Report on Participatory Intervention Planning carried out in Orissa and Andhra Pradesh during April - May 1999 for field testing of interventions as phase III of the monsoon season losses in post harvest fisheries project.

By

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For

Natural Resources Institute

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GLOSSARY

AFD	**-**	**Assistant Director of Fisheries**
AFP	**-**	**Action For Food Production**
CIFA	**-**	**Central Institute of Freshwater Aquaculture**
CMS	**-**	**Catalyst Management Services**
CoF	**-**	**College of Fisheries**
CPDA	**-**	**Coastal People's Development Association**
DfID	**-**	**Department for International Development**
DoF	**-**	**Department of Fisheries**
FDO	**-**	**Fisheries Development Officer**
FEO	**-**	**Fisheries extension Officer**
FIRM	**-**	**Forum for Integrated Rural Management**
GO	**-**	**Government Organization**
ICM	**-**	**Integrated Coastal Management**
IET	**-**	**Institute for Evironmental Toxicology**
MSP	**-**	**Medium Scale Processor**
NGO	**-**	**Non Government Organization**
NRI	**-**	**Natural Resources Institute**
OUAT	**-**	**Orissa University of Agriculture & Technology**
PHFP	**-**	**Post Harvest Fisheries Project**
PIP	**-**	**Participatory Intervention Planning**
RNRRS-		**Renewable Natural Resources Strategy**
SSP	**-**	**Small Scale Processor**

CONTENTS

1. SUMMARY

Participatory Intervention Planning activity was carried out in the coastal villages of Orissa and Andhra Pradesh during April-May, 1999. The objective of this activity was to obtain the views, responses and co-operation of the active small scale fish processors who experience monsoonal losses in fish processing activity. A menu of interventions containing technical, social, economic, infrastructural and other issues was prepared by the Chennai Workshop in March and this was discussed item by item with each community and their views obtained. The entire exercise was participatory and the team had local contacts, prior field experience and inter-personal skills. Based on the responses, logistics and limitations of the project, three sites each were identified in Orissa and Andhra Pradesh. The views of the SSps on whether they would like to field test some of the interventions were obtained and at those sites where intervention field testing were planned, the key SSPs who would be doing this with the help of a multi-skill intervention team were identified and enlisted. The reasons for accepting certain items and for rejecting others were examined with the help of the SSPs and their perceptions on interventions identified. The various items for field testing at each site were listed and action plans, frame work of field activity and other guidelines are presented in this report.

2. ACTION POINTS

- Understand the pulses and problems of each site before commencing the work. The Phase I and Phase II reports would be useful for this.
- Prepare step by step and day by day work schedule for each site
- organize the work elements between the team members and fix responsibilities
- Arrange for preparation of cement frame, grid for keeping fish submerged, tools for estimation of brine concentration etc beforehand.
- Inform the SSPs a few days in advance about their schedules and ensure their availability
- Develop some language skills (a few dozen key words used often) in Oriya and Telugu. Bonod and Venkatesh can help in this activity.
- Secure the Video on good practices (being prepared by Prof. Mohan Joseph) and get familiarized with the various operations
- Be in touch with the key contact persons in the sites to monitor the progress of the monsoon and fish processing activities during the monsoon so as to schedule the field testing of interventions
- Brief the SSPs atleast one day ahead of the field activity what the team plans and how they should go about testing the interventions
- Liaise with the different communities constantly and keep in touch and prepare the for thi field activity (Action: Team leader)
- Keep photographic record of activities at each site and submit to the in-country co-ordinator.
- Keep the in country co-ordinator informed about the day to day progress and seek any assistance or support as and when needed.
- Prepare a report of activity on a day to day basis for each site. This is best done as a group activity late in the evening after return from the site. This report should be made available in the final form at the end of the field activity (Action: Venkatesh, Sudhakar, Srikar, Sreeramulu, Binod)
- Budget expenditures and ensure adequate resources for field activity. Account all expenditures.
- Co-operate with each other and extend support. Keep the morale of the team and the SSPs high. Remember, work in the field during the monsoon is very tough and could be even frustrating. Commitment to the objectives is the key for success.

3. MAIN REPORT

Introduction

A Post Harvest Needs Assessment Workshop held in Chennai in 1995 identified from a participatory rural appraisal study funded by DfID and carried out by the present author the need for research to develop an understanding of post-harvest fish losses during the monsoon in south India. A research proposal by NRI and the College of Fisheries, Mangalore which focused on losses in the small-scale fish drying and curing sector was accepted by the DfID and funding for the project began in 1997. Two phases of the project was completed: an exploratory phase during the monsoon of 1997 in the states of Kerala, Tamil nadu, Andhra Pradesh and Orissa and a microlevel focused loss assessment study in Orissa and Andhra pradesh during the monsoon of 1998. The results of these studies have been presented in workshops attended by the post harvest workers represented from various fisheries research and developmental organizations in India. The research reports also have been produced by the teams. During the third phase of the project, it is proposed to field test some of the interventions which the researchers consider are appropriate to the situations for reducing losses or risks. The intervention menu developed during the last workshop needed to be presented to the stakeholders for their acceptance and comments before field testing. The present report forms the results of such a planning exercise carried out using informal participatory techniques at the various sites already studied as well as proposed. The study extended from 21 April to 15 May, 1999 in the states of Orissa and Andhra Pradesh.

Background

A two day workshop was held in Chennai on 8th and 9th march, 1999 as part of the DfID RNRRS Post Harvest Fisheries Research Programme Monsoon Fish Losses Project R6817. This workshop had two objectives: to validate the findings of the second phase of focused research on monsoon losses at the sites and to identify further field activities to be fed into the planning process for the third phase of the project, focusing on field testing interventions with small scale processors in Orissa and Andhra Pradreh. Although it was recognized that a holistic approach to intervention would be the most ideal, need for further research and limited scope of the present project did not enable such an approach. It was agreed that the transferability of existing coping strategies may form a more realistic basis for the intervention phase. A basket or menu of simple appropriate interventions based on coping strategies and observations made by the field teams of both the exploratory and focused studies was developed. A further important factor which was considered while developing the menu was the project purpose: appropriate value added and loss reduction technologies and processes developed, packaged and promoted. Keeping these in view, a menu of interventions was developed by the participants. It was proposed that a participatory planning exercise would be conducted with the SSPs and major stakeholders. The objective of this Participatory Intervention Planing (PIP) was to take the menu options to the target group and allow them to decide whether any of the options are applicable to their situations and whether some/ all / none would be interested in field testing / using what would be acceptable and who would be interested in field testing. Modifications/ adaptations to the intervention menu would also be needed to suit local situations and these also should be identified during the PIP. Similarly, simple tools may be needed to be developed to assist in using certain interventions such as measuring the brine concentration. The NRI decided to involve the author to lead the PIP work at all possible sites in Orissa and Andhra Pradesh as per the ToR (presented elsewhere in this report).
The PIP was carried out by the author inOrissa and Andhra Pradesh between 21 April and 15 May, 1999. The present report is the result of this activity and describes the details of the PIP carried out at all the sites and the outcome of the exercise.

Intervention menu

The basic intervention menu presented as Table 2 of the Workshop report (page 15, Ansen Ward , 1999 Report of a Workshop to Discuss Phase II and Plan Phase III of the DFID RNRKS Post Harvest Fish Losses Research Project, March, 1999) given below.

Physical Loss	Physical and Quality Loss	Quality Loss	Others
Hang fish in baskets to protect during storage	Correct quantity of salt	Improve aeration of fish during drying	Cut cost of production ie. Buy salt in bulk (groups)
	Use of mats to move fish out of rain quickly	Submerge fish in brine	Pickles, cutlets
Improving fish collection during drying ie. Cot	Reduce drying time		Awareness of government saving schemes
	Low cost folding drying rack		Appropriate packaging
Covering with nets (crows)	Changing brine more often		Sorting out valuable species (Acetes/anchovoes)
	Vigilance when drying		
	Plastic sheet to cover fish		
	Palm leaf for drying		
	Adding extra salt		
	Covering vat with plastic sheet		

It was felt that this menu could be added to and that it should also include more non- technical options which even if the present project is not able to address, would contribute to identifying areas for further research as to what these are and what would be the constraints for adoption. Such non-technical issues may be sometimes more appropriate than technical issues identified. Further discussion during the post workshop sessions involving NRI and CoF considered the feasibility of circulating the intervention menu developed during the workshop to all the participants and obtaining any additional items which could be added on to the menu to make it as complete as possible. Thus the menu was thrown back to all participants for additional items which they considered appropriate. The final menu thus developed after incorporating the suggestions received fromthe participants is presented below.

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do not appeal	Remarks
TECHNICAL					
Quantity of salt/ Brine concentration					
Improving drying speed by increased aeration					
Preventing maggot infestation					
Covering with plastic sheets, old nettings					
Storing near fire place					
Changing brine after 2 cycles					
Use of folding racks, mats, palm leaves					
Reduce time lag between capture and processing					
Improved shelf life by producing better dried fish					
Use of non insecticidal methods to prevent insect infestation					
Value addition through preparation of pickles, other items					
SKILL DEVELOPMENT					
Better handling practices					
Better hygiene and sanitation					
Entrepreneurship, skill development, group work culture					
Skill for preparation of organic manure					
SOCIO-ECONOMIC					

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do not appeal	Remarks
Group ventures(Buying and selling in bulk)					
Awareness of government schemes					
Alternate income options					
OTHERS					
Sharing transportation					
Supply of potable water					
Construction of drying platform					
Use of old nets for preventing animals/ pests					
Awareness of safe and natural insect repellents					
Waste disposal and environmental sanitation					

Participatory intervention planning meeting schedules and teams

The PIP was carried out in Orissa and Andhra Pradesh as detailed below.

Dates	Location / Site	Activity	Team
24 April	Chandrabhaga, Orissa	Meeting with 10 SSps	Mohan Joseph, Binod Mohapatra, Lachhaman Nayak
25 April	Bali Pantal, Orissa	Meeting with22 SSps	MohanJoseph, Binod Mohapatra, Lachhaman Nayak
26 April	Chandrabhaga, Orissa	PIP with 14 SSps	Mohan Joseph, Binod Mohapatra, Lachhaman Nayak, Purushotam Nayak, CPA staff
27 April	Bali Pantal, Orissa	PIP with 10 SSPs	Mohan Joseph, Binod Mohapatra, Lachhaman Nayak, Purushotham Nayak, CPA Staff
28 April	Konark	Consolidating with CPA. Meeting with Fisheries Extension Officer.	

		Arrangements for monsoon field work	
29 April	Gopalpur	Meeting with activist Jayaraju. Planning PIP activity	
30 April	New Bakshipalli	Meeting with Society president. Discussionwith 10 SSps.Another meeting with 7 SSps and discussion about PIP	
1 May	New Bakshipalli	PIP meeting with 26 SSPs	MohanJoseph, Binod Mohapatra,Jayaraju
2May	Gopalpur	Consolidating with Jayaraju. Arrangements for monsoon field work	
4 May	Kakinada	Discussion with ICM	Mohan Joseph, Venkatesh Salagrama, Prasad, Sreeramulu
4 May	Suradipeta	PIP with 30 SSps	Mohan Joseph, Venkatesh Salagrama, Sreeramulu, Prasad, Murthy, Krishna Mohan
4May	Mayapatinam	PIP with 20 SSps	Mohan Joseph, Venkatesh Salagrama, Sreeramulu, Prasad, Murthy, Krishna Mohan
5 May	Subbampeta	PIP with 7 SSPs	Mohan Joseph, Venkatesh Salagrama, Dasari Nookaratnam, Prasad, Murthy, Krishna Mohan
5 May	Jagarajupeta (mainroad)	PIP with 7 SSps	Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan
5May	Mayapatinam	PIP with 13 SSps	Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan
6May	Jagarajupeta (Seashore)	PIP with 16SSps	Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna

			Mohan
6May	Jugarajpeta (Main road)	PIP with 27 SSps	Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan
6 May	Subbampeta	PIP with 21 SSps	Mohan Joseph, Venkatesh Salagrama, Dasari Nookaratnam, Prasad, Murthy, Krishna Mohan
7 May	Moolapeta	PIP with 8 SSps	Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan.
7 May	Konapappapeta	PIP with 8 SSps	Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan
8May	Chodipillipeta	PIP with 18SSPs	Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan
9 May	Kakinada	Planning field work in monsoon. Site selection exercise based on field work	Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy.

Criteria for site selection

The following criteria have been used for making the site selection for the intervention field testing.

- Anecdotal / estimated evidence of monsoonal fish processing and losses
- Willingness of SSPs for field testing of intervention
- Presence of NGO or grassroot workers at the village
- Rapport of the intervention team with the community
- Perception of losses by the community
- Approach of the SSPs to intervention
- Leadership or initiatives of the SSPs
- Livelihood index/ living standards of the SSPs

ORISSA SITES

Chandrabhaga

Report of meeting held

A preliminary meeting was held with 10 women SSPs at Chandrabhaga on 24 April to discuss the isuues related to losses and to feel the pulses of the processors with respect to interventions.The response of the community to the ideas proposed was encouraging and as a result a second meeting involving more interested processors was scheduled for 26 April. The second meeting on 26th was arttended by 14 women SSPs belonging to Chandrabhaga village.Themeeting lasted for 5 hours. The details are presented below.

Intervention menu considered and accepted

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do not appeal	Remarks
TECHNICAL					
Quantity of salt/ Brine concentration	YES	Do not know the actual quantities needed	Cost of salt. Storage place	To some extent because of added cost	Accepted
Improving drying speed by increased aeration	YES	For small quantities	Space	Not for bulk	Accepted
Preventing maggot infestation	YES	Maximum loss due to this	Lack of extra vats for keeping all fish submerged	Not for bulk	Accepted for small qtys
Covering with plastic sheets, old nettings	YES	Advantages doubtful	Heat generated spoils fish	Doubtful use	Accepted only if advantages are convincing
Storing near fire place	NO	Fish becomes harder and brittle	Low market acceptability	Does not appeal	Not accepted
Changing brine after 2 cycles	-------	presently change after every cycle			Already follow
Use of folding racks, mats, palm leaves	YES	5 platforms are already used	Space and cost		Already in use
Reduce time lag between capture and processing	NO		Practcally notossible. Only unsold fish is		

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do not appeal	Remarks
			procedded		
Improved shelf life by producing better dried fish	NO		Short cycle time is preferred.Market dynamics may change prices.		
Use of non insecticidal methods to prevent insect infestation	NO	Not anissue			
Value addition through preparation of pickles, other items	YES	Not aware			Accepted
SKILL DEVELOPMENT					
Better handling practices	YES	Not aware			Accepted
Better hygiene and sanitation	Yes	If it could help			Accepted
Entrepreneurship, skill development, group work culture	Yes	Not aware			Accepted
Skill for preparation of organic manure	YES	Not aware			Accepted
SOCIO-ECONOMIC					
Group ventures(Buying and selling in bulk)	YES		Difficult because of personality clashes		
Awareness of government schemes		Aware of schemes			
Alternate income options			More comfortable with fish business than anything else		
OTHERS					
Sharing transportation					Already in use
Supply of potable					

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do not appeal	Remarks
water					
Construction of drying platform			Not possible because of CRZ restrictions		
Use of old nets for preventing animals/ pests					Already in use
Awareness of safe and natural insect repellents	YES				Accepted
Waste disposal and environmental sanitation	YEs				Accepted

Reasons for acceptance / rejection

Most of the SSps feel that the losses are due to maggot infestation during the monsoon rains. Lack of space and drying platforms is an impediment to quicker process cycle during the monsoon. Also, because of the transient nature of the settlement and the problems from the authorities (repeated eviction and demolition), the processors face a lot of difficulties. Lack od capital for investment in new vats and / or racks is another issue. Most of the fish processed during the monsoon are semi - spoiled fish pr late arrivals. Thorough drying is not acceptable. Short cycle time and fast disposal are the key issues for realizing a good value for the product. Keeping fish submerged for many days is not an acceptable solution to the SSPs.

Perceptions of SSPs on interventions

All those interventions where the major issues are addressed are acceptable to the SSps. The greatest problem is maggot infestation during the rains. Lack of space and lack of additional containers for delayed cycles is an issue. If a product can be prepared in a quick cycle, the loss and risks could be reduced considerably. This is the feeling of the SSPs.

List of SSPs willing to test interventions

1. Muthu Dondama
2. Chokka Kondamma
3. Pikki Subhadra
4. Mailipilli Bendamma
5. Kod Kondama
6. Umudi Koodanda
7. Siripil Danama
8. Piki Thathiyamma
9. Soorkantham
10. Sawalkal Gangamma
11. Sodipil Chentama
12. Kanchan Muduli
13. Kod Kondama Sr
14. Sawakal Jagannathamma

15. Bandhu Kotamma

(See photograph of the above SSPs in Appendix 5)

Details of site-specific intervention requirements

The following points must be considered by the intervention team

- Proper handling and dressing of fish
- Washing gutted fish in water
- Use of good water for preparation of brine
- Adequate concentration of brine
- Cleaning of vats
- Use of suitable methods to keep fish submerged in brine
- Covering of vats with proper materials
- Use of portable and stackable racks
- Use of roof tops for drying
- Short cycle time

Intervention team for the site

15 SSPs listed above
Venkatesh Salagrama (Team leader)
Sudhakar (Technical)
Srikar (Technical)
Lachhaman Nayak(Local NGO)
Binod Mohapatra(interventions)

Accessories required for the site

Tools for dressing
Cover for vats (preferably heavy enough to withstand strong wind)
Frames for keeping fish submerged
Simple brine concentration testing tool (egg, potato)
Portable racks

Logistics

Transport to the site
Protection from heavy wind and rain
Adequate food / water
Adequate water supply for washing fish

Bali Pantal

Report of meeting held

Two meetings were held with women SSPs of this village, on 25thand 27th April. All aspects of intervention were discussed during the second meeting on 27th April The village animator Ms. Sanjuata Behera could be of immense help in the intervention process as she will be able to function as a strong link between the team and the SSPs. Mr. Panchanan Behera, husband of Sanjuata will also be of use to the team for the interventions. The greatest problem for the processors is bulk landings of good fish, poor demand for fresh fish, low value for fresh fish and maggot infestation because of use of dry salting (poor salt penetration and consequent decay). Lack of adequate vats and containers also limit the scale of operation. All theses result in huge physical loss during the monsoon season.

Intervention menu considered and accepted

Intervention menu	**Yes/ No**	**Reasons**	**Constraints**	**Appropriate, but do not appeal**	**Remarks**
TECHNICAL					
Quantity of salt/ Brine concentration	YES	Lot of loss of salt due to dry salting method used	Lack of vats and lack of space(if it floods)		Accepted
Improving drying speed by increased aeration	YES	There is loss due to poor drying	Type of materials to be used? Availability and cost?	Yes	Accepted if suitable
Preventing maggot infestation	YES	Greatest problem	Difficulty in handling large quantities		Accepted
Covering with plastic sheets, old nettings	YES	Loss due to maggots	Large qtys difficult to handle	yes	Not accepted
Storing near fire place	No	Storage of dry fishcan not be allowed inside kitchen because of religious reasons			Not accepted
Changing brine after 2 cycles	YES	New method			Accepted
Use of folding racks, mats, palm leaves	YES	We do use some of these presently	Difficulty with large volumes		Accepted
Reduce time lag between capture and processing	No	Brought from left overs which could not be sold fresh		yes	Not accepted

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do not appeal	Remarks
Improved shelf life by producing better dried fish	YES ?	Short cycles are presently followed	If better prices are possible		Accepted if better
Use of non-insecticidal methods to prevent insect infestation	YES	There is problem of ants during summer			Accepted
Value addition through preparation of pickles, other items	YES	A lot of fish such as Hilsa are wasted during monsoon	Lack of expertise		?
SKILL DEVELOPMENT					
Better handling practices	YES	Presently followed methods are out of our own experience. Do not know whether these are correct .	Need for trainers		Accepted
Better hygiene and sanitation	YES	presently unhygienic	Need for training in this area		Accepted
Entrepreneurship, skill development, group work culture	YES	Surplus fish during monsoon	Already group work culture exists to some extent		Accepted
Skill for preparation of organic manure	YES	There is lot of spoiled fish being thrown away	Need for technique. marketing		Accepted
SOCIO-ECONOMIC					
Group ventures(Buying and selling in bulk)	YES	Bulking salt- :Yes Selling fish-: No	Storage space Transpport Spoilage due to rain	YES	
Awareness of government schemes	YES				

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do not appeal	Remarks
Alternate income options			There is alternate income from agriculture, poultry, cattle etc.	YES	
OTHERS					
Sharing transportation	No	nearby markets			
Supply of potable water	No	available			
Construction of drying platform	No	No space. No money			
Use of old nets for preventing animals/ pests	YES ?	Doubtful outcome	Qty too large for this activity		
Awareness of safe and natural insect repellents	YES	Not aware of alternate methods	Not locally available		
Waste disposal and environmental sanitation	YES	Lack of space during monsoon	Flooding of locality		

Reasons for acceptance / rejection

Most processors feel that the high catches during the monsoon could be made use of profitably if the processing activities can be organised with out risks of physical loss of semiprocessed materials. The prices for fresh fish they could obtain during the monsoon are low. Presently there are huge losses during the processing cycle. The SSPs are anxious to obtain any kind of assistance in reducu=ing the losses during the monsoon. Inadequate salt penetration results in decay of fish and consequent maggot infestation. Brining technique is not followed here. Keeping processed fish within the kitchen is not allowed for religious reasons. Similarly, time lag between catch and processing can not be reduced as only unsold fish is carried to the village which is far away from the landing site for processing. Other than these, almost all items in the menu have been appreciated by the SSPs.

Perceptions of SSPs on interventions

The community feel that fis processing is a good way of livelihood and the local situations prevent them from taking advantage of the good catches during the monsoon. They have seen salt cured products brought from Andhra, but are not aware of the actual method of preparation. In fact a few SSPs were keen to learn thie techniques followed by the Kakinada processors . They feel that the Kakinada product is superior and if such a process could be field tested , the SSPs will be greatly benefited. The SSPs are keen to field test and work with the team. Several days after the PIP exercise, they expressed their appreciation and eagerness about the PIP and Intervention programme to the local NGO , CPDA.

- The SSPs also provided the following feed back. The chief problem areas are :
- Market linkages
- Quality of product prepared

- Maggot infestation
- Too large quantities to be handled in monsoon
- Lack of knowledge of other techniques
- Space for storage
- Flooding during monsoon

List of SSps willing to test interventions

1. Sail Behera
2. Chabi Behera
3. Lochan Sahu
4. Rama Behera
5. Menaka Behera
6. Charulatha Behera
7. Sulab Behera
8. Hundari Behera
9. Parboti Behera
10. Sanjuata Behera
11. Sanjuta Behera Sr

(See photographof the SSPs in Appendix 5)

Details of site-specific intervention requirements
During monsoon there are good landings of Hilsa and Mullets. Because of the remoteness of the sites and extremely difficult approaches to the site during the rains due to floods and breaches, the demand for fresh fish is low and the prices are unattractive. Large quantities are landed which the processors find difficult to handle. The present method is dry salting and packaging which results in decay of flesh and maggot infestation. Brine preparation and keeping submerged in brine should be field tested by the SSPs with the help of the Team. Adequate number of vats may be needed. Some processors dig pits and put the fish and dry salt in to the pits. This method may be modified to produce a properly pit cured product if the fish is properly gutted and alternate layers of salt and fish are kept tightly pressed in the pits. Brining techniques should be field tested under the prevailing conditions. Also, handling bulk quantities by grouping the resources (fish, labour, time, vats, pits, drying space, racks, money) may be attempted as there is a well organized and structured women self help group in the village and all the SSPs are members of the group

Intervention team for the site
11 SSPs listed above
Venkatesh Salagrama (Team leader)
Sudhakar (Technical)
Srikar (Technical)
Lachhaman Nayak(Local NGO)
Binod Mohapatra(interventions)

Accessories required for the site

Tools for dressing fish
Cover for processing tanks / pits
Frames for keeping fish submerged
Simple brine concentration testing tool (egg, potato)
Portable racks

Logistics

Transport to the site
Protection from rains
Tools for dressing fish
Preparation of improvised containers for brining

New Bakshipalli

The team considered all the villages in this locality. Rev Kuthur and Bandara had no processing activity during the monsoon season. Markundi was a village 30 km away. There was no NGO support in this village. Inaccessibility and other logistic reasons compelled to overlook this village. Thus, the only other village where monsoonal processing is carried out, New Bakshipalli was considered for PIP.

Report of meeting held
Three meetings were held in this village. The Phase II of the project had certain operational difficulties in this village and therefore, extreme care was taken in accessing the community and developing the required rapport. The PIP team approached the 'son of the soil' activist Mr. Jayaraju who acted as the local host as well as representative of the community as well as the team. This worked very well and after initial 'breaking of ice' the community extended its whole hearted cooperation in the PIP work. Two meeting and several hours of patienly waiting yielded the required results. The third meeting held on the early morning of 1 May at 6:00 a.am.
26 SSps attended the meting along with seven village leaders.
Intervention menu considered and accepted

Intervention menu	**Yes/ No**	**Reasons**	**Constraints**	**Appropriate, but do not appeal**	**Remarks**
TECHNICAL					
Quantity of salt/ Brine concentration	YES	Presently approximations	Lack of skill. NO of vats limited		Accepted
Improving drying speed by increased aeration	YES	Intermittant rains	More labour ?		Accepted
Preventing maggot infestation	YES	Greatest problem	Large volumes. Realistic ?		Accepted
Covering with plastic sheets, old nettings	No	Not appropriate because of heavy rains and strong winds	Not practical	YES	
Storing near fire place	No	No space	Not practical		No
Changing brine after 2 cycles	?	Presently changed every time	Fish may get spoiled	Shall try. Demo needed	YES
Use of folding racks, mats, palm	No	Mats already in			no

leaves		use			
Reduce time lag between capture and processing	No	Not in our control			no
Improved shelf life by producing better dried fish	No	Short storage. Weight loss		do not appeal	no
Use of non insecticidal methods to prevent insect infestation	YES	Not known			yes
Value addition through preparation of pickles, other items	YES	Not known	Marketing? Demand?	Not appealing	no
SKILL DEVELOPMENT					
Better handling practices	Yes	Not known			Accepted
Better hygiene and sanitation	YES	We follow (Model village)			No
Entrepreneurship, skill development, group work culture	No	Already exists			No
Skill for preparation of organic manure	YES	Not known	Marketing? Investments ?		Accepted
SOCIO-ECONOMIC					
Group ventures(Buying and selling in bulk)	No	Already share transport	Not for sale		No
Awareness of government schemes	No	We are aware of. Not practical			No
Alternate income options	No	Already available for many			No
OTHERS					
Sharing transportation	No	Already we do			No
Supply of potable water	No	Already available			No
Construction of drying platform	YES	Not useful inrains	Dryingnear houses not allowed. Distance between drying area		Can try

			and houses large. Portable ones may not be useful		
Use of old nets for preventing animals/ pests	No	Already in use	Not a amjor problem		No
Awareness of safe and natural insect repellents	YES	Not aware	Not a major problem		Accepted
Waste disposal and environmental sanitation	No	Already we follow	Not a major problem		No

Reasons for acceptance / rejection

Most of the processors are tiny processors. Many coping strategies adopted by this community has been borrowed by the present project for implementation in other locations. However, there is scope for reduction of risks during the monsoon. Since the volumes handled are low, interventions could be very successful for the technical issues. Alternate income options are available to some processors during the monsoon.

Perceptions of SSPs on interventions

Most processors who opt out of processing during the monsoon do this because of the risks involved in processing and fear of loss. Many would like to process in the monsoon if there are ways and means to prevent loss or reduce risks. From this standpoint, the site is ideal for interventions and the proposed menu could be field tested with the volunteer SSPs.

List of SSps willing to test interventions

1. Kalaga Kamamma
2. Souripilli Rajamma
3. Kalaga Hemalatha
4. Souripilli Neelamma
5. Kalaga Savitri
6. Uppada Rukmini
7. Idala Kalamma
8. Kalaga Gangama

(see photograph in Appendix 5)

Details of site-specific intervention requirenments

- Preparation of brine and testing of concentration
- Cleaning of vat
- Gutting larger fish
- Proper covering of vats during rains: use of locally available materials
- Safe method of transport of fsemi processed fish from brining site(near the shore) to the drying site (near the houses) The distance is about one kilometer.
- Storage and packaging
- Reduction in wastage of salt (brine being used for aatleast 2 cycles) Presently brine is thrown away afer every cycle.
- Reducing spoilage of brine
- Portable drying rack (Doubtful use as the distance is more)

Intervention team for the site

8 SSps listed above
Venkatesh Salagrama (Leader)
Srikar (Technical)
Sudhakar(Technical)
Binod Mohapatra(intervention)
Jayaraju (grassroot worker)

Accessories required for the site
Tools for dressing fish
Vats for preparation of brine
Tool for testing brine concentration
Covers for brining pots, vats
Portable racks, frames
Proper packaging materials which are locally available

Logistics

Travel to the site
Food and water
Protection from rains, heavy wind
(Note: Jayaraju must be in the team)

ANDHRA PRADESH SITES

Jugarajpeta (main road)

Report of meeting held
Two meetings were held with the SSPs of this locality. 27 SSPs attended the second meeting hel on 6.May where intervention menu was discussed. 11 of them handled large quantities and their priorities and agenda were quite different from those of the tiny processors. Both groups had losses and risks as the main issue.

Intervention menu considered and accepted

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do not appeal	Remarks
TECHNICAL					
Quantity of salt/ Brine concentration	Yes	Presently approximations			Accepted
Improving drying speed by increased aeration	Yes	Siage due to poor drying	Additional labour		Accepted
Preventing maggot infestation	YES	Greatest problem			Accepted
Covering with plastic sheets, old nettings	No	Heat spoils fish	Lack of sheets		No
Storing near fire place	No	Lack of space	Large qtys		No
Changing brine after 2 cycles	YES	We change every time	fear of loss		Accepted
Use of folding racks, mats, palm leaves	YES	Already in use	Unsuited for large qtys		Accepted
Reduce time lag between capture and processing	No	not practical			No
Improved shelf life by producing better dried fish	No	Short cycles	Loss of weight		No
Use of non insecticidal methods to prevent insect infestation	No	Not a problem			No
Value addition through preparation of pickles, other items	No	No skill	Marketing		No
SKILL DEVELOPMENT					
Better handling practices	YES	not aware			Accepted
Better hygiene and sanitation	YES	Not aware			Accepted
Entrepreneurship, skill development, group work culture	YES	Some groupings exist			
Skill for preparation of organic manure	YES	Not known	Market		Accepted
SOCIO-ECONOMIC					

Group ventures(Buying and selling in bulk)	YES	Already exist			Yes
Awareness of government schemes	No	Not useful			No
Alternate income options	No	comfortable with only processing			No
OTHERS					
Sharing transportation	YES	Already we have			Yes
Supply of potable water	No	Already we have			No
Construction of drying platform	YES	Already we have, but more needed			Yes
Use of old nets for preventing animals/ pests	YES	Already in use			
Awareness of safe and natural insect repellents	YES	Not aware	Not a majorroblem		
Waste disposal and environmental sanitation	YES	want to improve			Accepted

Reasons for acceptance / rejection

The SSPs were very informed and choosy about their requirements. The main reason for testing interventions is that many are large processors and any improvement in the loss levels will result in marked changes in the returns. The maggot infestation and resulting physical and quality losses are the main issues here. Since the area has bee under many interventions in the past, the scope of the present project isimited. Already drying platforms and racks are I use. So also, portable mats, small racks, nets, etc. The vats are inn sheds, protected from the rains Most of the SSPs are not willing to bulk upand sell in one lot. Group work culture is in practice to some extent.

Perceptions of SSPs on interventions

The large processors felt that since the bulk of the processing is handled by them, they must be treated as a special group and the best interventions should be limited to them. The SSPs are interested in any kind of loss or risk prevention methodologies although they do not perceive loss of opportunities and loss of quality as major issues. But are concerned about physical loss.

List of SSps willing to test interventions

1.Malle Maseenamma
2.Dummu Rajamma
3.Gambala Nagiyamma
4.Dummu Narayanamma
5.Merugu Chittemma
6.Venka Kasulamma
7.Garithi Lakshmi
8.Vummudu Appayamma

9. Kampala Gauramma
10. Vummudi Poleramma
11. Vummudi Ammoji
12. Vummudi Ammoramma
13. Malle Jogamma
14. Koda Kothammaru
15. Malle Padma
16. Nakka Kausulu
17. Nakkka Lakshmi
18. Gampala Nagamma

Details of site-specific intervention requirements

The infrastructure at this site is good as most processors are large operators. The chief site- specific requirements are enhanced brining procedures, cleaning odf the vats, preventing maggots and faster drying processes.

Intervention team for the site

18 SSPs listed above
Venkatesh Slalgrama
Sudhakar
Srikar
Sreeramulu
Prasad
Sreerama Murthy

Accessories required for the site

Tool for determining brine concentration
Cover for the vats(prferably made of cement)
Frame to keep the fish submerged
Folding/portable racks

Logistics
Transport
Food/ water
Raincoat/umbrella

Subbampeta

Report of meeting held
A meeting with 18 women SSPs and 3 men was held on 6 May. The objectives of the PIP and research was explained to the community. Since the phase I and Phase II had spent considerable research effort on the community, the fatigue was evident in the community. The village animator Dasari Nookaratnam also explained the objectives of the visit. However Intervention menu was not discussed with the SSPs as they felt that any intervention should be linked to some kind of subsidy / grant/ aid/ infrastructure. This was beyond the scope of the present project and therefore, the PIP team left the site without proceeding further.

Reasons for acceptance / rejection

The community did not consider the monsoon losses as a major issue, although the phase II study had estimated significant losses. This is quite understandable as most of the processing during the monsoon centered around landings from the shore seine and most of the processing method followed for these varieties was sun drying for 3 or 4 hours. As such, the community did not perceive the loss issue a significant factor in their livelihood. This could be the basic reason for the community's rejection of the PIP a team and any further field testing.

Perceptions of SSPs on interventions
Some of the SSPs were hostile to the whole idea of intervention calling it "wastage of time rather than giving away any financial help". This statement amply explains the SSPs' stand..

Jugarajpeta(Sea shore)

Report of meeting held
A meeting was held with about 15 SSPs. Some of the tiny processors wereof the view that losses could be reduced by intervention. Therefore, a discussion on the menu was initiated, but soon dynamics developed between the tiny processors and a very powerful large woman processor who started controlling and overshadowing all others. This resulted in a split in the group and the powerful woman leader outrightly stated that there is no need for any intervention and asked everybody to leave. The meeting abruptly ended without making any conclusion. No intervention menu was considered as the community rejected the idea of intervention.

Reasons for acceptance / rejection
Community dynamics and helplessness of tiny processors in front of powerful leaders are the reasons for the rejection.

Perceptions of SSPs on interventions

There is a great deal of research fatigue in this village also as the Uppada ared has been the target of several projects, schemes and interventions. The frustration developed by the community over the failures of most of the schemes could be the reason for this attitude of the community.

Mayapatinam - Suradipeta

Report of meeting held
Two meetings were conducted for this village . During the meeting on 4 May, 20 SSPs from Mayapatinam and 35 women processors and 4 men from Suradipeta participated.
The intervention menu was considered.

Intervention menu considered and accepted

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do not appeal	Remarks
TECHNICAL					
Quantity of salt/ Brine concentration	Yes	Brine spoils fast	Limited number of vats		Accepted
Improving drying speed by increased aeration	Yes	Intermittent rains	Additional labour		Accepted

Preventing maggot infestation	Yes.	Greatest problem	Large volumes		Accepted
Covering with plastic sheets, old nettings	?	Use not known	Cost involved	Need is not felt	No
Storing near fire place	?		Space constraint	Need not felt	No
Changing brine after 2 cycles	Yes	Brine spoils after one cycle	Fear of spoilage		Yes
Use of folding racks, mats, palm leaves	?	Aware of the failures in oter villages			?
Reduce time lag between capture and processing	No	Not practical			No
Improved shelf life by producing better dried fish	No	Weight loss			No
Use of non insecticidal methods to prevent insect infestation	?	Gamaxin used only for sundried shrimpand anchovies	Not a major problem		
Value addition through preparation of pickles, other items	No	SIFFS at it			No
SKILL DEVELOPMENT					
Better handling practices	Yes	Want to learn	Time, Labour		Accepted
Better hygiene and sanitation	Yes	NGOs at it			
Entrepreneurship, skill development, group work culture	No	some groupings exist	Village dynamics		No
Skill for preparation of organic manure	Yes	Not known	Is this better than poultry feed?	Marketing, time	Accepted
SOCIO-ECONOMIC					
Group ventures(Buying and selling in bulk)	Yes &N0	For buying salt, yes. For selling produce, No			?
Awareness of government schemes		Aware of schemes			No
Alternate income		Not			No

options		atteractive in relation to fish processing			
OTHERS					
Sharing transportation	No	Already exist			No
Supply of potable water	No	Already exist			No
Construction of drying platform	Yes	Shall try and use if accessible.	Will try low level portable racks		Accepted
Use of old nets for preventing animals/ pests	No	Already inuse			
Awareness of safe and natural insect repellents	Yes	Not aware			
Waste disposal and environmental sanitation	No	NGOs at it			

Reasons for acceptance / rejection

The SSPs are keen to adopt technical measures from the present project. Since there are other NGOs working in the villages, they do not feel the need for other interventions. Most of the processors feel that technical interventions are the key to reducing the losses as much of the loss is related to maggot infestation and physical losses related to drying..Interventions which they feel are not important from the ir point of view have been rejected as they feel that these are not the issues related to their losses. Some of them can not be of any consequences to the processors as felt by them.

Perceptions of SSPs on interventions

The SSPs perceive that proper methods in handling and processing will result in eliminating the problem of spoilage and loss due to maggot infestation. Therefore, they are keen to test the interventions with the help of the project team.

List of SSps willing to test interventions

Suradipeta

1. Surada Sathiyamma
2.Surada Kameswaramma
3.Paramala Maseenamma
4.Kambala Bangaramma
5.Pirumala Ammoramma
6.Pirumala Cheruvamma
7.Kare Nookalamma
8.Guthi Bhageerathamma
9.Nakka Lakshmi
10.Mayipilli Lakshmi

Mayapatinam

1. Bondu Nagamani
2. Ocipilli Sattipappa
3.Kambala Yellayyamma
4.Bondu Appayamma
5.Bondu Lakshmi
6.Gampala Pentamma
7.Ramisetti Sathiyamma
8.Badi Gangalamma
9.Pikki Chittemma
10.Madada Nookalamma
11.Surada Nokalamma
12.Bondu Nokalamma
13.Girikina Masenamma

Details of site-specific intervention requirements

Vats must be cleaned before use
Proper covering of vats to prevent rain water /fly entry
Fish must be gutted and washed before brining
Adequate brine concentration must be maintained
Well water must be used for preparation of brine
Plastic sheets may be used to prevent contact by flies
Fish must be kept submerged in brine by use of frames
Low level racks may be prepared for quick transport during drying/rain

Intervention team for the site
23 SSPs listed above
Venkatesh Slalgrama (leader)
Sudhakar
Srikar
Sreeramulu
Prasad
SreeramaMurthy

Accessories required for the site
Lid / cement cover for the vats
Frame made of locally available materials for keeping the fish submerged
Tools for simple estimation of brine concentration
Tools for dressing / gutting fish
Portable low level racks
Plastic sheets, Nettings

Logistics
Transport
Food/ water
Accessibility to the supplies needed for intervention tools

Moolapeta

Report of meeting held
A meeting of the SSPs along with the Society President Mr. Kakakaraju ws held on 7 May. 8 women SSps participated in the discussion. AS a whole, the community is interested in only infrastructural interventions. They feel that the key to reducing losses is provision of good berthing facilities, adequate drying platforms, good transport and financial assistance. Since the present project objectives are not in accordance with these,, further discussions were not carried our and the PIP team left the village.

Konapapapeta

Report of meeting held
PIP meeting was held on 7 May at Konapapa village. 8 women SSPs participated in the meeting as others were away .There are about 100 women processors in the village. The SSPs felt the need for testing some of the intervention items. The following were considered.

Intervention menu considered and accepted

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do not appeal	Remarks
TECHNICAL					
Quantity of salt/ Brine concentration	Yes	Brine spoils and stinks	No of vats limited		Accepted
Improving drying speed by increased aeration	Yes	Few rainy and few sunny days	Large volumes		Accepted
Preventing maggot infestation	Yes	Greatest problem	Large volumes		Accepted
Covering with plastic sheets, old nettings	?	Already in use			
Storing near fire place	No	Qty more	Space constraints		No
Changing brine after 2 cycles	Yes	Brine is chand\ged every time	Need for additional vats		yes
Use of folding racks, mats, palm leaves	No/Yes	Govt.racks have failed	Small portable ones can be tried if they are accessible		Accepted for trial
Reduce time lag between capture and processing	No	Not practical			Rejected
Improved shelf life by producing better dried fish	No	Short cycle preferred	Money blocked, weight loss		Rejected
Use of non insecticidal methods to prevent insect infestation	Yes	Not aware			
Value addition through preparation of pickles, other items	No	We donothave time for such things	Time, marketing		Rejected
SKILL DEVELOPMENT					
Better handling practices	Yes	product spoils fast	Skill lacking		Accepted
Better hygiene and sanitation	No	Other personsin the villages also must be involved	beyond scope of the project		Rejected
Entrepreneurship, skill development,	No	Already some groups			Rejected

group work culture		exist			
Skill for preparation of organic manure	?	Interested if profitable	Storage, marketing, time constraints		may be tried
SOCIO-ECONOMIC					
Group ventures(Buying and selling in bulk)	No	prefer independent operations			Rejected
Awareness of government schemes	No	Aware of schemes. All are useless for us			Rejected
Alternate income options	No	Processing is a high income /profit activity.Willing to take risks	Low returns from other activities		Rejected
OTHERS					
Sharing transportation	No	Already transportis shared			
Supply of potable water	No	Already available			
Construction of drying platform	? No	Failure of existing ones			Rejected
Use of old nets for preventing animals/ pests	No	Already in use			
Awareness of safe and natural insect repellents	Yes	Not aware	Not a major problem		Accepted
Waste disposal and environmental sanitation	No	Alreadyin use	relatively clean		

Reasons for acceptance / rejection

The community is keen to improve their processing practices and are keen to field test some of the technical interventions. They re not interested in most of the non technical issues.

Perceptions of SSPs on interventions

The SSPs see interventions as the only method to reduce the problems of losses due to technical faults. They see fish processing as a high income activity and are prepared to change the existing methods and practices if they can obtain a better product and higher returns.

List of SSps willing to test interventions

1.Benugu Bangaramma

2.Kare Muthiyalamma
3.Mr.Vummudu Ramudu (Male Processor)
4.Kondela Bangaramma
5.Chokka Maramma
6.Koda Appalanarasamma
7.Pikki Kavamma

Details of site-specific intervention requirements
Vats must be cleaned before use
Proper covering of vats to prevent rain water /fly entry
Fish must be gutted and washed before brining
Adequate brine concentration must be maintained
Well water must be used for preparation of brine
Plastic sheets may be used to prevent contact by flies
Fish must be kept submerged in brine by use of frames
Low level racks may be prepared for quick transport during drying/rain

Intervention team for the site
23 SSPs listed above
Venkatesh Slalgrama (leader)
Sudhakar
Srikar
Sreeramulu
Prasad
Sreerama Murthy

Accessories required for the site
Cement lid for the vats
Frame made of locally available materials for keeping the fish submerged
Tools for simple estimation of brine concentration
Tools for dressing / gutting fish
Portable low level racks
Plastic sheets, Nettings

Logistics
Transport
Food/ water
Accessibility to the supplies needed for intervention tools

Chodipillipeta

Report of meeting held
PIP meeting was held on 8 May at Chodipillipeta village. 15 women SSPs and 3 male processors attended the meeting. The general feeling of the community was that they have certain difficulties in the handling and processing and if these are adequately addressed, the product quality will improve and product loss during monsoon can be reduced. Monsoonal loss of product due to maggot infestation was the greatest problem to the processors.

Intervention menu considered and accepted

Intervention menu	Yes/ No	Reasons	Constraints	Appropriate, but do	Remarks

				not appeal	
TECHNICAL					
Quantity of salt/ Brine concentration	Yes	Brine spoils in one operation	Spoilage of product ?		Accepted
Improving drying speed by increased aeration	Yes	Rain wets drying fish	Large quantities. May be difficult inrains		Accepted
Preventing maggot infestation	Yes	Greatest problem in monsoon	Large qtys		Accepted
Covering with plastic sheets, old nettings	Yes	Presently in use	Strong wind blows away the sheets		Accepted
Storing near fire place	No	No advantage	No space		Rejected
Changing brine after 2 cycles	Yes	presently change every time	More vats may be needed		Accepted
Use of folding racks, mats, palm leaves	Yes	Govt. racks not successful	Not useful if away from houses		May be tried
Reduce time lag between capture and processing	No	Not in our hands	Not practical		Rejected
Improved shelf life by producing better dried fish	No	Short cycle preferred			Rejected
Use of non insecticidal methods to prevent insect infestation	Yes	Not aware	Only sundried products have problem		Accepted
Value addition through preparation of pickles, other items	No	No time	preparation, marketing are problematic		Rejected
SKILL DEVELOPMENT					
Better handling practices	Yes	Improved quality will be welcome	Gutting will result in loss of weight. Better value can be realised ?		Accepted
Better hygiene and sanitation	Yes	Village has some mechanism for this			
Entrepreneurship,	No	Prefer to	Village		Rejected

skill development, group work culture		operate singly	dynamics		
Skill for preparation of organic manure	Yes	Can be tried if profitable	Marketing avenues? Time?		Accepted
SOCIO-ECONOMIC					
Group ventures(Buying and selling in bulk)	No	Prefer to operate individually			Rejected
Awareness of government schemes	No	Not useful to us			Rejected
Alternate income options	No	Prefer to work with fish			Rejected
OTHERS					
Sharing transportation	No	Already share			
Supply of potable water	No	Already available			
Construction of drying platform	Yes	if funded by external sources			Accepted
Use of old nets for preventing animals/ pests	No	Alreeady in use			
Awareness of safe and natural insect repellents	Yes	Not aware		Not a major problem	Accepted
Waste disposal and environmental sanitation	No	Village action council takes care of this			

Reasons for acceptance / rejection

The SSPs see only technical issues as problem areas and therefore the tendency is to reject other issues which impinge on the losses.

Perceptions of SSPs on interventions

Past experiences with governmental interventions have been utter disappointments to the community. For.e.g., the term “drying racks” itself a vociferous “no” from the community without even bothering to listen and understand that we are talking about a portable, low level, stackable, home-made, user friedly rack which can be carried around in and out during the rainy season. This is an eye opener to project managers as we need to realise that intervention failures can alter the attitudeof the community to future interventions, good or bad.

List of SSps willing to test interventions

1. Chappala Satyavathi
2. Koda Danayamma
3. Maripalli Lakshmi

4. Sorada Simhachalam (Male Processor)
5. Chooka Kasaiah (male Processor)
6. Soorada Ammoriyya (Male Processor)

Details of site-specific intervention requirements
Vats must be cleaned before use
Proper covering of vats to prevent rain water /fly entry
Fish must be gutted and washed before brining
Adequate brine concentration must be maintained
Well water must be used for preparation of brine
Plastic sheets may be used to prevent contact by flies
Fish must be kept submerged in brine by use of frames
Low level racks may be prepared for quick transport during drying/rain

Intervention team for the site
23 SSPs listed above
Venkatesh Slalgrama (leader)
Sudhakar
Srikar
Sreeramulu
Prasad
Sreerama Murthy

Accessories required for the site
Cement lid for the vats
Frame made of locally available materials for keeping the fish submerged
Tools for simple estimation of brine concentration
Tools for dressing / gutting fish
Portable low level racks
Plastic sheets, Nettings

Logistics
Transport
Food/ water
Accessibility to the supplies needed for intervention tools

SITES SELECTED FOR INTERVENTION

Based on the criteris for site selection(already presented elsewhere inthis report), participatory scoring was carried out by the study team members on 9 May, 1999. The details are presented below.

Criteria\site	**Mayapatinam-Suradipeta**	**Jagarajupeta(main road)**	**Konapapapeta**	**Chodipillipeta**
SSPs processing in monsoon	2.5	3.5	5	2
Presence and activity of NGO	5	5	0	0
Rapport with community	5	1	3	3
Perception of loss by community	3	1	4	5
Attitudes to intervention	5	1	3	4
Leadership in SSPs	5	2	3	3
Livelihood (poverty) index)	1	1	3	5
TOTAL	**26.5**	**14.3**	**21**	**22**
RANK	**1**	**4**	**3**	**2**

Thus, the sites selected for the present intervention testing are: Mayapatinam-Suradipeta, Chodipillipeta and Konapapapeta.

FRAMEWORK FOR INTERVENTION FIELD WORK AT 6 SITES

SITE #1 Chandrabhaga

Preparation of brine of appropriate concentration
Hygienic handling of fish while dressing
Gutting larger fish before brining
Washing of dressed fish before brining
Use of good water for brine preparation
Keeping the fish submerged in brine
Covering the vats with sheets/ lids
Use of portable frames / mats/ trays for easy shifting of fish away from rains
Use of portable, stackable racks / roof tops for drying fish
Coping strategies to negate lack of space
Coping strategies to tide over loss due to floods

SITE #2 Bali Pantal

Preparation of brine of appropriate concentration
Use of brine, not dry salting for larger fish like Hilsa and Mullets
Need for gutting of fish
Use of proper containers / vats for brining (Not earthen pits)
preventing maggot infestation (greatest problem)
Keeping fish submerged in brine
Proper covering of fish
Preparation of cured fish, dry packed
Proper packaging of processed fish before transportation
Preparation of manure from spoiled fish
Developing market linkages
Skill for alternate methods of preservation and processing
Reduce transport costs and losses
Coping strategies to reduce losses due to floods
Coping strategies to negate difficulties due to remoteness
Organized (group) trading of processed fish

SITE #3 New Bakshipalli

Preparation of brine of appropriate concentration
Cleaing of vats / containers
Reuse of brine for 2 cycles and saving of salt
Preparation of suitable containers / vats
Keeping the vats properly covered with heavy lids / sheets
Preventing maggot infestation
Need for gutting fish
Need for washing fish after gutting
Keeping the fish submerged by preparing frames from locally available materials
Use of stackable, portable racks
Preparation of manure from spoiled fish

SITE #4 Suradipeta-Mayapatinam

Cleaning vats thoroughly
Preparation of brine of appropriate concentration
Using well water for brine preparation
Testing of brine concentrations
Reuse of brine for 2 cycles and saving of salt
Gutting and washing fish before brining
Keeping the vats properly covered with heavy lids / sheets
Preventing maggot infestation
Keeping the fish submerged by preparing frames from locally available materials
Use of small salt bags as weight in the place of stones
Use of stackable, portable racks
Preparation of manure from spoiled fish

SITE # 5 Konapapapeta

Cleaning existing vats
Preparation of concentrated brine
Reuse of brine for 2 cycles and saving of salt
Keeping the vats properly covered with heavy lids / sheets
Preventing maggot infestation
Need for gutting fish
Need for washing fish after gutting
Keeping the fish submerged by preparing frames from locally available materials
Use of small salt bags as weight to keep the frame submerged
Use of stackable, portable racks
Preparation of manure from spoiled fish

SITE # 6 Chodipillipeta

Cleaning existing vats
Preparation of concentrated brine
Reuse of brine for 2 cycles and saving of salt
Keeping the vats properly covered with cement lids
Preventing maggot infestation
Need for gutting fish
Need for washing fish after gutting.
Keeping the fish submerged by preparing frames from locally available material
Use of small salt bags for weight in the place of stones
Use of stackable, portable racks
Preparation of manure from spoiled fish

APPENDIX 1 PIP TEAMS AT SITES

- **CHANDRABHAGA**

Mohan Joseph, Binod Mohapatra, Lachhaman Nayak

- **BALI PANTAL**

Mohan Joseph, Binod Mohapatra, Lachaman Nayak, Purushotam Nayak, CPA staff

- **NEW BAXIPALLI**

MohanJoseph, Binod Mohapatra,Jayaraju

- **SURADIPETA**

Mohan Joseph, Venkatesh Salagrama, Prasad, Sreeramulu

- **MAYAPATINAM**

Mohan Joseph, Venkatesh Salagrama, Sreeramulu, Prasad, Murthy, Krishna Mohan oseph, Venkatesh Salagrama, Sreeramulu, Prasad, Murthy, Krishna Mohan

- **SUBBAMPETA**

Mohan Joseph, Venkatesh Salagrama, Dasari Nookaratnam, Prasad, Murthy, Krishna Mohan

- **JAGARAJUPETA (Main Road)**

Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan
Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan

- **JAGARAJUPETA(Sea shore)**

Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan

- **MOOLAPETA**

Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan.

- **KONAPAPAPETA**

Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan

- **CHODIPILLIPETA**

Mohan Joseph, Venkatesh Salagrama, Prasad, Murthy, Krishna Mohan.

APPENDIX 2 PIP SCHEDULE

Dates	Location / Site	Activity
21 April 1999	Dep.Mangalore	
22April199	Arr.Bhubaneshwar	Meeting with Director, CIFA
23 April	Arr.Puri	Meeting with ADF, DoF, Govt. of Orissa
23 April	Arr.Konark	Meeting with ADF, FEO, DoF, Govt. of Orissa
23 April	Meeting with Lachhaman Nayak, CPDA	
24 April	Chandrabhaga, Orissa	meeting with 10SSPs
25 April	Bali Pantal, Orissa	Meeting with22 SSps
26 April	Chandrabhaga, Orissa	PIP with 14 SSps
27 April	Bali Pantal, Orissa	PIP with 10 SSPs
28 April	Konark	Consolidating with CPA. Meeting with Fisheries Extension Officer. Arrangements for monsoon field work
29 April	Dep. Konark, Arr. Gopalpur	
29 April	Gopalpur	Meeting with activist Jayaraju. Planning PIP activity
30 April	New Bakshipalli	Meeting with Society president. Discussion with 10 SSps.Another meeting with 7 SSps and discussion about PIP
30 April	Meeting with Scientists of College of Fisheries, Rangailunda	
1 May	New Bakshipalli	PIP meeting with 26 SSPs
2May	Gopalpur	Consolidating with Jayaraju. Arrangements for monsoon field work
4 May	Kakinada	Discussion with ICM
4 May	Suradipeta	PIP with 30 SSps
4May	Mayapatinam	PIP with 20 SSps
5 May	Subbampeta	PIP with 7 SSPs
5 May	Jagarajupeta (mainroad)	PIP with 7 SSps
5May	Mayapatinam	PIP with 13 SSps
6May	Jagarajupeta (Seashore)	PIP with 16SSps
6May	Jugarajpeta(Main road)	PIP with 27 SSps
6 May	Subbampeta	PIP with 21 SSps
7 May	Moolapeta	PIP with 8 SSps
7 May	Konapappapeta	PIP with 8 SSps
8May	Chodipillipeta	PIP with 18SSPs
9 May	Kakinada	Planning field work in monsoon. Site selection exercise based on field work data.
10 May	Kakinada	Reporting
10 May	Dep. Kakinada	
11 May	Arr. Hyderabad	Meting with Action For Food Production (NGO),

		Tarnaka.
12 May	Dep. Hyderabad Arr. Bangalore	Discussion with Shivkumat, CMS on Interventions and PIP outcome
13 May	Dep.Bangalore. Arr. Mangalore	

APPENDIX 3 PEOPLE MET

BHUBANESHWAR
Dr. Ayyappan, Director,CIFA
Dr Jena, Scientist, CIFA
Dr.Mohanty,Scientist, CIFA
Dr.Shankar,Scientist,
Dr.BhattacharyaDirector, IET

PURI
Mr. Misra, ADF, DoF
Mr.Pradhan, Spndt,DoF
Staff of DoF

KONARK
Mr.Bhuyan, FEO, DoF
Mr.Pradhan, Supndt, DoF
Mr.Purushotham Nayak, CPDA
Mr. Lachhaman Nayak,CPDA
Staff of CPDA

CHANDRABHAGA
Mrs.Mutu Dondama,SSP
Mrs.Chokka Kondamma,SSP,SSP
Mrs.Pikki Subhadra,SSP
Mrs.Mailipili Bendamma,SSP
Mrs.Kod Kondama,SSP
Mrs.Umudi Koodanda,SSP
Mrs.Siripil Danamma,SSP
Mrs.Piki Thathiyamma,SSP
Mrs.Soorkantham,SSP
Mrs.Sawakal Gangamma,SSP
Mrs.Sodipil Chentama,SSP
Mrs.Kanchan Muduli,SSP
Mrs.Koda Kodamma(Sr),SSP
Mrs.Sawakal Jaganathamma,SSP
Mrs.Bandhu Kotamma,SSP

BALI PANTAL
Mr. Panchanan Behera, Village leader
Mrs. Sanjuta Behera, Animator
Mrs. Sail Behera,SSP
Mrs.Chabi Behera,SSP
Mrs.Lochan Sahu,SSP
Mrs.Rama Behera.SSP
Mrs.Menaka Behera,SSP
Mrs. Charulatha Behera,SSP

Mrs.Sulab Behera,SSP
Mrs.Hundari behera,SSP
Mrs.Sanjuta Behera (Sr),SSP
Mrs.parboti Behera,SSP

GOPALPUR
Mr. Jayaraju, Activist
Dr.Shau, Scientist,OUAT
Dr.Kasturi Sanmantaray,Scientist, OUAT
Dr.Misra, Scientist, OUAT

NEW BAXIPALLI
Mr. Lenka Somayya, President, Society
Mr.Maripalli Narayana, Panchayat Member
Mr.Lenka Yarrya, leader
Mr.Lenka Somayya, leader,
Mr.Nanda Dharmaraj,leader
mr.Dase Ramayya, leader
Mr.Marupili Narayana,leader
Mrs.lenka Laxamamma, SSP
Mrs.Uppada Sayamma,SSP
Mrs.Dammala Kamamma,SSP
mrs.Souripilli Sattamma,SSP
Mrs.Souripilli Kamamma,SSP
Mrs.Marupilli Savitri,SSP
Mrs.Lenka Devaki,SSP
Mrs.Kaviti Narasamma,SSP
Mrs.Kalaga Savitri,SSP
Mrs.Kalaga Hemalata,SSP
Mrs.Kayiti Santamma,SSP
Mrs.Iddala Kalamma,SSP
Mrs.Souripilli Laxamamma,SSP
Mrs.Souripili Neelamma,SSP
Mrs.Kalaga Kamamma,SSP
Mrs.Kalaga gangamma,SSP
Mrs. Kalaga padma,SSP
Mrs.Souripilli Rajamma,SSP

KAKINADA
Mr.Venkatesh Salagrama, ICM
Mr.Sreeramulu, FDO,DoF
Mr.Prasad,ICM
Mr.Sreerama Murthy, FIRM
Mr.KrishnaMohan, Coordinator, FIRM

MAYAPATINAM
Mrs. Bondu Nagamani, SSP

Mrs.Ocipili Sattipappa, SSp
Mrs.Kambala Yellayyamma, SSP
Mrs. Bondu Appayamma,SSP
Mrs.Bondu Lakshmi,SSP
Mrs. Gampala Pentamma,SSP
Mrs.Ramisetti Sathiyamma,SSP
Mrs. Badi Gangalamma,SSP
Mrs.Pikki Chittemma, SSP
Mrs. Madala Nookalamma,SSP
Mrs. Surada Nookalamma,SSP
Mrs.Bondu Nookalamma,SSP
Mrs. Gaikina Masenamma, SSP

SURADIPETA

Mr.S.Nageswara Rao, President, Society
Ms.parvathy, Animator
Mrs. Surada Sathiyamma,SSP
Mrs. Surada Kameswaramma,SSP
Mrs.Paramala Masenamma,SSP
Mrs.Kambala Bangaramma,SSP
Mrs. Pirumala Ammoramma,SSP
Mrs.Pirumala Cheruvamma,SSp
Mrs.Kare Nookalamma,SSp
Mrs.Guthi Bhageerathamma,SSP
Mrs.Nakka Lakshmi,SSP
Mrs. Mayilipilli Lakshmi,SSP

SUBBAMPETA

Mrs.Dasari Nookaratnam,Animator
15 Womes SSPs
3 Men
Panchayat Officer

JAGARAJUPETA (Main Road)

Mrs.Malle Maseenamma,MSP
Mrs.Dummu Durgamma, MSP
Mrs. Nakka Nagiyamma, MSP
Mrs.Dummu Narayanamma,MSP
Mrs.Merugu Chittemma,MSP
Mrs.Venka Kasulamma,MSP
Mrs.Gariti Lakshmi,MSP
Mrs.Vummudu Rajuyamma,MSP
Mrs.Vummudu Polamma,MSP
Mrs.Malle Appayamma,MSP
Mrs. Kampala Gauramma, SSP
Mrs.Vumudi Poleramma
Mrs. Vumudi Ammoramma, SSP
Mrs.Malle Jogamma, SSP
Mrs.Koda Kothammaru,SSP
Mrs. Malle Padma, SSP
Mrs.Nakku Kasulu,SSP
Mrs.Nakka Lakshmi,SSP

Mrs.Gampala Nagamma, SSP

JAGARAJUPETA(Sea Shore)
17 Women SSPs
MOOLAPETA
Mr.Kakanakaraju garu, Presient, Society
8 Women SSPs

KONAPAPAPETA
Mrs. Benugu Bangaramma,SSP
Mrs.Kare Muthiyalamma,SSP
Mr.Vummudu Ramudu, Male SSP
Mrs.Kondela Bangaramma,SSP
Mrs.Chokka Maramma,SSP
Mrs.Koda Appalanarasamma,SSP
Mrs.Pikki Kavamma,SSP

CHODIPILLIPETA
Mrs.Chappala Satyavathi,SSP
Mrs.Koda Danayyamma,SSP
Mrs.Maripilli Lakshmi,SSP
Mr.Sorada Simhachalam, Male SSP
Mr.Chooka Kasaiah, Male SSP
Mr.Soorada Ammoriyya,Male SSP
15 other women SSPs
HYDERABAD
Mr.Muralidharan, Fisheries Specialist, AFP
Staff of Actionfor Food Production
BANGALORE
Mr.Shiv Kumar, CMS

APPENDIX 4 TERMS OF REFERENCE FOR PIP WORK

Activity 1

Between April 20th and May15th 1999, in three appropriate villages in AndhraPradesh and three similerly appropriate villages in Orissa.Using recognised participatory approaches to field research and if necessary in conjunction with formal research methods, and with the aid of audiovisual materials and local field level support:

a. Clarify the rationale behind village choice

b. Discuss the menu of appropriate intervention options to reduce post-harvest fish losses, with small-scale processors and key stake holders. In conjunction with small0scale processors decide which interventions are applicable to their circumstances and which interventions are not. Clarify the rreasons why some interventions (if any) are acceptable. Clarify the constraints, which make some interventions inappropriate, or unacceptable/ unrealistic. Decide whether there are interventions, which may be appropriate and effective yet, donot appeal to small-scale processors (SSPs).

c. c.Identify with SSPs, key stakeholders any aditional appropriate interventions which can be added to the original enu.

d. Decide whether aadaptation of interventions is necessary and how this would be done.

e. Identify small-scale processors who would be willing to test choseninterventions during the coming monsoon season.

f. Make preliminary arrangements for the visit of field teams in June to set up field trials before the monsoon. The field trials to measure the impact of interventions on lossess during the monsoon.Secure the involment of anappropriate locally based NGO or appropriate grass roots focussed organization toassist in field testing and monitoring.

g. Prepare a report of the fieldwork and submit to the project leader by June 1st. Prepare a presentation of the field work to be given at the planningmeeting in early June.

Activity 2

Organise a three-day planning meeting in June 1999 in Chennai.The aimof the meeting will be to discuss the results of Activity 1 above and plan, along with field researchers, fieldwork to establish trials to test effectiveness of interveentions during the monsoon.

APPENDIX 5 INTERVENTION TESTING SSP TEAMS (PHOTOGRAPHS)

A **Team members at Chandrabhaga**

B **Team members at Bali Pantal**

C **Team members at New Bakshipalli**

D **Team members at Mayapatinam**

E **team members at Suradipeta**

F **Team members at Chodipillipeta**

G **Team members at Konapapapeta**