received meager support. Further, no support, financial and technical was provided to promote women involvement in the production/harvest related activities which were potentially viable.

2. Given this scenario, CARE thought it appropriate to promote sub-projects that could deepen the involvement of women in the production end of the value chain for better economic gains. The backwater region in Killai was a natural resource that was considered suitable for starting crab fattening activity and their by moving the women from the post-harvest less remunerative activity to more lucrative production processes. In addition to the economic betterment, the intervention was also expected to promote harmony among the social groups of fishing community, the Irulars and the SCs. The fishing community considers fishing including foraying in backwaters as their social monopoly and are not generally favorably disposed to the Irulars getting into any form of fishing. The intervention was thus seen as a bridge to build livelihood harmony between the fisher folk and the Irulars. Further, by moving the disadvantaged women to the production activity, the sub-project also aimed at enabling the women to break the barriers imposed by the gender construct, particularly, in the fishermen community. Thus, the crab fattening sub-project activity through specially erected PEN structures in backwaters of Killai aimed at both economic and social empowerment of marginalized women. Promoted a total cost of Rs.19.14 lakh to CARE, the three year sub-project attracted ADB funding of Rs.8.00 lakh coupled with a bank loan for a similar amount.

3. The specific objectives of the sub-project were to:

- strengthen the livelihoods of economically and socially marginalized women through environmental free aquaculture production;
- build related capacities of the women to manage the activity in a sustainable manner (from sourcing of inputs to marketing of live crab); and to
- build and strengthen a community based institution which would eventually promote the interest of the women engaged in fisheries sector.

4. The outcomes expected of the sub-project were:

- improved income levels;
- better awareness on the part of women about external institutions like markets and financial organizations;
- improved ability to leverage entitlements;

- improved skills in production, negotiation and management; and
- greater participation at the household level in decision making.

Activities Undertaken

5. As part of the sub-project, CARE undertook the following activities:

- mobilization and organization of women into 7 SHGs and later the SHGs into a federation around crab fattening activity;
- training of members in group dynamics, management of federation and crab culture as well as guided exposure visits;
- leveraging technical support from CIBA and local NGO partners to build crab fattening skills among the women;
- facilitating SHG and federation credit linkage with the primary co-operative bank;
- facilitating leverage of ADB (TEAP) funding support in the form of grant through GOTN – Directorate of Town Panchayat for the 7 SHGs;
- investing in PEN infrastructure and facilitating insurance cover for the structures;
- handholding support for crab fattening – letting in juvenile crab, feeding, harvesting and instituting security system;
- facilitating support for procurement of soft shell crab and sale of fattened crab through buy back arrangements;
- monitoring procurement, production and sale activities; and
- facilitating liaison with other stakeholders such as the ADB, GOTN, CIBA, Forest Department, AFI and district government.

6. The details of funding, including funds leveraged are furnished in Annex-__. A total of 17 PEN structures (43,200 sq.ft.) were set up for the benefit of 7 SHGs (9 PENS for Irulars, 4 for fisher women and 4 for others). Each PEN structure could be used for fattening 215 to 270 crabs of XL size and 500 crabs of small and medium size per cycle. Each PEN structure can complete ___ cycles per year. On the average, each SHG had access to 2 PEN structures. The production sale and income details are furnished in Annex-__. The outstanding liabilities of the SHGs are presented in ___. A note on methodology adopted is furnished in Annex-__.

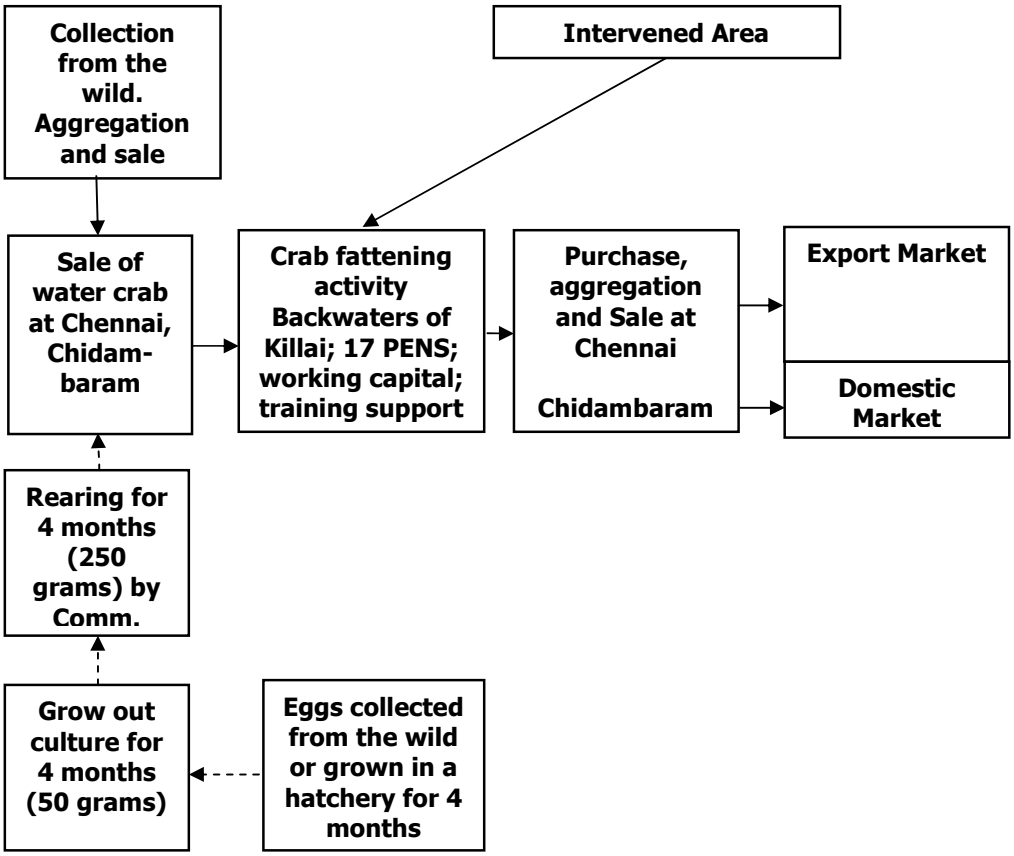
Key Findings against Specific TORs

TOR-1: Examine the entire length of the value chain(s) intervened in and comment on the extent and suitability of intervention to yield higher benefits to the actor/ beneficiary within that value chain

7. The crab value chain is depicted in *Fig.-1*. The intervention of the sub-project is focused on promoting the engagement of Irular and other women groups in crab fattening activity through infrastructure, working capital, training and institution building support. The other support is limited to some advice and assistance for entering into buyback arrangements with the traders who sell water crab and purchase fattened crab. Other activities depicted in the value chain do not seem appropriate for the women to engage in at this stage. In terms of experience, infrastructure, technology and capital required, the women groups do not appear to be suitable to undertake any pre-fattening activity. The early rearing activities can be undertaken only by private hatcheries with the support from agencies such as CIBA and MPEDA. The relatively long gestation period does not justify the engagement of women collectives. However, there is some scope for aggregation if the crab fattening cycles are synchronized and the federation takes the lead for aggregation and market intervention. However, the functional abilities of the federation were pretty limited and did not appear to be capable of handling any post-fattening activity. The extent of the

activity also appeared to be appropriate, as it was the first time that the SHGs were taking up any crab production activity. There were also limitations imposed by the policy regime. A much larger activity would be in the nature of a commercial aquaculture activity in the backwaters, which would attract the prohibitory provisions of the coastal aquaculture regulation statutes.

Fig. - 1
Crab Value Chain



TOR-2: Analyze the various sectors/ sub sectors identifying which ones have resulted in yielding significant benefits by way of additional livelihoods, improved skill based and income yielding opportunities for the beneficiaries deepening their current engagement in the value chain and/ or moving them to a more remunerative part of the value chain and which categories of beneficiaries in heterogeneous groups have benefited the most.

8. For the women from both the Irular and fishing community, the intervention constitutes a certain deepening of their engagement in the aquaculture value chain. Though crab fattening is an altogether new activity to all the women, the Irulars were engaged in the past in the collection of wild crab juvenile and fish in the backwaters. The women from the fishing community on the other hand, were engaged in post-harvest activities. Both the groups are now moved to the core production activity. Thus, the new activity represents an additional livelihood for the women. The training and cross-learning opportunities provided and the actual involvement in the fattening activity has also contributed to the skill base of

the women. Their current engagement in fattening is potentially lucrative. However, the sustained returns from the activity would depend on the continued availability of water crab and the ability of the groups to overcome the yield and price related risks and uncertainties. The intervention appears to have benefited all women equally, although in a relative sense, the Irular women are relatively better off than others. If the 'net surplus' data furnished in Annex-___ is an indication, then the activity promoted has contributed significantly to the income of the beneficiary households.

TOR-3: Looking at the benefits that have accrued to the individual beneficiary through various inputs provided through the CARE supported interventions comment on how and whether it has resulted in reduction of social and economic vulnerability and contributed to the empowerment of women and marginalized communities like Dalits and Tribals.

9. The study team's interaction with the women's federation suggested that there has been a reduction in distress migration among Irular and the SC women after the intervention. Further, many of the Irular women who were engaged as domestic servants and farm labour for low wages earlier, have now moved to self-employment. It was also indicated that there was an increase in the wage rate for women, after the intervention (along with several others in the post-Tsunami context). Most of the women admitted to receiving income at more frequent intervals than before. Focus group discussions also indicated that the independent income earning activity has given them a considerable share in household income for meeting individual needs and the requirements of children.

TOR-4: Comment on the skills base that is currently available with the beneficiary to manage the particular economic activity at an optimum level and the opportunities or constraints if any for further growth within the concerned value chain.

10. The skill base that is currently available with the beneficiaries is adequate to manage crab fattening activity at an optimum level, provided other complementary inputs such as working capital and water crab are available to optimize the activity. The capacities required for managing the SHGs and the federation however, need to be improved.

TOR-5: Analyze the external leverages in the form of finances, market and technical services and other inputs and comment on their sufficiency and contribution to strengthening the livelihood system of the beneficiary.

11. The sub-project has facilitated leverage of a wide range of services.

- First, the sub-project attracted funds to the tune of Rs.8.00 lakh from the ADB (JFPR) through the GoTN. In addition, an equal amount was sanctioned as cooperative bank loan of Rs.8.00 lakh to the groups. This was an addition to the direct support form CARE for meeting supplementary cost of infrastructure and working capital requirements. A community contribution of Rs.2.45 lakh was also catalyzed by the project. These funds facilitated the establishment of the PEN structures and provided working capital required for early crab rearing activity. However, the groups were experiencing shortage of working capital. Some of them were also defaulting on loan repayments to the cooperative bank. The cooperative bank linkage is not sustainable in the long run as the loans are driven by the ongoing government program budgets. It is essential to link the SHGs to the banks, which alone can ease the credit constraint in the long run.

Further, the groups should be facilitated to gradually increase their saving subscription for internal lending.

- Second, the services of National Insurance Company were accessed to provide insurance cover to all the PEN structures, which resulted in part compensation being paid to cover the damages caused to the PEN structures during the 'Nisha' floods. The present challenge is to ensure renewal of insurance for all PEN structures and negotiate with the insurance company for a more comprehensive coverage. There is no fund earmarked for maintaining the PEN structures. The federation could be guided to setting apart a fund for this purpose. The individual SHGs may be required to contribute to the fund. This is the only way the PEN structures can be maintained year after year.
- Third, the services of Central Institute of Brackish Water Aquaculture (CIBA), Aquaculture Foundation of India (AFI), Marine Products Export Development Authority (MPEDA) and Fisheries Department of GOTN were used during different stages of the project. AFI and the CIBA conducted a technical feasibility assessment which formed the basis for ADB funding. Initial technical training and support were provided by Dr.Sakthivel and his team from AFI. Later, several experts drawn from AFI, CIBA and Periyar, Kazhi Nandu Porripagam were involved in providing technical training and handholding support required to set up the PEN structures and undertake crab fattening. The support from these frontline agencies not only facilitated leverage of ADB funds but also provided continuous technical guidance and support to the crab rearers. The challenge now is to sustain this relationship. This would in turn require strengthening of the federation to play its role as a link between the SHGs and the technical agencies. Alternatively, the scope for linking the SHGs to CIBA may be explored. The CIBA may be requested to use the SHGs engaged in crab fattening as their livelihood promoting laboratories. This would in turn call for sustained advocacy.
- Fourth, the groups were guided to making good marketing contacts at Chennai (Palaverukadu) and Chidambaram which resulted in buyback arrangements. But, disaggregated sales and buyback arrangements have contributed to the vulnerability of the crab-rearers.

TOR-6: Analyze and comment upon how access to livelihoods services have been addressed and how institutions have started looking at NGOs/ community structures as potential clients for them.

12. The study team had a detailed interaction with the Director of CIBA and scientists engaged in crab related research and development activities. The CIBA was fully aware of the sub-project intervention and was willing to extend its technical support to the SHGs. The CIBA was also willing to support the SHGs for taking up rearing of the crab in the early stages. However, the Director of CIBA preferred to have a sustained relationship with CARE and its support for crab-rearing activities, rather than limiting the relationship to occasional technical advice and training inputs.

13. The Director of AFI was also pro-active and willing to support the SHGs engaged in crab fattening. However, he was concerned about the short supply of water crab and advocated the need for promoting commercial hatcheries which could assure regular supply. The Fisheries Department too considers the SHGs as their potential clients.

TOR-7: Contribution of Functional Literacy and Numeracy Skills (Imparted to the Beneficiaries as part of Livelihoods Promotion and their Impact on the Empowerment Status of Women/Beneficiaries)

14. Not applicable to the sub-project.

TOR-8: Comment on the Capacities of CBOs Created to Manage the Activities Sustainably in Future

15. Seven SHGs and a federation were promoted as part of the sub-project. However, only six SHGs were found to be functional. Not all the six were functionally efficient. The groups did not exhibit solidarity among the members. The groups were driven by a few members who were actually engaged in crab fattening. There was no mechanism to promote involvement of all members in the activity on a rotation basis in the early stages. More recently, the SHGs have introduced a rotational system of rearing activity (feeding, watch and ward and harvesting) being undertaken by batches of 4 to 6 women per cycle. The women get their wages paid from the sale proceeds, on the basis of surplus made, but after provisioning for loan repayment and working capital. However, the management of each group continued to rest with one or two key members. The groups need to be closely nurtured for some more time. Transparency and accountability system also need to be promoted as only a few members had understanding of the transactions. The group that had become defunct needs to be revived around the crab fattening activity.

16. Though a federation of SHGs was promoted, it had no role in procurement of soft shell crab, rearing and actual marketing. The federation acted as a channel to transfer CARE financial support for PEN structures received through the lead partner to the SHGs. However, the federation was expected to provide advice and support to the SHGs in setting up PEN structures and resolve inter-group conflicts if any. The federation is also expected to identify potential markets and facilitate linkages. In addition, the federation manages the working capital revolving fund as well as the emergency fund to which each SHG contributes at the rate of Rs.2,000/- pm (?). The federation needs to be strengthened and prepare to play the role of the lead partner in future, providing overarching support in all aspects of crab fattening centered livelihoods. The role of the Irular women needs to be mainstreamed in the federation as they are relatively backward and are new to leadership roles. The CARE and the lead partner would do well to focus on federation strengthening in the months ahead.

TOR-9: What are the probable factors which might pose as challenges in the near future (*e.g.* access to markets/continuous access to entitlements *etc.,*) Recommend steps to be taken.

Under Utilization of PEN Infrastructure

17. Visit to the sample field sites and FGDs reveal that the PEN infrastructure created at substantial resource cost was not put to optimal use. Of the 16 PEN structures established in the backwaters, each PEN divided into three enclosures, only about 40% were fully utilized for crab fattening. Only one SHG indicated that a part of a PEN was used for early crab-rearing activity. The segregated (by age and size) crab rearing activity (to prevent cannibalism) was not taken up by all groups. Shortage of working capital and short supply of juvenile crab appeared to be causing under utilization of PEN structures. The sustainability of crab fattening based livelihood activity critically hinges on optimal utilization of the infrastructure created at least for 9 months in a year.

Optimizing Number of Cycles

18. A critical factor affecting the returns from crab fattening is the number of cycles of fattening undertaken by each group in the PEN structures. If supplies are properly planned, each group can undertake 8 to 9 cycles of crab fattening in each PEN. However, for various reasons, the maximum number of cycles in any PEN was less than __, while the minimum was __. Optimizing the number of cycles, at least during the normal weather conditions should receive priority. This would in turn call for elimination of supply side bottlenecks and provisioning of required working capital.

Shortage of Juvenile/Soft Shell Crab

19. Interaction with the key members of the CARE, the partner NGO and the SHG leaders suggests that shortage of juvenile/soft shell crab is one of the important factors contributing to sub-optimal utilization of PEN infrastructure. The FGDs with the key members of SHGs of both fisherwomen and Irular women indicate that the crab collectors/ sellers located in Chidambaram, Chennai and other places were not able to supply the required quantity of soft shell crab to the SHGs for various reasons. As the suppliers themselves were dependent on collection of wild juvenile crab from individual collectors (fishermen and Irulars) scattered along the coast, they were not able to ensure supply of adequate quantity of juvenile crab. *Dr. Sakthivel* of the Aquaculture Foundation of India, however, indicated that no aquaculture can survive on collection of wild juvenile species, be it crab or any other marine species. According to him, wild seed cannot sustain any commercial aquaculture, even if undertaken on a small scale, unless early and late soft shell crab rearing is undertaken on a large scale. Therefore, *Dr. Sakthivel* opined that since seed production technology is available, there is a need for promoting crab rearing on a commercial basis through hatcheries. However, it was understood that a hatchery could be sustain only if there is sustained minimum demand for crablets/soft shell crab.

20. The study team, however, is of the opinion that it would be beyond the scope of sub-project to generate sustained minimum demand for crablets/soft shell crab to ensure viability of a commercial hatchery. As commercial crab fattening in the neighbouring state of Andhra Pradesh is reported to have declined drastically, there may not be a serious shortage of soft shell crab, at the present rate of collection of wild juvenile crab. Further, it is understood that the Rajiv Gandhi Centre for Aquaculture, Karaikal which supplies crablets at subsidized rates can be promoted an alternative source of supply to the SHGs. However, this would presume that the SHGs also take up early and late rearing activity prior to the fattening stage. The team also suggests that senior members of CARE team and its NGO partner visit the juvenile crab suppliers at Chidambaram, Chennai and other centers to understand and assess the nature and reliability of the supply chain of soft shell crab. Further, the viability and feasibility of rearing crablets by SHGs also needs to be assessed. The risk and the returns implicit in the rearing activity needs to be assessed afresh as rearing is a relatively longer term and perhaps more labour intensive activity.

Shortage of Working Capital and Buyback Arrangements

21. Apart from the shortage of soft shell crab, inadequate working capital appears to be a serious constraint limiting the extent of utilization of the PEN infrastructure. There appears to be a clear mismatch between the working capital support provided and the PEN infrastructure supported. The expectation that the SHGs/beneficiaries would mobilize at least a part of the working capital requirement on their own did not seem to have materialized. As a result, most of the SHGs had to enter into buyback arrangement with the juvenile crab suppliers at Chidambaram. It was reported that even under the buyback arrangement, the SHG buyers of soft shell crab are required to make advance payment of 50% of the cost. The sample SHGs indicated that they were not able to mobilize adequate

amounts for the advance payment, their by limiting the quantity of soft shell crab that they could procure.

22. On the other hand, the suppliers were taking advantage of the situation and under pricing the fattened crab (future/forward price contracts). In respect of juvenile crab procured by Irular SHGs from Chennai, there did not appear to be any buy back arrangement. It was reported to be a *cash and carry* system and therefore, the shortage of working capital was even more severe, although the Irulars were reported to be making larger net income as the sale price of fattened crab was not pre-determined. However, it may be noted that the team was severely handicapped by lack of reliable data on the economics of crab fattening for both the fisherwomen and the Irular groups. Further, as the key business transactions of the group were performed by a few women, there was no way of verifying the actual costs and returns involved in crab fattening. The only verifiable record relates to the loan repayment and it was found that there were substantial over dues in respect of most of the sample SHGs.

23. The team, therefore, recommends that the key members of CARE team and partner NGO visit the markets at Chennai, Chidambaram and other places to assess the actual procurement and sale prices, the details of buyback arrangements, the working capital required to optimize the utilization of PEN structures and provide more gainful employment to all the women members of SHGs. It is also imperative that the NGO partner and CARE officials visit the banks/ primary agricultural credit cooperatives which have advanced back ended subsidy loans to understand and sort out problems relating to repayment, rate of interest and outstanding loans. As certain apprehensions were expressed about the method of computation of interest, it would be necessary for the officials to ascertain the method adopted for computing interest on outstanding loan as well as the amount of subsidy held in the bank/credit society.

Maintenance of PEN Structures

24. The PEN structures require regular maintenance because of wear and tear, cyclonic storms and wave activity in backwaters. However, no system has been instituted to create and operate a fund for maintaining the infrastructure. Though all the PEN structures were insured against risks associated with unusual weather events, the compensation paid by the insurance companies was not found to be sufficient to restore the infrastructure, as evident from the recent '*Lyla' (?)* cyclone experience. The '*Lyla' (?)* cyclone had caused substantial damage to the PEN structures and the insurance payments made were found inadequate to meet the restoration cost. The CARE had to provide additional funding to restore the PEN structures. In view of this experience, it would be essential to create appropriate maintenance provisions to ensure that the infrastructure remains functional. Further, it would also be necessary to continue to insure the infrastructure by facilitating payment of premia. However, there did not appear to be any mechanism to ensure that the infrastructure is insured against risks. This is another area which needs to be addressed.

Disseminating Price Information

25. Both the fisher community and the Irular women indicated that they had no access to the market price of crab due to information asymmetry. As the export trade is controlled by a very few operators, the emerging changes in the market prices are not correctly disseminated to them. As a result, the SHGs had been selling crab at lower prices. The forward contracts were also based on prices lower than the realistic market prices. The federation could take up the responsibility of collecting and disseminating domestic and

export market prices for different qualities of crab for the last few years, such that the prices for different seasons/months could be predicted more accurately. The services of CIBA and AFI could be used for collecting historical information on prices. Aggregation of produce at the federation level before undertaking marketing could result in better price bargaining for the crab, but this presumes harmonization of fattening cycles.

Scale of Transportation

26. The SHGs were found harvesting and marketing relatively small quantities of crab at frequent intervals, resulting in high transportation costs. The sub-optimal utilization of infrastructure and the consequent under production of crab appear to be responsible for this problem.

Promotion of Poly Culture

27. Promotion of poly culture instead of monoculture (crab fattening) to provide a more stable income for the SHGs has been recommended by CIBA and AFI. It is suggested that the women could undertake mud crab and milk fish culture together as there feeding habits are complementary to each other and that mud crabs are carnivores, while milk fish are herbivores. However, a fresh assessment of feasibility and viability of poly culture in the existing PENs needs to be made.

Productivity

28. Each crab fattening cycle requires about 30-35 days. As heavy rains disrupt the activity, on the average 2 to 3 cycles are lost in a year. That implies 8 to 9 cycles of fattening can be undertaken for PEN per year. However, the data furnished by the project management indicates that only 60% of the potential cycles could be completed up to July '10 (30 month period). This in turn implies underutilization of the infrastructure and other capacities created.

29. The production data indicates that on the average, all the 6 SHGs with exclusive access to 18 PENS were able to produce only 124 crabs weighing about 61 kgs (including the damaged ones) per cycle, which were sold at an average price of Rs.410/- per kg. Clearly, the productivity measured in terms of the number of crabs or the weight of the crabs produced per PEN was substantially lower than the potential. The data furnished by the project management further indicates a surplus of Rs.1,72,770/- per SHG over the project period of 30 months (up to July. '10). The net surplus per cycle per SHG works out to Rs.11,520/-. It may be noted that the net surplus is the difference between gross sale receipts and the cost of raw materials feed, transport and other expenses excluding the cost of labour and cost of capital employed. If the cost of capital is accounted for, then the net surplus may be insignificant.

30. However, it may be noted that there is no system instituted to track input costs, the quantity of crab produced, marketed, the sale prices and receipts. The information reconstructed by the project management on the basis of oral reports could be partly be under estimate of the value of crab produced and marketed as well as the sale prices and receipts.

Promotion of Grow Out Culture

31. Discussion with CIBA scientists and Dr. Sakthivel of AFI suggests that grow out culture method could be adopted to overcome supply bottlenecks and to ensure better returns for the SHGs. In fact, it was reported that at the request of ADB steering committee, a team comprising Dr. Sakthivel and CIBA scientists undertook an assessment of potential for adopting grow out culture method in Parangipettai region and found that the grow out culture method was feasible. In fact, it was on the basis of this assessment that ADB had sanctioned Rs.28.00 lakh from JFPR fund to 5 SHGs of Parangipettai panchayat to accelerate

crab fattening and rearing activity through grow out as well as PEN culture methods. However, the SHGs adopted only PEN culture method instead of grow out culture method to crab fattening. It is imperative that the potential obstacles for the promotion of grow out culture method are assessed and appropriate follow-up action taken.

Mortality

32. The mortality/lost/damage data furnished by the NGO partner indicates that the mortality rate had been on the marginal decline, although the rate could still be reduced with appropriate precautions and timely technical advice. Further, theft of crabs could be minimized by improving night security at all PEN sites. The practice of Irular members staying at the PEN site by turns could be adopted by others as well. This in turn requires improvement in the SHG and federation level dynamics. If fisher-folk are not willing to stay at the PEN sites during nights, the services of Irulars could be employed. Despite all the precautions, there could still be some mortality/lost due to heavy rains affecting the pH value of brackish water which is vital for the survival of the crab.

Decentralizing Collective Activity

33. Member awareness of the procurement-marketing activities appeared to be limited to a few leaders of SHGs. In view of this serious limitation, CARE may examine the possibility of further decentralizing the scale of the activity. Two alternatives may be examined for their feasibility and viability. Each PEN structure may be allotted among one-third of the members of an SHG for three months or 2 to 3 cycles, such that a smaller number of members can undertake crab fattening and share the proceed in a transparent manner. However, at the completion of each quarter, the sub-group should be required to transfer the working capital and the PEN structure, after carrying out necessary maintenance work. Alternatively, as each PEN has 3 compartments, each compartment may be given to a sub-group of 4 to 5 members such that they undertake crab fattening in the compartment allotted to them, on a perpetual basis. However, each sub-group should be provided a share in the working capital available with the SHG. Both the alternatives need to be evaluated in terms of relative feasibility and viability. In any case, there is a strong case for making the business operations in each SHG transparent and accountable such that a few articulate members do not take a disproportionate share in the returns from crab fattening. Further, the loan repayments of the SHGs need to be closely monitored as there were sharp inter-SHG variations in the outstanding loan and the over dues.

TOR-10: What are the long term implications of the intervention? How has it affected the underlying causes of poverty in terms of: *(i)* Addressing unequal power relations; *(ii)* Addressing failure of governance; and *(iii)* Addressing failure of markets?

34. Moving the Irular and the fishing community women from low paid occupations to more lucrative crab fattening activity has implications for intra household and community level power relations. Federating SHGs of the Irular and other women around a common livelihood could eventually improve social harmony and reduce inter-community frictions in livelihood activities. The visible change in the levels of confidence of the Irular women, the emergence of new leaders among them and the new skills acquired clearly point to emerging change in the power structure, *al beit* at a lower level.

35. The activities undertaken under the sub-project seek to address several issues associated with governance structures *vis-à-vis* the Irular and the fishing community

women. The very entry of women into backwaters facilitated by the sub-project, with the intervention of the District Collector and with the concurrence of the Forest Department is an effort to promote the use of commons by the vulnerable. The substantial grant leveraged through government (ADB-JFPR) coupled with loan from cooperative is another area of success. But for the sub-project, the cooperative society would not have come forward with such large financial package. The technical support and guidance leveraged from GOI agencies of CIBA and MPEDA to the SHGs of poor women is also an attempt to address governance failures.

36. Though some efforts have been made to overcome the failures of the market for the women engaged in crab fattening, there are still formidable problems at both ends of the value chain *viz.,* for supply of soft shell crab and for sale of fattened crab. The project needs further support from CARE and lead partner, to take the path breaking innovations to the livelihoods of the poor to a higher and sustainable level.

Annex – 1
Funding Support to Different SHGs

Jun.'10

Name of the SHG	No. of bene-ficiaries	Name of the Village	ADB Support	Bank Loan	CARE Support	Comm. Contri-bution	Total
Senthamarai	12	Kalaingar Nagar	1.00	1.00	1.65	0.35	4.00
Rajiv Gandhi	12	MGR Nagar	1.50	1.50	1.65	0.35	5.00
Thazampoo	12	Thazhampoo	1.50	1.50	1.65	0.35	5.00
Balamurugan	17	MGR Thittu	1.00	1.00	1.65	0.35	4.00
Angalamma	20	MGR Thittu	1.00	1.00	1.65	0.35	4.00
Annai Soniya	14	Muzhukuthurai	1.00	1.00	1.65	0.35	4.00
Lakshmi	17	Singarakuppam	1.00	1.00	1.65	0.35	4.00
Total	**104**		**8.00**	**8.00**	**11.55**	**2.45**	**30.00**

Source: CARE, Crab Status Report, Jul.'10

Annex – 2
Details of Crab Fattened and Sold

Jun.'10

S. No	Name of the SHG	Community	Total Cycles	Total Production		Loss / Damage		Total Sold	
				Nos.	Kgs.	Nos.	Kgs.	Nos.	Kgs.
1.	Analamman SHG, MGR Thittu	Fisher Women	17	2132	1462	145	116	1987	1346
2.	Balamurugan, MGR Thittu	Fisher Women	16	2023	1356.3	151	120.8	1872	1235.5
3.	Annai Sonia, Muzhuguthurai	Fisher Women	13	1582	1088	237	189.6	1345	898.4
4.	Senthamarai, Kal. Nagar	Irrulas	16	1719	1141.6	283	226.4	1436	915.2
5.	Rajiv Gandhi, MGR Nagar	Irrulas	18	2252	1798.3	525	420	1727	1378.3
6.	Thazamboo, MGR Nagar	Irrulas	9	1347	1013.4	327	261	1020	752.4
7.	**Total**		**89**	**11055**	**7859.6**	**1668**	**1`33.8**	**9387**	**6525.8**

Source: CARE, Crab Status Report, Jul.'10

Annex – 3
Gross Sale Proceeds from Crab Fattening

Jun.'10

S. No	SHG	Social Group	Crab Sold		Sale Proceeds *(Rs.)*	Expenses* *(Rs.)*	Net Surplus *(Rs.)*
			No.	Kgs.			
1.	Analamman SHG, MGR Thittu	Fisher Women	1987	1346	534179	264339	269840
2.	Balamurugan, MGR Thittu	Fisher Women	1872	1235.5	457896	251710	206186
3.	Annai Sonia, Muzhuguthurai	Fisher Women	1345	898.4	376767	220327	156440
4.	Senthamarai, Kal. Nagar	Irrulas	1436	915.2	387863	246830	141033
5.	Rajiv Gandhi, MGR Nagar	Irrulas	1727	1378.3	603145	395452	207693
6.	Thazamboo, MGR Nagar	Irrulas	1020	752.4	313704	258273	55431
7.	**Total**		**9387**	**6525.8**	**2673554**	**1636931**	**1036623**

*Note: * includes cost of juvenile crab, feed and other materials and excludes labour cost and interest charges*
Source: CARE, Crab Status Report, Jul.'10

Annex – 4
Outstanding Liabilities of SHGs

Jun.'10; in Rs.

S. No.	Name of the Group	Bank Loan	Repayment	Loan Outstanding
1.	Analamman SHG, MGR Thittu	100000	69840	30160
2.	Balamurugan, MGR Thittu	100000	80686	19314
3.	Annai Sonia, Muzhuguthurai	100000	50000	50000
4.	Senthamarai, Kal. Nagar	100000	43600	56400
5.	Rajiv Gandhi, MGR Nagar	150000	85563	64437
6.	Thazamboo, MGR Nagar	150000	33000	117000
7.	Total	700,000	362,689	337,311

Source: CARE, Crab Status Report, Jul.'10

CARE-TN
A Report on Evaluation of
Pre and Post Harvest Fisheries Development Initiatives

Background of the Sub-Project

1. The fishermen community along the Karaikal coast suffered from multiple disabilities following the Tsunami. The community was vastly disorganized and did not have a functionally effective collective forum to articulate their genuine demands for a better deal from the line agencies and formal financial and marketing institutions. In the absence of adequate support from the formal institutions, the fishermen were subject to multiple types of exploitation. The big trader-financiers, often from the same community exploited them by advancing high cost tied loans with buyback arrangements. Apart from the usurious practices, the trader-middlemen were leasing out fishing equipment at exorbitant rates and had a disproportionate share in the catch. The small fishermen with limited equipment found it difficult to mobilize credit resources for replacement/repair maintenance. On top of it, there had been a decline in the fish catch over the years due to larger environmental factors such as the decline in the mangroves and deep sea fishing. The price uncertainty was another factor affecting the livelihoods of the fishermen community. Even when faced with multiple problems, the fishermen community was reluctant to adopt new livelihoods or diversify the existing fishing centered livelihoods.

2. It is in this context that CARE along with its local partner VRDP undertook multiple but inter-related interventions to promote the livelihoods of the fishermen. These include:

- organization fishermen community into CBOs (SHGs and federation);
- capacity building of CBOs for self-management;
- skill-training of fishermen in boat repair and engine repair, waste dry fish and fodder training;
- minimizing the role of trader-financier by providing loans to vulnerable women;
- support for setting up a 'net shop', a spare parts and boat/engine repair unit, and a waste fish processing unit;
- promotion alternative livelihoods through ornamental fish-rearing and sale, development of inland fishing etc.,; and
- piloting of GPS technology in marine fishing.

3. The central purpose of the project is to promote, diversify and sustain the livelihoods of the fishermen community in 12 villages of Karaikal district of Puducherry. The interventions targeting 735 direct beneficiaries absorbed a total funding support of Rs.21.19 lakh from CARE over the three year period, at an average cost of Rs.2,882/- per target beneficiary (including NGO cost). The sub-project was expected to result in improved incomes for the target community, improved credit leverage from formal institutions, lower dependence on traditional trader-financiers for credit, equipment and repairs, diversified livelihoods and above all a sustainable federation providing multiple services to the fishermen community such as aggregation and sale of catch and advocacy for better support from formal institutions. The activities undertaken as part of the sub-project are furnished in *Annex-1*. A note on methodology adopted is presented in *Annex-2.*

Findings against TORs

TOR-1: Examine the entire length of the value chain(s) intervened in and comment on the extent and suitability of intervention to yield higher benefits to the actor/ beneficiary within that value chain

4. A wide range of activities were taken up as part of the sub-project to address gaps in the value chain, at both pre-production and post-production stages. At the pre and post production stages, the following interventions were implemented to address the value chain gaps:

Table – 1
Value Chain Gaps Identified and Interventions

S. No.	Identified Gap in Value Chain	Intervention
	Pre-Production	
1.	Largely unorganized fishermen	Promotion of SHGs and a federation; registration of federation as a public society; Activities specific grants from CARE (12.11 lakh)
2.	Critical shortage of working capital to procure fishing nets and other related equipment, leading to high cost borrowing from trader-financiers with tied sale arrangements	Supply of centrally procured quality nets and other related equipment to fishermen members of federation on 50% credit and at 0% interest through a 'net shop' and 'sub-net shop' run by the federation with NGO support; Supply of GPS
3.	Shortage of working capital to undertake timely repairs and maintenance to boats and engines as well as high maintenance charges	Setting up of a boat and engine repair unit, with the support of a mechanic initially paid by CARE
4.	Lack of technical and financial support to take up diversified opportunities within the fishing sector	Promotion of ornamental fish breeding by SHGs with the funding support of federation (CARE); Promotion of inland fishing in community ponds
	Post-Production	
5.	Lack of adequate working capital to undertake vending of fish and drying and sale of waste fish by women	Working capital loans of Rs.2,000/- each from the revolving fund of the federation to 100 women at 0% interest

5. It may be noted that the multiple activities proposed and undertaken as part of the sub-project cover a wide canvas and as such the internal synergy was bound to be limited. For a three year project, with limited resources, the selection of activities was a little ambitious. More importantly, setting up a net shop, even before the federation was strengthened resulted in the NGO virtually running the enterprise. (Check Akshara Study)

TOR-2: Analyze the various sectors/ sub sectors identifying which ones have resulted in yielding significant benefits by way of additional livelihoods, improved skill based and income yielding opportunities for the beneficiaries deepening their current engagement in the value chain and/ or moving them to a more remunerative part of the value chain and which categories of beneficiaries in heterogeneous groups have benefited the most.

6. Though the sub-project interventions were identified to address the critical value chain gaps, the results emerging, however, do not indicate any significant sustainable impact on the livelihoods and skills of the target community. Their involvement in fishing has not deepened significantly as a result of the intervention, nor have they moved to a more remunerative part of the value chain as indicated below:

Net Shop

7. Established in 2008, the net shop was expected to ensure supply of quality fishing nets and other equipment to the fishermen from 10 villages on a partial (50%) credit basis at 0% interest. An amount of Rs.7.00 lakh was provided as grant to establish the net shop, besides the cost of establishment. The idea was to free the small fishermen from the clutches of the trader-financiers who generally supply fishing equipment on credit basis and buyback the fish catch at prices lower than market rates. Managed largely by the NGO with some involvement of the federation, the net center undertook a cumulative procurement of nets and other materials valued at Rs.23.73 lakh till the closure of the project, while the total sales were reported to be equal to Rs.21.73 lakh. As against, a total credit sale of Rs.9.42 lakh (at 0% rate of interest) an amount of Rs.4.09 lakh was reported as the loan outstanding on 31.03.2009 (What was the overdue amount as on 31.03.2010 or 30.09.2010?).

8. The size of the net shop intended to procure and supply quality fishing nets and other material to the fishermen from 10 villages was appropriate. The amount of initial financial support provided to the shop was also optimal, considering the fact that it was only a supplementary facility and that the fisheries department was also providing quality nets to the fishermen.

9. The net shop sold 14 different types of nets, ropes, hooks and other equipment, which were in demand. In addition, engine spare parts were also being sold. As far as the quality of materials procured, there were no complaints and the fishermen were satisfied with the quality of nets procured from Kanyakumari and Chidambaram with the help of an expert member and with the involvement of some federation members.

10. The net shop showed some surplus during the first year. But from the second year onwards, recovery of loans declined and over dues mounted. In order to avoid repayment, members with over dues, started purchasing the nets from private vendors. As a result, the stock gradually got depleted and the lead partner failed to leverage the external funds as promised from the Canara Bank to augment the stock in the net shop. As a result, the net shop was nearly dormant in Sept.'10 during which time it was also closed for stock taking and audit prior to handing over to the federation.

11. The net shop located in a rented building in Karaikal involved recurring expenditure of over Rs.2,000/- pm on rents and electricity charges, excluding the salary of the NGO staff guiding the net shop. The salary of the staff was met from the NGO establishment cost.

12. The major problems affecting the net shop were:

- mounting over dues and the reluctance of the members to repay the loans outstanding which amount to Rs.2.22 lakh?;
- federation not being effectively involved in the actual management of the net shop;
- high monthly recurring expenditure for running the net shop on the one hand and mounting losses on the other;
- loan guarantors backing out from their responsibility to recover the loans, while the traditional panchayat not exhibiting any interest in the loan recovery; and
- the total domination of the federation by the male members, with women not being allowed to play the role.

13. Thus, as a result of the pre-mature closing of the net shop, the intended objective of easing the working capital constraint of the target fishermen households has materialized only partly.

Sub Net Shop

14. A sub net shop was started at Pattinachery, a prominent fishermen locality in Jan. 2010. The sub net shop was intended to reduce the time and transport cost of the fishermen visiting Karaikal for purchase of nets and equipments. The sub shop was given to Vadivelu, a member of the federation on a franchise basis. Apart from fishing nets and ropes, engine spare parts, engine oil and other items worth Rs.27,000/- were supplied to the sub shop. The understanding was that the federation member would get a 10% commission from the sale proceeds but the member was not allowed to charge a price higher than the mark up rates. However, during the preceding 8 months, only sales worth Rs.9,000/- could be made. The study team observed several unsold items including boat engine spare parts. Engine oil, a consumable, was in demand but the sub net shop had run out of stock. The member was not confident of selling the unsold stock in the near future. The early performance of the sub net shop was not satisfactory. The scale of the sub net unit was not economically viable. The moral of the story is simple. There is no failure of market for boat engine spare parts, consumables and fishing equipment. When the market is fairly efficient, any intervention to provide an alternative solution is less likely to succeed.

Engine Spare Parts

15. To minimize the cost of spare parts, the project promoted sale of engine spare parts through the net shop, using the services of a trained youth. The federation provided an amount of Rs.1.00 lakh (Rs.50,000/-?) towards purchase of spare parts. Five members of the community were specially trained for the purpose, of whom one was placed in the net shop to support procurement and sale. However, visit to the net shop and the sub net shop indicated that there was a substantial quantity of unsold spare parts worth more than Rs.20,000/-. The activity was discontinued later as the units were not able to replenish the stocks and offer equipment at competitive prices. More importantly, the boats and engines require a wide range of equipment along with repair/maintenance services, which were not available in the net shops. The learning once again is clear. Collectives or CBOs would do well to not to enter areas where markets work and work fairly efficiently.

Boat and Engine Repair Unit

16. Boat and engine repair unit also had a premature exit. Five youth were trained in engine and boat repair. Initially, the youth undertook repair of a small number of boats (11) and engines (15). The lead partner also reported that youth made an earning of Rs.25,690/-

. However, the youth did not have a fixed place to offer the services, though they are available in the community. As a result, the repair unit could not flourish. However, the training of youth has contributed to the community's stock of social capital.

Ornamental Fish Sale and Breeding Unit

17. An ornamental fish sale and breeding unit was promoted as part of the sub-project. Naksatra SHG of Pattinachery village was provided training as well as financial support in the form of a loan of Rs.1.00 lakh from the federation to undertake breeding and sale of ornamental fish. In addition, the group has mobilized another Rs.1.00 lakh from the bank. Four members of the SHG were provided training at MPEDA and Rajiv Gandhi Institute at Karaikal. The Fisheries Department of the Government of Pondicherry provided technical support and guidance. The group undertook development of a water source (a bore well with energized pump) and construction of 5 cement concrete tanks within the home premises of the leader Ms. Prabhavathi, with a Graduate/Post Graduate qualification. It was also reported that fish seed and material for making fish tanks were regularly procured from Chennai. Five members were reported to be working in fish breeding activity and making of fish tanks. Started in Apr.'10, the SHG was able to sell 3 fish tanks for a value of Rs.8,720/-. The women engaged in the activity were paid normal wages and no *inter se* sharing of surplus/profit was undertaken even among the five members up to Sept.'10.

18. The early functioning of the mini project indicates certain concerns. First, the whole enterprise appears to be leader-owned, leader-managed and leader-driven. The expenditure reported did not appear to be realistic. An amount of Rs.50,000/- was reportedly paid to the land owner, who was the leader herself or her spouse. The extent of land involved for constructing the tanks was a very small part of the homestead land. The other expenditure shown appeared to be exaggerated. More significantly, the involvement of the other members was more in the nature of workers rather than as partners in the collective enterprise.

Dry Fish Sale Unit

19. Sale of dry fish was identified as a potential activity for the fishermen household. The lead partner reported that Kallikuppam was selected for promoting the intervention. An interaction between a fodder company (SVA Feeds and Fodder Producer Limited) engaged in purchase and sale of dry fish and the fisher women was organized. On the basis of the market potential and the willingness of the company, a buyback agreement was signed with the federation and the lead partner in Jan.'10. However, no further progress was reported. (?)

Inland Fishing

20. In order to provide livelihood opportunities to the fishermen community during the lean season, inland fishing initiative was promoted. Fish-rearing was promoted in two ponds in Kottucherymedu and Pattinachery villages with the support of Fisheries Department. However, the results were not encouraging. Apart from the early mortality, the theft of fish being reared virtually rendered the intervention in fructuous. The scale was too small to make a difference to the livelihoods of the fishermen. Only about 1,300 fish seedlings were sought to be reared of which about 10% had a premature mortality.

GPS

21. Ten GPS units were sold to fishermen as part of the sub-project (5 in Killinjalmedu and 5 in Karaikalmedu). Training on the use of GPS units was also provided to the members. However, that not all of them were found using the units for various reasons such as lack of awareness, connectivity and the actual utility in identifying the fish potential. However, with additional training, the instruments could be put to more effective use.----------

Cooperative Fish Sale Unit

22. A more recent but potentially promising intervention is the cooperative fish sale initiative promoted as part of the sub-project. Twelve fishermen households of Pattinachery were identified and formed into a co-operative for undertaking aggregation and marketing. Named as *Sinthanai Sirpi Illaingar Mandram*, the cooperative was provided a loan of Rs.50,000/- by the federation to undertake purchase of fish from small fishermen and selling at Nagapattinam. The cooperative was guided to negotiating in a buyback arrangement with wholesalers at Nagapattinam. The early results show that all the 12 members were engaged in the aggregation and marketing activity. It was also found that the women were sharing the proceeds in proportion to the work done. It was understood that each member was making Rs.200/- per day, after meeting all expenses. Interestingly, the women were trying to specialize in procurement and sale of fish in demand (*e.g.,* Exocetous fish, Prawn, Oilsardine, Macrel fish *etc.,*). The apparent early success appears to be due to the fact that all the 12 women are engaged in fish vending and the transactions are very transparent and the leadership is democratic.

Fish Vending

23. The initial working capital loan provided through the federation to 100 women, however, had the desired impact of easing the credit constraint, although not all women borrowers were engaged in fish vending. The small loans of Rs.2,000/- each had gone to meet the immediate working capital requirements and other needs of the households. The fact that these were interest free loans, there was no burden on the households. Even then an amount of Rs.84,971/- was reported as overdue loan amount from the members as on 31.03.2010.

24. Thus, the interest free loans advanced to the members for purchase of nets and equipment and fish vending had a limited impact on easing the credit constraint. The ornamental fish-rearing unit had an insignificant impact in terms of the number of women involved and benefited. The engine repair and maintenance unit, the sub net shops, the inland fishing and the supply of GPS were also insignificant in terms of their livelihood impact. However, the training provided for boat and engine repair and maintenance and ornamental fish-rearing and marketing had some impact on the skills of a small number of the beneficiaries. The recently promoted cooperative fish sale unit could eventually result in improved livelihoods, if the intervention is scaled up.

TOR-3: Looking at the benefits that have accrued to the individual beneficiary through various inputs provided through the CARE supported interventions comment on how and whether it has resulted in reduction of social and economic vulnerability and contributed to the empowerment of women and marginalized communities like Dalits and Tribals.

25. As pointed out earlier, the important benefits that had accrued to the fishermen households include interest free loans for fishing nets and equipment and fish vending, some saving on purchase of nets due to relatively lower price and training provided to the

youth in boat and engine repairs and maintenance, use of GPS and certain aspects of marketing. To the extent that credit constraint was eased and interest charges reduced, economic vulnerability of the households may be said to have declined.

TOR-4: Comment on the skills base that is currently available with the beneficiary to manage the particular economic activity at an optimum level and the opportunities or constraints if any for further growth within the concerned value chain.

26. The skill base available for the traditional fishermen households is adequate to manage fishing activity. However, for boat and engine repairs, the fishermen need to depend on the trained mechanics. The training provided for a small number of youth appeared to be adequate to provide repair and maintenance service for small boats and engines. For undertaking repair and maintenance of larger sized boats, the households will have to depend on the existing service providers. The skill training provided for ornamental fish-rearing was limited to a very small number of beneficiaries and it needs to be expanded to cover other women. There were several opportunities however, for improving the skill base of the households. First, fish processing affords certain opportunities for skill development. The women could also be trained in preparation of fish waste based feed. Further, the fish sale units recently promoted could also be expanded to cover a larger number of households.

TOR-5: Analyze the external leverages in the form of finances, market and technical services and other inputs and comment on their sufficiency and contribution to strengthening the livelihood system of the beneficiary.

27. The sub-project was not able to leverage finances, technical support and marketing support as envisaged. The lead partner was not able to link the SHGs with the banks. In the post-Tsunami environment, the bankers were reluctant to advance loans to the SHGs of fishermen which were used to receiving outright grants and subsidies. The only SHG which was able to mobilize Rs.90,000/- from a bank was the one which undertook ornamental fish-rearing. However, the lead partner running a micro-finance organization called Rural Bank in the Salem region, was able to provide some loan funds to the SHGs (Rs.3.67 lakh and Rs.2.28 lakh). In addition, the contribution of the share capital and fee by the members also contributed to the corpus of the federation from which loans were made. However, the share capital and membership fee collected remains to be fully accounted for. Thus, there was a need for promoting SHG bank linkage on a large scale to meet the working capital requirements of the fishermen households.

28. The services of the fisheries department were used to train women in ornamental fish culture and breeding. Technical training support was also provided individual consultants from Chennai on preparation of waste dry fish and fodder. Five youth were provided training in boat repairs and maintenance by technical personnel drawn from the fisheries department. No services were leverage for promoting aggregation and marketing.

TOR-6: Analyze and comment upon how access to livelihoods services has been addressed and how institutions have started looking at NGOs/ community structures as potential clients for them.

29. Though no significant progress was made to promote SHG credit linkage, the banks were beginning to see the SHGs as potential clients. However, the SHGs should come out of the subsidy-grant syndrome they were in to take advantage of the change in the mindset of the bankers.

30. The insurance services provided through the micro insurance initiative of CARE is another successful area. However, the initial coverage of members needs to be sustained. Instead of the federation paying the premium, the members should take the responsibility for the payment of the premium.

31. The Fisheries Department of the Puducherry government has also recognized the federation and organized training for a few women in ornamental fish rearing.

TOR-7: Contribution of Functional Literacy and Numeracy Skills (Imparted to the Beneficiaries as part of Livelihoods Promotion and their Impact on the Empowerment Status of Women/Beneficiaries)

32. The beneficiaries were not covered under the livelihoods education program.

TOR-8: Comment on the Capacities of CBOs Created to Manage the Activities Sustainably in Future

33. Promotion of 5 men SHGs and 20 women SHGs and efforts made to strengthen them through capacity building is a significant contribution of the intervention. The promotion of a mixed federation of men and women groups has not yielded the desired results. The SHGs and the federation are not organically linked through systematic financial relations. There appeared to be certain amount of disconnect between the men and women groups on the one hand and the SHGs and the federations on the other. The federation was not developed as an autonomous organization from the lead partner. The financial transactions of the federation and the net shop, together managed by the NGO staff lacked certain amount of transparency. A study of the financial transactions of the federation including the net shops indicated that it had incurred net loss during two years due to mounting over dues of net loan borrowers and SHGs. Further, it was not clear as to how much amount of membership fee and share capital was collected from the members of the federation and its actual use. The outstanding loans on account of net shop transactions are not clearly separated from the federation accounts. As the NGO does not have a strong local presence, the community considers its presence as transitory.

34. In sum, the CBOs promoted as part of the intervention are not strong enough to take over the activities from the lead partner. Most of the SHGs were not considered bankable by the Indian Overseas Bank. The lead partner was not able to facilitate adequate leverage of funds from the banks. A radical rebuilding of the SHGs and the federation (separately for men and women) would be necessary to facilitate smooth transition of the activities promoted under the project by the lead partner to the CBOs.

TOR-9: What are the probable factors which might pose as challenges in the near future (*e.g.* access to markets/continuous access to entitlements *etc.,*). Recommend steps to be taken.

35. The biggest challenges to the livelihoods of the small fishermen households continue to be the shortage of working capital and inability to move up the value chain through aggregation, storage and improved access to markets. The fishermen can be brought out of the stranglehold of the financier-traders, only by improving their access to institutional finance. The route of SHG credit linkage holds enormous potential. However, a good deal of rebuilding of SHG dynamics focusing on micro-finance would be essential. In addition,

strengthening of the federation to recover and manage its funds more efficiently and equitably could also ease the credit constraint.

36. With depleted stock, mounting over dues and inadequate capital base, the net shop was not sustainable. Moreover, in the absence of a significant difference in prices of nets and equipment supplied by the net shop and the private market operators, there is no advantage in running the net shop. If the objective is to provide interest subsidy on loans, it can be addressed effectively through direct support to the revolving fund of the federation and facilitate inter-lending. The suggestions made by the community members to take the net shop closer to the harbor and allow it to be maintained by the traditional village councils also do not appear to be feasible. The other suggestion to hand over the net shop to a sub-committee of the women members of the federation also does not appear to be feasible in view of the difficulties involved in recovering the loans. Moreover, the net shop, coming as it did, after the Tsunami was widely perceived to be a donor supported outfit intended to make subsidies and transfer payments and not loans, even if they are zero-interest rated. The key male members of the federation that the team interacted with, however, were prepared to take over the net shop and run it, although most of them were totally oblivious of the functioning of the net shop and the tasks involved in reviving it. The only feasible solution is to facilitate sale of the unsold stock, including the stock at the sub net shop and transfer the proceeds to a women's federation. However, this would require the reorganization of the existing federation into two different federations for women and men from the fishermen community. Further, the key lesson is that no business activity should be entrusted to a nascent federation without developing the self-management and business skills required.

37. The ornamental fish unit has a limited impact on the livelihoods of the community. It is not an activity that can be taken up by illiterate women. The early returns from the unit do not justify heavy investment of Rs.1.9 lakh in one SHG. The expenditure indicated appears to be vastly exaggerated. The activity can be promoted as an individual activity on a smaller scale as the technology is nearly scale-neutral. The Nakshtra SHG may be required to repay the amount in quicker installments to the federation such that the amount can be advanced to other women trained and capable of undertaking the activity. The federation may impose a cap on maximum amount of loan for rearing ornamental fish.

38. There was very little focus on post-production activities except the more recent tie-up facilitated between a cooperative society and a trader in Nagapattinam. The activity has potential and can be scaled-up for larger aggregation, marketing and sale. Similarly, post-production activities such as waste fish processing as fodder could be encouraged.

39. Further, as fishermen community is not enthusiastic about taking to inland fishing, the activity need not be promoted.

TOR-10: What are the long term implications of the intervention? How has it affected the underlying causes of poverty in terms of: *(i)* Addressing unequal power relations; *(ii)* Addressing failure of governance; and *(iii)* Addressing failure of markets?

40. The multiple activities promoted under the sub-project have some impact on the underlying causes of poverty among the fishermen households. The efforts made to reduce the credit constraint by providing interest free loans and supplying of quality nets and equipment amounted to reducing the dependence of the vulnerable fishermen households on the middlemen financiers. However, the impact could have been higher, if the SHGs and

the federation had the required strength to leverage funds from the formal institutions. The institutions promoted, notwithstanding the substantial room for their improvement, also attempted to change the power equations to a certain extent. The revolving fund extended also addresses the failure of formal credit institutions to meet the needs of the fishermen community. The efforts made to promote a co-operative for undertaking aggregation and marketing activities aimed at improving the market access. However, on the whole, the sub-project did not address all the underlying structural causes of poverty.

Annex – 1
Fisheries Development Initiatives : Component-wise Activities

S. No.	Component	Activity	Indicator
1.	Institution and Human Capital Building	Promotion of men and women SHGs	384 members mobilized into 5 men SHGs and 20 women SHGs
		Promotion and registration of mixed federation	"Karaikal Oruginantha Meenavar Koottamaipu" registered under Trust Act with a 24 member executive covering 548 members
		Training of women members in fish-rearing	100 members
		Training of women members in ornamental fish culture and breeding	25 members
		Training of women in waste dry fish and fodder making	25 members
		Alternate livelihood training for vulnerable women	25 members
		Training of youth in boat repair and engine work	5 men
		Capacity building of federation staff	57 members
2.	Support for Working Capital	Women engaged in post fishing activities provided working capital loan of Rs.2,000/- each	100 women fish vendors
3.	Support for Other Activities of the Federation	***Net shop*** established under the federation with hand holding support from the lead partner	7 types of nets were procured and sold on 50% credit basis, benefiting 3,476 members; A total sale value of Rs.11.68 lakh reported. 152 members provided credit for purchase of nets
		Use of **GPS** promoted by fishermen	10 GPS instruments distributed by the federation
		Spare part units established within close proximity of net shop	Repairs undertaken for 14 boats and spare parts were Rs.58,860/- were supplied
		Inland fishing promoted	In two ponds in Kalikuppam and Pattinacherry
		Ornamental fish breeding and sale unit	An SHG started ornamental fish rearing unit with project support
		Village marketing cooperative established at Vanjure	12 member cooperative unit established with project support; undertaking aggregation and marketing
4.	Leverage	Funds leveraged from VRDP-rural bank and federation	An amount of Rs.7.20 lakh was leveraged by SHGs from lead partner run micro-finance

			organization.

Annex - 2
A Note on Methodology of Evaluation

The purpose of the present evaluation is to assess the appropriateness of the interventions undertaken to promote and diversify the livelihoods of the fishermen community in 12 villages of Karaikal district. The evaluation study adopted a three-step process. First, discussions were held with the CARE Nagapattinam district staff and the lead partner VRDP to understand the process of implementation, the key results and the persisting challenges. Detailed internal project implementation data as well as data on the emerging results of fishing related initiatives was collected from the partner agency. This was followed by a visit to the net shop in Karaikal town, Pattancherry and Karaikalmedu. The subnet shop and the ornamental fish rearing unit run by Nakshatra SHG were also visited for intensive sample study.

Focus Group Discussions were held with leader and members of the federation as well as SHG women engaged in ornamental fish rearing to understand different aspects of the activity and the emerging changes in the livelihoods of the households. In-depth interviews were conducted with select beneficiaries to assess the change in the livelihoods of the beneficiaries and extent to which the backward and forward value chain gaps were addressed. In addition, discussions were held with the project staff at all levels to understand their views on the different aspects and problems encountered by them in the process of implementation. The study was undertaken during Sept.'10 by a team comprising three consultants. The list of participants in the FGD and others interviewed is presented in Annex-_. The focus group guide and the key interview checklist are presented in Annex-_.

Sector : Micro-Enterprises

CARE-TN
A Report on Evaluation of
Embroidered Garment Making Sub-Project for Muslim Women

Background of Sub-Project

1. The genesis of the sub-project could be traced to the adult literacy program implemented by CARE. As part of the adult literacy program, CARE sought to build functional literacy and numeracy skills among illiterate women so as to enable them to derive larger benefits from their livelihoods. While working with Muslim women from Parangipettai region of Cuddalore district, CARE observed that a large number of them were engaged in low-end tailoring and chamki work. It was found that a large number of them were inclined to get engaged in more productive home based work around tailoring-embroidery-chamki making. Thus, the sub-project came into being.

2. The sub-project seeks to build on the pre-existing tailoring-embroidery related livelihood skills of about 100 women belonging to the backward *Labbai* Muslim sub-community inhabiting the coastal *Parangipettai* Town Panchayat in *Cuddalore* district. Technically designed to overcome the diseconomies and market disadvantages faced by individual tailoring-embroidery workers, the sub-project seeks to pool and improve the skills of the women and collectivize procurement, production and marketing activities through the agency of an activity federation. Apart from upgrading the existing skills, the sub-project is expected to create new skills, improve access to both input and output markets and enhance incomes of the participating Muslim women sustainably. In the process, the sub-project aimed at promoting a self-managed and self-governed activity federation.

3. In addition to a direct funding support of Rs.7,51,500/-, CARE has facilitated sanction of a JFPR-ADB grant of Rs.17,50,000/-, of which an amount of Rs.6,93,000/- was released up to September 2010 through the GOTN Department/ Directorate of Town Panchayat. The local partner of CARE *viz.,* IWDI which has vast experience in promoting production and marketing of textile handicrafts, provided multiple types of support inputs to the beneficiaries including:

- formation and strengthening of federation including bookkeeping support;
- structured training in tailoring and embroidery through dedicated staff (coordinator, tailoring and zari teachers, part-time accountant and insurance facilitator);
- organization of cross-learning visits to National Institute of Fashion Technology (NIFT) and best practitioners;
- setting up of a local marketing outlet, support for procurement of appropriate infrastructure; and
- initial handholding support for production of embroidered garments and exploration of markets.

4. CARE and its lead partner had also facilitated access of the beneficiaries to certain services provided by the Government of India such as the issue of identity cards for garment entrepreneurs/workers by the Ministry of Textiles and provision of subsidized health insurance cover to garment workers (first under *ICICI Lombard* and later under *Janashree Bheema Yojana*). Further, CARE has also opened up a possibility for the federation to access bank loan. Though the sub-project activities commenced in Jan.'09 with the promotion of federation, actual production of garments was started only in Jun.'10, due to delays in the sanction and release of JFPR fund. The activities undertaken under the sub-project are summarized in Annex-1. The costs incurred, garments produced and sold up to Sept.'10 are

furnished in Annex-2. A note on the methodology is furnished in Annex-3. The key findings of the study are presented in the following:

Key Findings of the Study

TOR-1: Examine the entire length of the value chain(s) intervened in and comment on the extent and suitability of intervention to yield higher benefits to the actor/ beneficiary within that value chain.

5. The sub-project involved mobilization of about 100 relatively backward Muslim women into the activity-centered federation and their capacity building for federation management and training in tailoring-embroidery related skills. All the women belong to poverty groups, with their spouses providing primary source of livelihood through their engagement in urban and rural informal sector (workers in tea stalls, sweet-meat shops, masons, petty traders/salesmen, cooks, painters, electrical workers, tailors, fish vendors *etc.,)*. Most of the women were primarily engaged in household work, although some of them undertook tailoring and embroidery/ zari/chamki work during leisure time to supplement family income. None of the women was engaged in full-time livelihood activities outside the home due to socio-cultural limitations. As a result, the women had a very limited economic space in the household and were entirely dependent on the small earnings of their spouses for running their households. The households had no significant agricultural or non-agricultural land or business assets worth reported. The condition of housing was equally poor. Most of the beneficiaries were living in run-down houses affected by back waters and without any title to the land owned by the *Waqf* Board. However, post-Tsunami, all households were provided individual toilets. Another redeeming feature was that all children, including girl children were being sent to school. Mobilizing women facing multiple disabilities and cultural limitations and federating them for a more productive home based work is an appropriate intervention.

6. Further, upgrading the skills of the women in tailoring-embroidery and chamki making right at the community level is another appropriate intervention of the sub-project. The details of skill training and exposure visits organized furnished in Table-1 reflect this.

Table – 1
Details of Skill Training Provided

S. No.	Type of Training	Duration in Days	No. of Members
	Year-I		
1.	Formation and Functioning of Federation	2	25
2.	Entrepreneurship Training	2	30
3.	Marketing and Bookkeeping	2	25
4.	Exposure Visit to Best Practitioners	2	25
5.	Technical Training in Embroidered Garment Making	60	100
6.	Intensive Technical Training	180	60
	Year-II		
1.	Technical Training	180	
2.	Advanced Embroidery Training	5	
3.	Embroidered Tailoring	28	15
4.	Follow-up Design Training	14	15
5.	Exposure Visit to NIFT and Best Practitioners		
6.	Federation Strengthening and Bookkeeping		
7.	EDP Training	2	
8.	Federation Strengthening and Registration		

7. Thus, both the extent and the nature of intervention were appropriate to promote the livelihoods of the backward Muslim women.

TOR-2: Analyze the various sectors/ sub sectors identifying which ones have resulted in yielding significant benefits by way of additional livelihoods, improved skill based and income yielding opportunities for the beneficiaries deepening their current engagement in the value chain and/ or moving them to a more remunerative part of the value chain and which categories of beneficiaries in heterogeneous groups have benefited the most.

8. The wage income reported by the federation varied between Rs.50/- and Rs.100/- per day per worker during the first few months. However, it is premature to assess the livelihood impact of the sub-project, as production and marketing activities started recently. However, the intervention has opened up a vast scope for improving the tailoring-embroidery-chamki based livelihoods of the Muslim women. With the help of the common infrastructure and technical support provided, the women were in a better position to improve their livelihoods.

9. Improved skill base of the women was a more significant and visible outcome. Interaction with the executive members of the federation and select beneficiaries who had undergone training reveals that about 35-40% of the beneficiaries had acquired moderate to advanced embroidered garment making skills required to produce marketable garments. The additional training facilitated by IWDI with the support of Ministry of Textile and *Mahalir Thittam* as well as the cross-learning visits to best practitioners had also contributed to the knowledge and skill base of a significant proportion of women. More significantly, the training and exposure visits had created the much needed confidence in the ability of the women to pursue independent livelihoods.

10. The common infrastructure created/leveraged for the federation provides the necessary conditions for improving returns from garment making. The community hall gifted to the Town Panchayat by the TATAs is allotted exclusively to the women garment workers, as a result of advocacy efforts of CARE. The financial support provided by CARE was used to procure the initial infrastructure required to operationalize the common production facility (8 sewing machines including 2 embroidery units, embroidery cots and cutting table and minor equipment). The first installment of JFPR fund of Rs.7.00 lakh was utilized for purchase of additional embroidery cots, a computerized embroidery machine and other equipment. The establishment of the common infrastructure facility for the Muslim women to undertake tailoring and embroidery works with the initial guidance and handholding support of IWDI is a significant step.

11. Thus, the sub-project had creative the necessary initial conditions for the women to deepen their engagement in the garment making activity. The training in embroidery and the support provided for design making could eventually promote the income and employment of women. If the Activity Federation gains experience in aggregation and marketing, the sub-project interventions would have moved the women to a more remunerative part of the value chain.

TOR-3: Looking at the benefits that have accrued to the individual beneficiary through various inputs provided through the CARE supported interventions comment on how and whether it has resulted in reduction of social and economic vulnerability and contributed to the empowerment of women and marginalized communities like Dalits and Tribals.

12. The skill-training, the common infrastructure and working capital assistance provided with the support of CARE and JFPR have opened up new and potentially more remunerative opportunities for the Muslim women. If pursued vigorously, the social and economic vulnerability of the women could reduce. With additional income, the economic space for women within the household could improve. Sample beneficiaries indicated that they were able to get to spend a portion of their earnings on their personal consumption requirements. However, the intervention had just started yielding results and is a bit premature to comment on the extent of reduction in economic vulnerability. Further, the community based intervention without interfering with the cultural limitations of the Muslim women, seeks to improve their status within the household and the community. A more active engagement in economic activity could result in the women's contribution being recognized in the household. Further, the participation of the women in the SHGs and the federation and their constant interface with the Town Panchayat could also contribute to their role in the larger community issues. Thus, the sub-project is potentially Muslim women empowering.

TOR-4: Comment on the skills base that is currently available with the beneficiary to manage the particular economic activity at an optimum level and the opportunities or constraints if any for further growth within the concerned value chain.

13. The skill base available with the beneficiaries needs to be suitably upgraded in tune with the changing dress tastes and preferences. While the skill training provided is good enough for making of garments which can meet local demand, exploration of the external markets would certainly require additional training for making newer varieties of garments. Exploring tie-up arrangements with leading garment houses in Chennai, Puducherry, Cuddalore and other places could be rewarding. The garment houses generally provide designs and the raw material required and buyback the finished garments. Exploration of such opportunities would reduce the uncertainties associated with marketing.

TOR-5: Analyze the external leverages in the form of finances, market and technical services and other inputs and comment on their sufficiency and contribution to strengthening the livelihood system of the beneficiary.

14. The project has facilitated leverage of financial assistance from ADB-JFPR through the GOTN-Directorate of Town Panchayat. As against a total sanction of Rs.17.5 lakh, an amount of Rs.7.5 lakh was released as first installment in Apr.'10, which enabled the women's federation to acquire common infrastructure and raw materials. The remaining part of the grant is expected to release during the current fiscal. In addition, CARE provided a direct funding of Rs.___ lakh to the federation for purchase of infrastructure and raw material. The project also leveraged a subsidy of Rs.80,000/- from the Ministry of Textiles towards insurance premium for covering the garment workers. However, the project was not successful in mobilizing Rs.5.00 lakh from the IOB towards working capital, as originally envisaged.

15. The sub-project has also facilitated leverage of technical support from IWDI, the lead partner, which has expertise and experience in garment making and marketing. The IWDI trainers also participated in providing training and handholding support to the women beneficiaries. The partner also intervened to facilitate issue of identity cards to all the 100 garment workers by the Ministry of Textiles, which would entitle them to certain benefits

from the Ministry of Textiles, GOI. In addition, the NIFT and a few best practitioner-entrepreneurs permitted the women to visit their facilities for exposure and learning.

16. A more significant leverage was the infrastructure provided by the town panchayat. A well built community hall donated to the panchayat by the TATAs after the Tsunami was given to the activity federation for organizing its training, production and marketing activities. But for this facility, organizing the common activities of training and production would have been difficult. The office of the federation is also located in the same premises. This particular leverage has promoted a productive relationship between the town panchayat and the activity federation of 100 poor Muslim women. Further, the town panchayat provided one of its centrally located rooms for starting the embroidered garment marketing outlet.

17. The financial, technical and infrastructure support leveraged by the project had a significant impact on the sub-project. But for the financial support from the JFPR, the federation could not have acquired the required infrastructure and raw material for training and production. Similarly, the town panchayat made training and common production activity a reality by permitting the women members to use its hall. However, in order to speed-up the implementation of the project as envisaged and optimize its livelihood outcomes, release of the balance amount of JFPR grant and sanction of bank loan would be essential. Further, additional technical support could be mobilized from NIFT and other garment designers.

TOR-6: Analyze and comment upon how access to livelihoods services has been addressed and how institutions have started looking at NGOs/ community structures as potential clients for them.

18. As a result of the leverages facilitated, the formal institutions and governance structures have started looking at the activity federation of the Muslim women as their potential client. The Ministry of Textiles issued identity cards to the garment workers and had even subsidized their insurance premium. Further, the town panchayat has come to recognize the federation as an important community based organization. The political parties in the town panchayat area see the women federation as a potential political force to reckon with. The early tie-ups with the textile showrooms point to the federation emerging as a potential client. However, the federation needs to establish a formal credit linkage with the bank, to meet long term credit requirements of the members.

TOR-7: Contribution of Functional Literacy and Numeracy Skills (Imparted to the Beneficiaries as part of Livelihoods Promotion and their Impact on the Empowerment Status of Women/Beneficiaries)

19. Is it applicable? (There is a mention of the adult education program in the introduction – Sreedhar to check please?)

TOR-8: Comment on the Capacities of CBOs Created to Manage the Activities Sustainably in Future.

20. Notwithstanding the significant early outcomes of the sub-project, the CBOs promoted as part of the sub-project did not exhibit features of self-sufficiency and sustainability. The sustainability of the embroidery based livelihood for the women critically hinges on the functional effectiveness and sustainability of the SHGs and the federation. A study of the functioning of the SHGs and the federation revealed the following:

- The 5 revived SHGs were not organically linked to the federation. It was not clear as to what holds the federation together. The financial and non-financial relations between the SHGs and the federations did not appear to be very clear. It was also not clear whether any membership fee was required to be paid by the SHG members or their SHGs to the federation. Similarly, it was not clear as to what kind of financial transfers take place between the federation and the SHGs. It appeared as if the SHGs were superfluous entities in the federal arrangement.
- The functioning norms of the federation did not appear to have been internalized by the members. Though there was an executive committee and key office bearers managing the federation, it was not clear as to who they were accountable to. The functional responsibilities of OBs and EC were not clear. A few members appeared to be running the federation under the guidance of IWDI.
- There did not appear to be clearly established systems in the federation for selection of designs and products, procurement of raw materials, distribution of raw materials among various trained members for garment/product making, pricing and marketing, payment of compensation for the workers and related matters. The operations of the production centers in the initial phase appeared to be clearly driven by a few OBs/executive members under the close supervision of the IWDI. It is time that the systems are fully instituted in the federation such that the livelihood activity becomes sustainable.
- The SHGs need to be organically linked to the federation and the functioning of the federation needs to be guided and supported for at least one more year to ensure that it becomes fully functional and transparent and autonomous of the lead partner.

TOR-9: What are the probable factors which might pose as challenges in the near future (*e.g.* access to markets/continuous access to entitlements *etc.,*) Recommend steps to be taken.

Additional Training

21. The training provided under the project has not impacted the skill levels of all women equally. From the sample study, it appeared that about 50% of the women need further training and hand-holding support in embroidered garment making. It may also be noted that garment making is a life time learning process in view of the fact that fashions keep changing and there must be continuous efforts to facilitate adaptation to the changing market demand.

Selection of Appropriate Designs

22. The long term sustainability of the embroidered garment making activity would depend on the selection of appropriate designs and products with potential market demand. This would require a market scan or assessment to identify appropriate products, taking into account the skill base of the women workers. Alternatively, the federation could explore an integrated raw-material supply-buy back arrangement with leading market players. Under the integrated arrangement, the federation could receive designs and raw materials from a market player for zari embroidery value addition. The responsibility for marketing the products would rest with the market player. In such an arrangement, the federation could become an effective intermediary responsible for procuring orders, receiving raw materials and supplying finished zari embroidery products. As a worker owned organization, the federations could charge a small price for its role. It could also facilitate skill upgradation, exposure visits and other advanced training.

Cost Effective Raw Materials

23. In the absence of viable tie-up arrangements, the federation could take up the responsibility for procuring raw materials in a cost effective manner and sell the materials among the members. The federation could also procure the finished products and sell them in the market after necessary aggregation. The federation can thus mitigate the disadvantages faced by the individual workers in the input and output markets.

Decentralization of Garment Making

24. The sustainability of the garment making livelihood would depend on the transparency of the procurement and marketing operations of the federation. Given the functional limitations of the federation (limited leadership, lack of adequate transparency and accountability), minimizing the role of collective activities could ensure sustainable results. The role of the federation should be essentially limited to procurement of designs and orders as well as raw materials and marketing of products.

25. The embroidered garment making should be as decentralized and individualized as possible. This would in turn presume distribution of certain essential infrastructure such as the zari cots and sewing/embroidery machines and minor equipment to all the women such that the work can be undertaken at the household level. However, certain facilities such as computerized design making can still be provided for a price at the federation common facility. Under the proposed model, each household will procure designs and raw materials from the federations on cash or credit basis and sell the finished products at agreed prices back to the federation, which will in turn be responsible for marketing, either through tie ups or directly. Reducing the need for and scale of collective activities appears to be the only way to promote the zari livelihoods on a sustainable basis. However, it may be noted that the federation would still have weighty responsibilities to discharge as a transparent intermediary.

Additional Skill Training

26. Dress tastes and preferences of people keep changing with times. Therefore, the garment workers and dress makers need to constantly upgrade and diversify their skills into new areas such as saree printing/oil printing. Further, as there were some slow learners, additional training may be required to promote the skills of such members. The federation can play a very significant role in promoting the skills of the members by leveraging support from Ministry of Textile, Government of India, GOTN and others.

Marketing Opportunities

27. Marketing opportunities also change with the competition and changing tastes and preferences. The federation can play an important role in exploring new market opportunities and buyback arrangements for different products. However, it requires sustained efforts to promote local, city/urban marketing through dedicated outlets and tie-ups.

Distribution of Surpluses/Profits

28. The garment workers would continue to find the federation relevant only as long as it provides the collective role expected of it. Apart from procuring orders, raw materials and

taking up marketing of finished products, the federation should also provide them necessary financial and technology support. In the ultimate analysis, the federation should distribute profits/surpluses among the members. Only then, the federation would engender a feeling of ownership among the members.

Transparency and Downward Accountability

29. Adherence of the federation to the democratic and financial norms is the first necessary condition for sustaining its activities. This would presume conduct of meetings at regular intervals, member attendance and participation at meetings, democratic decision making and documentation of the proceedings of the meetings. Further, change of leadership as for the norms is another important dimension. Regular bookkeeping, promotion of member awareness of transactions and, finally, auditing of transactions could alone promote the sustainability of the institution.

Autonomy from Town Panchayat

30. Further, the federation should emerge as an autonomous institution, capable of managing its own affairs, independent of the Town Panchayat and other promoters. While it has benefited substantially from the Town Panchayat, the federation needs to protect its independence and autonomy from politically sensitive governance structures. This is a difficult process but early steps for promotion of independent functioning are essential.

Additional Handholding Support

31. As there were substantial delays in sanction and release of financial assistance from the JFPR fund, the production and marketing activities were started very recently. Therefore, additional handholding support by IWDI and CARE would be necessary at least for the next one year, during which period the systems can firmly instituted.

TOR-10: What are the long term implications of the intervention? How has it affected the underlying causes of poverty in terms of: *(i)* Addressing unequal power relations; *(ii)* Addressing failure of governance; and *(iii)* Addressing failure of markets?

32. The sub-project intervention clearly demonstrates that poor Muslim women facing several socio-economic limitations can also be mobilized, organized and trained for potentially viable livelihood activities, consistent with their cultural values. The intervention also demonstrates that the home/community based livelihoods of the women can be linked to the market and thus enlarging the economic space available for them within the household. The productive relationship promoted by the project between the federation and the town panchayat demonstrates that the Muslim women can influence governance structures and redeem their rights and entitlements. Therefore, the efforts of the project are clearly directed against the unequal power relations in the community. Besides, the successful efforts made to leverage JFPR grant and insurance subsidy from the Ministry of Textiles seek to address the failure of governance. The focus on skill-building, cross-learning and exposure visits aim at making the skills of the women marketable. However, as pointed out earlier, because of the delays in release of JFPR grant, the production and marketing phase of the sub-project was delayed. Given the nature of the intervention and the cultural background of the women involved, it is imperative that the activity federation is nurtured and supported at least for one more year.

Sector : Micro-Finance

CARE-TN
A Report on Evaluation of Support for Woman Headed Households

Background of the Sub-Project

1. Following the Tsunami, most of the affected households were provided relief, rehabilitation and livelihood support by the government and the non-governmental agencies. However, woman and widow headed households, without the required social and political bargaining capacity were found left out. The households were not represented at the panchayat/village level meetings organized to identify the beneficiaries for different types of assistance. Even where the widows and single woman represented, their voice was not heard. The livelihood concerns of these households did not find proper place particularly, in the development phase. The widows and the single women face multiple disabilities, particularly, in the fishermen community. Apart from the poor asset and skill base, the widow/woman headed households had very limited access to credit and other services from formal institutions. The households are highly vulnerable to both external shocks as well as market and governance failures.

2. In order to address the genuine livelihood concerns of the widow and woman headed households, CARE with the support of its lead partner CRED and later CREATE, implemented a sub-project at a total cost of Rs.13.07 lakh. Targeting 742 vulnerable women (widows, single women, the destitute and the separated) from 20 villages, scattered over three blocks of Nagapattinam district, the sub-project sought to organize the vulnerable woman into SHGs and a federation and promote micro-finance and micro enterprise activities. Later, CARE leveraged cashew processing infrastructure from the government for the federation to undertake cashew processing employing its members. On the basis of the early success of the federation in cashew processing, Wal-Mart came forward to extend further support to the women as a separate project. Thus, the three year project had the following specific objectives:

- to promote exclusive SHGs of women headed households comprising single woman, widows, the destitute and the disserted woman;
- to promote a federation of the woman headed households and to facilitate its registration as a society;
- to promote sustainable income earning activities of the members through micro-finance support as well as external leverage;
- to train SHGs and federations to the preparation and implementation of business development plans; and
- to introduce the households to alternate livelihoods and diversify the livelihood portfolio.

3. The following outcomes were expected from the sub-project.

- functionally effective and self-managed federation of woman/widow headed households;
- improved awareness of and access to external financial institutions;
- improved income from micro-enterprise activities funded by the federation and banks; and
- improved ability to leverage entitlements from the government and formal institutions.

Activities Undertaken

4. The following activities were undertaken as part of the sub-project *(See Annex Table-1 for details)*.

- formation, capacity building and strengthening of exclusive SHGs of widows/ single women *(53 SHGs covering 742 members)*;
- formation, capacity building and registration of Vidivelli federation;
- exposure visit of key federation members to active federations in *Madurai*;
- corpus support for federation *(Rs.6.00 lakh from CARE)*;
- sanction of loans to SHGs (WHHs) from the federation *(cumulative loans Rs.16.45 lakh, loans recovered Rs.11.12 lakh and loan outstanding Rs.5.53 lakh)*;
- support for preparation of business plans by SHGs for small livelihoods;
- leveraged Support from Indian Overseas Bank for three members to set up micro-enterprises (Rs.30,000/-);
- leveraging unused cashew processing infrastructure for the federation from the district government;
- promotion and strengthening of social support committee;
- reducing exclusion of WHH within the community through cultural events;
- setting up of cashew processing unit (with financial support from other agency, which is not part of the current project);

Key Findings against TORs

TOR-1: Examine the entire length of the value chain(s) intervened in and comment on the extent and suitability of intervention to yield higher benefits to the actor/ beneficiary within that value chain.

5. The sub-project is not based on any value chain analysis. Therefore, it is not design to address any value chain gap. However, the sub-project has identified one of the most marginalized categories of women, cutting across all social groups *viz.,* widows, single women and the destitute. These women face multiple disabilities resulting from patriarchy and exasperated by caste based division of society. They are not only overburdened by family responsibilities but are subject to different forms of societal neglect, discrimination and even violence. They are not effectively organized. The mixed member female SHGs do not generally mainstreamed their issues and concerns. Lack of access to adequate financial resources to meet essential consumption and production needs is the single most important constraint these women face. The sub-project designed to promote their mobilization and organization into functionally effective exclusive SHGs and their federations was appropriate to articulate their problems and seek redress. The micro-finance and leverage initiatives undertaken under the sub-project were equally appropriate and in fact are central to the concerns of the target group comprising fish vendors (31%), agriculture labour (23%), daily wage earners (19%), small farmers (18%) and petty traders (0.2%).

TOR-2: Analyze the various sectors/ sub sectors identifying which ones have resulted in yielding significant benefits by way of additional livelihoods, improved skill based and income yielding opportunities for the beneficiaries deepening their current engagement in the value chain and/ or moving them to a more remunerative part of the value chain and which categories of beneficiaries in heterogeneous groups have benefited the most.

6. The sub-project has succeeded in mobilizing and organizing widows and single women into SHGs and a registered federation of SHGs. The federation has eased the credit constraint of a majority of the members at least partly. About 68% (496 members) of the total members were reported to have borrowed from the revolving fund of the federation, a total amount of Rs.16.45 lakh (at the average rate of Rs.3,317/- per member). The 68% recovery performance of the federation also appeared to be satisfactory. The over dues were reported to be less than ___% of the total loan outstanding (Rs.5.33 lakh). The members were also subscribing to SHG savings and some of them were also borrowing small amounts from the SHGs. The borrowings were by and large used for meeting domestic consumption expenditure. Some of them were reported to have used the amount for supplementary activities such as vegetable and fish vending, food vending and for running petty shops. Very few of them used the borrowed amounts for working capital in agriculture and household dairy.

7. The member awareness of external leverages appeared to have increased. But, the actual amount leveraged was very meager (Rs.30,000/- for three members), that to under DIR scheme. The SHGs were not able to access loans from the commercial banks under the NABARD credit linkage scheme. It was understood that the bankers were reluctant to advance loans to the SHGs in the post-Tsunami scenario. The sub-project can achieve the intended outcomes only if this road block is removed and SHGs are credit linked to the banks. This would in turn call for sustained capacity building and reorientation of the SHGs on the one hand and advocacy with the bankers on the other.

8. Though a training program was organized for the preparation of business plans by the SHGs, not many members had actually taken up micro-enterprises. Only three women with the support of DIR loans were able to strengthen their existing business (petty shop, hat shop and fish vending). Two of the three beneficiaries indicated a significant increase in their turnover and income from the expanded business activity. Thus, the objective of diversifying the livelihoods of the women did not materialize. However, the biggest benefit that has accrued to a large number of members is the employment provided in cashew processing, made possible by the successful leveraging of infrastructure from the district government.

TOR-3: Looking at the benefits that have accrued to the individual beneficiary through various inputs provided through the CARE supported interventions comment on how and whether it has resulted in reduction of social and economic vulnerability and contributed to the empowerment of women and marginalized communities like Dalits and Tribals.

9. The small loans provided to the members have partly eased the credit constraint of a majority of the members. A large proportion of them reported to have used the loan amounts for meeting expenditure on family health, education of children and other emergencies. Therefore, the micro loans may be considered to have reduced the economic vulnerability of the women to a certain extent. Besides, the setting up of social support groups with '*all for one – one for all'* concept, has also contributed to a sense of security

among the destitute and other women experiencing difficult circumstances. The psycho-social support provided to the women in distress also could be considered as a contribution of the project. However, it may be noted that the social support committees had no functional norms and independent financial resources. The activities were largely driven by individual members. For example, the outstanding loan of a terminally ill-patient was written off and another member agree to take over the liability of Rs.2,000/-. The social support committees were not reported to be meeting regularly as per schedule.

10. However, micro-insurance intervention undertaken as part of the sub-project mobilized a large number of the destitute women into the life/accident insurance fold and thus reducing vulnerability associated with idiosyncratic events.

TOR-4: Comment on the skill base that is currently available with the beneficiary to manage the particular economic activity at an optimum level and the opportunities or constraints if any for further growth within the concerned value chain.

11. No special skills were provided to the beneficiaries of the project. However, the capacity building training provided for the members to manage the SHGs and the federation did not appear to be adequate to promote self-management and governance. There is need for providing additional training support to a larger number of members. Further, the one-day training provided in the preparation of business plans was also limited to a very few members and it had no cascading effect on other SHGs. There is a vast scope for identifying potentially viable and feasible micro-enterprises and training the women in such activities. Cashew processing, as the subsequent Wal-Mart project has demonstrated, holds potential for training a larger number of women. Post-harvest fish processing activities could be another area with potential. A market scan could identify other activities in which the skill base of the women could be enlarged.

TOR-5: Analyze the external leverages in the form of finances, market and technical services and other inputs and comment on their sufficiency and contribution to strengthening the livelihood system of the beneficiary.

12. The first lead partner CRED was able to leverage a fund of Rs.____/- from external sources. However, with the exit of CRED, the amount was refunded. Later, CREATE facilitated leverage of only Rs.30,000/- from the IOB under DRI, that too with the intervention of CARE. In addition, the cashew processing unit leveraged about Rs.60,000/- for its initial working capital. About 330 households were mobilized into micro-insurance covering both life and general assets. Thus, the financial leverage, other than the CARE revolving fund support of Rs.6.00 lakh, was very meager. This is an area which requires further focus.

13. No other significant leverage of technical or marketing services was made as part of the sub-project. However, the cashew infrastructure leveraged for the federation resulted in a later day improvement in the skill base of the members (through Wal-Mart support).

TOR-6: Analyze and comment upon how access to livelihoods services has been addressed and how institutions have started looking at NGOs/ community structures as potential clients for them.

14. There is no significant change in the attitude of the bankers towards the SHGs promoted under the sub-project. Post-Tsunami, the SHGs are not considered as bankable.

TOR-7: Contribution of Functional Literacy and Numeracy Skills (Imparted to the Beneficiaries as part of Livelihoods Promotion and their Impact on the Empowerment Status of Women/Beneficiaries)

15. It is reported that 64% of the federation members had benefited from the Education for Livelihood Project. Interaction with the sample beneficiaries indicates that there literacy and numeracy skills had improved after the project. (Meera madam may be pleased to help us with this section.)

TOR-8: Comment on the Capacities of CBOs Created to Manage the Activities Sustainably in Future

16. The SHGs promoted were relatively weak and not functionally efficient. The adherence of the SHGs to democratic and micro-finance norms needs to be promoted. The capacity building inputs provided appeared to be very meager, considering the number of SHGs (53) and the membership (742). Unless the SHGs are strengthened and made effective in terms of the five important principles, the bankers would be reluctant to admit them to credit linkage. The SHGs, therefore, require further capacity building and close mentoring support. The federation did not appear to be in a position to provide the kind of support required for the SHGs. In fact, the federation itself requires further support to strengthen its functioning autonomous of the lead partner.

TOR-9: What are the probable factors which might pose as challenges in the near future (*e.g.* access to markets/continuous access to entitlements *etc.,*) Recommend steps to be taken.

17. Promoting access of SHGs to formal financial institutions remains a formidable challenge. The seriousness of the situation can be understood from the fact that not even one SHG was admitted to bank linkage during the three year project period. Equally distressing was the fact that only three out of over 700 members were admitted to DRI loan, even after the direct intervention of CARE. The federation too had no access to bank funds. And the lead partner could not leverage any external fund for the federation. Unless the fund base of the federation and SHGs is enlarged, the credit constraint affecting the WHHs cannot be eased. Strengthening SHGs is the only way to convince the bankers. This in turn calls for further capacity building and nurturing support for regular conduct of meetings, savings and inter-lending and bookkeeping. The federation also requires further mentoring such that it can emerge as an autonomous institution, *al beit* slowly and leverage funds from the market including banks and MFIs.

18. The second challenge is to ensure that all those who require loan assistance are provided such assistance. This requires not only enlargement of the fund base, but also preparing the individual households to take up small but viable micro-enterprises and other activities to diversify their livelihood portfolio. Closely related to the issue is to minimize over dues and facilitate greater revolution of the fund available.

19. The third area that requires improvement is the financial relationship between the SHGs and the federation. The existing financial relationship is very notional. There are no significant financial transfers between the SHGs and the federations except the transfer of member-specific loans (please check whether loans are given to individual members or to SHGs which later lend members). The organic financial linkage between the SHGs and the federation needs to be strengthened. The practice of SHGs saving with the federation could

be introduced. Apart from enlarging the resource base, this practice could also result in SHGs borrowing from their own savings with the federation.

20. Further, as the federation is currently involved in cashew processing, a part of the profits could be set apart for lending among the SHGs for taking up micro-enterprise activities.

21. Though it is slightly pre-mature to make the federation autonomous, it is imperative that the lead partner is guided to making the institution autonomous after instituting necessary systems for its efficient functioning.

22. The social support groups promoted need to be networked under the umbrella of the federation and they should be guided to taking up larger issues affecting the poor in the region such as issues arising out of alcoholism, domestic violence, caste based discrimination, gender discrimination and discrimination against PLHA families. The network without adequate funding support would be ineffective. Therefore, the federation should earmark a small portion of it surpluses for these activities and determined norms for utilizing such earmarked funds.

TOR-10: What are the long term implications of the intervention? How has it affected the underlying causes of poverty in terms of: *(i)* Addressing unequal power relations; *(ii)* Addressing failure of governance; and *(iii)* Addressing failure of markets?

23. If the SHGs and the federation are nurtured further to become functionally efficient institutions acceptable to the bankers, then the intervention would go a long way in meeting the consumption and production credit requirements of the WHHs. Greater access to external finance would result in a good proportion of these households diversifying their livelihoods and crossing the threshold of poverty.

Annex – 1
Activities Undertaken Under Women Headed Household Sub-Project

S. No.	Activity	Indicator
1.	Formation of exclusive SHGs of widows and single women	▪ 53 SHGs over three years covering 742 members
2.	Capacity building of SHGs	▪ Select members and leaders on group dynamics, roles and responsibilities
3.	Strengthening of SHGs	▪ Handholding support for the conduct of meetings of SHGs throughout the project period ▪ SHGs were guided to practicing democratic and micro-finance norms
4.	Training of animators and representatives	▪ Representatives of 53 SHGs and animators twice during the project period on bookkeeping, leadership and SHG management
5.	Formation and registration of Vidivelli federation	▪ General body and executive constituted ▪ Federation registered as society
6.	Capacity building of federation Office Bearers	▪ Training provided to OBs twice – 42 members
7.	Strengthening of federation	▪ Exposure visits organized to federations in Madurai district – 25 members ▪ New 9 member executive body promoted including the partner representative (CEO) as a key member with financial powers
8.	Establishment of Social Support Committees (Udhavum Ullangal)	▪ Promoted social support committees in 30 villages with 2 to 3 members each
9.	Social support activities	▪ Quality groceries procured and distributed among beneficiaries (once) ▪ Cultural events organized for WHHs (1 event)
10.	Preparation of business plans	▪ Five livelihood business plans prepared by SHG members for fish vending, goat rearing, petty shop, vegetable business and coconut leaf knitting
11.	Financial leverage	▪ Federation was provided Rs.6.5 lakh as initial deposit, revolving fund and for collective purchase ▪ CRED leveraged Rs.1.5 lakh for the federation to revolve among the members in 10 villages (fund returned to CRED after its withdrawal from the project) ▪ 58% of members of the federation borrowed from federation a total amount of Rs.5.3 lakh ▪ Indian Overseas Bank provided loans for micro-enterprise under DRI scheme (@ Rs.10,000/- each), with the intervention of CARE (Cool drink shop, cap shop and fish fry vending in Velankanni)
12.	Infrastructure leverage	▪ Leverage unused cashew processing infrastructure from the district government for use by the federation
13.	Support for cashew activity	▪ Exposure visit organized for 50 WHHs from Education For Livelihood (EFL) villages at Kallar

Sector : Salt

CARE-TN
A Report on Evaluation of
Livelihood Advancement of Salt Farming Communities in Prakasam District

Background of Sub-Project

1. *Prakasam* district is the second largest salt producing district in Andhra Pradesh, after Srikakulam. Salt farming is one of the major livelihoods in 6 coastal mandals of the district. The activity is concentrated in 18 villages in an extent of about 6,500 acres of land and about 5,100 small and marginal farm households are engaged in salt production. The Tsunami had adversely affected salt farming in about 1,400 acres along the coast line. On the basis of a value chain analysis and a livelihood situational assessment, CARE intervened to promote and sustain the livelihoods of the small salt producers in 8 villages of *Kothapatnam* and *Chinnaganjam* mandals by addressing several value chain gaps and constraints. Implemented in four phases during Aug. '07 and Aug.'10, the interventions of CARE were targeted to benefit about 1,450 small salt farming households belonging to the socially backward communities. The core objectives of the CARE intervention include:

- promotion of self-managed CBOs of the salt producers for delivering livelihood support services;
- promotion of infrastructure in conjunction with other stakeholders;
- building the capacities of the CBOs for undertaking marketing and value added activities;
- upgradation of salt farming practices through appropriate technical inputs;
- diversification of livelihood portfolio of the salt farming households through appropriate skill and marketing support; and
- mitigation of yield risk through pilot insurance initiatives.

Project Components and Activities

2. Based on gaps identified in the value chain, the following seven components were identified and multiple activities undertaken under each component to achieve the objectives:

- institution building involving promotion of CRGs and federations/MACS;
- technical inputs and skill building for productivity enhancement (through improving farming practices);
- leveraging credit from banks;
- marketing and value addition;
- piloting of weather based salt insurance to minimize output related risks;
- improvement of working conditions; and
- advocacy for a better deal from the government.

Brief Progress Report

3. The following progress was reported at the end of Aug.'10 in different components.

Table – 1
Support for Salt Farming : Components, Activities and Progress

S. No.	Component	Indicator	Indicator Value (Aug. '10)
1.	Institution Building	CRGs	79 covering 861 farmers
		Producer MACS	1 District level MACS
		Vendor MACS	1 Women Salt Vendor MACS
		Other Institutions	2 MACS strengthened
		Cumulative savings of Vendor MACS	Rs.2.28 lakh
		Thrift of Vendor MACS	0.93 lakh
		Loans mobilized by Vendor MACS	20.50 lakh
		Internal lending	Rs.7.31 lakh
2.	CB and Skill Building	Trainings	53 CRGs trained
		Exposure visits	11 farmers
3.	Leverage	Bank loans under DRI	Rs.40.00 lakh; 171 members
4.	Marketing and value addition	Infrastructure created	1 permanent processing unit and 2 mobile units
		Value of raw salt procured	Rs.22.29 lakhs
		Value of processed salt	Rs.25.32 lakhs
		Value of processed salt sold	Rs.25.07 lakhs
		Value of raw salt to be processed	Rs.14.65 lakhs
		Net profit	Rs.35/- per bag
5.	Insurance – Weather Based	Coverage of salt farms – First year	423 acres
		Redemption – First year	Nil
		Coverage of salt farms – Second year	447 acres benefiting 466 salt farmers affected by "*Laila*" cyclone
		Redemption – Second year	Rs.5,000/- per acre (to be released)
6.	Worksite facilities	Protective gear distributed (hats, gum boots, goggles, glouses)	50 sets
		Health camps conducted	2
		Resting shelters	3
7.	Advocacy efforts	Land titles	D-Pattas issued (temporary titles) to 105 farmers
		Concessional electricity tariff	Electricity tariff reduced to Rs.1.03 per unit
		Compensation for cyclone damage	Compensation secured for salt producers farmers suffering damaged during cyclones on par with farmers at the rate of

			Rs.600/- per acre from GOAP
		Construction of access roads	Facilitated construction of approach road and bund strengthening benefiting 5 villages

Methodology and Process of the Study

4. A four-step methodology was adopted to evaluate the sub-project intervention. First, the NGO partner (SARDS, Tangutur) made a detailed presentation on the project covering key project objectives, components and activities, implementation process, perceived results and challenges and tasks ahead. The team had initial interaction with key project implementation staff. Second, the team visited two sample villages/farm sites viz., Kothapatnam and Chinnaganjam to undertake field study. As part of the field study, the team conducted focus group discussions with salt farmers, CRG leaders, district MACS leader, processing unit committee and salt vendor MACS. In addition, the team had detailed interviews with select salt farmers, salt vendors, key government officials and bankers, using discussion guides and checklists. The team also perused the records of sample CRGs, district MACS and vendor MACS. As part of the field study, the team visited sample farm sites, stock points and processing units as well as other market operators in the neighbourhood. After the field visit, the team met with key partner staff to seek certain clarifications and share the observations.

Findings of the Study

Nature, Extent and Suitability of the Interventions

5. There were several missing links in the salt value chain extending from the producer to the end-user. The sub-project sought to address most of these gaps on the production side and attempted to solve a few gaps on the post-production value chain. The gaps addressed through multiple interventions and the emerging results are presented in the following *Table-2*.

Table - 2
Support for Salt Farming : Gaps, Interventions and Results

Inputs	Observed Gaps and Issues	Interventions	Emerging Results
Land resource and Producer	Majority producers had no title to land used for production	Advocacy to confer temporary D-Patta titles	D-Pattas issued for 105 farmers
	Substantial damage caused to salt pans due to sand cast and damage to bunds and drains	Liaison with banks for credit support; Promotion of CRGs and MACS	DRI loans sanctioned to a total of 171 farmers including second timers
	No compensation to the salt producers from the government due to cyclone/ flood damage on par with farmers	Advocacy for compensation	GO issued to bring salt farms under disaster compensation net; Rs.600/- per acre of damaged farms paid
	No effective institutions of producers to articulate livelihood issues and rights	CRGs and MACS promoted and capacity building undertaken	MACS and the district forum recognized by the government. MACS successfully taking up issues with the GOAP and GOI.

Inputs	Observed Gaps and Issues	Interventions	Emerging Results
			Issues of salt farmers of the state mainstreamed.
Water	Multiple individual bore wells with inadequate depth and water not having adequate saline content	Joint bore wells of optimum depth and with energized pump sets promoted	Cost of setting up bore wells minimized. Adequate water with required salinity content exploited and used. Quality of salt improved.
	Individual pump sets energized by diesel engines and electric motors		Cost of production of salt reduced due to saving on power tariff
	No subsidized prices for diesel/ no concessional tariff for electricity on par with farmers	Advocacy undertaken for subsidized power tariffs	
Technology and Farming Practices	Unscientific cultural practices – high ratio of 5:5 between land used for reservoir and condenser	Producers trained in scientific methods of farming and focusing on reservoir-condensed ratio of 8:2	Most farmers adopt suggested ratio of land allocation
	Inadequate emphasis on draining away magnesium	Producers trained on draining magnesium	Most farmers adopt techniques to drain magnesium
	Poor drainage system – improper bitter channels	Exposure visits to model salt pan to promote scientific drainage system	Drainage system substantially improved
	Delayed salinity acquisition process		
	Sub-optimal number of cycles of production	Promotion of scientific methods of farming through training and exposure visits	Number of cycles of production increased resulting in improvement in per acre yield from 800 qts. to 1200 qts.
	No services/training from government for productivity enhancement	Training provided for productivity enhancement	
	Low quality of salt produced which had only industrial use	IEC and training used for quality promotion	Clear shift to whitish crystal salt observed
	Low yield of salt per cycle/per acre	Demonstrations through model salt pan and focus on	

Inputs	Observed Gaps and Issues	Interventions	Emerging Results
		scientific methods of farming	
Finance	No access to institutional credit on par with farmers (crop loan)	Liaison with banks for loans	171 farmers provided DRI loans, each of Rs.15,000/- at 4% interest
	Trader-financiers exploiting producers with credit-tied sale agreements	Improved access to loans from banks and MACS. Procurement of raw salt for processing unit.	191 farmers provided RF loan of Rs.5,000/- each
	No access to institutional credit for salt stock held by producers	Loan advances from MACS for salt stocks held by producers	6 farmers provided loans against salt stocks
Infrastructure	Improper salt platforms	Interest free loans from MACS for construction of platforms by producers	Individual loans of Rs.2,000/- to Rs.4,000/- advanced were made use of for platforms
	Vastly run down approach roads to salt farms adding to the transportation costs	Advocacy for construction of approach roads under MGNREGS	Internal access roads built by farmers; approach roads remain to be taken up
	Poorly maintained flood protection bunds of Buckingham Canal		
Labour	Limited skills of producers/ labour	Skill training for producers in scientific methods of farming	Skill levels of most farmers enhanced
	Lack of extension services		
	Near total absence of use of protective gear (hats, boots, glouses etc.,)	Supply of protective gear to select farmers	Some protective gear supplied being used
	Lack of resting sheds	Construction of three resting shelters	Three shelters completed and being used
	Lack of health insurance/ life insurance coverage	Organization of health camps and promotion of life, accident and health insurance	Two health camps conducted and a few referrals made
Insurance	No insurance to cover production/ yield or price	Piloting weather based index to	First year – 423 acres insured and no claim

Inputs	Observed Gaps and Issues	Interventions	Emerging Results
	risks and uncertainties	mitigate yield related risks	made; Second year – 440 acres insured and claims made by all due to damage caused by *"Laila"* cyclone; Redemption in the pipeline; Insurance product design undergoing changes

Table - 3
Support for Salt Farming : Gaps, Interventions and Results

Observed Gaps and Issues	Interventions Undertaken	Emerging Results
Individual producers selling salt soon after harvest at lower prices at the farm site	Aggregation of produce encouraged to attract bulk borrowers and secure better prices through CRGs and MACS	Salt being sold at competitive market prices due to procurement undertaken by MACS committee, availability of price information and decline in credit-tied sales
No aggregation of produce before sale and no direct sale to bulk buyers	Bulk procurement undertaken by MACS committee for processing	Part of the sales aggregated at CRG/village level. Some aggregation takes place at MACS committee level. Some direct sales undertaken to bulk buyers in Hyderabad, Vijayawada *(e.g., Global Green, Al-Kabeer, Alanaa etc.,)*
Lack of withholding capacity for individual producers	Loans advanced by MACS for farming as well as stocking of salt	Withholding capacity enhanced for a considerable number of producers due to access to bank loans, loans from MACS *etc.,*
Lack of storage facility	Assistance provided for open storage facility	Elevated platform provided for open storage and a huge quantity of salt was found stocked
Credit-tied sales to trader-middlemen	Bank credit and MACS loans extended to individual farmers	Substantial reduction in tied sales observed
Absence of value added activities including powdering	One stationery and two mobile processing units established	Stationery unit established and found working but not to full installed capacity Mobile units not reported to be in great demand
Absence of insurance facility		

Observed Gaps and Issues	Interventions Undertaken	Emerging Results
for stock		
Inadequate access to information on prices in different markets	Price information discussed in the MACS and disseminated to the CRGs	Improved access to price information resulted in competitive prices for salt, but no instituted system for dissemination of price information
Significant quantity of salt produced used for industrial purposes		

6. A critical examination of the intervention reveals that the choice of the salt sector was appropriate in view of the fact that it constituted a principal source of livelihood for a large number of economically vulnerable and socially disadvantaged households. The interventions undertaken were appropriately designed to address the gaps in the value chain as briefly indicated below:

- the focus on institution building through CRGs and MACS is justified in view of the fact that the small and marginal producers were by and large unorganized and had no advocacy forum of their own. There were no collectives of salt producers to represent the long felt demands for better deal from the government - *e.g.,* subsidized electricity tariff, minimum support prices, compensation following flood damages to saltpans, securing of titles to salt farms under their possession for years *etc.,*;
- the emphasis on capacity building for self-management and skill building for productivity enhancement is equally appropriate in view of the relatively low levels of productivity at which they were operating. It is widely documented that the pre-intervention farming practices were unscientific with low ratio of land being allocated to reservoir and with little focus on separating magnesium content from salt;
- the efforts made to promote aggregation of salt produced through procurement and processing operations and direct sales to bulk external market operators also appear to be appropriate, although the efforts were not adequate considering the quantity of salt produced;
- the introduction of processing as an early value added activity undertaken by the sub-committee of MACS under the guided supervision of the NGO partner is a suitable intervention. However, the operations of the sub-committee need to be integrated with the MACS and made more transparent and participatory. The loan transactions between the MACS and the sub-committee need to be closely monitored. It is important to institute a system for sharing profit/loss made by the processing center;
- the piloting of a weather based insurance product to minimize yield related risk is a pioneering effort but given the tendency of the farmers to claim full redemption benefits irrespective of the extent of damage, the sustainability of the product appears to be in question;
- further, the salt workers had very poor worksite facilities for resting, particularly during summer months. Use of protective gear (gum boots, sun glasses, glouses, and hats) was very uncommon. The incidence of morbidity was reported to be relatively high among the salt workers. Therefore, the creation of worksite facilities and conduct of medical screening camps were appropriate interventions taken-up for the well-being of the workers;
- an equally important intervention was the effort made to facilitate access to bank loans for a large number of producers under the subsidized differential interest rate scheme, which coupled with access to loans from MACS, has significantly eased the credit constraints faced by the salt farmers. The easing of the credit constraint has contributed to the withholding capacity of the salt producers and reduced their dependence on credit-tied sales; and
- finally, the efforts to mobilize resources from the government to improve road access and strengthening of Buckingham canal bunds, though not very successful, could bear fruit in the long run.

Scale of Interventions

7. The interventions of CARE target 1,452 small salt producers from 8 villages of the two most affected mandals. However, the progress reports indicate that about 860 salt producers have been benefited directly or indirectly from the interventions of CARE. However, the district MACS promoted has a total membership of 1,172 members, about one-fifth of the total salt farmers in the district. It may be noted that other INGOs viz., Concern World Wide and German Agro Action Aid had also participated in the restoration and promotion of the livelihoods of the salt farmers in the early years following the Tsunami. The CARE support has taken these efforts forward. Apart from the direct benefits provided to the small salt producers in the target villages, the successful advocacy efforts taken up by the MACS and the lead partner have created a very favourable policy environment in the state. The institutions created and the synergy of the convergence efforts taken up will have a multiplier effect on the well-being of the salt farmers in the future.

Impact on Livelihoods, Skills and Income Earning Opportunities

8. There is no major change or diversification in the livelihood asset base of the salt producers. Salt farming continues to be their major source of livelihood, although some of them also undertake crop and vegetable cultivation on very small holdings. As a result of the multiple interventions undertaken for the small salt producers, some significant changes have resulted. These include:

- reduced cost of production of salt due to subsidized electricity tariff (made possible by successful advocacy), reduced burden of interest (made possible by DRI loans at 4% rate of interest and loans from MACS) and improved farming practices (change in the land use pattern, improved drains and harvesting practices). Economies accruing due to subsidized power tariff works out to Rs.3,000/- per acre per annum, while interest subsidy on DRI loan of Rs.15,000/- works out to another Rs.3,000/-. There are other economies arising from reduced use of labour consequent on the change in the reservoir-condenser ratio and other improved practices. This is the major gain to all the salt farmers benefiting from electricity tariff and DRI loans;
- improved yield of salt from about 800 quintals per acre to 1200 quintals per acre is another significant gain reported by most sample farmers, primarily due to the changes introduced in the production practices is another important gain from the project. However, it may be noted that these gains accrue only during the normal year without too many adverse weather events;
- better market prices for the producers due to competition engendered by the entry of MACS sub-committee into procurement and value added activities on the one hand and the dissemination of price information through the MACS and CIGs on the other as well as the direct sale of salt to bulk buyers are the other important contribution of the sub-project intervention. The data furnished by the lead partner suggests that during 2007-10, the price of salt (farm gate price) showed an increase of Rs.40/- per bag of ____ kgs over three years and the sample farmers attribute the increase largely to the above factors. Further, the processing of salt undertaken by the MACS sub-committee has also contributed to an increase in the price of salt for the farmers. On the other hand, the processing activity had resulted in a profit of Rs.2.00 lakh during the first year, which was used for construction of the elevated platforms for undertaking open storage of salt. However, processing has not yielded any direct benefit in the form of profit sharing to the members, but the processing unit has produced has provided employment for 6 members directly;

- the interventions undertaken for the women salt vendors have also promoted their incomes through reduced interest charges on loans from MACS, bulk purchase of salt at relatively lower prices, sharing of price information and non-competitive sharing of market. Some of the sample vendors also reported to have taken up household dairy to supplement the primary source of salt vending, using the cheaper loans obtained from the MACS. However, the training provided to the women on iodizing salt before vending has not resulted in visible outcomes. The women continued to engage in sale of non-iodized raw salt. There is scope for moving up the women vendors in the value chain; and
- the women vendors have received certain other benefits from the intervention. The MACS supplied smokeless stoves to the women on deferred payment basis. Besides, the MACS is also exploring a tie-up with mobile operator to supply cell phones.

Reduction of Socio-Economic Vulnerability of Salt Producers

9. The salt producers are subject to three sources of vulnerability or shocks *viz.,* environmental shocks, trade and exchange related shocks and non-environmental endogenous or institutional shocks. Environmental shocks to the salt producers arise in the form of cyclones, excessive rains and floods that affect output. Trade and exchange related shocks could arise in the form of sudden slumps in demand from external markets and unforeseen price changes. The non-environmental/endogenous shocks arise due to institutional causes in the form of policy reversals. The project interventions have attempted to minimize the three sources of vulnerability of the salt producers.

10. First, the piloting of weather based insurance to protect the salt farmers from the yield risks associated with cyclones, excessive and unseasonal rains and floods, is a well thought out strategic innovation. Engaging private insurance operators of *ICICI Lombard* and *IFFCO TOKYO* for piloting weather based insurance cover for salt producers is a unique intervention. As a result of persistent efforts by the project and partner staff, more than 400 acres of salt farms were brought under insurance covering both the production phases (1st January to 15th March, 2009 and 16th March to 31st May 2009) at a small premium of Rs.750/- to Rs.800/- per acre with a potential redemption claim of Rs.6,500/- per acre. However, as the loss sustained due to bad weather was considered to be less than the threshold (TLI), the insurer declined to pay any compensation. Displeased with the decision of the insurance provider, the farmers were reluctant to renew the insurance premium for both the cycles. Instead, during the second year, the farmers opted for insuring the yield risk only for the second phase (March 16th May 31st) of production with the reduced premium of Rs.375/- and a potential redemption claim of Rs.6,500/- per acre. The *"Laila"* cyclone and the persistent rains that it brought affected all the insured farmers. However, the full claims made by the farmers were not redeemed immediately by the insurer on the ground that the salt yield was affected only during the cyclone period *i.e.,* 19-23 May, 2010. However, the salt farmers who had sustained substantial loss in salt and damage to the saltpans due to the unusual rains represented to the district administration for its intervention. The intervention of the District Collector resulted in the insurer agreeing to pay Rs.5,000/- per acre insured. But, because of the huge outgo the insurance company appears to be unwilling to provide the insurance cover for the coming season.

11. The early experience with the insurance pilot points to the need for refining the insurance product to securing the redemption of genuine claims made by the affected farmers. However, it is equally important to promote healthy insurance education among the farmers.

The tendency to treat insurance claim as an entitlement, irrespective of the magnitude of loss to production, needs to be dispel through sustained education. Further, efforts may be continued by the CARE and the lead partner to engage other insurance provider who could offer more innovative insurance products.

12. Second, the sub-project had also taken certain steps to minimize trade and exchange related impacts on the salt farmers. The setting up of salt processing unit is a significant step in the direction of minimizing trade and price related fluctuations. The direct sale of procured salt by MACS committee to external industrial users such as *Al-Kabeer*, *Global Green* and *Alana* has reduced the exposure of the small farmers to price fluctuations and unfavourable credit-tied sale conditions. However, MACS needs to involve itself on a much larger scale to engage in direct sales and forward contracts with large market buyers to insulate the farmers from price fluctuations. Further, the bank credit linkage facilitated by the project and the working capital loans advanced by the MACS, have together improved the withholding capacity of the farmers which is also contributing to reduced exposure to price fluctuations.

13. Third, the institutions promoted as part of the project have minimized the potential 'endogenous' or 'institutional' shocks to the salt producers. There were no adverse policy reversals affecting the salt farmers during the project life. On the contrary, the advocacy efforts of the district MACS has brought in favourable changes in the policy environment. The GOs extending subsidized power tariffs, flood related compensation and sanction of D-Pattas (temporary titles to land) bear testimony to the successful advocacy efforts to improve the policy environment for the small salt producers.

14. In addition, the other interventions such as the free health screening camps, promotion of individual health, life, accident and asset insurance through *Bajaj Allianz* and *Royal Sundaram* at a nominal premium (Rs.50/- to Rs.125/- per person), the distribution of protective gear to 50 salt producers free of cost, the construction of resting sheds for salt workers have contributed to a significant reduction in vulnerability to work related stresses and shocks. More importantly, the federation of women vendors has minimized the risk exposure of the women to natural hazards such as cyclones by diversifying their livelihoods. Thus, the multiple interventions undertaken as part of the salt sub-project have contributed to the resilience of the households primarily dependent on salt farming for their livelihoods. Further, the CBOs promoted are in a position to prevent a natural hazard in the form of a cyclone or a flood into a social disaster. The communities are in better position today in terms of their capacity to anticipate, cope with, resist and recover from the impacts of shocks, both environmental and non-environmental.

Knowledge and Skill Base

15. The capacity building interventions of the project focused on self-management of the CRGs and MACS promoted. The skill training and support provided on the other hand laid emphasis on changing the production practices to achieve higher levels of productivity and quality. Out of the 79 CRGs, farmers from 53 CRGs were trained on model farming systems. About a dozen farmers were taken on exposure visit to *Tuticorin* in Tamil Nadu. IEC materials developed in local language were widely distributed. A wall writing campaign was undertaken to disseminate scientific practices for quality salt production. A group of women were also provided training on iodizing salt. The scale and content of training have had intended effects in terms of changing land use pattern, water use and drainage practices. The knowledge and skill

based of the farmers appeared to be sustainable and adequate to optimize production of quality salt in future. However, the capacity building and skill training have focused largely on production related aspects. The processing/value added and marketing activities did not receive adequate focus. In order to enable the salt producers to reap larger benefits from the post-production value chain, it would be essential to strengthen the skills of the CBOs in the areas of value addition (iodizing *etc.,*) branding and marketing. Institutional mechanisms need to be instituted within the MACS framework to promote these activities.

External Leverages Facilitated

16. The sub-project has facilitated three types of external leverages *viz.,* finance, marketing and technical support. First, the sub-project has promoted linkage of 171 producers to Indian Overseas Bank (credit under DRI scheme). The repayment performance is excellent with no loan defaults reported. However, only 20% of the farmers under the project fold are bank linked. It is essential to explore credit from the other banks under the DRI or other schemes. The new initiative of Joint Liability Group (JLG) based lending could also be explored to increase availability of credit resources to the salt farmers. Further, the MACS could approach the banks for loans against the salt stocks. The MACS could undertake bulk procurement and value added activities with only additional bank finances. Further, the District MACS could also explore the possibility of mobilizing loan funds from other MACS in the district along the lines of women vendor MACS, which has borrowed an amount of Rs.20.00 lakhs from Swasakthi Livelihoods MACS.

17. Second, the area of market linkages, the sub-project has made a limited progress. It has promoted direct sale of raw salt by the MACS committee to a few bulk buyers. However, it was reported that the bulk buyers were delaying payments. As a result, the MACS committee was undertaking local sales of salt at relatively lower prices. This certainly points to the need for improved market negotiation skills on the part of the MACS. The MACS needs to take up marketing on a larger scale. Market opportunities need to be scanned and the services of dedicated professionals may be hired for this purpose.

18. In respect of technical support, the project has catalyzed mobilization of services from the Salt Department of the GOI. The Department provided technical advice and support for establishing a model 10 acre saltpan in Chinnaganjam. The officials of the department participated in the technical training provided to salt farmers. The services of the department were also utilized for testing the quality of salt. In addition, the Department participated in the health screening camps organized under the project and provided some drugs for free distribution. There is scope for increasing convergence with the Salt Department. Interaction with the Salt Department officials at Chinnaganjam indicated that the Department could extend support to the CBOs in the form of providing resting sheds, water tanks, protective gear, scholarships for school going children and medical camps.

Capacities of CBOs Promoted

19. The institutions promoted under the project revealed the following:

- Farmers using a common bore well were organized into a Common Resource Group (CRG). Apart from sharing the scarce water resource, the CRG is expected maintain the energized motor-pump, share electricity charges in proportion to use and undertake common activities

along with other CRGs (*e.g.* Labour sharing for pan maintenance and cultivation, harvesting and lifting of salt *etc.,*)

- The 79 CRGs, each comprising 10 to 12 members were found conducting meetings regularly as indicated by the documented proceedings and undertaking saving (Rs.50/- to Rs.100/- ppm) and inter-lending
- On the basis of their functioning and performance, the CRGs were graded once in a quarter by the staff of NGO partner
- Most of the CRGs were carrying out their financial transactions transparently and maintaining books of accounts
- All the sample CRGs were found to be maintaining the electric motors and pump sets and sharing electricity charges. Some activities were reported to be undertaken on labour pooling and sharing basis
- However, the CRGs being men-SHGs are not admitted to NABARD bank linkage. On the other hand, due to persistent efforts of CARE and its partner, IOB advanced DIR loans to 171 salt producers at the rate of Rs.15,000/- per member at 4% interest. Again 95 members were provided as second loan under Rs.15,000/- each at 4% rate of interest under the DIR scheme. Thus, the sub-project had facilitated leverage of about Rs.40.00 lakh to the salt farmers up to Sept.'10
- The institution of CRG enabled the salt producers to access working capital loans from the corpus of the district level Salt Forum, to which contributions were made by CARE and other funding agencies. From out of the contribution of Rs.3.00 lakh made by CARE to the District Forum, 191 members were provided working capital loans at the rate of 12% interest up to Sept.'10. In addition, some farmers were also provided individual loans to Rs.2,000/- to Rs.4,000/- at 0% interest to undertake construction of salt platforms
- A federation of 166 CRGs (comprising 1,174 members) was registered in 2007 as MACS. The MACS had a governing body of 9 members including 4 OBs and as per the Act one-third of the members being replaced every year. The governing body was found meeting once in a month while the representative general body once in every quarter. The GB of MACS was meeting once in a year, with each CRG representing 2 members. However, the MACS is not totally autonomous of the NGO partner. The manager of MACS is a representative of the NGO partner and is authorized to take all financial transactions of MACS along with a representative of MACS.
- A processing unit for undertaking value added activities was established at Kothapatnam farm site. The land on which the unit is established is registered in the name of the MACS. While CARE had given a grant of Rs.2.2 lakhs for the establishment of the unit, Oxfam provided an amount of Rs.2.1 lakh. In addition, member contribution of Rs.0.5 lakh along with a MACS contribution of Rs.0.6 lakh were used to set up the processing unit maintained by a 5 member sub-committee under the close guidance and supervision of a manager representing the NGO partner. The NGO representatives and a key member of the sub-committee operate the financial transactions including the bank account relating to salt processing.
- The salt processing unit is managed by the sub-committee of the CRGs in the village under the close supervision of the NGO partner. A total of 95 members were reported to be supplying salt to the processing unit at the ruling market rate. Each member was advanced Rs.5,000/- by the federation as working capital loan to undertake salt production. And each member-borrower is required to supply salt to the processing unit in lieu of repayment of principal and interest on the working capital loan taken from MACS. In addition, the processing unit was advanced a loan of Rs.21.25 lakhs from the corpus available with MACS

(generated out of contribution made by German Agro Action Aid, Oxfam and CARE). The sub-committee overseas processing and selling of powdered salt to the leather industry at Guntur, Warangal, Vijayawada and Hyderabad. The processing activity is reported to be yielding a net profit of Rs.20/- per bag. Thus, up to Sept.'10, a total quantity of _____ tonnes of salt was aggregated and stocked at the farm site, of which _____ tonnes were processed and sold and the balance quantity remained to be processed and sold. A serious threat to the processing activity was cyclone storm. It was reported that the recent "Laila" cyclone resulted in a loss of 10,000 bags of salt stocked at the farm site. As a result, the processing unit sustained heavy loss.

- All the CRG members were also members of Village Level Producer Co-Operative Societies established under the 1964 Act. All the salt farmers were the members of the co-operative society. It was understood that the Society was leasing in government land and distributing among the members for salt production, for which each member was required to pay a cess. However, D-Pattas were issued to the producers recently conferring temporary rights over the use of land to the farmers. The Society has an independent office and a 9 member Executive Committee was carrying out its activities, the most important of which the collection of cess at the rat of Re.1/- per bag of salt produced and the utilization of the revenue so generated for improving access roads and related infrastructure in the salt farms. The Society, however, was not organically linked to the CRGs or the MACS. There was no village level federation of CRGs either to interface with the village level society.

Common Resource Groups

20. Thus, 861 small and marginal salt farmers from 8 coastal villages of Kothapatnam and Chinnaganjam mandals were mobilized into 79 Common Resource Groups. Farmers using water from to common bore well and pump set were brought into a common resource group, with water being the common resource. Apart from facilitating discussion on common livelihood issues, the CRGs undertake regular savings and inter-lending. Each group undertakes maintenance of energized bore well and share water and the electricity tariff. Some groups also practiced labour exchange-sharing practices to minimize use of hired labour.

District MACS

21. A district level federation of CRGs was promoted to facilitate advocacy, undertake financial intermediation, insurance promotion, marketing and value added activities. The federation was registered in 2007 as MACS. In Sept. '10, 166 CRGs were under the fold of the MACS, covering 1,174 salt producers scattered over 6 mandals. It may be noted that the district MACS encompasses CRGs promoted under salt projects promoted by CARE as well as *Concern World Wide and German Agro Action Aid*.

Salt Vendors MACS

22. In addition, an exclusive society was promoted for supporting the activities of women salt vendors. The MACS covering about 650 members from 16 villages of Chinnaganjam mandal was registered in 2008. The central purpose of the federation is to enable the vendors to access financial and other support services for improving their livelihoods through collective bargaining.

Salt Processing Workers Group

23. A Salt Processing Workers Group was promoted at *Chinnaganjam* to facilitate aggregation and value addition in the form of processing.

Emerging/Persisting Challenges

Capacity and Autonomy of the Federation

24. The federation or district MACS promoted is not fully autonomous of the lead partner. While joint management of the federation is desirable in the early stages, eventually it should be made autonomous of the NGO control. This would require not only sustained capacity building of the executive but also willingness on the part of the NGO to trust the federation and transfer the reins of control. Further, all funds held in different accounts could be transferred to the MACS after creating appropriate transparency and accountability systems.

25. Further, neither the MACS nor the CRGs are registered with Salt Department. Registration with them would help secure benefits like salt farmer kits, drinking water facilities and resting shelters.

Salt Processing Unit

26. The ownership of the salt processing unit needs to be established. Up to Sept.'10, a six member sub-committee was overseeing the functioning of the processing unit. Funds were provided to the committee from different accounts of the federation and processing activity was being undertaken with the guidance of an NGO staff. The status of the sub-committee needs to be established clearly. It is not clear whether it was a sub-committee of the MACS or a representative body of a subset of CRGs. The accountability of the sub-committee also needs to be established clearly. Further, financial transactions of the unit needs greater transparency as payment of interest and repayment of principal were not clearly recorded. As the huge stock of salt procured was not covered under any insurance, the huge stock of salt held in the open ran the risk of the loss due to cyclones or heavy rains. It is necessary to process and sell the salt early or cover the stock under insurance.

Linking the Processing Units to Market for Better Prices

27. The long-term sustainability of salt processing unit would depend on the linkages forged with the market players. This would in turn call for creating suitable storage infrastructure for raw salt as well as processed salt and establishing forward contracts with key market players. This would not only ensure better withholding capacity but also yield higher returns.

Infrastructure Development including Construction of Flood Bunds

28. Access road infrastructure along the Buckingham canal was in a very poor shape and the advocacy efforts were not successful in leveraging support for road connectivity. The bunds of Buckingham canal need strengthening to protect the salt farms being flooded. Development of road infrastructure would reduce the cost of transport and improve returns for the producers.

Minimum Support Prices

29. In order to protect the salt farmers from market fluctuations, the farmers have been demanding introduction of a policy to guarantee minimum support price for salt. However, such a policy can be made only by the GOI and persistent advocacy efforts are required to bring in such a policy.

Insurance

30. The weather based insurance promoted with the support of private insurance providers is not likely to continue in view of the heavy outgo due to the "Nisha" cyclone. The salt producers also had a tendency to claim compensation for even minor cyclonic storms and small disturbances to production cycle. In the long run, the vulnerability of the salt farmers can be reduced only insurance education is promoted among the producers. Further, the insurance products need to be suitably redesigned to suite the production conditions.

Value Added Activities

31. Additional benefits can accrue to the producers only if their collectives undertake post-production value added activities such as iodizing and packaging salt. The collectives could take up such activities through technical tie-ups with big market players.

Additional Bank Loans through JLGs

32. The DIR loans have certain inherent limitations. The DIR forms a very small portion of the loan portfolio of the commercial banks. Therefore, it is imperative for the salt farmers to mobilize additional loans from commercial banks through promotion of joint liability groups.

Implications for Underlying Causes of Poverty

33. The interventions have implications for underlying causes of poverty, both in the short-run and long-run. The organization of salt producers into CRGs and a registered federation has improved their bargaining power with policy makers and formal institutions. The successful advocacy efforts of the district MACS to extract long pending concessions from the government in the form of reduced electricity tariffs and treatment of salt farmers on par with other farmers in the matter of payment of flood/cyclone relief, bear testimony t to the emerging changes in the power relations between the vulnerable salt producing community and the dominant groups influencing public policy. The sanction of D-Pattas to the salt farmers is also a result of the advocacy efforts of the district MACS. Second, the intervention also addresses certain issues arising out of failure of governance. The promotion of welfare activities such as setting up of resting sheds, supply of protective gear, construction of internal roads and development of model farm for propagation of new methods meet some of the gaps in provision of government services. The sub-project intervention has also addressed certain areas of market failure. Notable among them is the effort made to promote weather based insurance to protect the salt farmers. Facilitating sanction of bank loans under the DRI scheme for the first time to the salt producers at a subsidized rate of interest of 4% is another successful effort to address failure of credit market to meet the genuine needs of the salt farmers. The initiatives undertaken to promote aggregation, processing and marketing of salt to obtain a better return for the producers are intended to meet the market failure. The access to reliable price information

could also be considered as a step to improve the bargaining capacity of the producers in the salt market.

Key Learning

34. The following key learning emerges from the sub-project:

- ***Integrated Training, Exposure and Demonstration Model:*** The sub-project clearly demonstrates that an integrated strategy using an optimal mix of training, exposure and demonstration (model salt pan) is bound to succeed in enhancing productivity.

- ***Advocacy:*** Collective and sustained advocacy efforts involving a large cross-section of people (producers, collectives and NGOs) are bound to succeed in securing suitable policy changes (*e.g.,* reduction in the electricity tariff, issue of D-Pattas for the farmers, DIR loans to the farmers *etc.,*)

- ***Insurance:*** Promoting weather based insurance product, without adequately sensitizing the farmers to the concept of insurance, is unlikely to succeed.

- ***Infrastructure:*** Promotion of road connectivity to the salt farms is an essential pre-requisite for promotion of sustainable salt based livelihoods. Infrastructure development in the coastal salt producing areas requires active support of both the GOI and the state governments as a significant portion of the land belongs to the GOI.

- ***Salt Processing:*** Promoting salt processing without developing warehousing, platforms and road infrastructure is less likely to be sustainable in the long run.

- ***Credit Support:*** Adequate and timely credit support to the salt producers/ collectives reduces onsite and distress sale of salt.