



# FINAL REPORT

National Agricultural Innovation Project  
(Indian Council of Agricultural Research)



## *Livelihood Security Through Resource and Entrepreneurship Management in Bidar District*



**Krishi Vigyan Kendra, Bidar**  
**University of Agricultural Sciences, Raichur**  
**Post Box No-329, Raichur-584102**

Sub project  
code: 311601

Component-3

2014

2014

### Inside Cover Page

Printed on	:	
Component	:	3
Citation	:	
Copyright	:	Indian Council of Agricultural Research (ICAR)
Disclaimer	:	
Published by	:	<p>Dr. B.V.Patil  Vice Chancellor  University of Agricultural Sciences  Post Box No-329,Raichur-584102  Telephone (O)08532-220440  FAX-08532-220444  Mobile-9480696300  Email: <a href="mailto:vcuasraichur10@rediffmail.com">vcuasraichur10@rediffmail.com</a>  Website: <a href="http://www.uasraichur.edu.in">www.uasraichur.edu.in</a></p>
Edited by	:	<p>Dr. R.C. Deshmukh  Consortium Principal Investigator(CPI) and  Programme Coordinator,  KVK, Bidar</p> <p>Dr. K.C. Veeranna  Consortium Co-Principal Investigator(CCPI) and  Professor, KVAFSU  Veterinary College,  Shivmoga</p> <p>Fr. Babu Santosh  Consortium Co- Principal Investigator(CCPI) and  Director, ORBIT  Bidar</p>
Compiled by	:	<p>Shri. Ranganathan  Senior Research Fellow  NAIP, ORBIT, Bidar</p> <p>Mr. Balaji Jadhav  Research Associate  NAIP, KVK, Bidar</p> <p>Ms. Gayatri Biradar  Research Associate  NAIP, KVK, Bidar</p>

		<p>Ms. Poornima Senior Research Fellow NAIP, KVK, Bidar</p> <p>Mr. Nagaraj Udabal Research Associate NAIP, KVK, Bidar</p> <p>Dr. Mahesh More Research Associate NAIP, KVAFSU, Bidar</p>
Hindi translation	:	
Other Credits	:	Scientists of KVK, Bidar
Cover page photographs	:	<p>Ms. Savita Ashture Office Assistant NAIP, KVK, Bidar</p> <p>Mrs.Jyoti kamthane Programme Assistant (Computers) KVK, Bidar</p>

---

Printed at

<b>CONTENTS</b>	
	<b>No. of pages</b>
Foreword	
Preface	
सारांश	7
Executive Summary/ Key words	5
<b>Part-I: General Information sub-project</b>	8-9
<b>Part-II: Technical Details</b>	
1. Introduction	10
2. Overall Sub-project Objectives	11-12
3. Sub-project Technical Profile	12
4. Baseline Analysis	13-18
5. Research Achievements	19-34
6. Innovations	34-38
7. Process/Product/Technology Developed	38
8. Patents (Filed/Granted)	38
9. Linkages and Collaborations	39-41
10. Status on Environmental and Social Safeguard Aspects	41-42
11. Constraints, if any and Remedial Measures Taken	42-43
12. Publications	44-49
13. Media Products Developed/Disseminated	50
14. Meetings/Seminars/Trainings/Kisan Mela, etc. organized	50-52
15. Participation in Conference/ Meetings/Trainings/ Radio talks, etc.	53-54
16. Foreign Trainings/Visits	55
17. Performance Indicators	55-56
18. Employment Generation	57
19. Assets Generated	58
20. Awards and Recognitions	
21. Steps Undertaken for Post NAIP Sustainability	
22. Possible Future Line of Work	
23. Personnel	
24. Governance, Management, Implementation and Coordination	
<b>Part-III: Budget and its Utilization</b>	
<b>Part-IV: Declaration</b>	



# UNIVERSITY OF AGRICULTURAL SCIENCES, RAICHUR

**Dr.B.V.Patil**  
**Vice Chancellor**  
**UAS, Raichur**



**Office of the Vice Chancellor**  
**Post Box No. 329,**  
**Raichur, Karnataka**  
**Phone No: 08532-220440**  
**Fax :08532-220440**  
**Mobil No: 9480696300**  
**Email:vcuasraichur10@rediffmail.com**

## **FOREWORD**



The Indian Council of Agricultural Research (ICAR) launched National Agricultural Innovation Project (NAIP) in 2006. Under this project different components (1, 2, 3 and 4) were implemented. Among those components the NAIP Component -3 Subproject titled “Livelihood Security through Resource and Entrepreneurship Management in Bidar district” has been in operation since November, 2008. As envisaged in title, the project has maintained a clear focus on promoting sustainable rural livelihood options through efficient utilization of available human and natural resources, formed and strengthened community based organizations (CBO’s) such as Self Help Groups (SHG’s), Entrepreneur Groups and Village Level Coordination Committees (VLCC) and developed linkage with various developmental departments and financial institutions.

Looking at the implementation progress, NAIP-3, KVK, Bidar team along with consortium partner’s viz., Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar and ORBIT, Bidar made more efforts and it resulted in good output from project interventions. I congratulate all the members of the consortium for their good work and for achieving good results by replacing mono cropping with Integrated Farming System, adoption of dairy and Osmanabadi goat rearing practices, created facility of artificial insemination (A.I) service at local level by establishing 4 A.I centers, easy accessibility of dal processing at local level along with improved food consumption habits, created more employment opportunity to landless labourers.

These outcomes would not have been encountered if there was not constant support and guidance from different higher officials. Hence I take this opportunity to thank Dr. A. P. Srivastava, National Co-ordinator, NAIP-3, New Delhi, Dr. Rama Rao, National Director, NAIP, New Delhi, Dr. V. Veerabhadraiah, CAC Chairman and former Director of Extension UAS, Bangalore, DE UAS, Raichur, DE KVAFSU, Bidar and all the members of CAC, CMU & CIC.

**Date :**

**(B.V.PATIL)**  
**Vice Chancellor**

# UNIVERSITY OF AGRICULTURAL SCIENCES, RAICHUR

**Dr. Ravi C Deshmukh**  
**Programme Coordinator**  
**KVK, Bidar**



**Krishi Vigyan Kendra, Bidar**  
**Post Box No. 58, Janawada Road**  
**Bidar-585401, Karnataka**  
**Phone No: 08482-244155, 244178**  
**Fax :08482-244155**  
**Mobil No: 9480696318**  
**Email:kvkbidar2013@gmail.com**  
**kvkbidar@rediffmail.com**

## **PREFACE**



The consortium project on “Livelihood Security through Resource and Entrepreneurship Management in Bidar District” has been in functional since November 2008 and has made significant progress in terms of contributing to improvement of rural livelihood in the selected disadvantaged 30 villages of Bidar district. We have introduced different technological interventions based on crop. Livestock, small scale food processing and off farm activity provided good response among the targeted beneficiaries, besides this is also creating good response from the non-beneficiaries of the project villages and neighbourhood villages. In other words, we achieved project objectives by proper technology application through active participation of the stakeholders, by focusing on livelihood security.

The project provided a new experience for working in a consortium mode. The consortium made sincere efforts to diagnose the livelihood issues, design appropriate interventions and their actual implementation. We are particularly happy on our approach and success in bringing convergence with schemes of line departments, financial institutions and private organizations. I take this opportunity to thank all the officials who cooperated to make this convergence successful.

I feel exhilarated by expressing my profound gratitude to Dr. K. C. Veeranna, CCPI, NAIP-3, KVAFSU, Bidar for his relentless assistance in all aspects and providing necessary information for passing up this report.

I would like to place on record our sincere thanks to Dr.D.Rama Rao, National Director, NAIP, Dr. Bengali Baboo former National Director, Dr. Mruthyunjaya former National Director NAIP, for their support and guidance. We also wish to acknowledge the excellent and timely support received from Dr. A. P. Srivastava, National Coordinator, Component-3 and all his staff at the PIU.

We are fortunate to have the guidance of the Consortium Advisory Committee (CAC) led by Dr. Veerabhadraiah and other members. Whose counsel kept the consortium on track from time to time. We would also like to place on record the support received from Dr. B. V. Patil Hon’ble Vice Chancellor and consortium leader,UAS,Raichur, Dr. G.S.Dasog, Dr. S.S.Dolli and Dr. J. H. Kulkarni former Hon’ble Vice Chancellor,UAS, Dharwad.

I like to convey my thanks to all my staff members of NAIP Component-3, Bidar and KVK Scientists for their keen interest, meticulous care and painstaking efforts for achieving the project objectives.

At the outset I take this opportunity to express my thanks to all beneficiary farmers, farm women and other fellow farmers of the operational area who are contributed to success of the project directly or indirectly.



**(Ravi C.Deshmukh)**  
CPI,NAIP & Programme Coordinator,  
KVK, Bidar



## Executive Summary

National Agricultural Innovation Project (NAIP) Component-3, Subproject on “Livelihood Security Through Resource and Entrepreneurship Management in Bidar District” was launched on 28<sup>th</sup> Nov 2008 at KVAFSU, Bidar. This project is being implemented in 34 backward villages in 4 talukas (Aurad, Basavakalyan, Bhalki and Humnabad) of Bidar district, by a consortium of 3 partners with University of Agricultural Sciences, Raichur as the lead center. The subproject activities were initiated with Participatory Rural Appraisal to develop a frame work for suitable livelihood models for livelihood enhancement in 34 selected backward villages of Bidar district. Then initial project activities like benchmark survey, beneficiary cross verification and entry point activities were carried out. The output of these exercises helped in understanding the livelihood issues across the clusters and design appropriate interventions.

During initial period of project implementation, formation of village level coordination committees (VLCC) and livelihood groups received due attention. Based on the need, 5 different livelihood activity groups like Integrated Farming System, Food Processing, Off Farm Activity, Dairy and Goat Rearing, were formed by covering all the households during the project period. It includes small / marginal farmers, SC / ST and women headed families, Agricultural and landless labourers and dairy farmers.

Before introduction of inputs to different livelihood groups capacity building of 1,200 participants was conducted by organizing different trainings, workshops and exposure visits. The project interventions were carried out during 2008-14, The subproject resulted in efficient utilization of available resources for increased production and income. It also played vital role in encouraging livelihood security through entrepreneurship development and establishment of economically feasible enterprises viz., small scale food processing units, upgradation of local goats. The project also bridged the existing gaps in improved technologies, linkages and developing self management system to ensure sustainable livelihood security through organising and strengthening 183 Community Based Organizations. The project made following achievements.

- Monocropping replaced with Integrated farming system model resulted in additional income generation of Rs.1,53,200 per family per year from a baseline value of Rs.63,500.
- The innovative technology Redgram transplanting/dibbling facilitated increase in **average** yield of 22 qt/ha.

- Increase in the cross bred population of Buffaloes and cows -2171 (772 Buffaloes and 1399 cattle) due to Artificial Insemination service at local level.
- Conservation of Deoni breed of cattle.
- Increase in milk yield from 504 ltrs to 850 ltrs/ animal/ lactation.
- Focal breeder groups supplied 500 osmanabadi bucks on cost basis to other goat rears to upgrade 9600 goats of 372 households.
- Increase in twinning rate by 10% and kid birth weight by 0.65kg.
- Increase in 60% of processing and value addition to agricultural produce due to establishment of 24 micro enterprise of small scale food processing units. Improved food consumption habits upto 52%.
- Generated an employment opportunity of 180 man-days by introducing threshing and usage of power sprayer as off farm activity and reduced 25% of migration.
- Major innovations/ success stories –Appendix-I

For sustainability of the project 20% contribution was collected for all the critical inputs which constitutes an amount of Rs.17,13,000 out of this Rs. 11,50,000 kept as Fixed Deposit. By developing synergy with line departments Government and Non-government organizations/institutes NAIP-3, Bidar has synthesized the financial support of Rs.1,13,41,445 (One Crore Thirteen Lakhs Forty One Thousand Four Hundred and Forty Five only). Synergy developed was in the form of financial man power, trainings of AI workers, supply of seeds.

Thus project interventions improved the livelihood security of participants by generating employment opportunity which inturn reduced 25% migration.

## सारांश

## **PART-I: GENERAL INFORMATION OF SUB-PROJECT**

<b>1 Title of the Sub-project</b>	<b>: “Livelihood Security Through Resource and Entrepreneurship Management in Bidar District”</b>
<b>2 Sub-project Code</b>	<b>: <u>311601</u></b>
<b>3 Component</b>	<b>: 3 [Research on Sustainable Rural Livelihood Security (SRLS)]</b>
<b>4 Date of sanction of sub-project</b>	<b>: 26-09-2008</b>
<b>5 Date of completion</b>	<b>: March, 2014</b>
<b>6 Extension (if granted)</b>	<b>: From <u>April 2012</u> to <u>March, 2014</u></b>
<b>7 Total sanctioned amount for the sub-project</b>	<b>: 703.08865 (INR in Lakhs)</b>
<b>8 Total Expenditure of the sub-project</b>	<b>: 521.55167 (INR in Lakhs)</b>
<b>9 Consortium Leader:</b>	<b>:</b>
<b>Name</b>	<b>: Dr. B.V. Patil M.Sc [(Agri)], Ph.d</b>
<b>Designation</b>	<b>: Vice Chancellor, UAS,Raichur</b>
<b>Organization</b>	<b>: University of Agricultural Sciences, Raichur</b>
<b>Address</b>	<b>: Post Box No-329, Raichur-584102</b>
<b>Phone and Fax, E-mail, Website</b>	<b>: Telephone (O)08532-220440 FAX-08532-220444 Mobile-09480696300 Email: <a href="mailto:vcuasraichur10@rediffmail.com">vcuasraichur10@rediffmail.com</a> Website: <a href="http://www.uasraichur.edu.in">www.uasraichur.edu.in</a></b>

### 10. List of Consortium Partners:

	Name of CPI/ CCPI with designation	Name of organization and Address, Phone and Fax, Email	Duration (From-To)	Sanction Budget (Rs. Lakhs)
<b>CPI</b>	Dr. R.C. Deshmukh Consortium Principal Investigator (CPI) and Programme Coordinator, KVK, Bidar	Krishi Vigyan Kendra, Bidar PB.No-58 Phone: 08482-244155 Mob: 09480696318 Fax/ 08482-244178, 244155 <a href="mailto:kvkbidar@rediffmail.com">kvkbidar@rediffmail.com</a>	2008 to 2014	406.05320
<b>CCPI1</b>	Dr. K.C. Veeranna Consortium Co-Principal Investigator (CCPI) and Professor, KVAFSU Veterinary College, Shivmoga	Veterinary College, Shivmoga Phone : 08182 – 2651022 9448557668 <a href="mailto:veeranna9@yahoo.co.in">veeranna9@yahoo.co.in</a>	2008 to 2014	266.71100
<b>CCPI2</b>	Father Santosh Consortium Co- Principal Investigator (CCPI) and Director, ORBIT, Bidar	Organisation for Bidar Integral Transformation (ORBIT), Humnabad Phone : 08483 – 271032 Fax : 08483 – 271032 <a href="mailto:orbit93@rediffmail.com">orbit93@rediffmail.com</a>	2008 to 2014	30.32445
<b>Total</b>				<b>703.08865</b>

CPI-Consortia Principal Investigator; CCPI-Consortia Co-Principal Investigator

### 11. Statement of budget released and utilization partner-wise (Rs in Lakh):

	CPI/ CCPI Name, designation and address)	Total Budget Sanctioned up to 31 <sup>st</sup> Jan. 2014	Fund Released (up to Closing Date) up to 31 <sup>st</sup> Jan. 2014	Fund Utilized (up to Closing Date) up to 31 <sup>st</sup> Jan. 2014
<b>CPI</b>	Dr. R.C. Deshmukh Consortium Principal Investigator (CPI) and Programme Coordinator, KVK, Bidar	406.05320	310.26606	268.28731
<b>CCPI1</b>	Dr. K.C. Veeranna Consortium Co-Principal Investigator (CCPI) and Professor, KVAFSU Veterinary College, Shivmoga	266.71100	233.38328	226.36636
<b>CCPI2</b>	Fr. Bapu Santosh Consortium Co- Principal Investigator (CCPI) and Director, ORBIT, Bidar	30.32445	16.87192	26.89802
<b>Total</b>		<b>703.08865</b>	<b>560.52126</b>	<b>521.55169</b>

## **PART-II: TECHNICAL DETAILS**

### **1. Introduction**

Bidar district, located in the Northern most part of Karnataka, has only 12% of the area being irrigated through open wells, and about 70% of the net cropped area is under mono-cropping. The marginal and small size holdings constitute more than 50% of the total land holdings and about 15% of the farmers have less than one hectare land. Sorghum and pulses are the important crops grown in a larger area with low productivity, and cropping intensity is only 111 per cent. The district also suffers from poor storage and agro-processing facilities, poor marketing and lack of awareness on potential enterprises.

Agriculture being an important occupation for the rural population, provides employment only for two seasons. Hence, there exists the problem of under employment for farmers and the landless. As pulses are grown abundantly in district, they are not being processed at local level. Thus, there is a great potential for processing and value-addition to pulses as well as cereals as micro-enterprises for sustainable livelihood of the poor. The district also has potentiality for dairy activities. Well distributed rainfall and lateritic soils provide ample opportunity for integrated farming system with crops, forest, horticulture, grass and livestock components. This would provide avenues for various livelihood options such as dairy, food processing and forest produce processing and handicrafts. There is a tremendous scope for enhancing biomass production which provides raw materials and energy for agro-based micro-enterprises such as vermi-composting, composting, bio-pesticide preparation etc. Bidar district is also known for higher consumption of pesticides for plant protection in pulse crops. This provides ample opportunity for the introduction of bio-pesticides which could be prepared locally by youths. This would provide livelihood as well as reduces the cost of production and environmental pollution, apart from creating employment.

The Indian Council of Agricultural Research (ICAR, GOI) has launched “National Agricultural Innovation Project” funded by World Bank in 150 districts. Bidar district of Karnataka state is one among them. With this view “the subproject “Livelihood Security through Resource and Entrepreneurship Management in Bidar District was sanctioned with a total budget out lay of Rs. 703.09 lakh during the year 2008. University of Agricultural Sciences, Raichur (KVK, Bidar), Karnataka Veterinary, Animal and Fishery Sciences University, Bidar and



ORBIT, NGO, Bidar came forward to work as consortium partners for implementation of the project. The subproject was approved with the following Objectives:



## 2. OVERALL SUB-PROJECT OBJECTIVES

1. To promote sustainable rural livelihood options by efficient utilization of available natural and human resources
2. To improve the nutrition status of the community through education and improvement in consumption pattern;
3. To develop stakeholder capacity for promoting sustainable livelihood systems; and
4. To develop and strengthen Community Based Organizations (CBOs) and institutional Linkages.

### Target Area

The target area for the project includes, 34 (check?) backward villages of 4 talukas viz, Aurad, Basavakalyan, Bhalki, Humnabad of Bidar district. Each taluka covers 7-10 villages , viz,

	<p>Hokrana, Aknapur, Ganeshpur, Kherda, Sawargao, Halhalli, Jeerga(K), Ganganbeed</p>
	<p>Ghotala, Umapur, Laheshwar, Janjanmugli, Ramtirth, Chowkiwadi, Morkhandi, Sunthan, Halli</p>

	<p>Chandapur, Jainapur, Nagur, Kongli Wanjerkheda, Jamkhandi, Tamgiyal</p>
	<p>Madargi, Walkhindi, Rampur, Alipur, Devgiri, Polakapalli, Benchincholi, Sitalgera, Nimbur, Kodambal</p>

### 3. Sub-Project Technical Profile

#### Partner-Wise Summarized Roles

S.No	Name	Roles	Responsibilities
1.	UAS, Raichur	Project Management	<ul style="list-style-type: none"> <li>• Project Management and Coordination</li> <li>• Documentation</li> <li>• Monitoring and Evaluation</li> <li>• Implementation of certain activities directly done by UAS, Raichur</li> </ul>
2.	ORBIT, Bidar	Community organization and capacity building. Establishment and strengthening of institutional linkages	<ul style="list-style-type: none"> <li>• Benchmark survey</li> <li>• Entry point programme</li> <li>• Organising entrepreneur groups</li> <li>• Market survey</li> <li>• Facilitation of follow-up activities</li> </ul>
3.	KVAFSU, Bidar	Training and Capacity Building of all stakeholders in improved livestock management. Establishment of A.I centres	<ul style="list-style-type: none"> <li>• Training of staff on dairy/livestock enterprises</li> <li>• Arranging for supply of breeds / grass slips / seeds etc.</li> <li>• Establishing A.I centre and making them self sustainable</li> <li>• Follow up of training and guidance</li> <li>• Arrangement for veterinary care</li> <li>• Documentation and evaluation of productivity</li> </ul>

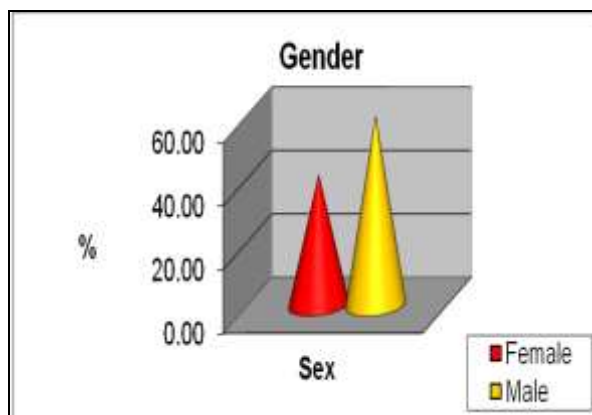
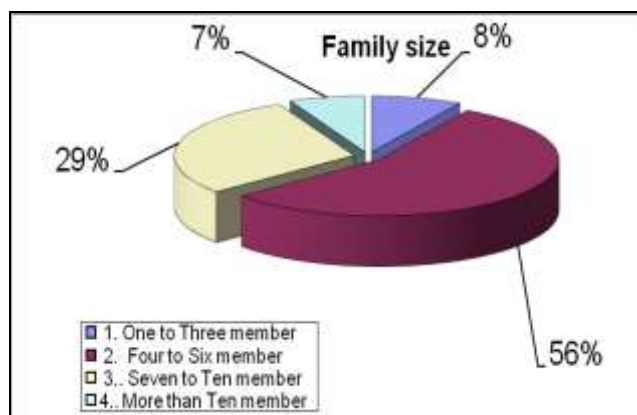


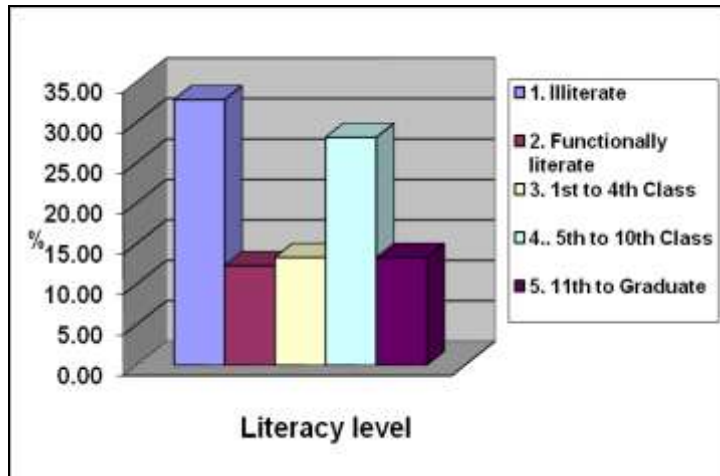
#### 4. BASELINE ANALYSIS

Prior to implementation of the project there is need to understand basic existing situations of respondents. The results are presented under sub heading Socio demographic and economic profile.

**TABLE: 1. SOCIO –DEMOGRAPHIC PROFILE**

Particulars	No of farmers	Per centage (%)
<b>Gender</b>		
Female	245	40.83
Male	355	59.17
<b>Family size</b>		
1-3 members	49	8.17
4-6 members	334	55.67
7-10 members	176	29.33
>10 members	41	6.83
<b>Educational level</b>		
Illiterate	197	32.83
Functionally literate	74	12.33
1 <sup>st</sup> to 4 <sup>th</sup> Stnd.	80	13.33
5 <sup>th</sup> to 10 <sup>th</sup> Stnd.	169	28.17
<b>Social Participation</b>		
No social participation	360	60.00
Participation in one social organization	232	38.67
Participation in more than one social organization	8	1.33
<b>Training availed</b>		
Training availed	523	87.17
Training not availed	77	12.83





**Fig-1, Socio –Demographic Profile**

From socio-demographic profile (table 1) it was observed among the respondents 59.17% were males and 40.83% were females. The majority i.e. 55.67% of farmers had four to six members in their family, 29.33% had seven to ten members, 8.17% had one to three members and 6.83% had more than ten members in their family.

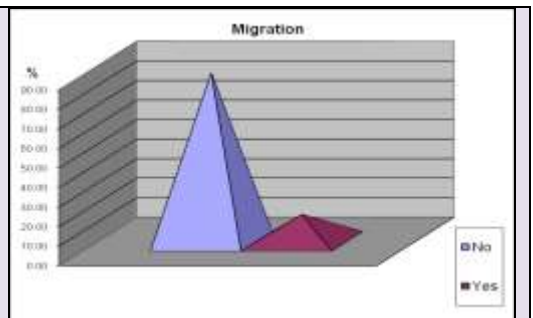
With respect to education, about 32.83% farmers were illiterates followed by 28.17% educated up to 5<sup>th</sup> to 10<sup>th</sup> class, 13.33% were educated up to 11<sup>th</sup> to graduate, 13.33% studied 1<sup>st</sup> to 4<sup>th</sup> class and 12.33% were found to be functionally literate

It was also observed from survey that 60% population was not involved in any social activity either in village or outside. The 38.67% population was involved in village level social participation and very little 1.33% population engaged in more than one social activities.

Though trainings were organized by various transfer of technology centers, only 12.83% farmers participated in these training programmes.

**Table: 2. Prevalence of migration**

Migration/year	No of farmers	Per centage (%)
< 3 months	29.00	40.27
3-6 months	35.00	48.61
> 6 months	8.00	11.11
<b>Total</b>	<b>72.00</b>	<b>100.00</b>



**Fig- 2, Prevalence of migration**

In general during off season 48.61% of farmers migrated to other places for 3-6 months followed by 40.27% farmers who migrated for less than 3 months while only 11.11% farmers migrated for more than 6 months (table 2).

### Economic Profile

**Table: 3. Economic Profile**

Particulars	No of farmers	Per centage (%)
<b>Land holding</b>		
Marginal farmer (0.1 to 1 ha)	134	22.33
Small farmer (1-2 ha)	215	35.83
Medium farmer (2-4 ha)	51	8.50
Large farmer (>4 ha)	15	2.50
Landless / Agricultural labour	138	23.00
Rural artisans	47	7.84
<b>House Type</b>		
Hut	68	11.33
Shed thatched	424	70.67
Bricks home	84	14.00
Brick house with cement concrete shed	13	2.17
Multistoried cement concrete brick house	11	1.83

From the data it is observed that, 35.83% of the farmers belonged to small farmer category, followed by landless/agricultural labourers (23.00%), marginal farmers (22.33%), medium farmers (8.50%), rural artisans (7.834) and large farmers (2.50%).

Among samples of 70.67% farmers are living in thatched shed, 14.00% resides in bricks home, 11.33% resided in huts, 2.17% having brick house with cement concrete shed and very little 1.83% residing in multistoried cement concrete brick house.

### AVERAGE ANNUAL HOUSEHOLD INCOME

**TABLE: 4. MAJOR SOURCE OF INCOME**

Livelihood Activities	Average Income (Rs)
Agriculture	16,972.16
Animal husbandry	5,525.00
Wages	4,800.18
Migration	1,290.13
<b>Total</b>	<b>28,587.47</b>

The annual income of 38% population was below Rs 10,000/- and it was followed by an income of Rs. 10,000- Rs. 30,000 of 42% population. Only 9% had annual income of more than

Rs. 50,000/- . the average income was estimated as Rs. 28587.47; the majority of it came from agriculture followed by animal husbandary, Table 4. The contribution of migration income was very low.

### AVERAGE ANNUAL FAMILY EXPENDITURE

**TABLE: 5. ANNUAL EXPENDITURES OF THE RESPONDENTS**

Particulars	Average expenditure (Rs)
Food	19,778.72
Clothing	1,958.01
Education	829.43
Health	1,528.75
Festivals	1,801.35
Miscellaneous	500.07
<b>Total</b>	<b>26,396.33</b>

The results of table-5 revealed that the total average family expenditure was Rs. 26,396.33 out of which maximum expenditure spent on food i.e. Rs. 19,778.72 followed by clothing, festivals, health, education and miscellaneous.

### FARM MACHINERY

**TABLE: 6. FARM MACHINERY OF SAMPLE RESPONDENT**

Farm Machinery	No of farmers	Per centage (%)
No farm machinery	427	71.17
Minimum required F.M / Hand tools	167	27.83
Thresher and Tractor	6	1.00
<b>Total</b>	<b>600</b>	<b>100</b>

With respect to farm machinery 71.17% farmers had no farm machinery while 27.83% and 1.00% had hand tools and Thresher/Tractor respectively. (Table 6)

**TABLE: 7. PLACE OF MARKETING OF AGRICULTURAL PRODUCE**

Particulars	No of farmers	Per centage (%)
Door step	46	15.00
Local market	59	20.26
Gunj / APMC	108	64.74
<b>Market Information</b>		
No information	38	12.26
Neighbours	259	83.55
Agents	4	1.29
Media	9	2.90

On the whole only 85% farmers sold their produce in different markets such as in Gunj / APMC (64.74%), local market (20.26%) and 15.00 % sold their produce at door step.

It is found that only 51.66% farmers were engaged in marketing. Out of them 83.55% sought marketing information from neighbours while 12.26% had no information about marketing. Very few i.e. 2.90% and 1.29% collected information from media and agents respectively (table 7). These results support to the study on “The multiple indicator Survey in Bidar district” (Ramesh.B.M.*et.al.*, 2002)

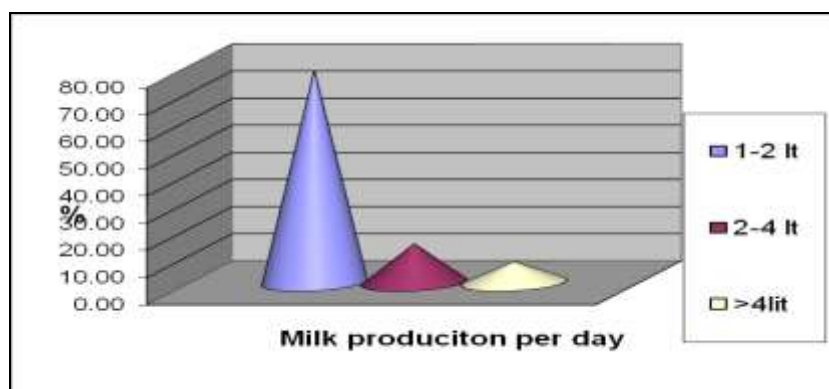
### ADOPTION OF AI

**TABLE: 8. ARTIFICIAL INSEMINATION ADOPTION**

Livestock	No of farmers	Per centage (%)
No	285	65.97
Yes	147	34.03
<b>Total</b>	<b>432</b>	<b>100</b>

Nearly 66.00% of farmers did not adopt Artificial Insemination technique for breeding their animals whereas, 34.00% adopted this technique.

### ANNUAL MILK PRODUCTION



**Fig-3, Milk production per day**

Majority of (45.5%) farmers engaged in milk production included 78.02 % farmers with daily milk production of 1-2 times, 14.28% farmers with production of 2-4 litres and only 7.70% farmers had production of more than 4 liters of milk per day.



**CONDUCTING BASELINE  
SURVEY IN NAIP SELECTED  
TARGET AREAS**

## 5. RESEARCH ACHIEVEMENTS

For effective implementation of project interventions, much emphasis was given to action oriented participatory methodology specially to strengthen the livelihood security of livestock dependent families. Farmers, agricultural labourers, cattle, dairy animals and goat rearers of the project area were involved in pilot survey, resource inventory, constraints analysis and formulation of interventions. Further, baseline survey was conducted to document a baseline data on production systems. The project cycle had five important stages as indicated in Table 9. In crop, food processing, off farm activity, dairy and goat production system critical gaps, constraints and resources available were identified through PRA. Accordingly the interventions were framed with a participatory approach by involving livelihood groups and Village Level Coordination Committee members. The critical gaps and constraints and identified interventions are presented in Table No. 11 and 16. To



plan and implement 5 different livelihood activities viz, Integrated farming system, dairy, goat, food processing and off farm activities, were promoted by involving interested practicing farmers in the similar concept of Self Help Groups (SHG's). At village level, Village Level Co-ordination Committee (VLCC) constituting of representatives from different enterprises was formed for implementation and monitoring of activities and also follow up. The structure of the Village Level Co-ordination Committee was as below:

- Two representatives from Gram Panchayat
- One representative from village elderly person/ leader
- Four men representing dairy and goat groups
- Four women representing dairy and goat groups
- Two field level staff as ex officio members.
- The committee had two group leaders selected by livelihood representing members.



## TRAINING AND CAPACITY BUILDING OF COMMUNITY

The selected beneficiaries were trained on Entrepreneurship development programme (EDP), Skill development trainings, exposure visits and other trainings. Trainings were also organized on identified interventions in IFS, Food Processing, Off farm activities, dairy and goat production.

## STRENGTHENING COMMUNITY BASED ORGANIZATIONS (CBOS) AND FACILITATING INSTITUTIONAL LINKAGE

CBOs capacity in management of livelihood system was strengthened through training and exposure visits. Quarterly workshops were organized by involving community members and developmental department members to share the progress, problems and developmental strategies. Regular buyer- seller meets were arranged to facilitate market linkage. Participatory methodology was adopted in management of project by involving all the stakeholders.

**TABLE:9. FIVE IMPORTANT STAGES OF PROJECT CYCLE**

Sl. No.	Stage	Inputs	Outputs
1	Livelihood system assessment	<ul style="list-style-type: none"> <li>• Gap identification</li> <li>• Resource inventory</li> <li>• Opportunities and assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Current status</li> <li>• Resource availability</li> <li>• Livelihood options</li> </ul>
2	Sensitisation, Orientation and Organization of CBO	<ul style="list-style-type: none"> <li>• Awareness camps</li> <li>• Orientation and exposures</li> <li>• Local institutional buildings</li> </ul>	<ul style="list-style-type: none"> <li>• Local institutional framework</li> <li>• Readiness of the community</li> <li>• Community participation</li> </ul>
3	Technical and management capacity building	<ul style="list-style-type: none"> <li>• Trainings and exposure visits</li> <li>• Demonstration</li> <li>• Counseling and guidance</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge and skill development</li> <li>• Increase in the level of Self confidence</li> <li>• Resource use plan</li> </ul>
4	Establishment and stabilization	<ul style="list-style-type: none"> <li>• Promotion and marketing plan</li> <li>• Nutrition and health education</li> <li>• Facilitation of institutional linkages</li> </ul>	<ul style="list-style-type: none"> <li>• Production and supply</li> <li>• Improved nutrition status</li> <li>• Socio-economic empowerment</li> </ul>
5	Evaluation and Follow-up	<ul style="list-style-type: none"> <li>• Field visit and technical support</li> </ul>	<ul style="list-style-type: none"> <li>• Networking</li> </ul>



		<ul style="list-style-type: none"> <li>• Counseling and guidance</li> <li>• Institutional linkages</li> </ul>	<ul style="list-style-type: none"> <li>• Scaling up</li> <li>• Increased production and marketing</li> </ul>
--	--	---	--

## INTERVENTIONS

**TABLE: 10. THE CRITICAL GAPS , CONSTRAINTS AND IDENTIFIED INTERVENTIONS**

Sl. No.	Production Systems	Critical Gaps	Constraints	Interventions Undertaken
<b>I</b>	<b>Crop</b>			
		<ul style="list-style-type: none"> <li>• Rainfed farming dominated by the intercropping system of Redgram and Sorghum</li> <li>• Productivity levels are 7.5 qtl (Redgram) and 5 qtl (Sorghum) per ha.</li> <li>• Cropping intensity is 111 %</li> <li>• Poor soil, water and nutrient management practices.</li> <li>• Large tracts of waste land</li> </ul>	Lack of knowledge about alternate income generating activities	<p>Established 240 Integrated Farming System Models by introducing income generating activities viz. Backyard poultry, Vermicompost production, Increase in milk yield by feeding Azolla</p> <p>Introduced new innovation technology with improved crop variety Redgram (BSMR 736) transplanting/dibbling technology under NAIP</p>
		<ul style="list-style-type: none"> <li>• Poor quality of seeds</li> </ul>	Usage of Poor quality of seeds used for sowing and Lack of knowledge about improved crop varieties	By developing synergy with other projects at KVK, Bidar introduced improved crop variety like Soyabean JS-335 and Bengalgaram.JG-11 Training and exposure visits were organized
<b>II</b>	<b>Food Processing</b>			
		<ul style="list-style-type: none"> <li>• Processing of pulses is done in large</li> </ul>	Processing of pulses is done in large	<ul style="list-style-type: none"> <li>• Introduced mini dal mill, chilli pounding,</li> </ul>

		<p>capacity units in towns by traders</p> <ul style="list-style-type: none"> <li>• Micro Processing units on commercial basis have not been established</li> <li>• Lack of awareness and skills about processing and value addition.</li> <li>• No value addition to the food grains, milk / vegetables produced</li> <li>• Lack of skills to provide best services.</li> </ul>	<p>capacity units in towns by traders, Micro Processing units on commercial basis have not been established, Lack of awareness and skills about processing and value addition. No value addition to the food grains, milk / vegetables produced, Lack of skills to provide best services.</p>	<p>flour mill and vermicelli machine to 24 villages and papad cum Roti making machine to 20 food processing groups.</p>
			<p>Poor health condition, Lack of knowledge about nutritious diet and consumption pattern</p>	<ul style="list-style-type: none"> <li>• Established 177 kitchen gardens at 24 NAIP villages. Due to this food consumption habits among - 20% people of the project area.</li> <li>• Conducted improved programmes on consumption of soybean in daily diet. Consumption of soybean in daily diet increased upto 32%</li> </ul>
<b>III</b>	<b>Off farm activity</b>			
		<p>No continuous employment opportunities</p> <ul style="list-style-type: none"> <li>• Low wage rate</li> <li>• Seasonal migration</li> <li>• Wide gap between rich and poor</li> <li>• Low intake of nutritious and balanced food</li> <li>• Poor health condition</li> </ul>	<p>No continuous employment opportunity, migration to nearby city/states</p>	<ul style="list-style-type: none"> <li>• Introduced multicrop thresher and Power sprayer (1 unit each to 24 groups).</li> </ul>

## 5.1 INTEGRATED FARMING SYSTEM

Integrated Farming System is a commonly and broadly term used term to explain a more integrated approach to farming system as compared to existing monoculture approach. Integrated Farming system seems to be the best possible solution to the continuous increase of demand for food production, stability of income and improvement of nutrition for the small and marginal farmers with limited resources. Besides this there is tremendous scope for enhancing biomass production which acts as environmental safeguard along with good income generation. Hence, based on the baseline data following key interventions were introduced .

### Key interventions:

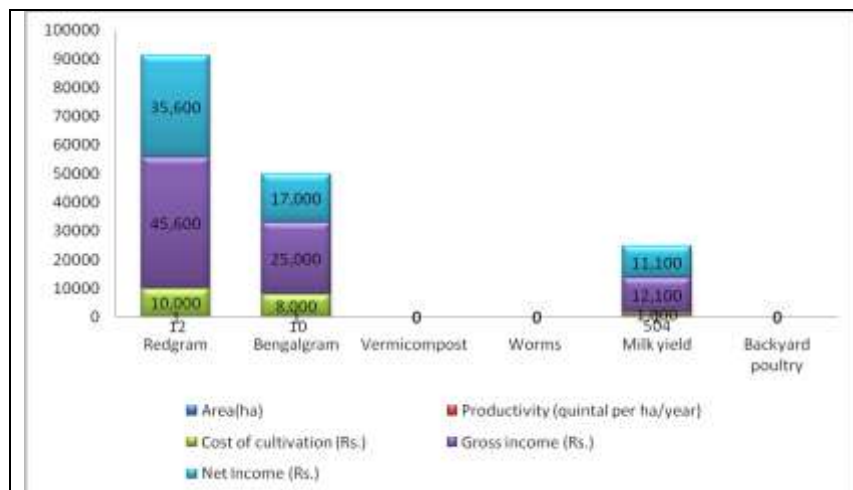
- Improved crop variety
  - Redgram (BSMR-736) transplanting/dibbling technology
  - Bengalgram JG-11
- Vermicompost production (Net area covered-216 ha)
- Backyard poultry with Giriraja birds
- Azolla Production
- Use of improved agricultural equipments
- Plantation crops

The integration of redgram and bengalgram crop with vermicomposting, azolla cultivation and poultry resulted in higher productivity than the adoption of conventional redgram crop alone. These results are in support of the studies conducted by Ravishnkar *et.al* (2007 ) and Jayanth *et.al* (2003). IFS involving backyard poultry, fishery and goaterly was highly productive and profitable as reported by Channabasavanna *et.al* (2009).

**Table: 11. Productivity and profitability of different components under IFS (Traditional)**

Sl. No	Particulars	Area	Productivity (per year)	Cost of cultivation (Rs.)	Gross income (Rs.)	Net Income (Rs.)	C:B ratio
1	Redgram	1.0 ha	12 qt/ ha	10,000	45,600	35,600	1:4.5
2	Bengalgram	1.0 ha	10 qt/ha	8,000	25,000	17,000	1:3.1
3	Vermicompost	-	-	-	-	-	-
4	Worms	-	-	-	-	-	-
5	Milk yield	1 cow/buffalo	504 litres	1,000	12,100	11,100	1:12
6	Backyard poultry	-	-	-	-	-	-
<b>Total</b>				<b>19,000</b>	<b>82,700</b>	<b>63,700</b>	<b>-</b>

(Redgram market rate Rs.3,800/qt. Bengalgram- Rs.2,500/qt)

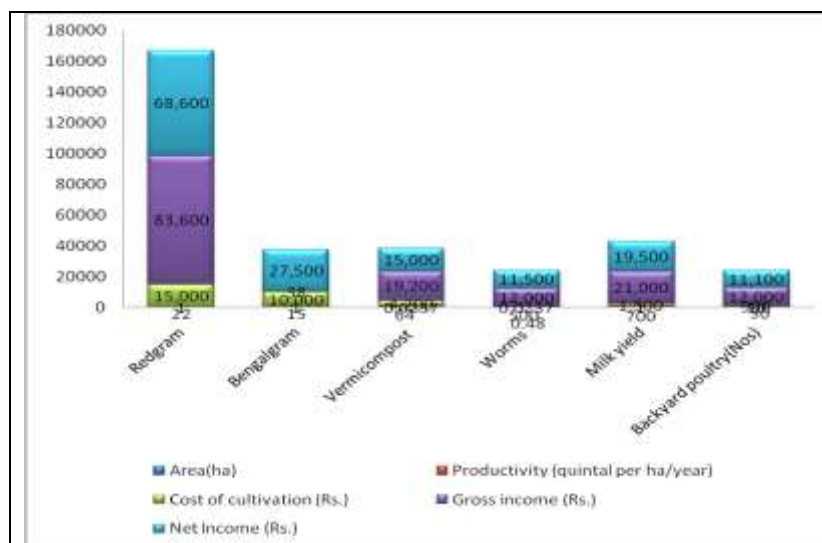


**Fig6:Productivity and profitability of different components under IFS (Traditional)**

**Table: 11a. Productivity and profitability of different components under IFS (Improved)**

Sl. No.	Particulars	Area	Productivity (per ha/year)	Cost of cultivation (Rs.)	Gross income (Rs.)	Net Income (Rs.)	C:B ratio
1	Redgram	1.0 ha	22 qt/ ha	15,000	83,600	68,600	1:5.5
2	Bengalgram	1.0 ha	15 qt/ha	10,000	37,500	27,500	1:3.7
3	Vermicompost	12X4 X 2	64 qt	4,200	19,200	15,000	1:4.5
4	Worms	12X4 X 2	48 Kg	500	12,000	11,500	1:24
5	Milk yield(after feeding azolla)	1 cow/buffalo	700 litres	1,500	21,000	19,500	1:14
6	Backyard poultry	10 (Giriraja birds)	30 Nos	900	12,000	11,100	1:13
<b>Total</b>				<b>32,100</b>	<b>1,85,300</b>	<b>1,53,200</b>	<b>-</b>

(Redgram market rate Rs.3,800/qt. Bengalgram- Rs.2,500/qt)



**Fig-6a, Productivity and profitability of different components under IFS (Improved)**

**Results of Table-11 and Table-11a** showed that, among crops under integrated farming system redgram (22qt/ha) and Bengalgram (15qt/ha) yielded higher as compared to farmers practice (12qt/ha and 10qt/ha, respectively). Among the other components in integrated farming system, preparation of vermicompost resulted in yield of 641/2pits/year . The milk yield also increased from 504 lit/year (farmers practice) to 700 l./year (Feeding azolla). Maintenance of backyard poultry resulted in economic gain of Rs. 12,000/year in integrated farming system.

These results (Table 11a) also revealed that among the various components demonstrated , production of worms for vermicompost recorded highest BCR (1:24) followed by increase in milk yield due to feeding azolla (1:14). This was followed by backyard poultry (Giriraja Chicks) (1:13), redgram (1:5.5), vermicompost production (1:4.5) and Bengal gram. .

Hence, the net profit from farmers practice was Rs.63,700/- per year/HH (Table 12) and from integrated farming system was Rs.1,53,200/-per year (Table 12a). These results are in support to the studies conducted by Channabasavanna *et al.* (2009).

Thus, it can be concluded that integrated farming system with maintaining backyard poultry, production of vermicompost, azolla cultivation along with improved crop variety was productive and profitable. It can be advocated for small and marginal farmers.





## **5.2 SMALL SCALE FOOD PROCESSING UNITS**

Processing of food commodities is an essential step in value addition. Rural man is using traditional methods of processing which oftenly time and labour intensive. The processing of the food commodities at village level will not only check post harvest losses but also provide additional employment along with livelihood improvement to local population.

In project area numbers of primary and secondary value addition opportunities were identified during the PRA and subsequent interactions with farmers group. As per baseline data indicated value addition and processing activities at local level was not there.

Hence, in this project primary processing and value addition intervention was made by establishing 24 small scale food processing units with following equipments.

### **Number of groups for food processing-24(Women groups)**

-  Mini Dal Mill
-  Chilli Pounding Machine
-  Vermicelli Machine
-  Flour Mill

- ✚ Papad/Roti machine and
- ✚ Electronic Weighing Machine

Training programme on entrepreneurship development (EDP), skill upgradation, workshops, buyer seller meet and exposure visits to small scale food processing units were conducted for capacity building of the participants.

**Table: 12. Economics details of small scale food processing units**

Sl. No	Particulars	Average Income (Rs.)/group/month(During Season)			
		2010-2011	2011-2012	2012-13	2013-14
1	Dal processing (Tur+Bengalgram+Balckgram+Green gram+Soybean)	-	30,000	30,500	30,100
2	Chilli pounding	10,500	9,600	11,600	11,800
3	Flour mill	7,000	4,800	5,500	6,100
4	Vermicelli machine	8,170	8,640	9,000	9,100
5	Papad /Roti Machine	--	--	--	2,000
	<b>Average Total Income(Rs.)</b>	<b>25,670</b>	<b>53,040</b>	<b>56,600</b>	<b>59,100</b>
	<b>Average Expenditure(Rs.)</b>	<b>14,478</b>	<b>20,400</b>	<b>21,700</b>	<b>23,300</b>
	<b>Average Net profit(Rs.)</b>	<b>11,192</b>	<b>32,640</b>	<b>34,900</b>	<b>35,800</b>



**Fig -7, Economics details of small scale Food processing units**

Results of table-12 and fig-7 revealed that during first year of unit establishment (2010-11) chilli pounding, flour mill and vermicelli preparation has generated an average monthly income of Rs.10,500, Rs.7,000, Rs.8,170 respectively with an average total expenditure of Rs.14,478 and average net income of Rs.11,192 during season. During second year (2011-12), activity of Dal Processing (Tur, Bengalgram, Soybean, Blackgram, Greengram) added an

additional income of Rs.30,000 along with Chilli pounding (Rs.9,600), flour mill(Rs.4,800) and vermicelli preparation (Rs.8,640), thus average net profit during second year increased to Rs.32,640. Similarly during 2012-13 the average net profit of small scale food processing unit increased to Rs.34, 900.

The small scale food processing units were supported with one papad/Roti machine for the year 2012-13 and papad making led to average incremental income of Rs.2,000/month, hence average net profit of the food processing group increased to Rs.35,800/month/group during season for the year 2013-14.

Besides this economic gain, processing activity has generated an employment opportunity of 160.180,195 and 205 man-days for the year 2010-11, 2011-12, 2012-13 and 2013-14 respectively for 240 members of the group. Establishment of small scale food processing units made local people of project area to avail facility of dal processing, chilli pounding, vermicelli, flour and papad making at local level easily and this inturn saved travelling expenses.

Before initiating this processing enterprise each member of the group worked as agricultural labourers for their livelihood security during crop seasons. These results support to the studies conducted by Kacharu *et.al* (1998) and K.P.Singh *et.al* (2007).

This intervention not only created facility of easy accessibility of processing at local level but also helped in improving livelihood security of the rural women along with making them financially independent entrepreneurs.

### 5.3 OFF FARM ACTIVITY

Off farm activity was carried out with need based agriculture machines like multicrop thresher and power sprayer to 24 off farm groups consisting of 240 members(other than agriculture labour) in 24 villages of project area .The following table summarizes the economics of off farm activity as group of enterprises.

**Table: 13. Economic details of off farm unit**

S.No	Particulars	Average Income (Rs.)/group/month (During season)			
		2010-2011	2011-2012	2012-13	2013-14
1	Thresher	30,500	30,500	32,800	33,000
2	Power Sprayer	-	13,500	14,100	14,300
	<b>Total Income(Rs.)</b>	<b>30,500</b>	<b>44,000</b>	<b>46,900</b>	<b>47,300</b>
	<b>Expenditure(Rs.)</b>	<b>9,800</b>	<b>14,300</b>	<b>15,000</b>	<b>15,250</b>

	<b>Net profit(Rs.)</b>	<b>20,700</b>	<b>29,700</b>	<b>31,900</b>	<b>32,050</b>
--	------------------------	---------------	---------------	---------------	---------------



**Fig- 8, Economic gain by off farm activities unit**

Above The above table shows that threshing as an off farm activity has generated an average gross income of Rs. 30,500/-,30,500/-,32,800/- and 33,00/- during 2010-11,2011-12,2012-13 and 2013-14 respectively. Giving power sprayer to other farmers on hire basis has generated an average gross income of Rs. 13,500/-,14,100/- and 14,300 per month/group during 2011-12,2012-13 and 2013-14 respectively. . Thus, an average monthly net income from thresher and power sprayer together constituted an amount of Rs.20,700/-,29,700/-,31,900/- and 32.050/- during 2010-11, 2011-12, 2012-13 and 2013-14 respectively. .

The above findings reveal that off farm activity which generated an average net profit of about 32.20 per cent/month/group during seasons and it provided employment opportunity of 180 man days/year to 240 members. It also reduced 25 % migration of the people.



**Threshing as an off farm activity at Umapur and Ghotala villages of Basavakalyan taluka**





## ABBREVIATIONS

<b>Abbreviation</b>	<b>Expansion of Abbreviation</b>
AI	Artificial Insemination
BQ	Black Quarter
CBOs	Community Based Organizations
CB	Cross Breed
EDP	Entrepreneurship Development Programme
ET	Entero Toxemia
FMD	Foot & Mouth Disease
HS	Hemorrhagic Septisemia
IAH&VB	Institution of Animal Health & Veterinary Biological
IFS	Integrated Farming System
IGFRI	Indian Grassland & Fodder Research Institute
KVAFSU	Karnataka Veterinary Animal and Fisheries Sciences University
KVK	Krishi Vigyan Kendra
KMF	Karnataka Milk Federation
NARI	Nimbkar Agriculture Research Institute
NIANP	National Institute of Animal Nutrition and Physiology
ORBIT	Organisation for Bidar Integral Transformation
PPR	Peste Des Petits Ruminants
SCP	Special Component Programme
SEP	Special Economic Group Programme
UII	United India Insurance
UMMB	Urea Molases Mineral Block
UAS	University of Agricultural Sciences
VLCC	Village Level Coordination Committee
VMPCs	Village Milk Producers Cooperative Society

## APPENDIX-II

### 19. Assets Generated

#### (i) Equipment

S. No.	Name of the equipment with manufacturers name, model and Sr. No.	Year of purchase	Quantity (Nos.)	Total cost (Rs.)	Responsible consortium
<b>ON CAMPUS</b>					
<b>UAS, Raichur</b>					
<b>Equipment Head</b>					
1	Xerox machine (Toshiba e-studio,206,Arpita telecom and computer service,Hubli)	2008-09	1	64,818	UAS, Raichur (CL)
2	Laser multifunction device(Samsung MFP-4200/4300, Navaneet systems, Hubli)	2008-09	1	9,380	UAS, Raichur (CL)
3	Computer (HP-2480, Batch S1NA9090CSP) + printer+scanner (Navaneet systems, Hubli)	2008-09	1	33,217	UAS, Raichur (CL)
4	UPS battery(1KVA dry battery with 24VDC System along with 12V Exide make battery, Temark #17-18,II flour, Maruti complex, Bagur, Dharwad	2008-09	1	15,700	UAS, Raichur (CL)
5	Laptop(HP-6730 Batch 1NA9040JVB),Navaneet systems, Hubli)	2008-09	1	52,500	UAS, Raichur (CL)
6	LCD projector(Hitachi multimedia projector-CPRX-70, Arpita telecom and computer service,Hubli)	2008-09	1	48,422	UAS, Raichur (CL)
7	Electric mixer grinder (Usha brand, B.L. Sindol, Bidar )	2009-10	1	2,900	UAS, Raichur (CL)
8	Video camera(Sony Digital video camera, Model-DCR-SX44E, B.L. Sindol, Bidar)	2009-10	1	17,000	UAS, Raichur (CL)
9	Digital camera (Sony digital still camera, DSC-W320, B.L. Sindol, Bidar)	2009-10	2	27,000	UAS, Raichur (CL)
10	Refrigerator(Godrej double door 240 unit, B.L.Sindol, Bidar)	2009-10	1	16,500	UAS, Raichur (CL)
11	Microwave oven(LG microwave woven, B.L.Sindol, Bidar)	2009-10	1	7,600	UAS, Raichur (CL)
12	Prestige cooker (B.L. Sindol, Bidar)	2009-10	1	1,250	UAS, Raichur (CL)
13	Grader and polisher (1HPand3HP electric motor, Shriram Associates works plot No-J-27/28,Akola)	2012-13	1	79,000	UAS, Raichur (CL)

<b>Grand Total</b>				<b>3,75,287</b>	
<b>ORC Head</b>					
14	Papad machine (Kaka trading ,Bidar)	2009-10	1	17,000	UAS, Raichur (CL)
15	Mini dal processing (Kaka trading co., Bidar)	2009-10	1	90,000	UAS, Raichur (CL)
16	Counter scale 10 kg 5 kg C.I weight 2 kg C.I weight 2 kg to 50 gms C.I weight Measurement tape 30 mtrs Measurement tape 30 mtrs (sagar scale centre,Bidar)	2009-10	1	2,150	UAS, Raichur (CL)
			1	475	
			1	210	
			1 set	360	
			2	900	
			2	600	
			Total (Rs)	4,695	
17	Godrej Split Air Conditioner with stabilizer and installation ( B.L.Sindol, Bidar)	2009-10	2	55,000	UAS, Raichur (CL)
18	12V 6EL Fxide Tubular Batteries (Techer Power Solutions Pvt.ltd, Bangalore)	2009-10	2	11,900	UAS, Raichur (CL)
19	Usha Air Cooler (Model-Super Breeze) (Vijay Electronics ,Bidar)	2009-10	5	34,500	UAS, Raichur (CL)
20	Usha Air Cooler (Model-Atlantic) with V-Gourd Stabilizer (Vijay Electronics ,Bidar)	2009-10	4	21,689	UAS, Raichur (CL)
21	500 Vt Inverter with 2-3 hr Backup Time (Suman Services, Bidar)	2009-10	1	13,500	UAS, Raichur (CL)
22	SS Hot Pan (10,000) SS Hot Pan (10,000) SS Hot Pan (10,000) SS Hot Pan (10,000) Thermos 750ml (Suvarna General Stores,Bidar)	2009-10	1	2,950	UAS, Raichur (CL)
			2	2,700	
			2	1,016	
			1	650	
			2	770	
23	Ahuja PSX1200 Amplifier with Speaker Ahuja ASM 580XLR mic Ahuja Amplifier SSA-250M Ahuja Speaker SRX250DX Ahuja Cordless mic AWM 490 ½ (Reshma Enterprises ,Bidar)	2010-11	1	11,532	UAS, Raichur (CL)
			3	4,998	
			1	12,745	
			2	15,012	
			1	2,669	

24	Nilkamal H.B Modern Chairs (Reshma Enterprises ,Bidar)	2010-11	50 pic	21,253	UAS, Raichur (CL)
25	Steel Display Board of Size 4X2 ½ ft of 22 kg (each board)  Steel Display Board of Size 3X2 ft of 18 kg (each board)  Steel Display Board of Size 18X12 of 8 kg (each board) (Rahul Enterprises ,Bidar)	2010-11	10	14,300	UAS, Raichur (CL)
			10	11,700	
			4	2,080	
			Total (Rs)	28,080	
26	Godrej Display Stand (Mudgal Bhimasenappa and Bros, Bidar)	2010-11	3	23,550	UAS, Raichur (CL)
27	PVC Water Tank 1000ltr (Hassan Enterprises, Bidar)	2010-11	2	12,485	UAS, Raichur (CL)
28	12V, 40Ah, Fixed Tubular Battery (Techer Power Solutions Pvt.ltd, Bangalore)	2011-12	8	50,000	UAS, Raichur (CL)
29	HP LaserJet Colour Printer 1525n (ORTHOS Technology ,Bidar)	2011-12	1	20,905	UAS, Raichur (CL)
30	Instant Display Kit (Folding Type-3ftX2ft)(pop-up) Poster Peg make-Habims for Poster Size-6'(H)X3'(W) Key Board make-Habims Size-2ftX1ft (Yenagi Technology, Hubli)	2011-12	1	8,600	UAS, Raichur (CL)
			4	17,000	
			1	3,850	
			Vat%	4,123	
Total (Rs)	33,573				
31	Instant Display Kit (Scroll-up) Size-6ftX3ft (Yenagi Technology ,Hubli)	2011-12	1	9,400	UAS, Raichur (CL)
32	Name Display system (for 16 names) 62mm(W)and1mt(H) (Yenagi Technology, Hubli)	2011-12	1	14,592	UAS, Raichur (CL)
33	Fixograph Board with standard set of make-hakims size-4ftX3ft (Yenagi Technology, Hubli)	2011-12	1	7,923	UAS, Raichur (CL)
34	Solar Inverter Battery Exide 100Ah (Adi Enterprises ,Bidar)	2013-14	1	8,440	UAS, Raichur (CL)
			1	8,588	
			Total (Rs)	17,028	

35	150 Kg Alata Electronic Scale Plotform Size(450X550) (M/S Classic Weigh Systems, Zaheerabad)	2012-13	1	9,975	UAS, Raichur (CL)
36	1.2'' Rawa machine with blower (Electrical model, Star Associated Industries, Belgum)	2012-13	1	29,012	UAS, Raichur (CL)
37	Juice Sugarcane Machine with Built in Waste Bin Model SG-1 (Popular Steel Industries ,Mohali,Punjab)	2013-14	1	93,324	UAS, Raichur (CL)
<b>Grand Total</b>				<b>4,35,637</b>	
<b>KVAFSU, Bidar</b>					
1	Computer+ printer +scanner	2008-09	1	45,000	KVAFSU, Bidar (CP1)
2	UPS and battery	2008-09	1	14,300	KVAFSU, Bidar (CP1)
3	DVD player	2008-09	1	3,850	KVAFSU, Bidar (CP1)
4	Refrigerator	2008-09	1	14,875	KVAFSU, Bidar (CP1)
5	Petromax	2008-09	4	3,200	KVAFSU, Bidar (CP1)
6	Milk products preparation utensil/mission	2008-09	1	88,444	KVAFSU, Bidar (CP1)
8	Microoven	2008-09	1	14,455	KVAFSU, Bidar (CP1)
9	Camera	2009-10	1	14,950	KVAFSU, Bidar (CP1)
<b>Grand Total</b>				<b>199,074</b>	
<b>ORBIT, Bidar</b>					
1	Computer	2008-09	1	35,621	ORBIT (CPI 2)
2	UPS and Printer	2008-09	1	24,379	ORBIT (CPI 2)
3	Camera	2008-09	1	15,000	ORBIT (CPI 2)
<b>Grand Total</b>				<b>75,000</b>	

**OFF CAMPUS****KVK, Bidar****Equipment Head**

1	Spiral Separator Hand Operated (Krishi Darshan Traders ,Indore)	2013-14	13	80,600	UAS, Raichur (CL)
2	Katkar Make 16 Flour Mill with 5HP Motor M/S Sidhanth Irrigation and engg, Bidar	2013-14	10	4,28,000	UAS, Raichur (CL)
3	Duck foot Type 7tyres Heavy duty Cultivator. (Kaka trading co., Bidar)	2013-14	1 set	32,000	UAS, Raichur (CL)
4	Chilly pounding machine (2 bore fitted with XLO/Suguna 2HP Electric Motor ) (Kaka trading co., Bidar)	2013-14	3 set	1,20,000	UAS, Raichur (CL)
5	National Make 9 Tyres Zero Till Drill with Multi Crop Sowing Sections.(Kaka trading co., Bidar)	2013-14	1	55,000	UAS, Raichur (CL)
6	Mahindra Rotovater 5 feet (B.L.Sindol, Bidar)	2013-14	1	83,000	UAS, Raichur (CL)
7	Blade Harrow (Sanjana Enterprises ,Bidar)	2013-14	1	17,800	UAS, Raichur (CL)
8	Mahindra Post /Tale Driller (B.L.Sindol, Bidar)	2013-14	1	99,000	UAS, Raichur (CL)
9	Khalsa Make 2 Row Sugarcane Planter Fitted With Soiland Seed Treatment Facility (Kaka trading co., Bidar)	2013-14	1	1,50,000	UAS, Raichur (CL)
10	Terracer Blade (Leveller) (Sanjana Enterprises ,Bidar)	2013-14	1	22,800	UAS, Raichur (CL)
11	Three Furrow Ridger (Sanjana Enterprises ,Bidar)	2013-14	1	29,200	UAS, Raichur (CL)
12	MC 25HP Prakash Make MCT Tractor Model (Regal Agencies ,Bidar)	2013-14	1	1,43,000	UAS, Raichur (CL)
13	HTP Sprays With 5HP Diesel Engine (Regal Agencies ,Bidar)	2013-14	1	32,000	UAS, Raichur (CL)
14	M.B Plough 35-50HP(Two Bottom Reverside) (Regal Agencies ,Bidar)	2013-14	1	60,000	UAS, Raichur (CL)
15	Mahindra and Mahindra (Arjun-555DI) 49.5HP with Hitch and Hood (M/S Shree Basava Motors ,Sindhanur, Dt//Raichur)	2013-14	1	7,32,000	UAS, Raichur (CL)
<b>Grand Total</b>				<b>20,84,400</b>	

<b>ORC Head</b>					
17	10 HP mounting crop thresher (MCT) (Prashant traders, Bidar)	2009-10 2010-11 2012-13	8 16 1 set	4,16,000 8,32,000 54,687	UAS, Raichur (CL)
			Total(Rs)	13,02,687	
18	Vermicelli machine (Kaka trading co., Bidar)	2009-10 2010-11	12 12	2,22,000 2,22,000	UAS, Raichur (CL)
			Total(Rs)	4,44,000	
19	Chilli pounding machine (Kaka trading co., Bidar)	2009-10 2010-11	12 12	2,10,000 2,10,000	UAS, Raichur (CL)
			Total(Rs)	4,20,000	
20	Commercial flour mill (Kaka trading co., Bidar)	2009-10 2010-11	12 12	2,04,000 2,04,000	UAS, Raichur (CL)
			Total(Rs)	4,08,000	
21	Mini dal processing (Kaka trading co., Bidar)	2009-10 2010-11	12 12	5,40,000 5,40,000	UAS, Raichur (CL)
			Total(Rs)	10,80,000	
22	Iron wheel type carting attachment (Prashant traders ,Bidar)	2009-10 2010-11	8 16	1,28,000 2,56,000	UAS, Raichur (CL)
			Total(Rs)	3,84,000	
23	Harvesting sickle (Dev agri tools Pvt.Ltd, Bangalore)	2009-10	480	21,600	UAS, Raichur (CL)
25	Cycle weeder (Shri Digambaraeshwar Agri Spare Parts Sales ,Bijapur )	2009-10	240	2,16,000	UAS, Raichur (CL)
27	Nandi Brand Self Sharpening Toothed Harvesting Sickle (Dev Agro Tools Pvt.ltd ,Bangalore)	2009-10	480	21,600	UAS, Raichur (CL)
28	Weighing Machine (150 kg) J.J.E electronic and scale class-III (sagar scale centre, Bidar)	2009-10	12	1,14,000	UAS, Raichur (CL)
	Electric Weighing Scale (plater size 450X450mm, Accuracy 10gm, Display LED Red) (Perfect Electronics Weighing Equipments, Bidar)	2011-12	12	1,19,700	
			Total(Rs)	2,37,700	



29	Sugarcane Bud Chipper (M/S Sidhanth Irrigation and engg, Bidar)	2010-11	4	4,600	UAS, Raichur (CL)
30	Padgilwar Power Petrol Sprayer (M/S Sidhanth Irrigation and engg, Bidar)_	2010-11	24	1,34,400	UAS, Raichur (CL)
31	HDPE Vermibed (Prakash Tarpaulin Stores, Kolhapur)	2010-11	240	2,40,000	UAS, Raichur (CL)
			Total(Rs)		
57	Coragen (Mahanandeshwar Fertilizers , Bidar)	2012-13	60ml/150pic	1,17,300	UAS, Raichur (CL)
58	Lonimake 18 Flour Mill For 7.5 HP Motor (M/S Sidhanth Irrigation and engg, Bidar)	2012-13	1	33,778	UAS, Raichur (CL)
59	Papad Making Machine 0.25 HP (M/S Sidhanth Irrigation and engg, Bidar)	2012-13	20	4,97,390	UAS, Raichur (CL)
60	Water Soluble (18-18-18) (APMC ,Bidar)	2012-13	40Kg/4bags	10,754	UAS, Raichur (CL)
61	Spiral Separator Hand Operated (Krishi Darshan Traders ,Indore)	2013-14	12	74,400	UAS, Raichur (CL)
<b>Grand Total</b>				<b>78,53,911</b>	
<b>KVAFSU, Bidar</b>					
1	AI centers at cluster level	2009-10	4	5,00,000	KVAFSU, Bidar(CP1)
2	Bulk coolers	2010-11	8	5,51,200	KVAFSU, Bidar(CP1)
3	Mangers for goats	2008-09 and 2010-11	240	2,04,000	KVAFSU, Bidar(CP1)
4	Trevis	2009-10 and 2010-11	24	2,49,750	KVAFSU, Bidar(CP1)
5	Chaff cutters	2009-10 and 2010-11	240	17,40,000	KVAFSU, Bidar(CP1)
6	First aid kit	2010-11	24	24,000	KVAFSU, Bidar(CP1)
7	Cryocans	2010-11	12	3,21,197	KVAFSU, Bidar(CP1)
<b>Grand Total</b>				<b>3,590,147</b>	

**APPENDIX-II**

**ii) Furniture**

S. No.	Name of the equipment with manufacturers name, model and Sr. No.	Year of purchase	Quantity (Nos.)	Total cost (Rs.)	Responsible consortium
<b>KVK, Bidar</b>					
1	Assistant Tables, Computer Table and Chair (Global solutions ,Bangalore)	2008-09	4+1 = 5	27,744	UAS, Raichur (CL)
2	Revolving Chair/Combat M/B Chair, S- type Chairs (Ergomax Ind,Pvt.Ltd, Chennai)	2008-09	1,4	8,600	UAS, Raichur (CL)
3	Almari Cupboard 6/2 with 5 compartments (Ergomax Ind,Pvt.Ltd, Chennai)	2008-09	3	30,000	UAS, Raichur (CL)
4	Superintendent Table T-9 (Global solutions ,Bangalore)	2008-09	1	8,593	UAS, Raichur (CL)
<b>Total</b>				<b>74,937</b>	
<b>ORC Head</b>					
5	Tea table (surya)T-C 105, sofaset C-119, (Bidar plywood, glasses and hardware, Bidar)	2011-12	1 set	32,490	UAS, Raichur (CL)
<b>KVAFSU, Bidar</b>					
1	Venkteshwara Furnitures Ambedakar .Circle Bidar Almara 18x36x65 Centre Lock 18 gage	2008-09	2	13600/-	KVAFSU, Bidar
2	Office Table	2008-09	1	6800/-	KVAFSU, Bidar
3	Almera 16x32x5.5 18 gage	2008-09	1	5800/-	KVAFSU, Bidar
4	Office Table 2x4 Cental Side 3 Drwver 3500x3	2008-09	3	10500/-	KVAFSU, Bidar
5	Office Table 3x5	2008-09	1	6500/-	KVAFSU, Bidar
6	Office Chair	2008-09	8	13200/-	KVAFSU, Bidar
7	Book Self Glass 4 Tire With window	2008-09	2	12000/-	KVAFSU, Bidar
8	File Cabinet	2008-09	1	4000/-	KVAFSU, Bidar
				Vat 12.5%	73800/-
<b>Total</b>				<b>1,46,200/-</b>	