मूल्यांकन अध्ययन श्रृंखला : आन्ध्र प्रदेश क्षे.का.सं.12
Evaluation Study Series : Andhra Pradesh RO No.12

आन्ध्र प्रदेश में ग्रामीण कृषीतर क्षेत्र निवेशों पर एक कार्योत्तर मूल्यांकन अध्ययन

An Ex - Post Evaluation Study on Rural Non-Farm Sector Investments in Andhra Pradesh

राष्ट्रीय कृषि और ग्रामीण विकास बैंक
आन्ध्र प्रदेश क्षेत्रीय कार्यालय, हैदराबाद

NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT
ANDHRA PRADESH REGIONAL OFFICE, HYDERABAD

2005

CONTENTS

प्राक्कथन

कृषि कार्य वर्ष भर निरंतर रूप से रोज़गार उपलब्ध नहीं करवाते हैं। तथापि, ग्रामीण कृषीतर क्षेत्र (आर.एन.एफ्.एस.) न केवल अधिक मज़दूरों को रोजगार उपलब्ध करवाता है बल्कि उसमें कृषि और कृषीतर गतिविधियों के समुचित मिश्रण से मौसमी और प्रच्छन्न बेरोज़गारी को दूर करने की अधिक संभावना भी विद्यमान रहती है। यही नहीं कई अध्ययनों से यह पता चला है कि आर.एन.एफ.एस. में पहले से उपलब्ध कार्य बल को देश के विकास के लिए उत्पादकतापूर्ण रूप से उपयोग करने की भी संभावना विद्यमान है, यह क्षेत्र ग्रामीण क्षेत्रों में रह रहे परिवारों को अधिक आय और गरीबी कम करने में सहायता प्रदान करता है। इस तथ्य को दृष्टि में रखते हुए राष्ट्रीय बैंक ने आर.एन.एफ.एस के विकास के लिए 1985-86 से ही पुनर्वित्त प्रदान करना प्रारंभ कर दिया था। इस क्षेत्र के प्रति अपनी नीति में सुधार करने के लिए राष्ट्रीय बैंक समय-समय पर विभिन्न मूल्यांकन अध्ययनों का आयोजन करता रहता है। वर्तमान अध्ययन आन्ध्र प्रदेश की ग्रामीण अर्थव्यवस्था में आर.एन.एफ.एस. के योगदान का मूल्यांकन करने के लिए किया गया एक ऐसा ही अध्ययन है।

इस अध्ययन में तीन गतिविधियों यथा फैशन टेक्नॉलोजी, कॉयर की रस्सी के निर्माण और कॉयर की रस्सी से तैयार की जाने वाली चटाइयों की 101 इकाइयों को शामिल किया गया है। इन इकाइयों का वित्तपोषण आन्ध्रा बैंक, भारतीय स्टेट बैंक और आन्ध्र प्रदेश के पूर्वी गोदावरी जिले में स्थित क्षेत्रीय ग्रामीण बैंक की शाखाओं ने किया है। इस अध्ययन में ऋण की पर्याप्तता, ऋण देने की प्रक्रिया, लागत और लाभ, इकाइयों के नकद प्रवाह, रोज़गार सृजन की संभावना, ऋण चुकौती, संयोजन और इनकी भावी वृद्धि की सीमाओं आदि जैसे विशिष्ट पहलुओं को शामिल किया गया है।

इस अध्ययन में यह पाया गया कि ड्वाक्रा (DWCRA) समूह के सदस्यों को लक्ष्य में रखकर तैयार की गई फैशन टेक्नॉलोजी योजना से प्रति माह 1500 से 1800 रूपये और वर्ष में लगभग 19,800 रूपये लाभ आर्जित किया गया। तथापि इन इकाइयों को बिजली की कमी, नियमित आधार पर अपर्याप्त ऑर्डर, पूरे किए गए कार्य के पारिश्रमिक के भुगतान में देरी और अपर्याप्त प्रशिक्षण आदि जैसी समस्याओं का सामना करना पड़ा है। कॉयर की चटाइयों के निर्माण में संलग्न उधारकर्ताओं ने प्रतिवर्ष 21,600 रूपये निवल औसत लाभ आर्जित किया। इस गतिविधि की वार्षिक निवल वृद्धिशील आय 7500 रूपये आंकलित की गई है, जो यह दर्शाती है कि उक्त योजना व्यवहार्य है और उसने ग्रामीण महिलाओं की आय और रोज़गार पर सकारात्मक प्रभाव डाला है। अधिकतर गतिविधियों का चुकौती का स्तर बड़ा ही असंतोषजनक रहा है। समग्र रूप में यह 58 प्रतिशत रहा है। इन इकाइयों की चूकों के मुख्य कारण थे : फैशन टेक्नॉलोजी की गतिविधि में अपर्याप्त और अनियमित उत्पादन के आदेशों की प्राप्ति, कॉयरमैट की गतिविधि में निजी व्यापारियों द्वारा समूह के सदस्यों को अलग करना, कॉयररोप के उत्पादन में मशीनों का उपयोग न करना आदि। यह अध्ययन हमें यह बतलाता है कि आर.एन.एफ.एस. के वित्तपोषण के स्वरूप को बेहतर बनाने और ग्रामीण वित्तीय संस्थाओं द्वारा चुकौती-अभियानों में तेज़ी लाने के लिए संगठित प्रयास किए जाने की आवश्यकता है।

मैं आशा करता हूँ कि इस अध्ययन के निष्कर्ष आर.एन.एफ.एस. के विकास से संबंधित प्लानिंग और वित्तपोषण से जुड़े बैंकों, ग्रामीण विकास संस्थाओं और इससे संबंधित विशेषज्ञों के लिए उपयोगी सिद्ध होंगे।

राष्ट्रीय कृषि और ग्रामीण विकास बैंक
आन्ध्र प्रदेश क्षेत्रीय कार्यालय
हैदराबाद

वी. रामकृष्णा राव
मुख्य महाप्रबंधक

15 जून 2005

FOREWORD

Agricultural operations do not provide continuous year-round employment. However, the rural non-farm sector (RNFS) not only absorbs more labour but also has the potential to even out seasonal and disguised unemployment through appropriate mix of farm and non-farm activities. Further several studies reported that RNFS has the potential of engaging the available work force productively for the development of the country which provides additional income to families living in rural areas and help to reduce poverty. Recognising this, the National Bank started extending refinance for the development of RNFS since 1985-86. The National Bank also conducts evaluation studies periodically to refine its policy towards the sector. The present study is one such study conducted to evaluate role of RNFS in the rural economy in Andhra Pradesh.

The present study covered 101 units covering three activities like fashion technology, coir rope making and coir rope mat making investments financed by branches of Andhra Bank, State Bank of India and Regional Rural Bank in East Godavari district of Andhra Pradesh. The study covered specific aspects like adequacy of credit, lending procedures, costs and benefits, cash flow of the units, extent of employment generation, loan recovery, linkages and constraints for future growth, etc.

The study observed that the fashion technology scheme targeted for DWCRA group members generated an income of Rs.1500-1800/month and about Rs.19800 a year. However, these units face problems like, power shortage, insufficient orders on regular basis, delays in receiving the remuneration of the works undertaken and insufficient training, etc. The borrowers engaged in coir mat making reported a net average income of Rs.21,600 per year. The net incremental income for this activity was worked out to Rs.7500 per annum, which showed that the scheme was viable and created a positive impact on the incomes and employment of rural women. The recovery performance of most of the activities was far from satisfactory resulting in the overall recovery performance at 58 per cent. Main reasons for default among units were: insufficient and irregular orders (fashion technology), weaning away of the members from the group by private traders (coir mat), non-utilisation of the machines (coir rope). This calls for concerted efforts to improve the pattern of financing of the RNFS as well as intensifying the recovery drive by the RFIs.

I hope that the findings of the study will be useful to the banks, rural development institutions and academicians concerned with the planning and the financing for the development of the RNFS.

National Bank for Agriculture
and Rural Development
Andhra Pradesh Regional Office
Hyderabad

V. Ramakrishna Rao
Chief General Manager

15 June 2005

CREDIT LIST

Overall Direction and Review

DEPARTMENT OF ECONOMIC ANALYSIS AND RESEARCH
NABARD HO, MUMBAI

General Guidance and Supervision

SHRI. J. R. SARANGAL, CHIEF GENERAL MANAGER,
SHRI. P. RENGANATHAN, GENERAL MANAGER (TECH),
SHRI. S. K. BHATNAGAR, DEPUTY GENERAL MANAGER (TECH)

Analysis of Data, Drafting of Report and Field Study

SHRI. B. V. S. PRASAD, ASSISTANT GENERAL MANAGER
DR. K. J. S. SATYASAI, ASSISTANT GENERAL MANAGER

ABBREVIATIONS

AB	Andhra Bank
AP	Andhra Pradesh
APTRANSCO	Andhra Pradesh Transmission Corporation
ATL	Agricultural Term Loans
CB	Commercial Banks
CL	Crop Loan
DCC	District Consultative Committee
DCCB	District Central Cooperative Bank
DIC	District Industries Centre
DRDA	District Rural Development Agency
DRIP	District Rural Industries Project
DWCRA	Development of Women and Child in Rural Areas
Excl	Excluding
GDP	Gross Domestic Product
GGB	Godavari Gramin Bank
GLC	Ground Level Credit
GOI	Government of India
ha	Hectare
IRR / FRR	Internal / Financial Rate of Return
ISB	Industries, Service Business
Kg	Kilogram
KVIC	Khadi and Village Industries Commission
LDM	Lead District Manager
MACS	Mutually Aided Cooperative Societies
MCA	Master of Computer Applications
Misc	Miscellaneous
mm	Milli metre
MU	Million Units
MW	Mega Watt
NABARD	National Bank for Agriculture and Rural Development
NFS / RNFS	Non-farm Sector / Rural Non-farm Sector
NGO	Non Government Organisation
NH / SH	National Highway / State Highway
NIFT	National Institute of Fashion Technology
NISIET	National Institute for Small Industries Entrepreneurs Training
No	Number
OBC	Other Backward Class
OPS	Other Priority Sector
PMRY	Prime Ministers Rozgar Yojana
QI/ MI / HI	Quarterly /Monthly / Half yearly Interest
REDP	Rural Entrepreneurship Development Programme
RGB	Rayalaseema Gramin Bank
RRB	Regional Rural Bank
Rs.	Rupees
SC / ST	Schedule Caste / Tribe
SGSY	Swarnajayanthi Gram Swarojgar Yojana
SISI	Small Industries Service Institute

SSI	Small Scale Industry
WC	Working Capital
STD	Subscribers Trunk Dialling
UNIDO	United Nations International Development Organisation
UPTECH	Upgradation of Technology
STPI	Software Tech Park of India
MCS	Master of Computer Application

BASIC DATA SHEET

1. Name of the Study : Ex-post Evaluation Study on Rural Non-Farm Sector Investments in Andhra Pradesh

2. District Selected : East Godavari

3. Financing Banks : Andhra Bank, State Bank of India and Regional Rural Bank

4. Reference Year : 2003-04

5. Activities Studied & Sample Size:

Activity	Sample Size
Fashion Technology	27
Coir Rope Weaving	44
Coir Mat Making	30
Total	**101**

6. Sources of Funds (Rs. 000's)

Sources of funds	Coir Mats	Coir rope	Fashion Tech
Avg. invt.	4000	10700	18300
Bank loan	2000	5350	91500
% bank loan to avg. invt.	50	50	50
Margin Money /Subsidy	2000	5350	91500
Other loans	-	-	-
Avg. WC	7000	9300	6700
WC loans	3500	4650	3350
% WC loan to avg. WC	50	50	50
Own funds	-		

7. Mandays Generated (No./years per unit)

Activity	Units	Mandays Generated (per unit)
Fashion Technology	27	220
Coir Mat Making	30	350

8. Net Income Generated (Rs/Year)

Activity	Rs.
Coir Mats	21,600
Coir Rope Weaving	nil
Fashion Technology	19,800

9. Repayment Performance

Activity	% Recovery
Fashion Technology	79
Coir Weaving	89
Coir Mats	70

कार्यकारी सारांश

ग्रामीण क्षेत्र में रोजगार सृजन और गरीबी उन्मूलन के क्षेत्र में ग्रामीण कृषीतर क्षेत्र की अत्यंत महत्वपूर्ण भूमिका है। किंतु यह क्षेत्र कई ऐसी समस्याओं से जूझ रहा है जिनका समाधान आसान नहीं है। इसे दृष्टि में रखते हुए, ग्रामीण अर्थव्यवस्था में ग्रामीण कृषीतर क्षेत्र की भूमिका की समीक्षा के लिए एक विशिष्ट अध्ययन किया गया। इस अध्ययन में ऋण सहायता की पर्याप्तता, ऋण देने की प्रक्रिया, लागत की तुलना में लाभ, इकाइयों के नकदी प्रवाह, रोजगार सृजन की सीमा, ऋण वसूली, संयोजन और इनके भावी विकास की सीमाओं आदि जैसे विशिष्ट पहलुओं का अध्ययन किया गया ताकि उनके संबंध में सुझाव दिए जा सकें।

इस अध्ययन में फैशन टेक्नॉलोजी, कॉयर की रस्सी तैयार करने वाली और कॉयर की रस्सी से तैयार की जाने वाली चटाइयों की 101 इकाइयों को कवर किया गया जिनका वित्तपोषण आंध्र प्रदेश राज्य के पूर्वी गोदावरी ज़िले में स्थित आंध्रा बैंक, भारतीय स्टेट बैंक और क्षेत्रीय ग्रामीण बैंक की शाखाओं द्वारा किया गया था। इस अध्ययन में आंकडों के एकत्र करने और उनके विश्लेषम के लिए मानक तकनीकों का प्रयोग किया गया। अध्ययन की गई अधितकम इकाइयाँ स्वामित्व स्वरूप की थी। जिन उद्यमियों का अध्ययन किया गया, उनमें अधिकतम महिलाएँ थी जो अनपढ़ किंतु युवा थीं। यही नहीं इनमें से लगभग 80 प्रतिशत महिलाएँ पिछडी या अनुसूचित जातियों व जनजातियों की थीं।

फैशन टेक्नॉलोजी स्कीम की संकल्पना 27 हजार से अधिक परिवारों को सहायता प्रदान करने के उद्देश्य से की गई थी और यह ड्वाक्रा महिलाओं को लक्ष्य में रख कर तैयार की गई थी। 12500 रूपये की सब्सिडी सहित प्रति लाभार्थी औसत निवेश 25000 रूपये था। इससे प्रति माह 1500-1800 रूपये (औसत 1650 रूपयो) की आय हुई। इन उद्यमियों को बिजली की कमी, अनियमित / अपर्याप्त आदेशों की प्राप्ति, पारिश्रामिक की प्राप्ति में विलंब, अपर्याप्त प्रशिक्षण आदि जैसी कुछ समस्याओं का सामना करना पडा।

डी आर डी ए ने कॉयर की रस्सी और कॉयर की चटाइयों को तैयार करने की योजना के माध्यम से मशीनीकृत राट्ट पर 2- प्लाई रेशों की कताई, कॉयर की चटाइयाँ बुनने, कॉरिडोर की चटाइयाँ बुनने, और कॉयर ब्रशों की तैयारी में प्रशिक्षण प्रदान कर के 13950 महिला स्वरोजगारियों को गरीबी रेखा से ऊपर उठाने की संकल्पना की थी। चटाइयों को बुनने की मशीनों पर 11000 रूपये औसत निवेश किए गए और उनसे 21,600 रूपये की औसत आय प्राप्त हुई। रस्सी तैयार करने वाली 2-प्लाई मशीनों पर 20,000/- रूपय का निवेश लगभग पूरी तरह निष्फल रहा। इस निष्फलता के कुछ कारण बिजली के कनेक्शनों का न होना, बिजली की कमी, मशीनों को चलाने में सदस्यों में आत्म-विश्वास की कमी आदि रहे हैं।

कॉयर की बुनाई को छोड़कर अन्य सभी गतिविधियाँ समूह के सभी सदस्यों को रोजगार उपलब्ध करा रही थीं। चटाई की तैयारी ने सदस्यों को पूरे वर्ष पूर्ण-कालिक रोजगार उपलब्ध कराया और फैशन टेक्नॉलोजी के क्षेत्र में यह लगभग 220 दिन प्रति वर्ष रहा।

सिफारिशें :

1. लगभग 58 प्रतिशत उद्यमियों ने नियमित रूप से ऋण की चुकौती की। अध्ययन के दौरान किसी प्रकार की जानबूझकर की गई चूक नहीं पाई गई। इकाइयों में चूक के मुख्य कारण थे : फैशन टेक्नॉलोजी की इकाइयों को अपर्याप्त व अनियमित ऑर्डरों की प्राप्ति, कॉयर की चटाइयों की इकाइयों के समूह के

सदस्यों को निजी व्यापारियों द्वारा तोड़ा जाना, कॉयर की रस्सी के उत्पादन में मशीनों का उपयोग न किया जाना।

2. कार्यान्वयन करने वाली ऐजेंसियों को गतिविधियों, प्रौद्योगिकी और उद्यमियों के चयन में समुचित सावधानी बरतनी चाहिए। उन्हें नियमित काम और पारिश्रमिक के शीघ्र भुगतान को सुनिश्चित करना चाहिए।

3. उन सभी उद्यमियों को पुन: प्रशिक्षित किया जाए जो अपने कौशल का पूर्ण उपयोग न कर सके हों।

4. कार्यान्वयन करने वाली ऐजेंसियों को इन इकाइयों के लिए संबंधित सुविधाएँ उपलब्ध कराने वाली एजेंसियों, यथा ए पी ट्रान्सको आदि से बिजली की आपूर्ति और अन्य लिंकेजों की व्यवस्था सुनिश्चित करनी चाहिए। यदि यह संभव न हो तो केवल उन्हीं उद्यमियों का चयन किया जाए जिनके पास बिजली के कनेक्शन हो।

5. सरकार को लाभार्थियों के लिए मशीन फिनिशिंग के उपयोग के प्रशिक्षण की व्यवस्था करनी चाहिए और उन्हें बैंकों से ऋण सहायता और सब्सिडी के साथ आवश्यक मशीनें उपलब्ध करानी चाहिए।

6. ग्रामीण कृषीतर क्षेत्र के डाटाबेस को सुदृढ़ बनाया जाए, इसे एल डी एम स्तर पर विशेष रूप से सुदृढ़ किया जाए और

7. उद्योग विभाग और बैंकों के बीच समन्वयन सुनिश्चित किया जाए।

EXECUTIVE SUMMARY

Role of RNFS in employment generation and poverty alleviation in the countryside hardly needs emphasis. But the sector faces a variety of problems that defy an easy solution. Hence, a specific study like the present one was conducted to evaluate role of RNFS in the rural economy. More specific aspects studied were adequacy of credit support, lending procedures, costs vs. benefits, cash flow of the units, extent of employment generation, loan recovery, linkages and constraints for future growth with a view to suggesting action points.

The study covered 101 units drawn from fashion technology, coir rope making and coir rope mat making investments financed by branches of Andhra Bank, State Bank of India and Regional Rural Banks in East Godavari district of Andhra Pradesh. Standard techniques of data collection and analysis are followed. Most of the units studied were of proprietorship nature. Entrepreneurs studied were mostly women, illiterate but in the younger age group, about 80 percent of them being from backward or scheduled castes and tribes.

Envisaged to provide succour to over 27 thousand families, Fashion Technology scheme was targeted for DWCRA women. Average investment per beneficiary was Rs.25000 with a subsidy of Rs.12500. It generated an income of Rs.1500-1800/month (average Rs1650). Power shortage, irregular/insufficient orders, delays in receiving the remuneration, insufficient training are some of the problems faced by the entrepreneurs.

Through the scheme on Coir Rope and Coir Mat making, DRDA envisaged to bring 13950 women swarozgaris above poverty level by imparting training on extraction of 2-ply yarn on motorised ratt, weaving of coir mats, weaving corridor mats and coir brush making. Mat making machines financed generated an average income of Rs. 21,600 from an average investment of Rs.11000. The investment of Rs.20000 in 2-ply rope making machines was largely infructuous as many members were not utilising the machines on account of no electricity connection, power shortages, lack of confidence in using the machines, etc. are some of the reasons for this.

Barring Coir Weaving all other activities could provide employment to each member in the group, while Mat making provided full time employment round the year, the same in the case of Fashion technology was about 220 days per year.

Recommendations :

i. About 58 per cent of the entrepreneurs repaid loans regularly. No wilful default has been observed during the study. Main reasons for default among units were: insufficient and irregular orders (fashion technology), weaning away of the members from the group by private traders (coir mat), non-utilisation of the machines (coir rope).

ii. Implementing agency should take proper care in selection of activity, technology and entrepreneurs. It should ensure regular work and prompt payments of remuneration.

iii. Train once again the entrepreneurs who could not make use of their skills fully.

iv. Implementing agency should ensure supply of power and other linkages to the units from utility providers like APTRANSCO. Alternatively, entrepreneurs with power connection alone may be selected for the activities.

v. Government may make arrangements for training the beneficiary in use of machine finishing and provide necessary machines with subsidy and credit support from banks.

vi. Strengthen database of Rural Non-farm Sector in particular at LDM Level.

vii. Ensure co-ordination between Industries Department and banks.

CHAPTER - I

INTRODUCTION

1.1 India is an agrarian economy with a majority of the population living in rural areas. The agricultural sector is not able to absorb the ever-growing population in providing employment and other opportunities. This is forcing the population of the rural India to migrate to urban India, which is causing further problems in urban India. Development of non-farm activities provides additional employment opportunities in rural areas and this holds the key to employment generation and poverty eradication of the country.

1.2 The amount of agricultural produce that goes into processing is also abysmally low. The processing of agriculture produce not only reduces wastage but also generates income and employment opportunities to the poor. Development of non-farm sector can forge synergistic links between farm and non-farm sector activities for efficient use of resources including family labour.

1.3 Besides, agricultural operations are limited to certain months and cannot provide continuous year-round employment. Development of non-farm sector not only absorbs more labour but also has the potential to even out seasonal and disguised unemployment through appropriate mix of farm and non-farm activities in a village economy. Further there is also a need to engage available work force productively for the development of the country as work provides income to families living in rural areas and help to reduce poverty.

1.4 Due to scaling up of production, diversification and commercialisation of agriculture, the demand for supporting services from non-farm sector has been on the rise due to reinforced linkages between agriculture and industry. The technological changes and capital formation in agriculture sector overtime has improved farm income many fold and non-farm sector has been considered crucial for productively absorbing surplus farm labour. Further, higher farm incomes also stimulates growth of non-farm sector by expanding demand for the commodities produced in the sector.

1.5 In the recent past, the work force participation rate has been coming down in India as well as in Andhra Pradesh. This is applicable for both rural and urban areas and also for both males and females, which is alarming and needs to be corrected. This can be done by developing rural non-farm sector in the country and the state as well. The work force participation rates for India and Andhra Pradesh are given in Table 1.1.

Table 1.1

Work force participation rate in India and Andhra Pradesh

(per '000)

Year	Male		Female		Total	
	India	AP	India	AP	India	AP
Rural						
1993-1994	504	567	219	377	362	472
1999-2000	478	535	204	355	341	445
Urban						
1993-1994	496	505	120	148	308	327
1999-2000	490	480	111	144	301	312
Total						
1993-1994	500	536	170	263	335	400
1999-2000	484	508	158	250	321	379

Source : Economic Survey of Andhra Pradesh 2003-04.

1.6 It can be seen from table 1.1 that the work force participation rate has come down from 362 in 1993-94 to 341 in the year 1999-2000 in rural areas at all India level. The same has come down from 472 to 445 during the same period for the state of Andhra Pradesh. The trend is similar in urban areas also. However, one remarkable feature is that Andhra Pradesh state is having higher work force participation rate than all India. Further the work force participation rate in rural India is higher than urban India.

1.7 The long-term solution of providing continuous work to rural mass lies in the development of rural non-farm sector as it has multifarious influence on the rural economy and livelihood of people living not only in rural India but also in urban India. No wonder then, promotion of rural non-farm sector, has always been given due priority in the development agenda of our country.

1.8 National Bank for Agriculture and Rural Development (NABARD) for complementing the efforts of Government of India and other agencies, in promoting the rural non-farm sector has initiated several measures. Besides refinancing for rural non-farm sector activities on preferential terms and conditions, it has proffered a package of promotion measures and grants for expanding the sector. Some of the initiatives of NABARD are partnership in programmes like District Rural Industries Project (DRIP), Cluster Development Programme, Rural Entrepreneurship Development Programme (REDP) and so on.

1.9 Rural non-farm sector (RNFS) faces numerous complex problems due to the very structure of the sector that is dominated by small and scattered units covering

diverse activities. Information about them is hard to get for any policy formulation. No single policy measure can provide solution to the problems of this sector. Any package of measures should dwell on technological, financial, managerial, marketing and organisation aspects for making any dent on the sector.

1.10 As a part of the on going exercise of NABARD in evaluating impact of various initiatives taken from time to time, we have undertaken the present study. The main objective of the study is to evaluate the impact of the RNFS promotion on the rural economy. In specific terms the following objectives are covered in the study.

- To study the growth and structure of RNFS activities in the study area,
- To assess the adequacy of credit support both for working capital and block capital for the RNFS activities and study the lending procedures,
- To estimate the costs and benefits from the investments and also to study cash flow of the units,
- To estimate the employment generation and its distribution in a year from the selected activities,
- To study the recovery performance
- To assess the adequacy of linkages including promoting agencies,
- To identify constraints for the growth and performance of the activities, if any, and suggest measures, etc.

CHAPTER - II

METHODOLOGY OF STUDY

SAMPLE DESIGN

District Selection

2.01 Refinance disbursement during the last two years was the main criterion for selecting the district in the first stage. Data on availment of average refinance district-wise for 2000-01 & 2001-02 (Annexure I) showed that Anantapur District ranked first (Rs.9.88 crore) followed by Kurnool and East Godavari districts. We have a fairly good idea about Rural Non-farm Sector activities in Ananthapur district, thanks to a few previous studies on earlier occasions. Hence, East Godavari district was selected for the present study.

Selection of Activity & Sample Size

2.02 Multi-stage random sampling was adopted to draw the ultimate sample of rural entrepreneurs. Annexure II gives the activity-wise amount refinanced under Integrated Loan, Composite Loan Schemes and miscellaneous NFS activities. The data on refinance flow for 4 major activity groups in the districts are given in Table 2.1.

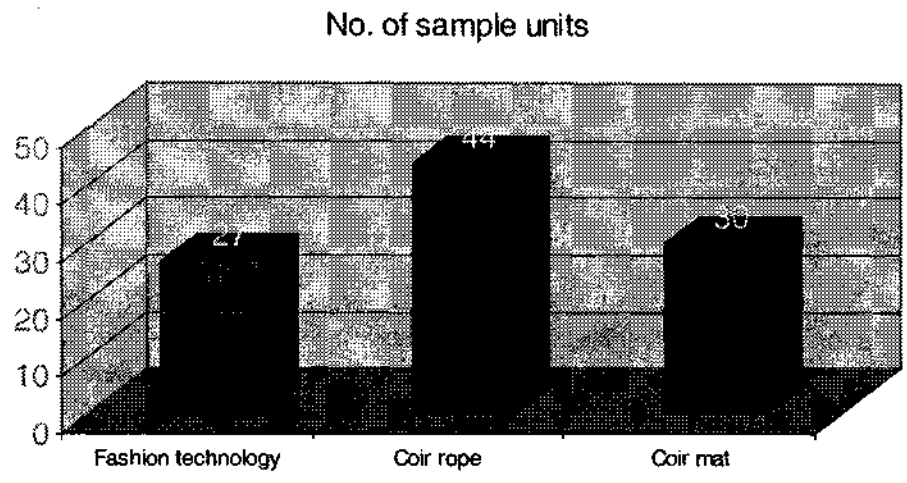
Table – 2.1

No. of units and refinance disbursed during 1999-2000 to 2001-02 (cumulative)

(Rs. in Lakh)

Activity	No.	B. L.	Refinance
1. Readymade garment/Tailoring	101	12.0	10.8
2. Village industries	36	6.2	5.6
3. Agro-industries	100	751.2	569.5
4. Service industries	924	301.0	285.5
5. Others	2208	1173.7	1013.3
Total	3369	2244.2	1884.7

2.03 A sample of 101 units were covered during the study. Given the distribution of the units and the refinance (shown in the Table 2.2) the sample was distributed among different activities. The share of various activities in the sample is shown in the diagram.



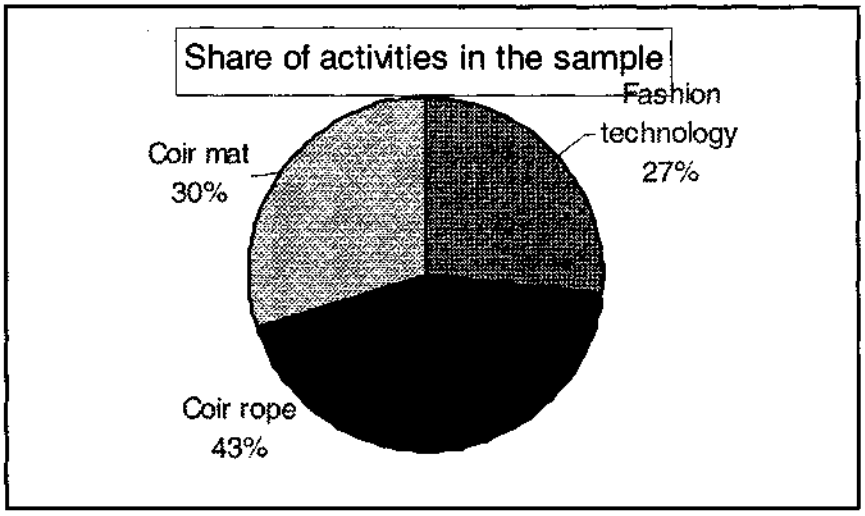


Table 2.2

Details of sample units (entrepreneurs studied)

Activity group	Specific Activity	No. of Units
1. Readymade garment/Tailoring	Fashion technology units (Zuki machines) from 6 SHG groups	27
2. Village industries	Coir- rope making units from 22 SHG Groups	44
	Coir-mat making units from 10 SHG Groups	30
Total		**101**

Selection of Financing Agencies

2.03 Bank-wise distribution of the refinance to RNFS activities in East Godavari district is given in Table 2.3. It was observed there from that Andhra Bank, State Bank of India and Corporation Bank have topped the list and together with Godavari Grameen Bank account for over 70 per cent of the average refinance flow during the three year period under consideration. Hence, it was proposed to cover Andhra Bank, State Bank of India and Godavari Grameen Bank. Branches were selected from these banks and from the service areas of these selected branches ultimate sample units were drawn randomly for detailed study.

Table 2.3

Bank-wise disbursement of refinance for NFS during triennium ended - 2001-02

(Rs. in Lakh)

Financing agency	Refinance	% to total
AB	826.0	34.1
SBI	461.1	19.0
Corporation Bank	223.6	9.2
RRB	190.0	7.8
IB	139.3	5.7
Others	585.6	24.2
Total	**2425.6**	**100.0**

Data Collection and Analysis of Data

2.05 Two sets of questionnaires were designed for the study. One set was used to collect primary data from entrepreneurs through direct interview method. Data has been collected from the units a well as bank branches. The data on the following parameters were collected and analysed.

- Socio economic characters of borrowers
- Size of the unit, nature of product, manpower employed, etc.
- Incremental capital out put ratios
- Sources and uses of credit and other funds
- Production cycles and capacity utilisation, production and sales, working capital needs

- Health of the units
- Flow of income
- Both forward and backward linkages
- Markets for output and competitiveness
- Role of financing agencies and coordinating agencies like DICs/ DRDAs, etc.

2.06 In addition to the above, relevant information on Non-farm Sector activity was collected from Industries Department, Rural Development Department, etc, so as to understand the status of non-farm sector in the study area.

2.07 The data collected from the sample units were analysed through average and frequency distribution. The gross income, net income, cost, net incremental income, etc., were worked out on per activity basis. Financial viability was assessed in terms of Financial Rate of Return. To asses recovery performance of the scheme, demand collection and overdue were examined. Rationality of repayment plan was examined in terms of repayment capacity of the borrowers, debt service, net income flow and nature of default.

2.08 Rural non-farm sector broadly includes all activities carried out in rural areas other than farm activities. The investments selected are coir mat and rope making, and fashion technology (village industries).Average generation of employment by these activities was also analysed.

Reference Year of Study

2.10 All the costs and benefits for the investments are valued at 2003-04 prices, which was the reference year for the study.

CHAPTER – III

RURAL NON-FARM SECTOR - ENVIRONMENT

3.1 Andhra Pradesh has been one of the agriculturally developed states in the country. Along with the growth of agricultural sector investments in the state, agri-linked activities -either using the output from agriculture or supplying inputs to it - have developed in large way. As the income from agriculture improved overtime, the surplus has been invested in other sectors not connected to agriculture, both in rural and urban areas. In this chapter, structure and growth of RNFS is profiled, followed by the environment available in the state as well as in East Godavari District.

3.2 The Rural Non-farm Sector (RNFS)* has two dimensions. First one is the spatial dimension. That is, in a broad sense all non-agricultural activities in rural areas come under rural non-farm sector. All the units covered by small scale industries (SSI), tiny units, KVIC list of units come under rural enterprises or rural industries. But majority of SSI units are located in urban areas and may not fit in rural category. NABARD has defined Rural Non Farm Sector as those enterprises and artisan activities which would be classified as household, decentralised, tiny and small scale enterprises involved in production/manufacturing, processing, preserving, storing and marketing of goods and/or engaged in services and agro processing having a bearing on providing employment and income to person residing in rural areas. NABARD initially classified the rural non-farm sector by listing a spectrum of small, cottage, tiny and village industries' in 22 major categories of activities undertaken in rural areas i.e. with population of less than 50,000. The second one is scalar dimension, which centres around the number of workers engaged in a unit. Four types of enterprises can be there, viz., own account enterprises (OAEs), non-directory enterprises (NDEs), directory enterprises (DEs) and factories.@ Policy for rural enterprises mainly focussed on OAEs and NDEs.

3.3 Thus, RNFS comprises all non agricultural activities - mining and quarrying, household and non-household manufacturing, processing, repairs, construction, marketing in a rural area i.e. with a population of less than 50,000.

---

* Source: 'The forgotten sector-non-farm employment and enterprise in rural India" by Thomas Fisher and Vijay Mahajan with Ashok Singhka.

@ As per Central Statistical Organisation (CSO) four size categories can be defined: 1) Own account enterprises (OAEs) employing only the owner worker or his/her family members; 2) Non-directory establishments (NDEs) those with at least 1 and at the most 5 workers of who at least one is a hired worker; 3) Directory establishments (DEs) enterprises with at least six workers including at least 1 hired worker; and , 4) Factories- manufacturing enterprises employing at least 10 workers if they use power or at least 20 workers if no power is used.

3.4 The small scale sector including tiny sector has acquired prominent place in the Indian economy. This sector's contribution is immense to gross domestic product (GDP) with special contribution towards employment generation and exports. It has emerged as a growth engine for Indian Economy. Performance of small sector in India in terms of units, production, employment generated and exports are given in Table 3.1

Table 3.1

Performance of Small Scale Sector in India

(No. in Lakh & Amount in Rs. Crore)

Year	Units (No.)	Production	Employment (No.)	Exports*
1998 - 1999	30.8	520650	171.6	5122
1999 - 2000	32.1	572887	178.5	5504
2000 - 2001	33.7	645496	185.6	5777

* Source : Economic Survey (2002-03). @ Converted into Indian rupees @ $1=Rs.44

Andhra Pradesh

3.5 In the state of Andhra Pradesh the small scale sector accounts for 1.44 lakh units involving an investment of Rs.4451 crore providing employment to 12.86 lakh people. Together with tiny industries, the number would go above 4 lakh units with employment provision of 32 lakh people and an out lay of more than Rs.7500 crore.

3.6 About 272 industrial estates, three mega industrial sites, four growth centers, export promotion parks, food parks, industrial parks, bio parks, marine bio parks, four agri export zones have been created by government to encourage non-farm activities. Further, Special Export Processing Zone, Pharma City are being developed in the state. For development of software industries, two STPIs have been established in the state with sufficient bandwidth.

3.7 The state is having good potential for agro-processing industries. The state is one of the largest producers of rice, cotton, coconut, cashew nut, mango, mulberry silk cocoons, onions, vegetables, oil palm, oil seeds, chillies, turmeric, cocoa, sweet orange, lime, grapes, turmeric, coriander, banana, ginger, cotton, tobacco, etc. (Over 10 million tonnes of horticulture products; 5.3 mill tons of fruits, 3.15 mill tons of vegetables, 1.9 mill tons of spices and about 1100 million coconuts produced in the state). Government has big plans for increasing the area under horticulture in the State, which increases the potential for setting up of agro processing industries. Scope also exists for setting up of processing industries for marine products, shrimp processing, inland fisheries, etc.

3.8 The state has got large number of weaving centres offering scope for power / hand looms. Cotton required for hand / power looms is available within the state. The other important activities done by artisans are kambali weaving, stone carving, rope making, coconut mat making, kalamkari arts, artificial jewellery, toy making, leather puppetry, leather and brass decorative articles, etc. In order to encourage these activities, government planned to set up 5 apparel export parks, 12 textile parks, six mega, 16 medium and 72 mini leather parks in the state. Rural tourism is also given thrust in the state by state government and this encourages hotels, STD booths, small businesses, small road transport operators, etc.

3.9 Further, under National Programme of Rural Industrialisation, Government of AP has identified 23 clusters. Currently, Pharma (Medak), Auto Components (Krishna and Guntur), Leather (Warangal and Nalgonda), Shrimp (Vijayawada - Visakhapatnam Corridor), Precision tools (Rangareddy) and Power looms (Karimnagar) have been identified.

3.10 UNIDO is also helping government of Andhra Pradesh in the development of clusters of Graphite cubicles (Rajahmundry), Imitation jewellery (Machilipatnam), Fan (Rangareddy), Mango jelly (Vizianagaram & East Godavari), Plastics (Adilabad), Food Processing (Krishna), Turmeric (Duggirala, Guntur) and Burnt lime (Piduguralla, Guntur). Similarly, under UPTECH, a technology upgradation programme is being implemented in mango processing (Chittoor), Pharma (for pollution reduction) (Hyderabad/ Rangareddy), Foundry (Rangareddy) and Auto Components (Vijayawada).

3.11 State government is offering the various facilities for development of rural non-farm sector investments especially for food processing industries.

3.12 In addition, government has established biotech park, knowledge park, marine biotech park, gems and jewellery park, Hi-tech city, hard ware park, pharma city, etc., in collaboration with private sector.

3.13 Apart from agricultural produce, the state is endowed with various mineral resources like coal, lime stone, bauxite, byrates, mica, beach sands, granite, oil and natural gas, manganese asbestos, clays, etc. and about 64 lakh ha of forest. These resources have given immense potential for enterprises for extraction and processing. These activities have potential for generating employment in rural areas.

3.14 The state has an installed capacity of 10695 MW electric powers per annum. In spite of this, there are shortages in the sector and the state has been purchasing power to supply electricity on regular basis even in villages. The state is having a

road network of about 2.00 lakh km. The state is well connected by NHs with other states. However the road density per 100 sq km area is lower than all India level (0.73 km against 1.00 km). Similarly the road availability per lakh population is also less than all India average. The state is well connected with rest of India through railway and air. In telecommunications also, the state is well developed with more than 35 lakh telephone connections. One major port and half a dozen minor ports are available in the state. The state is having container depots / stations at Hyderabad, Guntur and Anaparthi.

3.15 The state is also making constant efforts to make available technically qualified manpower. About 61 per cent of the population is literate. There are about 225 Engineering colleges, 271 MCA colleges, 207 management colleges, 104 polytechnics, 6 agricultural and veterinary colleges, about 20 universities and large number of industrial training institutes. Apart from this, institutes like SISI, NISIET, etc, are operating in the state, which are imparting training in entrepreneurial skills to small entrepreneurs.

3.16 The state is having excellent bank network with 5949 bank branches. About 75 per cent of them are located in rural and semi urban areas and are disbursing credit to the priority sector to the tune of about Rs.18,000 crore. The ground level credit flow to the priority sector and to the rural non-farm sector in the state is given in Table 3.2.

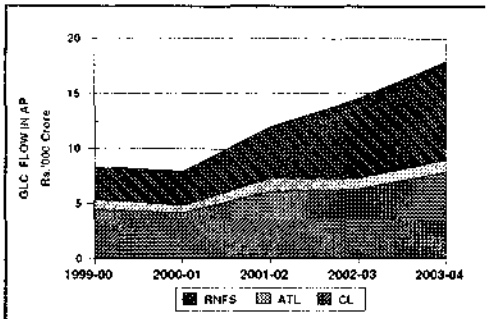
Table 3.2

Flow of institutional credit to agriculture and non-farm and total priority sectors

(Rs. in crore)

Year	Crop Loan	%	Agri Term Loan	%	RNFS +OPS	%	Total Priority Sector	%
1999-2000	4,451	53	932	11	2,986	36	8,369	100
2000-2001	4,184	52	687	9	3,100	39	7,971	100
2001-2002	6,124	51	1,161	10	4,719	39	12,004	100
2002-2003	6,332	42	985	7	7,222	51	14,539	100
2003-2004	7,903	44	1,116	6	8,918	50	17,937	100
Compound growth rate (%)	16.91		7.47		35.45		23.69	

3.17 It can be seen from the above table and chart shown in the side that the credit flow to rural non-farm sector and other priority sectors has been increasing constantly over the years. Currently, 50 per cent of credit flow of the priority sector is going to these sectors indicating the importance of the sector. Further, the rate of growth of non-farm sector is higher than all other sectors. The growth rate was positive even when all other sectors registered a negative growth rate. The same is shown in the chart.



3.18 East Godavari district is one of the developed districts in the state of Andhra Pradesh located on the east coast. The district has good potential for development of industrial activities due to abundance of raw material such as agricultural produce, forest produce, minerals, livestock and fisheries production. The district contributes about 10 per cent of the total food grain production of the state. The district is blessed with an average annual rainfall of 1218 mm, which is higher than state average. The cropping intensity is 135 per cent. Main crops grown in the district are paddy, sugarcane, pulses, cotton, tobacco, tapioca, etc.

3.19 About 1.50 lakh ha of area is under plantation crops like coconut, cashew nut, mango, banana, citrus, oil palm, vegetables, flowers, nurseries, etc. Further, there is abundant scope for fisheries- both inland and marine.

3.20 The district has deposits of bauxite, graphite, clay and natural gas. About 3.23 lakh ha is occupied by forests giving potential for paper, horticulture, construction, textiles, nurseries, transport, ceramics, dairy farming, oil & natural gas, light engineering, exploration, electricity generation poultry farming, fertiliser manufacturing, service & repairs, marine fishing, rice milling, food processing, aqua culture, export of agrl. products, building materials, sugar, household/cottage industries, etc.

3.21 The production of some of the important agricultural commodities in the district that extend scope for expansion of the RNFS activities is given in Table 3.3

Table 3.3

Production of major crops having forward linkages with RNFS, 2002 - 03

(Production in metric tons)

Crop	Production	Possible RNFS Activities
Paddy	1,024	Rice Milling, Rice Bran Oil, Power generation from paddy husk, pressed rice, fluffy rice, etc.
Oil seeds (gingili)	249	Oil extraction
Tapioca	146	Processing to make "sabudana"
Sugarcane	1,372	Crystal sugar, Jaggery making, bio power plant
Coconut (crore nuts)	39.24	Oil extraction, coir, coir rope, leaf mats, rope mats, coconut water, grated coconut, etc.
Mango	37	Pulp, jelly, jam, pickles, etc.
Banana	16	Pulp, chips, jam, etc.
Chillies	8	Powder, Oil extraction, etc
Pulses	16	Processing (milling), packing
Tobacco	8	Processing, cigar and cigarette manufacturing, etc.

3.22 There is a large network of roads with a total road length of 4821 Kms. The Chennai - Calcutta National High Way passes through the district for about 126 Kms. Besides, as many as 1322 out of 1404 villages in the district are well connected with all weather motorable roads. The railway network runs for 144 Kms across the length of the district connecting the port town of Kakinada and Rajahmundry, the commercial centre of the district. One aerodrome is located at Madhurapudi, near Rajahmundry, which can be used for connecting to other major towns. The waterways of Godavari river and its canals can be used for transport of goods in certain parts of delta area.

3.23 The port of Kakinada is the principal seaport among the minor ports of the country on the East Coast. Good communication facilities are available in the district. The district is having good tourism potential with large number of temples, *mada* (mangrove) island forest and other forests, river, canals and other water bodies, major irrigation dam, etc.

3.24 There are 16.71 lakh main workers in the district of which 8.38 lakh workers are engaged in agriculture and 5.80 lakh in other activities. At present, there are 57 large and medium industries with a total investment of Rs. 5303.09 crore employing 16560 persons. In addition to this, 20 large and medium scale industrial projects with a total investment of Rs. 4706 crore and an employment potential of 6581 persons are under various stages of implementation. In the SSI category, 24246 units are functioning with a total investment of Rs.3434.21 crore engaging a work

force of 147169 workers. Food and agro-based industries, forest based industries and engineering and allied industries constitute nearly 75% of the total SSI units.

3.25 There are 48 primary Handloom Weavers Cooperative Societies (HLWCS) in the district. The total membership of these societies is 13217 with active loom strength of 7680.

3.26 District Rural Industrialisation Project (DRIP), a programme to develop Rural Non-Farm Sector activities through credit intensification for providing sustainable employment opportunities to rural population by facilitating setting up of cottage, tiny and small industries in the 'rural areas' has been launched in the district.

3.27 The District Potential Survey has identified potential for 36157 Rural Non-Farm Sector units during the Project period 2002-2007 involving credit to the tune of Rs.1206.56 crore which are expected to create 1,48,129 additional jobs. In order to encourage RNFS activities, NABARD had sanctioned number of REDPs to the district to be implemented through NGOs and Andhra Bank Institute of Rural Development. The activities covered are fashion technology, computer operation, TV repair and assembling, domestic wiring, banana fibre extraction and handmade articles, etc.

3.28 The district has organization of around 46000 women groups under DWCRA and has scope for taking up micro enterprise for them. As a part of this, two Special SGSY projects are under implementation in the district- one for the development of coir and the other for 'Fashion Designing' with a project outlay of Rs.25.00 crore and Rs.23.97 crore, respectively. The Coir Project is under implementation in 22 mandals covering all the mandals in Konaseema area and the Fashion Designing Project in 57 mandals of the district. The Coir Development Project is expected to benefit 28000 women while Fashion Designing Project will benefit 13680 women.

3.29 There are around 600 rice mills in the private sector employing around 12000 persons. There are fifteen industrial estates in the district. The district is having very good network of bank branches (372) and banks in the district have disbursed Rs.1467.86 crore for priority sector in 2003-04. As in the case of the state, in the district also the share is around 45 per cent for rural non-farm sector activities and increasing both in absolute terms and as a share in total credit. The rate of growth of non-farm credit is higher than general growth of credit extended to the priority sector. The details of credit disbursed, its share and rate of growth in East Godavari district during the last four years is given in Table 3.4.

Table 3.4

GLC flow, share and rate of growth of
Priority Sector advances in East Godavari District

(Amount Rs. crore and Share and Growth rate in %)

Years	Crop Loans	S	GR	ATL	S	GR	RNFS	S	GR	TOTAL	S	GR
2000-01	325.21	62	--	59.52	10	--	140.57	28	--	525.30	100	--
2001-02	436.52	44	34	131.83	13	122	413.62	43	195	981.97	100	100
2002-03	472.39	48	8	81.55	8	-38	431.85	44	4	985.79	100	100
2003-04	681.00	46	44	98.62	7	21	688.24	47	60	1467.86	100	100

S - Share GR - Growth rate

CHAPTER IV

SOCIO ECONOMIC PROFILE OF SAMPLE BORROWERS

4.1 The socio economic profile of the sample borrowers in terms of their distribution according to age, level of literacy, family size and coverage of Scheduled Castes and Scheduled Tribe population, nature of ownership, etc., are discussed in this chapter. Further economic details like average investment, distribution of investment by size, sources and uses of funds etc., are also discussed.

Nature of Ownership

4.2 As regards the nature of ownership for all the three activities it is observed that all the investments of sample borrowers were of proprietorship nature. and all the units were new units.

Gender distribution

4.3 All the 101 sample borrowers were women borrowers mainly because of the focus given for coverage of women under special SGSY programmes of Fashion Technology and Coir rope making / mat making in East Godavari district.

Age of the Borrowers

4.4 The majority of the borrowers (90%) were in the age group of 18 - 35 years. The activity wise age profile of entrepreneurs is given in Table 4.1.

Table 4.1

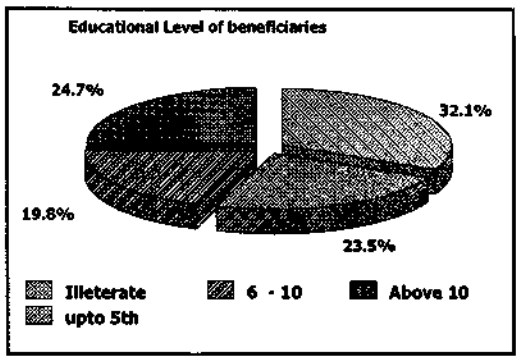
Age wise distribution of borrowers

Sl. No.	Activity	18-35	35-50	Total
1	Fashion Technology	27		27
2	Coir Rope making	40	4	44
3	Coir Mat making	24	6	30
	Total	91 (90)	10 (10)	101 (100)

Note : Figures in brackets indicate percentage to total

Educational Status

4.5 An analysis of the educational status of the sample entrepreneurs indicated that though majority of the people were in the age group of 18 - 35 years, the level of literacy was rather low. The educational levels of entrepreneurs are given in the chart.



Training Status

4.6 An analysis of the training / experience status of the sample entrepreneurs indicated that almost all the entrepreneurs had undergone training either from government arranged programmes or on their own. The entrepreneurs identified under government programmes have received training from DRDA. Other activities like coir rope making are learnt from the elders in the family or from neighbourhood.

Coverage of Scheduled Caste / Scheduled Tribe entrepreneurs

4.7 The coverage of Scheduled caste and Scheduled Tribe entrepreneurs (54.5%) is more in Government sponsored programmes i.e., coir rope and mat making and fashion technology. The proportion of OBC is 32%. Rest belong to general category. The details of activity wise coverage of SC / ST / OBC entrepreneurs of the sample is given in Table 4.2

Table 4.2

Category wise coverage of entrepreneurs

Sl. No.	Activity	SC	ST	OBC	General	Total
1	Fashion Technology	12		8	7	27
3	Coir Rope making	26	2	14	2	44
4	Coir Mat making	15		10	5	30
	Total	**53**	**2**	**32**	**14**	**101**

Family Size

4.8 The family size wise distribution of sample entrepreneurs is given in Table 4.3.

Table 4.3

Distribution by family size

Size Group	Proportion of Entrepreneurs
1-3	10
3-6	74
Above 6	16
Total	100

Profile of investment

4.9 An analysis of the activity by average investment and nature of product is attempted and presented in Table 4.4.

Table 4.4

Distribution by activity and average size of fixed assets

(Rs. 000's)

Activity	Average Investment per unit
Coir rope making	10700
Coir Mat Making	4000
Fashion Technology	18300

Size of Investment

4.10 The distribution of units in relation to investment size is given Table 4.5. It could be seen from the data that maximum number of units in the sample were having investment size of Rs.10,000 to Rs.25,000.

Table 4.5

Distribution by activity and investment size

(No.)

Investment Size (Rs.'000)	Coir Mats	Coir rope	Fashion Tech	Total
Less than 10	30			30
10-25		44	27	71
Total	**30**	**44**	**27**	**101**

Employment Generated

4.11 The units financed have potential for self employment generation. In case of coir mats, assistance of other family members is taken when the mat is tightened which

takes about 10-15 minutes per mat and about an hour in a day. Fashion Technology is practiced as a group activity and members got employment through their activities for about 220 days a year. While coir mat weaving provided full time employment to each unit, i.e. about 350 days /year, coir rope making could not provide any additional employment as the investment became infructuous.

Sources of Funds

4.12 An analysis of funds utilised revealed that, no unit has invested its own funds in the operations. The sources of funds for various activities are given in Table 4.6. Data shows that bank loan is not adequate for meeting investment needs of borrowers. Loan is covering upto 50 per cent of the investment. For coir mat and rope, fashion technology units working capital was directly remitted to the MACS federation formed for the purpose. Thus, loan amount is not adequate considering the needs.

Table 4.6

Sources of Funds

(Rs. in 000's)

Sources of funds	Coir Mats	Coir rope	Fashion Tech
Avg. invt.	4000	10700	18300
Bank loan	2000	5350	9150
% bank loan to avg. invt.	50	50	50
Margin Money /Subsidy	2000	5350	9150
Other loans	-	-	-
Avg. WC	7000	9300	6700
WC loans	3500	4650	3350
% WC loan to avg. WC	50	50	50
Own funds	-		

Utilisation of Funds

4.13 As mentioned earlier, loans are utilised both for procurement of assets and for working capital (W.C). The utilisation pattern of funds for various purposes is given in Table 4.7. It can be seen from the table that working capital has taken major share in all the investments with an average 58.6 percent of the investment. The share of equipment varied from, 25 percent in case of coir mat activity to 75 % in the case of fashion technology activity.

Family Size

4.8 The family size wise distribution of sample entrepreneurs is given in Table 4.3.

Table 4.3

Distribution by family size

Size Group	Proportion of Entrepreneurs
1-3	10
3-6	74
Above 6	16
Total	100

Profile of investment

4.9 An analysis of the activity by average investment and nature of product is attempted and presented in Table 4.4.

Table 4.4

Distribution by activity and average size of fixed assets

(Rs. 000's)

Activity	Average Investment per unit
Coir rope making	10700
Coir Mat Making	4000
Fashion Technology	18300

Size of Investment

4.10 The distribution of units in relation to investment size is given Table 4.5. It could be seen from the data that maximum number of units in the sample were having investment size of Rs.10,000 to Rs.25,000.

Table 4.5

Distribution by activity and investment size

(No.)

Investment Size (Rs.'000)	Coir Mats	Coir rope	Fashion Tech	Total
Less than 10	30			30
10-25		44	27	71
Total	**30**	**44**	**27**	**101**

Employment Generated

4.11 The units financed have potential for self employment generation. In case of coir mats, assistance of other family members is taken when the mat is tightened which

Table 4.7

Utilisation pattern of funds

(Rs. in 000's)

Uses of funds	Coir Mats	Coir rope	Fashion Tech
Equipment & electrical works	4000	10700	18300
Land & Civil works	--	--	
Sub total -investment	4000	10700	18300
Share of investment	37	53.50	66.67
Working capital	7000	9300	6700
Share of W.C.	63	46.50	33.33
Grand Total	11000	20000	25000

Working Capital Cycle

4.14 The working capital cycle for various activities was as reckoned in table below.

Table 4.8

Working cycle for various activities

Activity	Period
Fashion Technology	3 months
Coir Rope Weaving	3 months
Coir Mat	3 months

Working Capital Loans Extended

4.14 Working capital employed and working capital loans given by banks and their share and adequacy are given in Table 4.9. It could be seen from the table that the share of working capital is 50 per cent for all government sponsored programmes and balance was contributed by subsidy from sponsor department.

Table 4.9

Working Capital Employed and Share of bank loan

(Rs. in '000)

Activity	Working Capital Employed per cycle (Rs.)	Bank loan disbursed (Rs.)	% share of bank loan
Fashion Technology	6.7	3.35	50*
Coir Rope Weaving	9.3	4.65	50*
Coir Mat	7	3.5	50*

* remaining 50% is SGSY subsidy

CHAPTER - V

INVESTMENT PROCESS AND ECONOMICS

5.1 In the current chapter an attempt has been made to understand the process of investment in rural non-farm sector activities by the entrepreneurs i.e, fashion technology, coir rope making and coir rope mat making and economics thereof. That is, information regarding the systems and procedures during the loan transactions, investment and operational costs for the select investment activity were discussed. The discussion mainly focuses on each of the identified activity and aspects like identification of entrepreneurs, appraisal mechanism followed, mode of loan disbursement, time taken for sanction and disbursement of loan, margin money contributed by the entrepreneurs, rate of interest charged by banks, security obtained by banks, repayment and gestation period allowed for select investments, subsidy sanctioned, the costs involved in setting up and maintaining the investment, working capital if any, etc., to have an understanding about the lending to the activities. Except for fashion technology and coir rope/mat making, where a project report was prepared and implemented by DRDA involving banks, all other investments were financed by banks under ARF. There are hardly any differences across the banks in implementing the DRDA sponsored government (SGSY) programmes that warrant detailed discussion. Banks have been simply grounding the units as allotted to them by DRDA. However, lending procedures and related details having bearing on the ultimate impact have been discussed in the present chapter itself wherever warranted.

Fashion Technology

The Scheme

5.2 District Rural Development Agency (DRDA), East Godavari district is implementing this programme as special Swarnajayanthi Gram Sworozgar Yojana (SGSY) with an aim to provide Income and Employment to Rural women self help group members. This scheme is implemented from December, 2000 for a period of 2 years with an aim to cover 2736 groups and 27,360 families with a project cost of Rs.26.81 crore. It involves a bank loan component of Rs.8.55 crore and subsidy component of Rs.8.55 crore. Further, Rs.9.71 crore is earmarked for infrastructure and training of the entrepreneurs.

5.3 The programme collaborates with National Institute of Fashion Technology (NIFT). The scheme has three broad components, viz., income generation through value

addition with Batik Printing, Fabric painting, dyeing, printing and one common facility centre in each mandal with supporting infrastructure for training and marketing of products. This was expected to cost Rs:1.94 crore. Further, for entrepreneurs to continue this activity after training, require equipment and working capital. The same was expected to cost Rs.50,000 per group and envisaged coverage of 1368 groups (13680 entrepreneurs) and DRDA proposed to offer 50 per cent subsidy to each group. Thus, the subsidy and bank loan component would work out to Rs.3.42 crore each.

5.4 The third component covers women with stitching skill by extending further skill upgradation trainings and also in fashion designing, dress making with cooperation of NIFT. For this purpose also a training centre is set up at each mandal head quarters and each centre is headed by people from NIFT who train about 6 batches in a year consisting of 20 women. The value added in the first component could be utilised by the third component. The necessary infrastructure required for this training cost is estimated at Rs.4.62 crore.

5.5 Further, the groups to continue the activity after training, the cost is estimated at Rs.75,000 per group of which 50 per cent would be subsidy to be given by DRDA. Total cost on this account comes to about 10.26 crore. In addition, a common facility centre would be set up at district level so as to create potential entrepreneurs or as instructors at mandal level (three months training and one month project assignment is given). The cost of establishment of this centre would cost Rs.0.60 crore.

Identification of Entrepreneurs

5.6 As the programme envisaged identification of entrepreneurs based on their BPL status and skill availability, educational status (minimum 7 th class), the availability of members in the same group has become difficult. As only select members in the groups were identified by DRDA for taking up this activity, there is a discontent among other group members. All group members including non-beneficiary members have to pass a resolution authorising these members to take up this assistance and group stands guarantee for their loan. Further, in some cases it was observed that the identified entrepreneurs have formed into new group, which has led to splitting up of many groups.

5.7 All the members were given training for 2 months and were assisted by banks for purchase of assets. The working capital portion of the loan and subsidy component was transferred to Mandal Samakhya (Federation at mandal level) for supply of cloth and other raw materials to groups operating in the mandal. Later mandal

samakhyas were federated into district samakhya. The district federation consisted of elected representatives (five) from mandal samakhyas. The district federation is procuring orders for preparation of dresses (mostly school uniforms) and pass on the order to mandal samakhya and then to groups. The district federation also had got prepared shirts for men and dresses for women to generate employment and had made arrangements for sale by opening show rooms in the district and in collaboration with DWCRA bazaar at Hyderabad. The idea of creation of federation is train the members to independently run the activity. However, in reality, the core members of federation did not know how the federation was functioning and entire activity is being run by DRDA. Even though, the federation is running well today, it may not be sustainable in the long run once DRDA withdraws from the scene.

5.8 The members of the federation are getting honorarium from federation. The amount of wages / stitching charges received from federation are distributed equally to all members of the group as the activity of stitching / making dresses is done jointly. The federation members even though not participating in the activity at the group level are being paid their share from the group earnings also. The machine advanced to such members is lying idle. It was observed that though each member was trained in the all the processes in preparation of entire item, division of labour is followed in execution of work.

Appraisal of the loan

5.9 As this scheme has been appraised at district level by DRDA and has been approved by District Level Consultative Committee (DLCC) where in all banks are members, no individual appraisal was done by banks.

Mode of disbursement of loan

5.10 As and when the applications are received, banks have made payments to the suppliers of the machinery in single instalment. In fact DRDA has arranged the supply of sewing machines (Zuki make) directly from the company. The company has also given service contract for one year and the representative of the company is attending to all problems as when required. As such the case, there was no delay either in sanctioning of loans or in disbursement of loan for this activity.

Loan, Margin money, Rate of interest, Insurance and Subsidy

5.11 It was envisaged in the project that each group gets a loan of Rs.75,000. However, in practice, the loans were sanctioned in individual names and all the members

received training were given loans. The average loan given per beneficiary is Rs.25000, which was basically for procurement of machines (Rs.18304) and working capital (Rs.6696). This included a subsidy of Rs.7500. The working capital part is contributed to the federation for meeting the working capital needs. There was no margin money contribution by any beneficiary. Even though training was given free of cost by DRDA, participants had to incur expenditure on bus fares, lunch, etc and lost wages (opportunity cost) for the days of training.

5.12 The rate of interest charged by banks varied from 9% by Andhra Bank to 12% by Godavari Gramin Bank. DCCB has not participant bank in this programme. All the banks have allowed a gestation period of 6 months. The repayment period was 60 months (GGB) and 84 months (AB). All the banks have fixed a monthly mode of repayment and have not insisted on any other type of security other than hypothecation of the primary asset. None of the assets created out of loan are insured. The programme originally envisaged a repayment period of 60 months with 6 months grace and an interest rate of 12 percent.

Cost of investment

5.13 The cost of investment includes fixed cost and working capital. The same for this activity came to Rs.25000 per beneficiary including working capital.

Operating Expenses

5.14 The main operating expenditure was electricity bills and in one case rent of the premises. The electricity bills could not be estimated separately as it is common from the own consumption. The premises rented was also inclusive of electricity charges. The expenditure on rent is shared by all the members operating from the premises and came to about Rs.200 per occupant. On enquiry it was understood, that the machines installed had resulted an additional average electricity bill of Rs.75/month. This is only operating expenditure. All other raw material is supplied by district federation along with orders. The members have to share another Rs.75 towards transportation of raw material and delivery of manufactured goods. As per the plan this was to be done by federation.

Income from operations

5.15 The scheme envisaged an income of Rs.3750 per member per month. However, it was observed that members were getting Rs.1500 - 1800 only per month. This is

mainly due to the low order position. The payment is done by federation on piecemeal basis. The federation supplies ready to stitch material and collects ready-made items. However, the work availability is limited to 12 - 15 days a month due to low level of orders (i.e. demand).

Net Income and IRR

5.16 This activity has generated an average net income of Rs.19800/year to each member. The Internal Rate of Return worked out to more than 100%.

Problems identified

5.17 Even though the scheme has given an IRR of more than 100 % and the members generated some income, the scheme is having some problems. The first major problem is availability of power in rural areas. The sewing machines supplied are electrically operated ones and availability of power is limited to night times. Therefore, in order to complete the orders these women have to work in odd hours. Secondly, the work orders are not coming on regular basis. The members could not generate any additional work from the villages. Thirdly, there were delays in receiving the remuneration for the works undertaken. Lastly, all the members have not become perfect in cutting of cloth and had to depend on NIFT / Federation. As these people are completing the work on piece meal basis they need to work together at one place in the village. Besides the entrepreneurs could not carry out their operations in their own houses as they are small. This has deprived them of carrying out the work whenever they are free. However, the scheme has made a positive effect on the incomes and employment of rural women.

Coir Rope Making and Coir Mats

The Scheme

5.18 This is the second special project under SGSY being implemented in the district in delta mandals where coconut is grown extensively. The project aims to bring 13950 women swarozgaris above poverty level by imparting training on extraction of 2-ply yarn on motorised ratts, weaving of coir mats, weaving corridor mats and coir brush making. Each of the above has three components viz., 1) support for infrastructure 2) Training and 3) Linking of Swarozgaris with banks for asset creation and income generation. This programme is designed with the help of Coir Board, Government of India.

5.19 The total cost of the project is estimated at Rs.25.18 crore. DRDA would extend a subsidy of Rs.14.52 crore. Under this project, 8400 electrically operated ¼ HP 2-ply motorised machines each at a cost of Rs.10700 was supplied to beneficiary and Rs.9300 for working capital. Similarly another 3600 women would be covered for supply of mat making machines, which would cost Rs.4000/beneficiary and a working capital of Rs.7000/beneficiary. Remaining members are covered for corridor mat making and brush making units with a unit cost of Rs.16000 and Rs.10000 respectively. However, the corridor mat making machine costs Rs.120000 and is given for a group of 10 people along with working capital of Rs.40000 (comes to Rs.16000/member). Similarly for brush making a group of 15 people were selected as the machinery costs Rs.73000 and remaining Rs.77000 are given for working capital (comes to Rs.10000/member).

Identification of Entrepreneurs

5.20 Even though, the financing was done for 4 types of activities, two major activities, *viz*, carpet making and 2- ply rope making were covered by the study team. Entrepreneurs for this activity have been identified by DRDA on the basis of their BPL status and skill.

5.21 All the members were given training for 2 months and were assisted by bank loans for purchase of assets. The working capital portion of the loan was transferred to Mandal Samakhya (Federation at mandal level) for supply of other raw materials 2-ply rope or fibre for rope making to groups operating in the mandal. Later mandal samakhyas were federated into district samakhya. The district federation consisted of elected representatives from mandal samakhyas. The district federation is supplying the raw material and procuring the goods made by the members. It also made arrangements for sale by opening show rooms in the district and supplying the mats to coir board. It was reported that private traders also visit these villages regularly and buy the finished goods like 2-ply rope and mats. No shortages of raw material reported during the study.

Appraisal of the loan

5.22 As this scheme has been appraised at district level by DRDA and has been approved by District Consultative Committee (DCC) wherein all banks are members, no individual appraisal was done by banks.

Mode of disbursement of loan

5.23 As and when the applications are received, banks have made payments to the suppliers of the machinery in single instalment. In fact DRDA has arranged the

supply of machines directly from the company in collaboration with coir board. As such, there was no delay either in sanctioning of loans or in disbursement of loan for this activity.

Loan, Margin money, Rate of interest, Insurance and Subsidy

5.24 It was envisaged in the project that each individual in a group gets a loan of Rs.10000 to Rs.20000 depending on the activity. This included a subsidy of 50% of the loan amount. The working capital part is contributed to the federation for meeting the working capital needs. There was no margin money contribution by any beneficiary. Even though training was given free of cost by DRDA, participants had to incur expenditure on bus fares, lunch, etc and lost wages (opportunity cost) for the days of training.

5.25 The rate of interest charged by banks were 8.75% by State Bank of India, 9 - 11% by Andhra Bank and 12-13 % by Godavari Gramin Bank. All the banks have allowed a gestation period of 6 months and a repayment period of 60 months (GGB) to 84 months (AB). All the banks have fixed a monthly mode of repayment and have not insisted on any other type of security other than hypothecation of the primary asset. None of the assets created out of loan are insured. The programme originally envisaged a repayment period of 60 months with 6 months grace and an interest rate of 12 percent.

Cost of Investment

5.26 The cost of investment includes fixed cost and working capital. The same for coir rope making was Rs.20000 and coir mat making was Rs.11000 per beneficiary including working capital.

Operating Expenses

5.27 The main operating expenditure for 2-ply rope making would be electricity bills. Mat making machines are operated manually. The electricity bills could not be estimated separately as it is mixed with the own consumption. One can estimate this by comparing pre- and post investment situation. However, limited data on operating expenses are available, as these machines have hardly been utilised continuously for considerable period. As the machine is fitted with 0.5 HP motor, it may consume about 75 units per month if worked for full capacity at 8 hours/day for 25 days in a month. The cost may work out to Rs.150 as per the current tariffs. Further, almost all the members visited were not utilising the machine for making rope. Raw material is supplied by district MACS federation to the members.

Income from operations

5.28 The scheme envisaged an income of Rs.1900 per member per month for 2-ply rope making unit and Rs.2400 for mat making units. However, it was observed that members assisted for 2-ply machines were not utilising the machines. The main reasons for this was that majority of the households did not have electricity supply. Wherever electricity supply exists, power shortages are severe. In addition, this required an additional 3-pin plug point, which is not available in the house. Some entrepreneurs had applied for power connection because of this machine. As the time passed between training and actual utilisation, the machines have lost its utility. In majority of the cases, the entrepreneurs are still not confident of utilising the machines supplied and still carrying out the rope making with hands. Further, the fibre required by these machines is superior and is available with MACS only. As the machines were not put to use by many entrepreneurs, the fibre supply chain has broken. Secondly, the quantity of fibre supplied by MACS is high and entrepreneurs are finding it difficult to store. Besides, local raw material is also available in adequate quantity. There was no problem of marketing the rope. Most of the entrepreneurs are still continuing the traditional method of rope making. Hence this scheme did not generate any additional income.

5.29 However, the entrepreneurs who were supplied with mat making machine were making mats and reported a net average income of Rs.1800 per month. Currently, it was reported, that the members are making 3 - 4 big mats or 8 - 9 small mats. A margin of Rs.9 for small mats and Rs.20 for big mats is available. There is a ready market. The rope is procured from local market depending on the need.

Net Incremental Income and IRR

5.30 The entrepreneurs were getting an income of Rs.30-40 a day, earlier on rope making by hand. With the supply of mat making machines, they are able to generate an income of Rs.21,600. Considering additional income of Rs.20-30 (modal value is Rs.25) by switch over to machines, the net incremental income for this activity worked out to Rs.7500 per annum (given that they work for 300 days a year). The scheme is viable and made a positive impact on the incomes and employment of rural women.

Problems identified

5.31 The scheme for 2-ply rope making is not implemented properly by DRDA. The machines were given to people who do not have electricity connection. Even if connection is there, the existing service cannot take the load of the motor and have

to make special wiring and plug point. As the machines supplied were electrically operated ones and availability of power is limited to few hours, majority of the entrepreneurs had not been using the machine. The supply of machine resulted in infructuous investment for the poor people.

Health and Sustainability

5.32 These two aspects have been undercurrent in the foregoing discussion though they were not discussed separately. In this section health and sustainability of the chosen activities are highlighted. Health of an RNFS unit means profitability in simple terms. It can also be measured in terms of other ratios. But, unlike organised sector units, RNFS units do not maintain balance sheets and profit/loss accounts. They also do not pay taxes. Hence, many of the ratio measures cannot be computed scientifically. One ratio that was computed here is gross profit ratio, which is the ratio of gross profits to sales. Gross profit is the net income in these activities i.e. profit before interest, tax (PBIT). The following table gives the profitability of the activities in terms of gross profit to sales ratio, return on fixed investment and sales to working capital ratio.

Table 5.12

Ratio measures

Activity	Gross profit to sales ratio (%)	Return on fixed investment	Sales to WC ratio
Fashion technology	81.8	108.2	27.7
Coir mat making	41.5	540.0	13.5

5.33 It can be seen from the above table that the ratios are quite favourable due to the very nature of the activities and it is typical to RNFS. Sustainability is another facet of the health of the unit. It is the function of the internal health of the unit as well as the external environment in which it operates. A higher profitability indicator is only a necessary condition. Out of the activities almost all the coir rope making units provided with 2 ply machines remained closed due to lack of care in implementation. Raw material supply, lack of proper organisation of production in the units, power shortages, etc. are the main causes for the lack of sustainability of these units. Fashion technology units are running well due to good backing of the DRDA. If the orders were not forthcoming and if the district MACS federation had to manage the entire project, perhaps, the sustainability may be at the peril. Our discussions with leaders and members of fashion technology MACS at group, mandal and district levels revealed that the members and leaders are not conversant with the concept and operation of the project and are totally dependant on DRDA for everything.

CHAPTER - VI

REPAYMENT PERFORMANCE

6.1 In this chapter an attempt has been made to analyse the repayment performance of the selected units in respect of demand, collection and balance position. An attempt has been made to relate the analysis with debt service liability of the borrowers with that of the net income generated.

Repayment schedule

6.2 As per the repayment schedule, loans were to be repaid to banks with in a period ranging from 3 - 7 years excluding gestation period ranging from nil to 12 months. During the gestation period, interest was collected by banks. The repayment period fixed together with grace period for various activities and mode of repayment instalment fixed are given in Table 6.1. The grace period and repayment period given are reported to be adequate by sample units.

Table 6.1

Repayment period, Gestation period and Mode of repayment of investments

Investments	No. of units	Repayment Period			Grace Period				Mode of Repayment		
		< 37m	37m-61m	61m & above	Nil	< 3m	3m-6m	> 6m	MI	QI	HI
Fashion Technology	27			27			27		27		
Coir Weaving	44	18	26			18	26		44		
Coir Mats	30		21	9	18	9	3		30		
Total	101	18	47	36	18	27	56		101		

Note : m - month

Demand, Collection and Balance

6.3.The activity wise position of demand, collection and balance of the selected units as on 30 June 2003 is given in Table 6.2. It can be seen from there, that overall recovery percentage is good. It is highest in Coir Weaving at 89 per cent and lowest at 71 per cent for Coir Mats with an average overall recovery of 88.5 per cent.

Table 6.2

Average Demand, Collection and Percentage of Recovery of selected units

(Rupees)

Activity	Total Demand	Total Collection	Over Dues	Percentage of Recovery
Fashion Technology	3694	2908*	785	79
Coir Weaving	4015	3573	442	89
Coir Mats	2572	1831	728	71

* Excluding advance payment. In other cases also total collection includes a few cases of advance payment.

Distribution of Units as per repayment performance

6.4 An analysis of repayment performance depending on the units repaying actual bank loans, number of units who have made excess repayment and number of units, which have defaulted, is given in Table 6.3

Table 6.3

Distribution of units as per repayment performance

(No.)

Activity	Excess paid	%	Default	%	Exact Paid	%	Total
Fashion Technology	12	44	15	56	--	--	27
Coir Weaving	8	18	12	27	24	55	44
Coir Mats	4	13	16	54	10	33	30
Total	**24**	**24**	**43**	**42**	**34**	**34**	**101**

6.5 It can be seen from the above table that about 58 per cent of the entrepreneurs are repaying their loans regularly. The highest default is from Coir Mats and lowest default is from coir weaving.

Reasons for default

6.6 Further, an attempt has been made to analyse the reasons for default or otherwise. The main reasons for default are inability to generate adequate income from the operations.

- In fashion technology, sufficient orders are not flowing regularly to the units. Thus, the incomes of several units are not adequate.
- The default is low in coir rope making, though the members are hardly utilising the machine, as the members being part of SHGs are repaying the loans from other incomes. This is putting undue strain on the members who are increasingly questioning the utility of the scheme.
- In the case of coir mat units, the default is high due to weaning away of the members from the group by private traders. This has del inked the groups from the Federation and led to default of bank loans.

Rationality of Repayment period

6.7 It is expected that the repayment would normally come from the income generated from the activities. Hence, an analysis is done to examine the relationship between annual average income generation and annual loan repayment liability. The same is presented in Table 6.4. It can be seen from the table that except in coir

mats, the repayment instalment formed less than 20 per cent of the net income generated and varied between 8% and 18% of net income. However, what ever default existed in activities like coir mats, etc., is due to poverty of the people and need for more money for meeting family obligations. No wilful default has been observed during the study. In fact, in spite of not getting any income from coir rope making machines, the entrepreneurs were repaying loans from other sources. This is mainly due to group dynamics of the SHGs to which the members belong.

Table 6.4

Annual average income and annual repayment obligation

Activity	Net Income	Annual Repayment	Share of 3 in 2	Bank Loan
1	2	3	4	5
Fashion Technology	19,800	3510	18%	12500
Coir Weaving	0	2925	-	10000
Coir Mats	21,600	1650	8%	5500

CHAPTER - VII

SUMMARY AND CONCLUSIONS

Objectives and Methodology

1 Development of non farm activities holds the key to long-term solution of providing sustainable livelihoods to rural masses. Being very diverse and less understood, rural non farm sector (RNFS) poses numerous and complex problems and defy any single policy prescription to them.

2. The present study was conducted in this context with the main objective to evaluate the impact of the RNFS on the rural economy. Specific terms were: i) To study the growth and structure of RNFS activities in the study area; ii) To assess the adequacy of credit support both for working capital and block capital for the RNFS activities and study the lending procedures; iii) To estimate the costs and benefit from the investments and also to study cash flow of the units; iv) To estimate the employment generation and its distribution in a year from the selected activities; v) To study the recovery performance; vi) To assess the adequacy of linkages including promoting agencies; vii) To identify constraints for the growth and performance of the activities, if any, and suggest measures.

3. The study covered East Godavari district based on the refinance availed. The ultimate sample consisted of 101 units drawn from 3 activities *viz.*, fashion technology, coir rope making and coir rope mat making. These units were financed by branches of Andhra Bank, State Bank of India and Regional Rural Bank (Godavari Grameen Bank in East Godavari District).

4. Credit flow to RNFS has increased over time. Further, the state is also having good potential for RNFS activities including agro-processing units as it is one of the largest producers of rice, cotton, coconut, cashew nut, mango, mulberry silk cocoons, onions, vegetables, oil palm, oil seeds, chillies, turmeric, cocoa, sweet orange, lime, grapes, turmeric, coriander, banana, ginger, cotton, tobacco, etc. Scope also exists for setting up of industries for marine produce, shrimp processing, inland fisheries, etc. The potential would be realised as government has been taking many initiatives such as establishment of bio-tech park, knowledge park, marine bio-tech park, gems and jewellery park, Hi-tech city, hardware park, pharma city, etc., in collaboration with private sector. The district studied has good potential for development of RNFS activities. Two special SGSY projects are under implementation in East Godavari district. One for the development of Coir (covering 22 mandals) and the other for 'Fashion Designing' (covering 57 mandals) with a project outlay of Rs.25.00 crore and Rs.23.97 crore, respectively.

Socio-economic Profile of Entrepreneurs

5. All sample are of proprietorship nature. Coir and fashion technology entrepreneurs are organised into MACS and district federations even as they are operating as individual entrepreneurs taking loan and investing in the activity. All sample borrowers were women. Majority of the borrowers (90%) were in the age group of 18 - 35 years. The level of literacy is rather low. Almost all the beneficiaries have undergone training either from government arranged programmes or on their own. The coverage of Scheduled caste and Scheduled Tribe beneficiaries is at 42 % and of OBC is 41 %.

6. Highest investment has gone to Fashion Technology and the lowest to Coir Mat Making. Investment size of Rs. 10,000 to Rs.25,000 has taken the highest number of units at just below 50 percent.

7. The employment generation is mostly limited to self in all these activities.

Economics of Investment

Fashion Technology

8. This scheme was implemented from December, 2000 for a period of 2 years, in collaboration with National Institute of Fashion Technology (NIFT), The loans were given to DWACRA group members after training for 2 months. Often, identified beneficiaries have formed into new group, which has led to splitting up of many groups. Beneficiaries were encouraged to form mandal and district level Federation. In reality, federation's functions were performed by DRDA. Thus, the federation may not be sustainable in the long run once DRDA withdraws from the scene.

9. Division of labour is followed in execution of work. Some members have confided that they were trained only in assembling and not in cutting. Though the shirts are branded as EG shirts and sold, quality control standards were not maintained. For example, shirt mentioned as size of 42 is not of standard 42 size. Also, children's items are not produced sufficiently though good demand exists for them.

10. The average loan given per beneficiary is Rs.25000, which was basically for procurement of machines (Rs.18304) and working capital (Rs.6696). This included a subsidy of Rs.12500. The working capital part is contributed to the federation for meeting the working capital needs. The rate of interest charged by banks varied from 9% of Andhra Bank to 12% of Godavari Gramin Bank. Gestation period of 6 months and a repayment period of 60 months (GGB) to 84 months (AB) were adopted by banks. All the banks have fixed a monthly mode of repayment and

have not insisted on any other type of security other than hypothecation of the primary asset. None of the assets created out of loan were insured.

11. Members were getting Rs.1500 - 1800 only per month i.e. Rs.19800 per year. The payment is done by federation on per piece basis for different jobs like collar stitching, hand joining, body stitching, buttonhole making, etc. The federation supplies ready to stitch material and collects readymade items. However, the work availability is limited to 12 - 15 days a month due to low level of orders. Lack of availability of power in rural areas, insufficient orders on regular basis, delays in receiving the remuneration of the works undertaken and insufficient training are the major problems observed.

Coir Rope Making and Coir Mats

12. The project aims to bring 13950 women swarozgaris above poverty level by imparting training on extraction of 2-ply yarn on motorised ratts, weaving of coir mats, weaving corridor mats and coir brush making. Under this project, ¼ HP 2-ply motorised machine at a cost of Rs.10700 was supplied by DRDA to beneficiary and Rs.9300 for working capital. Similarly some women were covered for supply of mat making machines at a cost of Rs.4000 and working capital of Rs.7000. Loans were given with 50% subsidy.

13 The rate of interest charged varied from 8.75% State Bank of India to 13 % of Godavari Gramin Bank. All the banks have allowed a gestation period of 6 months and a repayment period of 60 months (GGB) to 84 months (AB) with monthly mode. None of the assets created out of loan are insured.

14. The cost of investment includes fixed cost and working capital. The same for coir rope making was Rs.20000 and coir mat making was Rs.11000 per beneficiary including working capital.

15. The members assisted for 2-ply machines were not utilising the machines. The main reasons for this is majority of the households do not have electricity supply. Wherever electricity supply exists, power shortages are severe. In majority of the cases, the beneficiaries are still not confident of utilising the machines supplied and are still making the rope with hands. Hence, this scheme did not generate any additional income.

16. Entrepreneurs working with mat making machines reported a net average income of Rs.21600 per year. There is a ready market. The rope is procured from local market depending on the need. Almost all the beneficiaries had the skill for manual rope making and were getting an income of Rs.30-40 a day with modal income

being Rs.30. With the supply of mat making machines, they were able to generate an additional income of Rs.20-30, the modal income being Rs.25. Hence, the net incremental income for this activity worked out to Rs.7500 per annum. The scheme is viable and created a positive impact on the incomes and employment of rural women.

Repayment performance

17. The activity wise position of demand, collection and balance of the selected units as on 30 June 2003 is highest in Coir Weaving at 89 per cent and lowest at 71 per cent for Coir Mat. About 58 per cent of the beneficiaries are repaying their loans regularly. The highest default is from coir mats. No wilful default has been observed during the study. Main reasons for default among units were: insufficient and irregular orders (fashion technology), weaning away of the members from the group by private traders (coir mat), non-utilisation of the machines (coir rope).

Suggestions and Recommendations :

1. DRDA while selecting technology, should ensure that the technology selected would help the beneficiaries in crossing the poverty line by generating more income.

2. DRDA should put efforts to procure orders on regular basis and "District Samakhya" should put more efforts to procure orders on regular basis. Federation should distribute remuneration immediately on completion of work.

3. Another round of training is needed to the beneficiaries who got assistance and are not able to make use of their skills to the fullest extent.

4. DRDA should hold meetings with APTRANSCO and arrange at least a single power point to beneficiaries so that they can use the 2-ply ratt machine supplied to them

5. State government may make arrangements for training the beneficiary in use of machine finishing and provide necessary machines with subsidy and credit support from banks.

6. There is a need to strengthen the database of Priority Sector Lending in general and Rural Non Farm Sector in particular. Implementation of District Rural Industries Project has not made any impact on data management at district level both by banks and Industries Department. There is a need to strengthen the data base management system at bank level (LDM Level). Further, more coordination is required between Industries Department and banks.

ANNEXURE - I

NABARD's REFINANCE TO RNFS SECTOR

(Rs. in Lakh)

Sl. No.	Districts	2000-01 (Rs.)	2001-02 (Rs.)	Average (Rs.)	Rank
1	Adilabad	155.00	110.83	132.92	19
2	**Ananthapur**	648.00	1328.18	**988.09**	**1**
3	Chittoor	325.00	325.34	325.17	**11**
4	Cuddapah	360.00	382.27	371.14	6
5	**East Godavari**	754.00	467.30	**610.65**	**3**
6	Guntur	374.00	323.14	348.57	9
7	Hyderabad	78.00	5.42	41.71	23
8	Karimnagar	187.00	94.66	140.83	18
9	Khammam	172.00	121.63	146.82	17
10	Krishna	515.00	193.67	354.34	8
11	**Kurnool**	966.00	592.42	**779.21**	**2**
12	Mahaboobnagar	584.00	276.44	430.22	4
13	Medak	197.00	305.52	251.26	15
14	Nalgonda	478.00	193.36	335.68	10
15	Nellore	520.00	188.88	354.44	7
16	Nizamabad	209.00	55.31	132.16	20
17	Prakasam	218.00	163.23	190.62	16
18	Rangareddy	169.00	6.84	87.92	22
19	Srikakulam	377.00	249.22	313.11	13
20	Viasakhapatnam	389.00	245.00	317.00	12
21	Vizianagaram	359.00	252.32	305.66	14
22	Warangal	286.00	533.87	409.94	5
23	West Godavari	90.00	155.69	122.85	21
	TOTAL	**8410.00**	**6624.54**	**7517.27**	

ANNEXURE - II

NABARD's REFINANCE TO RNFS SECTOR
(NFS 22, SGSY ISB, PMRY & SC/ST NFS)

(Rs. in Lakh)

Sl. No.	Districts	2000-01	2001-02	2002-03	2003-04
1	Adilabad	496.86	157.89	338.96	34.46
2	Ananthapur	700.05	1408.21	1823.94	1910.93
3	Chittoor	1012.06	358.93	1509.49	271.85
4	Cuddapah	315.01	472.86	469.88	381.66
5	East Godavari	2215.92	710.60	1506.71	147.28
6	Guntur	784.28	423.12	611.55	584.46
7	Hyderabad	223.69	15.53	2032.03	191.54
8	Karimnagar	1003.52	135.43	428.65	152.12
9	Khammam	624.03	133.00	431.32	126.46
10	Krishna	1059.89	1209.57	1890.71	814.54
11	Kurnool	883.97	658.66	727.48	858.10
12	Mahabubnagar	1309.87	398.34	463.02	179.32
13	Medak	834.81	507.41	1209.48	888.85
14	Nalgonda	616.20	286.47	613.97	204.68
15	Nellore	763.30	297.35	405.32	509.24
16	Nizamabad	536.43	100.75	350.01	143.79
17	Prakasam	688.31	231.10	671.32	232.33
18	Rangareddy	587.96	263.60	26.84	132.45
19	Srikakulam	1208.65	329.43	471.71	262.19
20	Visakhapatnam	881.34	400.65	939.18	433.58
21	Vizianagaram	236.78	308.44	302.12	124.51
22	Warangal	1080.16	859.99	1992.87	1962.63
23	West Godavari	460.28	459.29	1849.98	346.17
	TOTAL	**18523.36**	**10126.63**	**21066.54**	**10893.11**

ANNEXURE - III

District-wise disbursement of refinance for RNFS (22 Broad groups), 2002-03

(Rs. in lakh)

District	Agency								
	RRB			CBs			Total		
	units	Bank loan	Refinance	units	Bank loan	Refinance	units	Bank loan	Refinance
Medak	723	156.4	156.4				723	156.4	156.4
Nizamabad	56	6.4	5.7	2	1.0	0.9	58	7.4	6.6
Adilabad	184	20.4	18.1				184	20.4	18.1
Karimnagar	60	107.1	96.4				60	107.1	96.4
Warangal	556	118.1	106.3				556	118.1	106.3
Khammam	373	59.7	53.7				373	59.7	53.7
East Godavari	14	1.8	1.7	43	12.1	12.0	57	13.9	13.7
Visakhapatnam	609	57.1	51.4	16	4.0	3.6	625	61.1	55.0
Srikakulam	412	34.9	31.4				412	34.9	31.4
West Godavari	36	4.7	4.3	26	10.5	9.4	62	15.2	13.8
Krishna				128	27.3	24.5	128	27.3	24.5
Guntur	128	20.9	18.8	43	9.5	8.5	171	30.3	27.3
Nellore	279	64.2	57.5	1	0.3	0.2	280	64.4	57.7
Prakasam	147	31.8	28.4	11	2.0	1.8	158	33.8	30.2
Chittoor	5	0.9	0.8	20	4.0	3.6	25	4.8	4.3
Cuddapah	796	102.2	93.5	11	2.3	2.2	807	104.5	95.7
Ananthapur	3994	571.1	514.9	18	11.0	10.0	4012	582.1	524.9
Kurnool	852	115.1	115.1	2	0.2	0.1	854	115.3	115.2
Nalgonda	610	103.9	93.5				610	103.9	93.5
Mahabubnagar	12	2.6	2.3	1	0.1	0.1	13	2.6	2.4
Vizianagaram	304	20.5	18.4				304	20.5	18.4
Rangareddy				1	0.2	0.2	1	0.2	0.2

ANNEXURE - IV

District-wise GLC for Rural Non-farm Sector And Other Priority Sector Investments 1999 - 2000 to 2002-2003

(Rs. in lakh)

	1999-2000			2000-2001			2001-2002			2002-2003		
District	**RNFS**	**OPS**	**TOTAL**	**RNFS**	**OPS**	**TOTAL**	**RNFS**	**OPS**	**TOTAL**	**RNFS**	**OPS**	**TOTAL**
East Godavari	10590	6834	17424	7027	7030	14057	21498	19864	41362	19726	23459	43185
Guntur	7818	7902	15720	28044	9392	37436	43921	26894	70815	34259	26456	60715
Krishna	2537	5974	8511	465	996	1461	11003	24924	35927	13442	21123	34565
Nellore	2926	3199	6124	3143	3795	6938	5568	9254	14822	4359	8746	13105
Prakasam	1494	2785	4279	1546	4193	5739	3521	6834	10355	2949	8643	11592
Srikakulam	2661	2552	5213	2459	5790	8249	2921	2894	5815	2586	4921	7507
Visakhapatnam	6972	18467	25438	3408	14885	18293	8968	15224	24192	10646	27989	38635
Vizianagaram	746	3496	4242	857	3562	4419	4321	3212	7533	3646	3248	6894
West Godavari	16920	16859	33779	5081	11711	16792	19597	13765	33362	13942	12849	26791
Anantapur	4544	6811	11355	2811	5463	8274	2985	8324	11309	2548	6847	9395
Chittoor	2084	3533	5617	2616	6238	8854	4486	10621	15107	3146	13746	16892
Cuddapah	1456	3231	4687	638	5156	5794	3867	8124	11991	3143	5879	9022
Kurnool	2378	3736	6114	1149	3353	4502	4498	11564	16062	3246	12443	15689
Adilabad	2797	1823	4620	851	901	1752	2351	4132	6483	2121	4121	6242
Karimnagar	7724	1911	9635	4733	3880	8613	8129	10231	18360	10919	9476	20395
Khammam	3110	3361	6471	3946	4331	8277	3452	5121	8573	3546	6979	10525
Mahabubnagar	2126	2802	4928	1436	3948	5384	2968	5682	8650	3125	8912	12037
Medak	3146	2896	6042	1233	3314	4547	8324	6285	14609	8946	6447	15393
Nalgonda	7072	1257	8329	5315	2719	8034	7264	6504	13768	8613	5849	14462
Nizamabad	3329	2233	5562	3187	3366	6553	4225	6551	10776	4156	6842	10998
Rangareddy	23024	74006	97030	26842	88419	115261	33836	38485	72321	104961	213553	318514
Warangal	2548	4933	7481	3807	6969	10776	5498	14221	19719	7012	12645	19657
Grand Total	**118002**	**180601**	**298601**	**110594**	**119411**	**310005**	**213201**	**258710**	**471911**	**271037**	**451173**	**722210**

ANNEXURE - V

DISTRICT PROFILE AT A GLANCE - 31 MARCH 2003

1. Name of the District	East Godavari

2. Geographical Area (Sq. Kms.)	10,807
a) No. of Mandals	57
b) No. of Villages	1,404
c) No. of villages electrified	1,349
d) No. of villages connected by all weather roads	1,327
e) No. of villages having supply of potable water	1,308

3. *Rainfall*			
	Years		
Normal	2000	2001	2002
1,218	1,011	996	707

4. Population (2001 Census) (in '000s)	
a) Male	2,446
b) Female	2,427
c) Total	4,873
d) Density of population (per km ^{2})	451
e) Rural population	3,736
f) Urban population	1,136

5. Classification of Workers (2001 Census)	
a) Cultivators	219,489
b) Of (a) Small and marginal farmers	187,729
c) Agriculture labourers	987,867
d) Artisans	53,548
e) Household and cottage industries	75,385
f) Allied Agriculture Activities	43,095
g) Other Workers	657,075

6. Land utilisation (in ha)	
a) Geographical Area	1,081,842
b) Net sown Area	457,069
c) Fallow Land	45,661
d) Land not available for cultivation	579,112
e) Forest	323,106
f) Cropping intensity	172.74%
g) Area brought under HYV seeds (ha)	237,900

7. Size of Holdings (in ha)	**No.**	**%**	**Area**	**%**
a) Less than 1	347,681	70	150,868	29
b) Between 1 to 2	78,538	16	112,259	21
c) Above 2	72,100	14	259,984	50
Total	498,319	100	523,111	100

8. Irrigation (in ha)	
a) Net Irrigated Area	273,963
b) By canals	189,874
c) By wells	29,060
d) By tanks	42,607
e) By Other Sources	12,422

9. Animal Husbandry	
a) Plough Animals	1.5
i) Cattle	1.2
ii) Buffaloes	3.06
c) Sheep, Goat	2.32
d) Poultry	99.36

10. Key Banking Statistics (As on 31 March 2003)					*(Rs. Lakh)*
Sl. No.	**Particulars**	**DCCB**	**RRB**	**CBs**	**Total**
1	No. of banks	1	1	31	33
2	No. of Branches				
	i.. Rural	9	13	121	143
	ii. Semi Urban	27	1	99	127
	iii. Urban	11	2	89	102
	iv. Total	47	16	309	372
3	Average Population per branch	103227	8666	14794	12376
4	Total Deposits Rs.	24487	5325	315915	345727
5	Total Loans Outstanding Rs.	55884	2831	220270	278985

REPORTS PUBLISHED UNDER THE EVALUATION STUDY SERIES OF NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT

A. Reports Published by the Head Office of NABARD

Series No.	Title of Evaluation Report	Year of Publication
1.	*Minor Irrigation Scheme-Construction of New Wells and Installation of Pumpsets thereon in Sholapur District of Maharashtra	1977
2.	*Minor Irrigation Scheme – Installation of Shaloow Tubewells in Karnal District of Haryana	1977
3.	*Bhadra Land Development Project – Scheme for Reclamation and Development of Land, Karnataka	1977
4.	*Land Development under Nagarjuna Sagar Project, Miryalguda Taluka, Andhra Pradesh	1977
5.	*Dairy Development Scheme in Jagadhri Block of Ambala District, Haryana	1978
6.	*Dairy Development Scheme in Moga Area of Faridkot District, Punjab	1978
7.	*Poultry Development Scheme in Mulkanoor, Karimnagar District, Andhra Pradesh	1979
8.	*Mechanised Fishing Boats in South Kanara District, Karnataka	1979
9.	*Development of Acid Lime Gardens in Nellore District, Andhra Pradesh	1981
10.	*Groundwater Irrigation in Kota District, Rajasthan	1982
11.	*Minor Irrigation in Bhojpur District, Bihar	1982
12.	Development of Grape Cultivation in Bijapur District, Karnataka	1982
13.	River Lift Irrigation Scheme in Pune District, Maharashtra	1982
14.	Dairy Development Scheme in Western Uttar Pradesh	1982
15.	*River Lift Irrigation Scheme in Kolhapur District, Maharashtra	1982
16.	*Sheep Rearing in Nalgonda District, Andhra Pradesh	1982
17.	Development of Coffee Plantation in Lower Palnis Area, Madurai District, Tamil Nadu	1983
18.	*Public Tubewells and River Lifts in Orissa	1984
19.	*Power Tillers in Hooghly District, West Bengal	1985
20.	Commercial Poultry in Krishna District, Andhra Pradesh	1986
21.	Dugwell Irrigation in Palghat District, Kerala	1986
22.	Tractors in North Bihar	1986
23.	Dairy Development Schemes in Darjeeling District, West Bengal	1987

24.	Tractors Schemes in Varanasi, Ghazipur and Jaunpur Districts, Eastern Uttar Pradesh	1987
25.	Tractors and Power Tillers in Tamil Nadu	1987
26.	Minor Irrigation in Muzaffarnagar District, Uttar Pradesh	1987
27.	Dairy Development in Quilon District, Kerala	1987
28.	Dugwell Irrigation in Dhenkanal District, Orissa	1988
29.	Bamboo and Shallow Tubewells in Purnia District, Bihar	1988
30.	Dugwell Irrigation Development in Nasik District, Maharashtra	1988
31.	Calf Rearing in North Arcot, Salem and Coimbatore District, Tamil Nadu	1988
32.	Minor Irrigation in Allahabad District, Uttar Pradesh	1988
33.	Coconut Development in Quilon District, Kerala	1988
34.	Minor Irrigation in Purulia District, West Bengal	1988
35.	Sprinkler Irrigation in Semi-arid Areas of Rajasthan	1989
36.	A Scheme of Dugwell Irrigation for Small Farmers in Amravati District, Maharashtra	1989
37.	Marine Fisheries in Coastal Gujarat and Maharashtra	1989
38.	Financing of Shallow Tubewells under Massive National Programme in Haryana	1990
39.	Financing of Apple Orchards in Hill Districts, Uttar Pradesh	1991
40.	Work Animals and Animal Driven Carts in Meerut District, Uttar Pradesh	1991
41.	Inland Fishery in Krishna District, Andhra Pradesh	1991
42.	Bio-gas Plants in Nainital and Rampur Districts, Uttar Pradesh	1991
43.	Impact of Non-farm Sector Investments	1994
44.	Lift Irrigation Schemes in Maharashtra	1995
45.	Mendhwan Watershed Project under Indo-German Watershed Development Programme (IGWDP) – Maharashtra State	1999
46.	Self Help Groups in Tamil Nadu	2000
47.	Micro Finance for Rural People – An Impact Evaluation Study	2000
48.	Rural Non-farm Investments – An Impact Study	2002
49.	Self Help Group –Bank Linkage Programme for Rural Poor in India - An impact Assessment	2003
50.	Cold Storage units financed under Capital Investment Subsidy Scheme – An Impact Assessment	2003

* Reports are out of Stock

B. Reports Published by Regional Offices of NABARD

Series No.	Title of Evaluation Report	Year of Publication
	Ahmedabad	
1.	Poultry Development Scheme in Gujarat	1988
2.	Dairy Development Scheme in Mehsana District, Gujarat	1989
3.	Lift Irrigation Scheme of Ukai Left Bank Main Canal – Gujarat	1991
4.	Financing of Tractors in Mehsana and Rajkot Districts, Gujarat	1992
5.	Investments Financed under IRDP in Valsad District, Gujarat	1994
6.	Market Yard in Jetpur, Rajkot District, Gujarat	2003
7.	Marine Fisheries in Junagarh District	2003
	Bangalore	
1.	Development of Grape Gardens in Bangalore and Kolar Districts, Karnataka	1989
2.	Borewell Financing in Chitradurga and Kolar Districts, Karnataka	1990
3.	Development of Coffee Gardens in Karnataka State	1992
4.	Sericulture Development in Karnataka – Farm Investments	1993
5.	Lift Irrigation Schemes in Belgaum District, Karnataka	2000
6.	Poultry (Broiler) Development in Bangalore (Rural) and Bangalore (Urban) Districts, Karnataka	2001
7.	Drip Irrigation Programme in Chitradurga District of Karnataka	2002
8.	Dairy Development in Kolar and Shimoga Districts of Karnataka	2003
9.	Sericulture in Kolar and Tumkur Districts of Karnataka	2003
10.	Fuelwood Development Project in Karnataka	2003
	Bhopal	
1.	Dugwell and Shallow Tubewell Irrigation in Narsinghpur District Madhya Pradesh	1988
2.	Tractor Financing in Raisen and Vidisha Districts, Madhya Pradesh	1989
3.	Commercial Layer Poultry Development in Indore District Madhya Pradesh	1992
4.	IRDP in Sagar District, Madhya Pradesh	1994
	Bhubaneswar	
1.	Betelvine Gardens in Puri District, Orissa	1989

2.	Tractors in Sambalpur District, Orissa	1989
3.	Dairy Development Scheme in Cuttak and Ganjam Districts, Orissa	1992
4.	Brackish Water Prawn Culture in Puri District, Orissa	1994
5.	Minor Irrigation in Sambalpur District, Orissa	1997
6.	Shallow Tubewells in Undivided Cuttak and Undivided Puri Districts Orissa	2000
7.	District Rural Industries Project (DRIP) and Primary Lending Institutions (PLI) Training Programme in Undivided Ganjam District of Orissa	2002
8.	Group Financing Under Farm Mechanisation in Orissa	2003

Chandigarh

1.	Poultry Farming in Punjab	1987
2.	Dairy Development Schemes in Karnal and Rohtak Districts, Haryana	1987
3.	Tractors in Haryana	1994
4.	Grape Gardens in Hissar District, Haryana	1998
5.	Inland Fisheries in Patiala and Bhatinda Districts, Punjab	2000
6.	Viability of Tractors in Punjab	2001
7.	Non-farm Sector in Ludhiana and Sangrur Districts of Punjab	2001
8.	Water Conveyance System in Rewari and Mahendragarh Districts of Haryana	2001
9.	Cold Storages in Jalandhar, Ludhiana and Patiala Districts of Punjab	2001
10.	Dairy Financing in Kurukshetra and Kaithal Districts of Haryana	2002
11.	Self Help Groups in Karnal, Gurgaon and Bhiwani District of Haryana	2002
12.	Poultry (Layers) in Sangrur and Gurdaspur Districts in Punjab	2003
13.	Financing of Tubewells in Bhatinda, Hoshiarpur and Ropar District of Punjab	2003
14.	Agro and Food Processing units in Haryana	2003
15.	Roads in Mukatsar District in Punjab	2003

Chennai

1.	Poultry Development in Salem District, Tamil Nadu	1988
2.	Dugwell Irrigation in Pudukkottai and North Arcot Districts, Tamil Nadu	1989
3.	Tea Gardens in Nilgiris District, Tamil Nadu	1990
4.	Minor Irrigation Investments under Massive Assistance Programme in South Arcot, Tiruchirappalli Districts, Tamil Nadu	1991
5.	Jasmine Investments in Salem and Madurai Districts, Tamil Nadu	1992
6.	Mini Dairy Investments in Coimbatore & Periyar Districts, Tamil Nadu	1994

7.	Marine Fisheries in Tamil Nadu	1998
8.	Sericulture in Tamil Nadu	1999
9.	IRDP in Tamil Nadu	2000
10.	Modern Rice Mills in Tamil Nadu	2001
11.	Coconut Development in Coimbatore District of Tamil Nadu	2002
12.	Minor Irrigation Credit Programme in Ramnad and Trichy Districts	2002
13.	District Rural Industries Project – An Evaluation Study in Tirunelveli District	2003
14.	Cold Storages in Tamil Nadu	2003

Guwahati

1.	Private Shallow Tubewells and Lift Points in Assam	1989
2.	Inland Fishery in West Tripura District, Tripura	1992
3.	IRDP in Nagaon District (Assam)	2000
4.	Farm Mechanisation (Power Tillers) in Sibsagar District, Assam	2000

Hyderabad

1.	Public Tubewells in Khammam District, Andhra Pradesh	1988
2.	Development of Grape Gardens in Rangareddy District, Andhra Pradesh	1989
3.	Dugwell Irrigation in Chittoor District, Andhra Pradesh	1989
4.	Mango Orchards in Krishna and Khammam Districts, Andhra Pradesh	1991
5.	On-Farm Development Works under Nagarjunasagar Project Command in Khammam and Krishna Districts, Andhra Pradesh	1995
6.	Inland Fishery in West Gogdavari District, Andhra Pradesh	1996
7.	Dairy Development in Krishna District, Andhra Pradesh	1999
8.	Poultry Layer Investment, Andhra Pradesh	2000
9.	Food (Mango) Processing in Visakhapatnam and Chittoor Districts	2001
10.	Sheep Rearing in Mahbubnagar and West Godawari Districts	2002
11.	An Ex-Post Evaluation Study on Sericulture Investments in Andhra Pradesh	2002

Jaipur

1	Minor Irrigation Structures in Kherwara P. S. Udaipur District, Rajasthan	1988
2.	Tractors in Alwar District, Rajasthan	1991
3.	Market Yard in Kekri – Ajmer District, Rajasthan	1991
4.	Borewell in Jodhpur District, Rajasthan	1993

5.	IRDP in Alwar District, Rajasthan	1995
6.	Poultry in Ajmer District, Rajasthan	1995
7.	Sprinkler Irrigation Schemes in Barmer District, Rajasthan	1997
8.	Dairy Scheme in Bharatpur District	1999
9.	Water Management Schemes in Jaipur District	2001
10.	Minor Irrigation Schemes in Bikaner District of Rajasthan	2001
11.	Orange Cultivation Schemes in Jhalawar District of Rajasthan	2002

Jammu

1.	IRDP in Baramullah District , Jammu & Kashmir	1992
2.	Tractors in Jammu District, Jammu & Kashmir	1995

Kolkata

1.	Inland Fisheries Scheme in Nadia District, West Bengal	1987
2.	Betelvine Gardens in Midnapore District, West Bengal	1989
3.	Bullocks and Bullock Carts in Malda District, West Bengal	1991
4.	Poultry Farming (Broiler) in Medinipur District, West Bengal	1999
5.	Minor Irrigation Schemes in Birbhum District, West Bengal	2000
6.	Ex-post Evaluation Study on Floriculture in Midnapore District of West Bengal	2002

Lucknow

1.	Minor Irrigation Scheme in Jhansi District, Uttar Pradesh	1988
2.	Tractors in Western Uttar Pradesh	1992
3.	Inland Fishery in Azamgarh and Deoria Districts, Uttar Pradesh	1994
4.	NFS in Moradabad District, Uttar Pradesh	1995
5.	Saghan Mini Dairy Project in Allahabad District, Uttar Pradesh	1997
6.	Mushroom Cultivation in Dehradun District, Uttar Pradesh	1997
7.	Grape in Muzaffarnagar District, Uttar Pradesh	1998
8.	Minor Irrigation in Raebareli District, Uttar Pradesh	1998

Patna

1.	Shallow Tubewells in Darbhanga, Madhubani and Samastipur Districts, Bihar	1988
2.	Deep Tubewells in Bihar	1989
3.	Dairy Development Scheme in Begusarai and Singhbhum Districts, Bihar	1989

4.	Minor Irrigation Schemes in Samastipur District, Bihar	1996
5.	IRDP in Ranchi District in Bihar	1997
6.	Cold Storages in Bihar	2004

Pune

1.	Lift Irrigation Schemes in Ahmednagar District, Maharashtra	1988
2.	Well Irrigation in Aurangabad District, Maharashtra	1991
3.	Poultry Development in Pune District, Maharashtra	1991
4.	Grape Gardens in Nasik District, Maharashtra	1993
5.	Land Development in Command Area of Kukkadi Project	1995
6.	IRDP in Yavatmal District	1998
7.	Farm Mechanisation in Ahmednagar District of Maharashtra	1999
8.	Post Harvest Centres (Pre-Cooling, etc.) for export of Grapes in Maharashtra	2001
9.	Rice Mills in Maharashtra	2002

Shimla

1.	Dairy Development in Mandi District, Himachal Pradesh	1997

Thiruvananthapuram

1.	Betelvine Gardens in Trivandrum District, Kerala	1988
2.	Broiler Poultry Development in Ernakulam District, Kerala	1990
3.	Development of Rubber Plantation in Kattayam District, Kerala	1991
4.	Fisheries Development in Kollam District, Kearla	1992
5.	Farm Mechanisation in Palghat and Ernakulam Districts, Kerala	1995
6.	Rural Non-Farm Sector in Malappuram and Kozhikode Districts, Kearla	1998
7.	Sprinkler Irrigation in Arecanu Gardens in Kasargod District of Kerala	2002
8.	Dairy Development in Kollam District of Kerala	2002
9.	Minor Irrigation in Kasaragod and Kannur Districts of Kerala	2003

Copies of the evaluation study reports can be obtained from the Chief General Manager, Department of Economic Analysis and Research (DEAR), National Bank for Agriculture and Rural Development, C-24, 'G' Block, Bandra – Kurla Complex, Bandra (East), Mumbai – 400 051.