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Department of Economic Analysis & Research
National Bank for
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Mumbai

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THEME-1 : Credit Support to Handloom Weavers-Problems & Prospects

Summary No-01

Profile of the Student:

Name: Krishna Priya Dutta

Degree Programme: MBA

University/ Institute: Department of Business Administration, Gauhati University

Profile of the Mentor:

Name: Eleebon Tariang

Designation: AGM

Department: OFDD / DEAR

Name of Regional Office: Assam (Guwahati)

Objectives of the Study:

- To study the socio economic conditions of the weavers.
- To analyse the economic status of handloom weavers.
- To find out the costs of setting up a household handloom, income generated and forward and backward linkages.
- To study the problems of credit support to weavers.
- To evaluate awareness about government schemes and programs in handloom development.
- To ascertain the challenges to handloom development.

Research Methodology:

The district of Sibsagar was selected for the field study because it has highest concentration of weavers in Upper Assam. Field work for the study was undertaken in the blocks of Sibsagar, Simalguri and Lakhowa from 6th April 2016 to 20th June 2016.

A survey of a 60 handloom households was undertaken and interpreted for the study out of 15940 weavers. Sampling of respondents was done randomly from the list of handloom households. Both quantitative and qualitative techniques were used for data analysis.

The Research Instrument used was a predesigned questionnaire and group interview method. A structured questionnaire is designed to collect the primary data from the sample respondents. Questionnaire consisting of mainly open and close ended questions. The questions are designed in such a way that these are easily understandable and easy to respond.

Interview: Apart from Questionnaire, interview methods were adopted whenever necessary, particularly for cross validation of data. Though primary data was collected mainly through Structured Questionnaire and Interview method, various information which the respondents were reluctant to reveal were gathered through Observation technique also.

To make the study more interesting, data was also taken from Secondary sources like : Statistical Handloom of India, Census 2009-10, Statistical Handloom of Assam 2014, published by Government of Assam.

Both quantitative and qualitative techniques were used for data analysis. Hence only a range of frequency was adopted for description and interpretation of results and logical conclusion as well. Further, for better understanding pictorial representation is also used.

Major Observations / Findings:

The non-availability of adequate quantities of good quality raw materials at reasonable prices.

The household weavers lack a proper market for selling their products. To elaborate, their market horizon is mostly restricted to the vicinity of their villages. This readymade albeit limited reach of their products serves the demand of the existing customer base.

A total of 37 weavers showed a positive response towards use of upgraded technology in weaving and 23 weavers were more comfortable weaving in the traditional way.

Training is a critical process needed in any work to achieve success. Training is an effective way of enabling any person to acquire new skills and knowledge, as well as enhance better working practices.

Marketing of Handloom cloth is done by weavers themselves, master weavers, middlemen, co-operative societies and also by marketing organisations, like Apex Weavers Co-operative societies,

63 percent weavers availed credit from Banking institutions and Government schemes at present (38 weavers) whereas 37 percent have not availed any Government schemes or Bank loan (22 weavers) because they had a narrow perception regarding loan application procedure being complicated and they were not sure whether they can repay or not.

A major sources of credit for household weavers (35 weavers) are informal as most of them cannot apply for formal credit due to lack of proper documents which is needed to avail the government schemes and bank loans. Thus, they take credit at a higher interest rates from local money lenders. Informal sources in the study include Self Help Group, Money Lenders, Cooperative Societies, Friends and Relatives where the rate of interest is always high.

A few weavers showed positive response and said their major source of credit is formal. Formal sources in the study include banks like State Bank Of India, Union Bank Of India, United Bank, Bandhan Bank, Rashtriya Gramin Vikas Micro Finance Ltd etc . (all the formal banks have a special interest rate for the weavers, i.e. 3% less than the market).

Major reasons for taking credit are personal use , financing medical expenses, financing education of their children, expansion of accommodation and most importantly to set up a new independent weaving loom to increase production so that they can earn some extra money.

Credit is needed for upgradation of existing machinery, purchasing yarns, looms, for transportation, packaging etc, loan availed by the household weavers also serve several other purposes when the weavers face a shortage of finance.

When weaver avails these Govt. schemes, the whole process is so lengthy and time consuming that the weavers have to wait for a longer duration for the loans/schemes to get sanctioned for weaving. The weavers are unaware of the application process and the perception regarding these schemes are narrow and they aren't sure if they can meet the repayment requirement.

The weavers avail the loan stating the purpose as weaving but end up consuming the loan amount for personal use. Thus, commercial banks are reluctant in giving loans to the weavers as most of them are unable to repay the loans because the money was not used for any revenue generating purpose.

Though Government of India has initiated various schemes for development of handloom sector, there is still a lack of awareness about various schemes and assistance available to them . Weavers mostly acquire the Identity Cards through agents / middle men who provide them the card without informing them about the benefit and utility of the card.

The number of weavers benefiting from the various schemes is very less. The reason behind the same is the inefficiency of the local concerned authority to create awareness, delay in disbursement of the funds, the credit facilities currently available to weavers are far from adequate.

A majority of weavers are to be found outside the co-operative fold, weaving usually for master weavers or on their own. The credit needs of this sector have remained unaddressed. The existing situation is one where the local master weaver provides consumption loans and/or advances, which over time, render the weaver completely indebted to the master weaver.

Major Recommendations:

- To enhance the competitiveness of handloom products, a range of items needs to be identified, developed and tested first. While identifying the products, it should be kept in mind that the items are unique and cannot be easily copied by other regions or other countries. For this, a market survey should also be carried out periodically to find out the new products, new trends, change of taste, colour etc, and also to identify new and potential customers.
- As the handloom market today is very competitive, it is necessary that the weavers should ensure consistency in terms of quality of the products, finishing of the goods and rate of production. This is only possible if they are aware of the latest technology, designs, quality standards etc in this field. So the Govt. of India should ensure that the weavers are trained on a timely basis.
- The majority of the household weavers are not aware about various new schemes like loans at a concessional rate, free tools, insurance coverage, intensive training, hank yarn at subsidized rate etc . Thus, it is the duty of the concerned government authority to make the weavers aware about the various welfare schemes and to initiate proper process to implement them.
- In order to ensure the availability of yarn, multi-pronged strategy is required. More yarn depots should be allocated to the areas dominated by independent weavers rather than only focusing on clusters. These depots should also supply yarn in smaller quantities. Subsidised yarn assistance would benefit the household weavers thus faster implementation of schemes such as Yarn Supply Scheme should be focused upon.
- Loom improvement and better ergonomics is a very important issue that needs to be focused. As the production process for handloom adversely affect the health of weavers in various ways such as body pain, pulmonary problems, decrease in hand-grip ,strength and strain on eyes. Hence the Ministry of Textiles in collaboration with Ministry of Health should set up Weavers Health Camp on a regular basis where the weavers can get their health check up done free of cost.
- Organising Awareness Camps in different blocks of Sibsagar may also help in spreading awareness among them.
- Dedicated SHGs for weavers should be formed and training facilities upgraded to ensure 100% coverage of handloom weavers.
- Focus should be given to awareness generation amongst the citizens and mainly on the youth for sustainable consumption of handloom items.
- A web-portal should be created to provide e-marketing platform with B2B (Business to Business) and B2C (Business to Customer) facility.
- Weavers also be encouraged to participate in trade fairs and exhibition where they can demonstrate their products which in turn will help them to reach to the consumers directly.
- To identify and train the highly skilled weavers to take weaving to a higher level.

Summary No-02

Profile of the Student:

Name: Sarup Sinha

Degree Programme: MA (Development Studies)

University/ Institute: Department of Humanities & Social Sciences, IIT Guwahati

Profile of the Mentor:

Name: Eleebon Tariang

Designation: AGM

Department: OFDD / DEAR

Name of Regional Office: Assam (Guwahati)

Objectives of the Study:

1. To assess the socio economic conditions of the handloom households.
2. To identify the source of credit.
3. To assess the problems and prospects of credit support to weavers.
4. To evaluate their awareness about government schemes and programmes.
5. To ascertain the challenges to handloom development.

Sample Size / Districts / Villages : Cachar district of Assam was selected for conducting the survey. Field Work for the study was undertaken in the blocks of Borkhola, Kalain, and Udharbond. A total number of 70 households were covered for the survey out of which 60 samples have been used and interpreted for the study. A total number of 10 villages were covered in the field visit namely Pangram, Purandarpur, Vitar Gangapur, Kashipur, Singari, Rangrikheri, Burunga pt 1, Sewti Pt II, Behara Pt IV and Gorer Vitar.

Research Methodology

A mix of both qualitative and quantitative techniques has been used for the research. Selection of surveyed villages was done through Random and Purposive Sampling Method after consultation with the Asst Directorate of Handloom and Textiles Office, Silchar and NABARD District Development Manager of Cachar. Data was collected from the respondents using a questionnaire and interview.

Questionnaire was finalised with permission from the NABARD Regional Office, Guwahati after careful evaluation, multiple editing and modifications of the content keeping the study objectives in view. Questionnaire consisted of both open and close ended questions. For the purpose of interview, both structured as well as unstructured form of interviews were used for better communication and collection of data. Prior permission was taken from the respondents before the data collection and interview.

For the purpose of Data Interpretation, MS Excel was used upon entering the data manually from the questionnaire. All the collected data, open ended questions and responses from the interview were carefully evaluated and analysed along with rest of the relevant data before preparing the final report.

Major Findings / Observations:

Cachar district is home to a solid base of experienced weavers exhibiting their tradition through the beauty of their handloom products. These weavers however have little footprint on the handloom map

owing to several factor as highlighted by the report. The socio economic status is mixed as weaving activity is not limited to a particular class but practices by all classes and social groups alike.

The sector suffers from the lack of upgradation in technology. Additionally the weavers have little linkage with the market which could give thrust to their business. Contrary to beliefs, the slow pace of growth is not due to lack of interest among weavers to upgrade their looms or adopt newer designs, rather it is due to an acute lack of awareness among weavers related to many aspect of development vis a vis upgraded looms, schemes and programmes, association with handloom office and credit support.

Weavers have enthusiastically expressed their desire for training and upgradation but they don't have access to proper guidance required to go through the process whether it is regarding initiating a corporate society, communicate with the district handloom office, avail government schemes and programmes, and explore the applicable credit options. In many ways it is not always possible for the village weavers to make rounds to the far distance of the city coupled with the burden of household work.

It is crucial to understand that loan application requires thorough understanding of the schemes without which it becomes difficult for the weavers to feel confident about availing loan. They need rightful instructions, incentives and assurance about their benefits and opportunites. Government and Banking Instiutions play a large role in this regard and thus require to be actively involved in this process as it is impossible to achieve without their support.

Weavers have a miniscule reach to the market, largely the independent weavers, who make an income from selling their product among the village community. In order to convince the weavers to adopt the necessary upgradation there should be visible expansion of their market and product demand to motivate them. If there is little scope and opportunities for the weavers to sustain their income from weaving then there will be a decline in the handloom activity, This thought was evident from the statements of the weavers who expressed their concern that young family members or new generation in general is less inclined towards learning weaving and display less interest in furthering the handloom tradition as they foresee limited prospects in the future.

Weavers from the district are in need of greater exposure and expansion. Apart from that they require support in gaining information about programmes and credit schemes. A large section of weavers needs to be integrated with the handloom department. In simplistic terms, lack of awareness seems the root cause for many problems which cannot be changed overnight and to get rid of this problem a proper channel and programme in large scale needs to be initiated which could permeate across villages to spread required awareness and knowledge. The government is emphasizing on rejuvenating the handloom sector and it needs to reach the weavers in order to meet that target. Further, an overall healthy market for handloom products across all regions needs to be generated especially at times when the sector is facing stiff competition from power looms and textile industry.

To conclude, ensuring the sustenance of handloom is not only a task of enhancing economic viability of the sector but a responsibility of protecting the cultural heritage of our nation. Handloom sector needs a revival which not only requires an allencompassing contribution from government but an equal cooperation from weavers to strengthen this relationship in an attempt to consolidate the presence of handloom products.

Major Recommendations

Organising Awareness Camps in 3 to 4 villages of each block of the district encompassing various parameters regarding various schemes and programmes, credit support, training and upgradation. This will reach a wider section of the population and spread awareness in the district.

Adopting a right methodology of identification and enrolment of selected weavers who are actually interested in training and pursue it thoroughly.

The handloom district office should integrate more weavers into their schemes and programmes across different villages and not limit the scope to a specific area. This is crucial because there is a significant segment of weavers interested in upgradation and further their commercial activities but remain alienated.

Institutions should facilitate in setting up cooperative societies and availing the benefits of different programmes especially in case of elderly population or less educated.

Weavers have to travel a long distance to purchase their raw materials. Hence it would be convenient for the weavers if they receive the yarn assistance through faster implementation of Schemes like Yarn Supply Scheme.

Launch of a state wide programme for effective dissemination of information about the important handloom announcements and encourage weavers to participate in events such as fairs and exhibitons being organized for handloom products.

Summary No-03

Profile of the Student:

Name: Ankit Singh Chauhan

Degree Programme: M.Sc.

University/ Institute: School of Ecology & Environment Studies, Nalanda University

Profile of the Mentor:

Name: Amitabh Mohan

Designation: AGM

Department: DOS & Rajbhasha Prabhag

Name of Regional Office: Bihar (Patna)

Objectives of the Study:

- i. To visualize the state environment for weaving segment by observation the socio-economic status of the weavers
- ii. To present production situation, require and supply gaps, appropriateness of techniques and tools used, appropriateness and relevance of designs in recognize of supermarket
- iii. To know present skill level and availability, strength of the fabric produced for both domestic and export supermarket
- iv. To ascertain critical backward and forward linkages, availability of credit for weavers.

Sample Size:

Total 200 (80 from Nepura and Amirganj, 40 from Manpur & 80 from Puraini villages of Nalanda, Gaya and Bhagalpur districts respectively). Most of the weavers are in the age-group of 24 to 50 years.

The sample in each district was spread over a number of villages. Data were also collected through several in-depth interviews among the stakeholders viz. legislature officials from the District Industry Centre including General Managers, people from the banking segment overseeing the execution of credit plan, representatives of the District Chamber of Commerce, traders, office-bearers of the Primary Weavers Cooperative Societies, modern experts associated with government owned weavers training centres and processing units, etc.

Research Methodology:

For the study of credit support to the handloom weavers, structured questionnaire as developed for the handloom weavers keeping in view the objective of the study. Similarly structured questionnaire were developed and finalized to get optimum result. All the set questionnaires and information were analysed to arrive at findings keeping in view the objectives of the study.

Data was brought together both over primary and secondary sources and through quantitative and qualitative methods. Primary data was collected from the weavers, the community and the stakeholders, at the same time the secondary data was collected from published and unpublished sources, over relevant websites, webpage etc. The quantitative data was especially collected by interviewing 200 weavers and major stakeholders such as traders (mahajans) and weaver's cooperative societies.

Major Observations / Findings:

The Handloom Sector is a well known of the largest unorganized financial activities afterwards agriculture and constitutes a basic part of the sub urban and semi rural livelihood.

Handloom weaving constitutes such of the richest and most vibrant aspects of the Indian cultural heritage. The segment has an advantage of over less credit intensive, minimal serve of power, eco-friendly, and ability of small production, openness to innovations and adaptability to supermarket requirements.

It is a natural productive asset and traditional at cottage level, which has sustained and grown by communicate of skill from one generation to other.

As per third handloom census, 43 lakhs people are involved in this vocation during the 2009-10 as compared to the 63.5 lakhs people during the census of 1995-96. One could see the drop in the weaver's population.

Weavers Community people are from vulnerable and weaker section of the society to get a bread of piece for households. The crux of the problems is non availability of the market and credit.

Major Recommendations:

- i. The Central Processing Plant, and Dying Finishing Plant in Biharshariff, which are closed for more than a decade now is a clear reflection of the decline of the textile sector in the state may be revived.
- ii. The weavers are facing difficulties in procurement of raw materials. This has led to increased dependence of the weavers for work on local mahajans. To address the issue of availability of quality yarns to weavers at reasonable rates, there should be raw material banks/yarn depots in various handloom clusters of three districts.
- iii. The finishing and packing centres prospective facilitated for efficient marketing of the handloom products in the state. Such enrollment weaving centres/finishing and packing centres in major handloom clusters make out have facilities of screen/block printing, surface beautification/embroidery etc
- iv. Health is hidden back bone of an economy. Most of the weavers are still using traditional pit loom and reported back pain, joint pain and breathing problem caused by dust of the raw material. They are spending their half of their income on medical treatments. Government could increase productivity through better occupational health. Health card should be provided by Central or state government.
- v. It is expected to have a programme designed to sensitize the bankers roughly the sector. A conclusion of workshops may be conducted in masterpiece handloom clusters of the state which would be aimed at making bankers visualize the segment better and thus enable them to take informed budget decisions. Lead Banks of the identified clusters may also be persuaded to have a in a class by itself component for weavers in respective District Credit Plans.
- vi. Further, realizing the limitations of formal banking sector in addressing the needs of the weavers, it is recommended to develop a Micro finance plan for the sector which would add fuel to fire bringing in Micro Finance Institutions (MFI) in the state. Thus, a fortunate micro finance network in the state may be created with attract on handloom sector.
- vii. The demand side has to be strengthened and the proposed comprehensive service plan is aimed at making the sector impressive for bankers. The expected handloom park projects, to be positioned as commercially sustainable projects to bankers, may also be able to address the gaps in credit linkages to the sector.

Summary No-04

Profile of the Student:

Name: Ajay Vir Rathee

Degree Programme: PGDM

University/ Institute: Global Business Operations, Sri Ram College of Commerce, Delhi

Profile of the Mentor:

Name: Rajiv Siwach

Designation: DGM

Department: Chairman Secretariat

Name of Regional Office: New Delhi

Objectives of the Study:

- i. To make a diagnostic study of selected handloom units in Panipat.
- ii. To study the functioning of handloom co-operative societies.
- iii. To study credit support and marketing for handloom and impact of government schemes.

Research Methodology:

The present study is based primarily on primary data. Besides this secondary data is also used wherever necessary. To secure the some guidelines, directions and suggestions for developing questionnaire, a pilot survey was undertaken in the study area. The direct interview method with a structured questionnaire helped in variety of ways. A sample of 60 individuals (15 units of each type) i.e. weavers, wage workers, master weavers and co-operative Societies have been selected through random sampling method.

Major Observations / Findings:

The literacy levels of the weavers are inadequate. This also shows that younger generation is reluctant to adopt weaving as their profession. A number of weavers are trying to change their profession because of tough working conditions, lower wages, lower income, irregular supply of raw material, low margin on the products, complex procedures to access institutional credit support and marketing. The weavers find it difficult to get loans from banks. They are dependent on private agencies like money-lenders and master weavers. Marketing of handloom cloth is one of the important problems that call for the drawing up of a suitable strategy. Very low percentage of weavers would attend the fairs and exhibitions to show their products and mainly follow traditional ways of marketing. Major hurdles faced in marketing of products are price fluctuation, transportation, language barriers, low selling price and insufficient selling platforms. The weavers face the problem of competition from mill and power-loom products on one side and lack of promotional techniques on the other. Currently, powerlooms are in majority because of higher productivity and earning better livelihood. Weavers working under co-operative societies are doing better than independent weavers and working for master weavers. Working condition of the handloom weavers are not favourable.

Major Recommendations:

There is a need for scaling up the handloom sector, providing them better and easily available credit facilities, regular supply of raw material, modern techniques of marketing i.e. advertising, packaging,

transportation and other marketing arrangements like exhibitions, fairs, Handloom expo etc. There should be arrangement for weavers to access loans on easy repayment terms. Besides this, there is need to simplify the loan process so that it won't be a cumbersome task for the weavers to take loan from formal financial institutions. There is need for policy changes both at centre and state levels to design region specific schemes taking into consideration the requirements to strengthen the handloom sector. Involvement of banking sector to provide easier credit facilities is very important and established retail chains should come forward for marketing of the products. There should be training programs for the upgradation of skills in production, planning, costing, quality and marketing of the handloom products as well as in design development so that the new generation of weavers may learn not only about new technologies but also about traditional designs.

Summary No-05

Profile of the Student :

Name: Puja Khiwasara

Degree Programme: MBA

University/ Institute: Banasthali Vidyapith, Banasthali University

Profile of the Mentor:

Name: R.K. Gahlawat

Designation: AGM

Department: DOR

Name of Regional Office: Rajasthan (Jaipur)

Objectives of the study

- i. To study the status, problems and challenges faced by handloom sector in Rajasthan.
- ii. To access the areas of credit requirement of the weavers.
- iii. To identify issues hindering availability of adequate and timely institutional credit to weavers through formal channels.
- iv. To study institutional ecosystem & sustainable models in handloom sector.
- v. To suggest actionable measures to be taken by the lending institutions and the State /Central Government in order to improve access to finance.

Sample State/ Distt/ Blocks/ Villages: Bikaner, Jaipur and Kota

Sample size: 32(6 Weaver's societies, 7 master weaver, 15 weavers, 4 banks).

Research Methodology:

The study was conducted in 3 districts of Rajasthan: Bikaner, Jaipur and Kota. The study helps to identify the requirement of working capital and term credit for the purpose of production, marketing, and loom upgradation. Detailed Questionnaires were developed for interacting with weavers, Weaver's Cooperative Societies /Master Weavers and Bankers. Based on the questionnaire and field level situations, interactions /discussions were done with weavers, master weavers, weavers societies, bankers and government officers. Information related to the study /project was collected and consolidated.

Major Findings:

- **General Problems of the handloom sector:** Though it is the second largest employment generation activity in India, handloom sector in Rajasthan faces multifarious problem of weak infrastructure, high cost of production, lack for technology, low demand, ineffective marketing, and lack of availability of timely and adequate credit.
- **Assessing the demand for credit in area selected:** This study aimed to assess credit gap in selected districts by assessing the demand for credit and supply of credit by various financial institutions. The credit demand in the handloom sector is for working capital, maintenance of looms, ancillary activities and small portion of consumption expenses. The working capital was accessed by the operating cycle of different handloom products. The average number of operating cycle in a year

was 3 – 6 depending upon the time taken for availability of raw material, weaving, availability of timely market, and receipt from sales proceeds. The average working capital requirement per loom ranges in between Rs.30,000 to Rs.75,000 per annum.

Looms used by the weavers were old and outdated. Most of the weavers were found ignorant about the new technology. It was observed that there was a felt need for loom upgradation. As handlooms are small units, the size of term loan requirement is very small. Tara looms, Dobby and Jacquard are technologies that may be installed as one time investment as to increase productivity and innovation in designs and patterns

The average amount of financing done by banks under Weaver Credit Card Scheme to weavers was found to be Rs. 25,000. Thus there was almost double the credit gap in demand and supply of credit and it ranged in between Rs.5,000/- to Rs.50,000/-.

- **Credit Support to handloom sector:** Lack of adequate and timely access to credit is one of the biggest challenges of Handloom Sector in Rajasthan. The findings of the study have shown that only a small percentage of credit requirements of handloom weavers is met from institutional finance. The study has analyzed the importance of assessing the credit gap, different dimensions of credit related issues for handloom sectors and the bottlenecks in credit delivery mechanism. The discussion with the weavers revealed that banks were reluctant to finance weavers. The RRR package has not led to revival for PWCs in Rajasthan. It was observed that the Self-Help Groups was formed so that delivery of credit support can be easily available to weavers.
- **Institutional Ecosystem for Handloom Sector and Sustainable Models for Handloom Sector:** The handloom sector in India comprises a wide range of agencies and organisation. The governance of its diverse components is spread over several central government ministries and numerous state departments while implemental players primarily include NGOs, market organizations, and financial agencies. The challenge for the sector is to achieve convergence of policies and schemes to optimize production and marketing in a manner that will benefit the most vulnerable members of the value chain, i.e. the handloom producers and their families. It is also important to achieve scale and sustainability in production in order to attain a stable market environment families.

To achieve sustainability of the handloom sector, agencies like Rang Sutra Craft Duniya Producer Company Limited, Rangсутra Crafts private limited, FabIndia, Tattvam Lifestyles Private limited have their own models for supply of raw material; at production level, intervention are required in bringing new designs, accounting and marketing, different credit models to support handloom sector. These agencies are working closely with the handloom weavers to bring innovation and provide marketing support for handloom sector. Handloom Mark, Geographical Indication Patenting [GI], E-marketing technology adopted by agencies will help handloom sector grow. Moreover the importance of studying these models is included in the study because these are financial well supported by banks.

Major Recommendations:

- a. There is a dire need for adopting focused approach to set up full-fledged Directorate of Handloom.
- b. Common facility centres may be used for effectively by employing professional staff for its management. All information regarding government schemes and policies need to be processed through timely meetings and display notices on CFC.

- c. **Credit requirement of the weavers:** Increase the overall flow of credit to weavers by;
- i) Simplification of processing of the loan application.
 - ii) Organising financial literacy and Awareness camps for handloom weavers.
 - iii) Grievance Redressal Mechanism system may be introduced to handle complaints of weavers.
 - iv) Formation Of SHGs may be encouraged so that credit
 - v) Monitoring of the schemes is necessary and can be done through e-governance.
 - vi) Issue of Weaver Identity Card to weavers.
 - vii) NABARD and SIDBI should expand reach to include NBFCs to extend finance to weavers.
 - viii) Handloom may be covered under MSME Schemes.
 - ix) Technology may be used in maintain books of accounts of PWCs.
- d. Involvement of NGOs per weaver cluster may be encouraged for improving the socio-economic conditions of the weavers and awareness among the weavers.
- e. Business Models such as Producer companies and Business Aggregator models may be formed in handloom sector for better production, marketing and financing support.
- f. Improvements in Value Chains
- i) The scope, coverage and guidelines under NHDC may be modified. Online order placement for purchase of yarn may be encouraged.
 - ii) Weavers may be covered under welfare schemes such as Pradhan Mantri Bima Yojna etc.
 - iii) Skill Development Training Programmes may be provided to weavers.
 - iv) Restructuring of Rajasthan Rajaya Bunkar Sahkari Sangh Limited and Rajasthan Handloom Development Corporation for effective marketing support.
 - v) Punishment and Counseling for those who violate GI patent and Handloom Reservation Act.
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Summary No-06

Profile of the Student:

Name: Dishika Agrawal

Degree Programme: MBA

University/ Institute: School of Management Studies, MNNIT, Allahabad

Profile of Mentor:

Name: Pratima Mishra

Designation: DGM

Department: DOR & BID

Name of Regional Office: Uttar Pradesh (Lucknow)

Objectives of the study:

- i. To identify the issues faced by the weavers.
- ii. To identify the credit providing agencies to the handloom sector
- iii. To suggest policy changes for more equitable and efficient productivity of handloom sector.

Research Methodology:

The study is based on the sample population of the weavers in Varanasi and Azamgarh districts of Uttar Pradesh, chosen on the basis of concentration of handloom weavers. The sample size comprised of 100 weavers. Half of the sample size was covered in Varanasi and half of it was covered in Azamgarh. The members of primary weavers' cooperative society, common facility centers, DDMs of respective districts and various agencies associated with the handloom sector of the districts were also contacted and information collected from them.

Major Findings:

The study identified the huge economic importance of the sector in the country. A number of schemes that were launched for the upliftment of the sector were studied and their financial and physical importance analyzed

a. Study findings in Varanasi:.

- I. Problems of banking agencies in Varanasi:** As per the interaction with the various banks in the district following points of concerns were observed:
 - i) **Lack of awareness:** One of the important problems faced by the credit support agencies was the illiteracy among the handloom weavers. The weavers were ignorant about the various government schemes and at the same time they did not have sufficient knowledge regarding the procedures for availment of loan advancement.
 - ii) **Recovery of loan:** Banks in the district faced another crucial problem i.e. lack of repayment. The weavers did not repay the loans they had taken previously on account of various reasons. As a result of which the banks feel insecure in advancing further loans to the handloom sector.
 - iii) **Lack of collateral:** The weavers did not have sufficient income and hence they were incapable in providing collateral as well as guarantor to the bank, hence the banks failed to advance them loans for up scaling their business.

- iv) Issues associated with Common Facility Centers (CFCs): CFCs have emerged as a major source of raw materials and other services to the handloom weavers in past 3 years. They also faced problems stock accumulation because of the inability of the weavers to lift the stock already placed with CFCs.
- v) **Issues associated with the PWCSs:** In Varanasi it was observed that though there were sufficient number of societies, their functioning was negligible. The societies had a very limited role in the handloom sector which concentrated only on providing the raw materials to the weavers. This was also hampered as the societies had limited resources in providing the same. The weavers in the district were mostly of independent nature.

II. Problems of the weavers: In Varanasi it was seen that though the weavers were independent in nature in terms of purchase of raw material, they depend upon the middlemen for the sale of their products. Various other problems are listed below:

- i) **Lack of stock:** The weavers in the districts did not have sufficient resources to build up the huge stock, and unavailability of stock prevented them from directly dealing with the dealers. Thus they have to depend upon the middlemen for the sale of their products in farfetched areas. The weavers were paid a nominal amount for their produce but the products manufactured by them were high priced when finally sold to the consumers.
 - ii) **Time and knowledge constraint:** The weavers had to work around 26 days in a month for around 7 to 8 hours per day. In such a hectic working schedule the weavers were able to manufacture on an average 3 sarees per month. These sarees would generate the revenue of Rs 3000 to Rs 4000. The income earned is just sufficient to sustain their family. The weavers felt that it is a waste of time to avail the credit from institutions also would hamper their productivity. The weavers also did not have sufficient knowledge and insight to avail those services.
 - iii) **Insufficient savings:** The weavers of the district had no savings with themselves on account of their minimum income. If any amount was left with them, the weavers had a tendency to spend the same rather than depositing it into the banks.
 - iv) **Ageing population:** Among the sample that was visited in Varanasi it was discovered that the majority of the weavers were in the age group of above 55 years, this showed that the population is ageing and at the same time it may have various health issues reducing their productivity.
 - v) **Loan takers:** Few of the weavers who have been advanced loans by banks had taken it for the purpose of expansion and purchase of yarn. The loan was duly repaid by the weavers as per the data collected from the banks.
 - vi) **Cost of transportation:** In Varanasi it was discovered that the weavers had to spend money on transportation to reach to the middlemen i.e. 'Gaddidar' for the sale of their products. The cost of transportation amounted to around Rs 100-150 in a month.
- a) **Study findings in Azamgarh:** In Azamgarh it was found that the societies in the district had a very prominent role. The weavers surveyed were the member of one or other society. Some of the major issues identified were as under:
- i) **Conditions of the weavers:** In Azamgarh the situation of weavers was worse than Varanasi. The weavers used pit looms for their weaving, lived in semi pucca houses and were mostly illiterate with a little knowledge of just writing their names. The weavers did not use sufficient lighting during weaving.

- ii) Role of the cooperative societies: In Azamgarh it could be observed that the president of the society acted more or less like a Master Weavers. He was responsible for providing the raw material to the weavers. He was the one to finalize the designing pattern of the products. The president of the society was often termed as 'Sabhapati' He was also responsible to sell the products to dealer in Varanasi as he had sufficient financial resources at his disposal. The weavers worked day and night and were paid a predecided wage with no share in profit earned by the sale of the product woven by them.
- iii) Competition with the powerloom: In terms of similar quality and relatively lesser price powerloom manufactured products pose a serious threat to the business of handloom weavers.
- iv) Problems with banks: The banks in Azamgarh said that there was lack of repayment of the credit borrowed by the handloom weavers.
- v) Demographic profile: The majority of weavers in Azamgarh were in the age group of 35 – 45 years and had a monthly income of around Rs1000 through wages.
- vi) Financial services usage: The weavers in the district did not take loans on a large scale and banks accounts were used only for the purpose of getting cooking gas subsidy.

Major Recommendations:

- a) Direct buyers seller meet: In order to curtail the exploitation of the weavers by the middlemen it is necessary that direct interactions of the weavers with the buyers are arranged. In this regard retail outlets could be established.
- b) Design development: Huge cost is involved in the design development and at the same time designs are not up to date as per the demand in the market. Collaboration with training institutes and fashion designers could be made. They would add a brand value to the product promoting its market presence.
- c) Working conditions In order to work for the betterment and growth of the weavers it is required that the working environment is improved. In order to reduce drudgery coolers instead of pit looms could be used. Education is another prime concern in this regard.
- d) Promoting organizations like the CFCs: The duties and responsibilities of the institutes like CFCs must be enhanced. At the same time new ones should also be established.
- e) Reviewing the PWCSs: The working of PWCSs needs to be reviewed and corrective actions are required to be taken. Control on activities of PWCS is required to be taken to prevent them from acting like master weavers.
- f) Promoting cluster development: The cluster development programmes are needed to be strengthened and a sense of working in groups is needed to be inculcated in the minds of the weavers.
- g) Promotion of handloom: To increase the income of the weavers efforts are needed to be made on the part of the government to promote handloom products in the foreign market. This would increase the demand of the product leading to increased income of the weavers and hence better repayment capacity.

Summary No-07

Profile of the Student:

Name: Urikhimbam Fernandes Singh

Degree Programme: MBA

University/ Institute: Manipur Institute of Management Studies, Manipur University

Profile of the Mentor:

Name: Rajkumar Y. Meitei

Designation: AGM

Department: FSDD/BID/DFIBT/DEAR/NABCONS

Name of Regional Office : Manipur (Imphal)

Objectives of the study

i. To study the problems and Prospects in Handloom Sector in Manipur

Sample State/ Distt/ Blocks/ Villages: 4 districts (Imphal East, Thoubal, Churachandpur and Ukhrul) & 200 beneficiaries

Research Methodology: Purposive SAMPLING

Major Findings:

A. CREDIT LINKAGE:

1. There is huge credit gap in financing this sector.
2. Though the banks agree that the sector has high potential, they are not investing much in this sector.
3. Weaver Credit Card (WCC) targets allotted to the banks are not taken seriously.
4. Major reason for reluctance by Banks is the fear of poor repayment (past experience) in the Sector. Another reason is the delay in release of the subsidy of margin money.
5. These shortfalls in finance are met from credit from private lenders and local Micro Finance Institutions, which provide their working capital requirement.
6. High Level of financial exclusion is observed. 44% of the sample do not even have a Savings Bank A/c and 83% do not have access to formal financial support from any Bank.
7. Only 17% of the Banks organize financial literacy program at least once a year
8. Collective or group financing like SHG, JLG, Society etc. based financing are a preferred mode of financing by Banks.

B. CHALLENGES OF HANDLOOM SECTOR:

1. Huge Decline in the number of Handloom workers in Manipur is a major challenge. Number of weavers have declined from 4.62 Lakh (Handloom Census of India, 1995-96) to 2.04 Lakh Handloom workers (Handloom Census of India, 2009-10)
2. The Growth of Handloom Sector in Manipur is hampered with several issues such as inadequate credit flow, lack of marketing interventions, high transportation costs, problems of connectivity & communications, weak Handloom co-operative societies, lack of exporters of Handloom products, high cost of yarn, Lack of proper Yarn Depot, etc.
3. There is lack of funds and resources in most of the Handloom societies. Also, lack of trust and huge communication gap between the leaders/office bearers and members.
4. Average Income of the Weavers is very low in Manipur and there is an urgent need for addressing this, else the viability of weaving as a sole means of livelihood is at a risk.
5. There is a system of Yarn supply by NHDC under which small Yarn Depots (117 Clusters) are supported. 8% of the Handloom Weavers of Manipur have Yarn Pass Book. Implementation of the scheme needs to be improved and so as to bring in more weavers under their Yarn Supply Scheme by creating more awareness.

6. Most of the weavers education qualification levels are low – 86% of the sample upto 10th Standard (only 1% Graduate and above). This has resulted in lack of awareness of many govt. schemes.
7. Yarn price is very high in rural and remote areas as compared to the urban markets.

C. MARKETING ASPECT:

1. Marketing of finished handloom goods are usually handled by middlemen/local marketers.
2. Weavers, especially in the rural areas (around 43%) have difficulty in marketing their products
3. Almost half of the weavers (45%) feel that the price paid by the marketers to them is not commensurate with the high cost of yarn which is increasing day-by-day with the price received for the Handloom products.
4. 50% of them feel that there is challenge/threat of handloom products from that of products of powerloom. Marketers also feel that more tax need to be imposed on the imported products of powerloom.
5. Most of the marketers (80%) sell their handloom products in the traditional market places (offline). They may explore online / Web site for marketing
6. Majority of the marketers (about 90%) have no linkage at national and international level. More exposures through Trade Fairs may be facilitated.
7. All the marketers opined that the Handloom sector of Manipur has high scope for growth.

Major Recommendations:

1. Handloom plays a very important role for the livelihood to around 2.04 Lakh Handloom workers (Handloom Census of India, 2009-10). All stakeholders (Bankers, Dept. of Commerce and Industries, DICs, National Handloom Development Corporation (NHDC), etc. may co-ordinate and extend support for the welfare of the weavers.
 2. As most of the Handloom weavers in the state are not well educated (86% of the sampled passed 10th Standard with only 1% Graduate and above), more training programmes on production, design, costing, etc. especially financial literacy awareness programme may be conducted for Weavers.
 3. These gaps in financial inclusion and lack of awareness of the financial products may be reduced by conducting more financial literacy and awareness camps by Banks.
 4. Wider publicity and coverage is required in local newspapers and other electronic media including local TV channels and Doordarshan etc., for awareness on all the products / schemes for the welfare of the weavers. Promotion of Handloom products may be taken up by companies as a CSR exercise also.
 5. The major activities such as yarn sourcing, manufacturing, credit support and marketing should be properly organized through the implementation of suitable strategies. One of such strategies is through collective work like SHG, JLG, Society or Producer Companies etc. to enable them to collectively source, manufacture, avail credit and market their product. This will also reduce the middle-men and handle marketing themselves which will optimize their profit.
 6. More Research & Development initiatives to explore organic cotton yarn, natural dyes and other innovative products applicable in the state may be explored, which will create more income for the weavers.
 7. Promotion of Manipur Handloom products through internet, social media, print and electronic media is a must to increase the popularity of Manipur Handloom products in the mind set of customers
 8. The Banks need to proactively provide financial services to this sector after reviewing the prospects of handloom for the Weavers of Manipur.
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Summary No-08

Profile of the Student:

Name: Tanya Khan

Degree Programme : Integrated MBA

University / Institute: Department of Management, BIT Mesra, Ranchi

Profile of the Mentor:

Name: Pinaki De

Designation: AGM

Department: Not Available

Name of Regional Office: West Bengal (Kolkata)

Objectives of the Study:

- i. To study the status, problems and prospects of the handloom sector in the district.
- ii. Assessing the working and marketing model of weavers working independently/working through the master craftsman/weaver society and/or other private institutions.
- iii. Exploring the opportunities of promoting activity based Joint Liability Groups/cluster amongst weavers.
- iv. Making weavers acceptable clients to formal financial institutions-efforts required for uninterrupted formal credit flow.
- v. Improving poor ergonomics and working conditions so as to attract new generation to weaving.
- vi. Explore technology and IT interventions for business growth and employment generation.

Sample Size: The size of the sample is 150 (approx.). For Bishnupur there were 88 samples and for Fulia there were 55 samples.

Scope: This study is limited to the weavers within Fulia (Nadia), Bankura (Bishnupur) of West Bengal. The study will be able to reveal the problems, needs of the handloom weavers regarding the credit support given to them by the district co-operative banks.

Research Methodology:

- i. Semi structured interviews with the Weavers/Master Crafts man
- ii. Interaction with the Govt. officials
- iii. Interaction with the authorities of Tantuja, the Apex Society and other handloom officials
- iv. Interaction with the Bank officials
- v. Interaction with FAB India authorities/ other private entrepreneurs
- vi. Collection of data from banks/ Govt. Deptt.

Mainly two kinds of data viz Primary & Secondary were collected from the available sources. The sources for collecting primary data were Questionnaire, Personal observation & Face- to- Face Interviews .

Major Findings:

The Handloom weavers in Bishnupur are in a pitiable condition owing to the poor socio-economic conditions. The majority of them are wage weavers who earn minimal wages in spite of working for more than ten hours a day. Almost sixty five per cent of the community belonged to Low income group, engaged with working under middlemen.

The basic raw handloom material required for the production of Handloom products was Handloom purchased largely from the local market but sometimes co-operative society or local dealers, on credit. Cooperative societies are not desired services because of their weak financial health and mismanagement.

Handloom is an age-old traditional industry beset with multi-farious problems. The industry, thus, requires a multi-pronged approach to infuse life and sustain its development. Handloom industry is providing one of the most basic needs of people and holds importance maintaining sustained growth for improving living standards of the weavers.

Competition from power looms and mill sectors is obviously a major threat. This can be countered if the handloom sector produces high value, and distinctive products for foreign market.

The industry is facing the problem of lack of both fixed and working capital. The industry till now depended mainly on private sources or money lenders for its credit requirements.

Major Recommendations:

- (i). Government has to ensure sustainable sales of handicrafts & handlooms at first place and continuation of the perishing artwork at the second place and that too without affecting their nativity.
 - (ii). Appropriate transfer of skills and intangible culture through workshops and training of young artisans by the elder artisans is the requirement.
 - (iii). Promoting large domain of artisans and their artwork, across West Bengal, India to the global audience through our social network presence. Our online collection of handicrafts has increased with growing time from teracotta , dokra, Batik Printing to Kantha stitch and have been appreciated by International and National Buyers for genuine & authentic Artwork and Skill involvement.
 - (iv). More outlets of handicraft items should be promoted.
 - (v). Online emphasis of the products should be ensured.
 - (vi). Should create more awareness.
 - (vii). Prompt payment should be ensured.
 - (viii). Delay in supply of raw materials should be checked.
 - (ix). More loans should be provided at low interest rates.
 - (x). Banking awareness about schemes should be made in a big way.
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Summary No-09

Profile of the Student:

Name: Jetti Vidya

Degree Programme: M.A.(Rural Development and Governance)

University/ Institute: Tata Institute of Social Sciences

Profile of the Mentor:

Name: V. Sudhakar Gupta

Designation: DGM

Department: Not Available

Name of Regional Office: Telangana (Hyderabad)

Objectives of the Study:

- To study the profile of handloom weavers in Telangana – in cooperative fold, outside cooperative fold (individuals, wage workers), etc.
- Interview selected handloom cooperatives and weavers outside the cooperative fold to include their perspective on the efficiency and appropriateness of the credit sanctioning mechanism, and the problems they face in accessing the required credit
- Suggest recommendations to improve access to credit weavers both within and outside the cooperative fold

Sample State/ Distt/ Blocks/ Villages: (i) District-Warangal (Village- Hanamakonda, Desaipeta, Shyampeta, Janagon, Bachanapeta & Athmakur (ii) Nalagonda (Choutuppall, Pochampally, Veylanki & Koyallagudem (iii) Medak (Siddipet, Dhubbaka & Jogipet (iv) Mahbubnagar (Aragida, Narayanapet, Rajole, Alampur & Gadwal)

Sample size: 20 weavers per district with a mixture of both cooperative fold and non-cooperative fold.

Research Methodology:

- Collection of primary data was carried out through Qualitative Research Methods using semi structured interviews with both close ended and open ended questions and focus group discussions
- Data was collected from Assistant Director of Handlooms and Textiles office, District Cooperative Central Banks, Commercial banks, RRB's, societies, master weavers and individuals
- Interviews and interaction had been carried out with individual weavers, SHG members, JLG members, society members and master weavers

Major Findings:

- Based on the Primary data collected, amount released under RRR package has reached all the eligible individuals and the cooperative societies as envisaged under the scheme
- Those who have received the amount are now actually better off in their business and have started a sustainable livelihood in the sector
- It is also observed that there are many societies waiting for another phase of RRR to get implemented to upgrade their establishment

- In some of the societies a minimum economic status is mandatory for the weavers to become the members
- loans being sanctioned by the banks are supposed to be one of the saving solutions to the weavers but unfortunately they are also turning against them with high interest rates which are making them fall into the traps of debts again
- due to lack of economic stability and low standards of living it is observed that the weavers are not coming forward to take the risk in applying for credit and other facilities
- Problem of repayment is arising due to policy failures and corruption in the institutions
- delays observed in the implementation of the schemes, reimbursement of the amounts and inspections due to varied reasons which do include the state separation

Major Recommendations:

- need for trainings to be conducted not just for the cooperative sector weavers but also to the non-cooperative sector weavers
 - better marketing facilities with timely payments
 - enhance the awareness regarding the schemes and policies being implemented by the central and state government in both cooperative sector and outside cooperative sector
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Summary No-10

Profile of the Student:

Name: Sarah Lalhriatpuii

Degree Programme: MBA

University/Institute: Department of Management, Mizoram University

Profile of the Mentor:

Name: P.K.Saha

Designation: AGM

Department: Not Available

Name of Regional Office: Mizoram (Aizawl)

Objectives of the Study:

- To analyze the present status of handloom sector in the state
- To study the diversification of handloom products
- To study the market status of the handloom industry of the state
- To study and determine the future scope of the handloom industry for the state

Research Methodology

- The research is undertaken with both primary and secondary sources of data. The primary data is collected through survey questionnaires taken from weavers of the two biggest handloom clusters of the state – Thenzawl and Aizawl, and information collected from handloom entrepreneurs, various retail shops selling handloom products of the state and the Mizoram Apex Handloom and Handicraft Co **Operative Society (MAHCO)**.
- To conduct the research, an exploratory research design was adopted. An exploratory design is conducted about a research problem when there are few or no earlier studies to refer to or rely upon to predict an outcome. The focus is on gaining insights and familiarity for later investigation or undertaken when research problems are in a preliminary stage of investigation. Exploratory designs are often used to establish an understanding of how best to proceed in studying an issue or what methodology would effectively apply to gathering information about the issue.

Sources of Data:

Primary Data: Primary data is that data which is being collected specifically for the purpose of our research project. An advantage of primary data is that it is specifically tailored to our research needs. A disadvantage is that it is expensive to obtain. For the purpose of this research, primary data was collected through survey questionnaires from weavers and handloom entrepreneurs, and personal interviews as well.

Secondary Data: Secondary data is the data that have been already collected by and readily available from other sources. Such data are cheaper and more quickly obtainable than the primary data and also may be available when primary data cannot be obtained at all. Secondary data analysis can save time that would otherwise be spent collecting data and, particularly in the case of quantitative data, can provide larger and higher-quality databases that would be unfeasible for any individual researcher to

collect on their own. To conduct this study, secondary information was collected from articles published in magazines, seminars, conferences, and also from concerned personnel.

Data Collection: Data was collected from Weavers, Handloom Entrepreneurs, Retail shops selling raw materials required for weaving, Directorate of Handloom & Other related personnel.

Sample Design: Sample was taken from the two biggest handloom clusters of the state – Thenzawl Handloom Cluster which is in Serchhip District and Aizawl Handloom Cluster which is in Aizawl, the capital of the state. (a) Weavers: Aizawl-58 [49 entrepreneurs employing weavers & 9 weaving privately] (b) Thenzawl-71 different weaving families (c) 3 Retail shops selling raw materials (d) Others-5 (Total-137)

Major Findings:-

The weavers of Mizoram still have a lot of room for further development of their skills, the type of looms they use and the technology used for pre-weaving preparation of the raw materials. Also, the marketing management of the weavers of Mizoram are so unorganised that the middlemen get maximum profit from the handloom business. In places like Thenzawl, almost every house is involved in the weaving activity, so, weavers would have to take their products to other places to sell them as direct marketing inside the city would not work. Whereas, in Aizawl which is around 92 km from Thenzawl, being the capital and having the maximum population from all other towns and villages and has many visitors from outside the state, direct marketing and retail shops selling handloom products are still successful but this too, may not be sustained for future prospect. Although weavers may be satisfied with the present business inside the state for generating income, they still have an opportunity to expand their market not only to other States in the country but even outside the country. Since the weaving activity is a valued art passed down from generation to generation in the Mizo society, it greatly contributes to the upgradation of weaving skills, enables wider product diversification, paves the way for value addition on the finished product and also for product design.

Major recommendations:-

- i. Upgradation and Modernization: Government should give attention in up gradation and modernization of loom, equipments and infrastructural development for the betterment of the handloom industry.
- ii. Product Diversification: Redesigning of the existing traditional products. The existing product can be made softer, good textures and with standard size. The existing traditional motifs can be used for new product development and diversification and will give the product a local identity. Besides puans, other handloom products that can be sold even in the global market are: Bags, Purses and Wallets, Belts, Neckties, Cushion and Pillow covers, Wall hangings, Mats & Shirts, etc
- iii. Market Research: A deep and effective market research must be made in a regular interval to know what are the growing demands of the customers and also to know the patterns of change in their demands.
- iv. Eradication of middleman involvement: As of the present status, the middlemen are receiving the highest profit from the business. If steps were taken by the Weaver Societies and Self Help Groups for arranging a marketing system such that direct marketing is enabled for each weaver, such as opening

a retail shop where they could submit their products along with their prices and other required information, the weavers would get the highest profit from their sales and not the middlemen.

v. Some steps that can be taken to reduce or eradicate middlemen involvement are:

- a) Yarn Bank: The Government could set up a yarn bank in all handloom centres and clusters, so that weavers could get their raw materials in enough quantity and at a reasonable price. Setting up of a yarn bank, which is still in primitive stage, is expected to provide yarn to buyers at a stable price.
 - b) Dyeing: If the weavers could practice dyeing of yarns inside the State, they would not need to import the coloured yarns from outside sources. Hence, price of yarn could gradually decrease
 - c) Finance from regular institutions: If financial institutions could provide special loans or subsidies particularly for people engaged in handloom activities individually or under Joint Liabilities group and other Self Help groups, it would greatly benefit the weavers and help them in the development of their business in the longrun.
- vi. Use of E-commerce and internet: The Internet is the most effective and fastest form of communication in the modern world. If there could be arrangements made by the Weaver Societies or even the State Government, such the weaving produce of all local weavers could be put up for sale in a marketing site which would allow for not only national but international marketing, more people would get to know about the hand woven products of Mizoram and can easily purchase them as well. This could directly benefit not only the weavers but also the whole State as the GDP would highly increase.
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THEME-2: Issues Related to Rural Housing

Summary No-11

Profile of the Student:

Name: Swastika Yadav

Degree Programme: Not Available

University/ Institute: Not Available

Profile of the Mentor:

Name: Bhaskar Pant

Designation: DGM

Department: Not Available

Name of Regional Office: New Delhi

Objectives of the Study:

To address the following components of the sector:

- Availability of developed land for house construction
- Cost of construction of house
- Availability of appropriate building materials
- Availability of skilled labor for construction
- Access to affordable housing finance, not only for construction of new houses but also for continues upgradation of existing housing
- Development of village level infrastructure that would improve the quality of living in the villages as well as attract new house builders

Sample Size: A sample size of 70 and 40 households from Mangalpur and Anandpur villages (Alwar district, Rajasthan) was selected for this study. Owing to the urbanization of Delhi, NCR region- nil or almost no availability of rural households in or around Delhi, the choice of selecting the following two villages was made.

Major Findings:

Survey findings suggest that though at an aggregate level, rural housing stock seems adequate but the quality of housing leaves much to be desired. A sizeable proportion of houses are smaller than household needs with poor structural condition, constructed with non-permanent material and providing inadequate amenities. Households spend monetary and non-monetary (materials from home, own labor, and free material) resources to complete their construction. It may, however, be emphasized here that the share of own finances has played a large role in financing construction, followed by informal sources of finance (i.e. moneylenders and friends/relatives). The share of formal sector finances (excluding private moneylenders) in construction cost has not been dominant. The survey results also show that widespread awareness exist only in respect of a few government schemes. Thus, there is a need to create awareness among people about various government-sponsored schemes so that people can avail the benefits of the programs/schemes.

Given the large investment is needed for house construction, people have to mostly rely on friends and relatives or moneylenders for fund mobilization as they have little or no access to institutional finance.

One of the reasons for the lack of penetration of formal finances (housing and non-housing) in rural areas is the high operational cost per loan in rural areas and the other is that formal institutions perceive the credit worthiness of the borrowers in rural areas as a significant risk (because of lack of collateral and seasonality attached to their income).

Therefore, if the rural lending market has to be developed further the following characteristics of the rural market need to be integrated into the formulation of the lending strategy.

- The level of income of the borrowers, particularly agriculturists, fluctuates due to vagaries of nature.
- Lending institutions are not able to assess the income of the rural borrowers.
- Non-availability of tangible securities for housing loans and enforcement of securities in rural areas.
- Non-availability of title deeds.
- High cost of stamp duty towards creation of simple mortgage.

The policy initiatives by the government over the years have attempted to stimulate rural housing in a number of ways. The policies have been addressing the known handicaps undermining rural housing, specifically the inability of economically backward sections of the population in accessing various components of housing. But still a lot needs to be done. Given the multi dimensional existing challenges before rural housing, a coordinated strategy needs to be evolved.

Recognizing the importance of housing and road infrastructure, the government in its budget has announced various schemes to improve rural infrastructure, namely Housing for All by 2022 and Pradhan Mantri Gram Sadak Yojana (to connect the rural India by roads by 2019) respectively. Besides there is a clear plan to provide electricity to every village by 2018. Apart from this, the construction of toilets is a major focal area for the Swachh Bharat programme, which aims to make India “open defecation-free” by 2019. To improve the quality of life of rural women, government has also promised to provide BPL women with free LPG cylinders (UJWALA scheme).

Major Recommendations:

Government should make sure that they are implemented and executed on time. Also, government needs to make an effort to create awareness among people about the health hazards related to open defecation and use of chullas. Because still there are many people who prefer continuing old practices and social norms. There are many people who are not even aware of various government schemes launched by government for their welfare. The government should make an effort to increase awareness among poor households about recently launched schemes.

Summary No-12

Profile of the Student:

Name: Sudhir Kumar

Degree Programme: MBA

University/ Institute: Institute of Agribusiness Management, SKRAU, Bikaner

Profile of the Mentors:

1.Name: Jyoti Sanjay Nainiwal

Designation: AGM

Department: BID & OFDD

Name of Regional Office: Rajasthan (Jaipur)

2.Name: Ajit Singh

Designation: Manager

Department: DEAR

Name of Regional Office: Rajasthan (Jaipur)

Objectives of the Study:-

1. To assess status and issues of Rural Housing in Rajasthan State
2. To check progress of rural housing with special reference to Indira Awaas Yojana
3. To assess the impact evaluation of IAY on overall socio-economic development of beneficiaries
4. Adequacy of cost for rural housing units
5. Suggestions and policy measure to bridge the gap between actual and potential rural housing units.

Research Methodology:

The study was based on Rapid and Participatory Rural Appraisal (RRA & PRA). It utilized both primary and secondary data. Interview of the beneficiary was given the prime importance. A set of interview schedules were designed containing quantitative and qualitative data. So, two types of schedules viz. Beneficiaries Household Level Schedule (BHLS) & Non-Beneficiaries Household Level Schedule (NBLS) were developed. The sample was selected on the basis of judgmental and conventional sampling for beneficiaries, Judgmental sampling for Sarpanchs & 2 districts were selected in the state of Rajasthan. Secondary data was collected from literature, website (www.iay.nic.in) and others.

Sample size: Total sample size – 56; Beneficiaries – 40; Non-beneficiaries-16

Major findings:

- i. In 69.5% of the households, the head of the households or their wives were the IAY beneficiaries. In one house both husband and wife were beneficiary of scheme.
- ii. SCs/STs were the majority of the IAY beneficiaries. Some General category beneficiary were also found in Jhunjhunu district. Differently abled beneficiaries constituted only about (0.25%) and were also found in Jhunjhunu district.

- iii. All of the IAY beneficiaries of BPL category had their BPL cards. About 57.5% of the beneficiaries were agricultural and factory laborers and 24.5% were farmers.
- iv. The average cost of construction in both districts was Rs. 126750. Average investment of Rs. 138750 & Rs. 114750 was in Jhunjhunu & Udaipur Districts respectively. Average investment by beneficiaries from their own fund was Rs. 70125. While it was Rs.76500/- in Jhunjhunu and Rs.63750/- in Udaipur.
- v. The beneficiaries were ignorant about the schedule of fund release and time schedule for completion of the construction. The range for completion of the construction was from 10 to 120 days. Average no. of days taken for construction was 38 days. The average number of days labor get employed for construction work of house found 36 day. The average labor expense paid during house construction was Rs. 38975. In Jhunjhunu it was Rs. 43650 and Udaipur Rs.34300.
- vi. 87.5% of the IAY houses display IAY logo. Remaining houses display logo but that get erased with painting of house.
- vii. Almost all the beneficiaries heard about the scheme from village panchayats.
- viii. Almost all the houses are located within a distance of 0.5 kilometers from the main road. About 75 % of the houses were within 1 km from main road.
- ix. Drinking water connection was available in most of the houses. No provision of Kitchen and Store in the houses. Toilets were constructed separately and did not become the part of IAY houses. No drainage facilities have been provided to the beneficiaries. 75 % of the houses have electricity and most of them are metered. Girwi block performed very poor with 15% unavailability of electricity.
- x. Beneficiaries have used the locally available building materials for the construction of floor, wall & roof.
- xi. However, construction of sanitary latrines was taken up under Swachh Bharat Abhiyan & beneficiaries got Rs.12000/- for its construction. It was not a part of IAY house.
- xii. 65% of the IAY beneficiaries have felt that the IAY houses are of very good quality. 75% of Udaipur respondents were highly satisfied with house quality. Only 5 % beneficiaries have commented about poor quality and require improvements.
- xiii. 8 beneficiaries are fully or partially satisfied with the scheme in general. 99.7% of them have not received any assistance from State run scheme. The land has been predominantly allotted to only 10% respondents. The house is predominantly in the name of the 63.7% female members. The beneficiaries average income was between Rs.10000/- to Rs.15,000/-.
- xiv. Most of the local contribution on the part of the IAY beneficiaries was in terms of unskilled labor counted in certain number of man days. A good number of beneficiaries have contributed in terms of material as well as monetary contribution. A large proportion of the IAY beneficiaries have contributed a combination of the above.

Major Recommendations:-

1. Scheme should not be fully subsidized. Government needs to provide credit to all needy families on very low rate of interest or free of interest rate. Scheme is good to improve housing quality of BPL families. But it is creating discrimination in society. And mentality of Beneficiaries to get things free of cost from government is increasing.
 2. Government needs to provide fund in one year in feasible instalments.
 3. Government needs to promote the scheme at grass root level through various channels, so that beneficiaries can be able to get proper and full advantage of schemes.
 4. Amount sanctioned under scheme was insufficient to meet cost incurred in house. The average cost incurred in house was found Rs. 126750.
 5. Government needs to fix specification for house, so that beneficiary build house according to specification.
 6. Government needs to construct building and then allocate to beneficiaries.
 7. The duties of the officers /officials of DRDA and other concerned authorities are not limited to provide the financial assistance to the poor people for dwelling units under the scheme. In fact their real duty starts beyond this point to keep the beneficiaries vigilant towards optimum utilization of financial assistance.
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Summary No-13

Profile of the Student:

Name: Elakkiya V.

Degree Programme : MA (Economics)

University / Institute: Loyola College, Chennai

Profile of the Mentor:

Name: S.Srinath

Designation: DGM

Department: DOR

Name of Regional Office: Tamilnadu (Chennai)

Objectives of the Study:

- To Study the importance and scope of rural housing.
- To find out the source of income of rural people on housing.
- To have an overview on role of key financial players supporting rural housing.
- To summarize the various schemes of government for rural housing.
- To have an insight into the problems and challenges of rural housing.

Research Methodology:

The methodology adopted for the research included compilation and analysis of both secondary and primary data. The project includes the study of Quantitative and Qualitative Data.

- A. Primary Data: First hand information collected from the field survey conducted with the rural people by the distribution of structured questionnaire from the Bank Managers, Housing Finance Companies, Panchayat President, NGO's and District Rural Development Department by the interaction with them.
- B. Secondary Data-The Secondary Data sources include information collected from websites, published reports and articles, Report on working group on Rural Housing, 12th five year plan, IAY financial Reports, etc.,
- C. Agencies Contacted:(i) Banks:- Pandyan Grama Bank, Virudhunagar, Indian Overseas Bank, Sathur Branch & Madurai District City Cooperative Bank (ii) HFCs:- Mahindra Rural Housing Limited, Chennai & Equitas Housing Finance Limited, Chennai (iii) NGO:- DHAN Foundation, Madurai & (iv) 45 respondents from Anaikuttam and Virudhunagar villages.

Major Findings & Observations:

- National Housing Bank (NHB) provides the refinance to Housing Finance Companies (HFC's), Scheduled Commercial Banks (SCB's), Cooperative Banks, Regional Rural Banks (RRB's). On analyzing the refinance pattern of NHB from 2009 to 2014, it is observed that the SCB's and HFC's are largely refinanced by NHB with HFC's raising as a dominant Key financial player in the Housing Market in recent years. Thus HFC's should be encouraged for creditability and to be financially supported with sustained growth rate for long time period.
- The refinance share by cooperatives and RRB's is less than 3% of the total refinance of NHB. Thus there is an imperative need by these institutions to boost the lending at the grass-root level. For this, they can even adopt the conventional strategies of refinance like approaching higher institutions like NABARD & NHB.

- Interaction with Mahindra Rural Housing Finance Limited and Equitas Housing Finance Limited helped in the identification of role of HFC's in covering the customers who are not eligible to take loans from Banks due to lack of proper Documentation and Income Proof. Thus, HFC'S plays a vital role in identifying the self-employed, non-professional & informal salaried segments for funding in the affordable housing segment.
- Analysis of credit risk of HFC's reveals that since they have invested in people, they involve in the process and technology which effectively mitigate risks including technical, legal and credit risk posed by the market environment and by its borrowers.

Major Recommendations:

- Awareness about such Housing Finance Companies is limited with rural people which can be improved by the appointment of a rural agent by the Housing Finance Company in the areas, so that the people can contact them and get benefitted.
- The numerous housing finance agencies which so far supported housing in urban and semi – urban areas are to be encouraged in looking for avenues to enter the rural housing sector.
- The insurance should be made an integral part of housing scheme, as the beneficiaries will be insulated from the vulnerabilities he/she might face in future (in the event of death, permanent disability, theft/fire in house). Thus the insurance may at least guarantee in securing a roof for the family.
- The focus of high cost structured financial institutions should turn from office oriented approach to door-step delivery approach with low cost delivery system and also leveraging on technology.
- Tamil Nadu Rural Housing Board may be established as a subsidiary of Tamil Nadu Housing Board which will exclusively concentrating on catering the housing services to peri – urban and rural areas. Housing Board may also consider in having a collaborative approach with HFC's in order to have Maximum Coverage in rural Areas.
- There is cost escalation in the building a decent and quality house. The Amount provided for the Government Scheme Houses should be suitably increased so that it can be subsidizing the rural people and also reduces their debt burdens.
- Since Most of people now in the rural areas are opting for works under MGNREGA, these people can be suitably modified into the construction works of government scheme houses. Thus it helps in curtailing the expenditure of the people spent on construction of government scheme houses.
- There should be a need of exploring the possibilities of developing the low-cost alternatives to traditional building materials and technologies. It helps in saving the time and cost at the same time not compromising the quality and long –lasting durability. Thus the rural housing will achieve a very dynamic prospect. The government can encourage the Low Cost, Pre – Fabricated House Construction Companies to have a tie-up with government in building the rural houses by which time, materials, man work is saved and so that enables to cover the vast population.
- There is a need of three stage developers in enhancing the rural housing finance and constructions.
- Enablers-SHG's, NGO's and Registered Societies, Panchayat Presidents to identify the genuine user groups and acts as the channels of communication.
- Providers-Financial Institutions, Government Departments, Bankers, NBFC's, HFC's to provide the approvals, Incentives, Technical and Financial Support.
- Executors- Linkages with rural Masons Groups through MGNREGA, Public Private Partnerships, tie ups with Low Cost, Pre–Fabricated Houses Construction Companies to execute the process of construction of houses.

Summary No-14

Profile of the Student:

Name: Aditi Trivedi

Degree: MA (Economics)

Institute: Bhimrao Ambedkar University, Lucknow

Profile of the Mentor:

Name: A.C.Sarmah

Designation:DGM

Department:DOR

Name of Regional Office: Uttar Pradesh (Lucknow)

Objectives of the study:

The objective of the study is to analyze the rural housing issues in U.P. with reference to the two districts Raebarelli and Barabanki. The focus is on the demand of housing by the rural populace and how the credit need of the housing is fulfilled by the various agencies. The specific objectives of this study are as under:-

1. Demand supply position – Role of different agencies.
2. Scope and need of housing finance in rural areas.
3. Implementation of various schemes and projects.
4. Performance of banks in financing rural housing
5. Constraints in access to finance for rural populace
6. Recovery performance and NPA
7. Impact of schemes on business and income of banks and borrowers

Sample Size & Methodology:

The study is primarily based on data collected in respect of a sample population of 120 village households in Barabanki and Raebarelli districts of U.P as also interactions with other stakeholders' viz., different financing banks, micro finance institutions and govt. departments etc. Secondary data used in preparing the report are from various reports, publications, scheme guidelines etc.

Major Observations & Findings:

Demand Side Perspective:

- Huge shortage of pukka houses coupled with lack of basic facilities like water supply, sanitation and electricity & Having a pukka house is still treated as a luxury for rural households.
- Poor agricultural productivity leads to Low income and low savings. Around 48% i.e.30 households in Barabanki and 63% i.e.38 households in Raebarelli do not save at all or it is below Rs.500 p.a.
- Mostly people had Semi pukka houses which were built in instalments. Around 40%-50% (27 in Raebarelli and 32 in Barabanki) of the total households surveyed have semi pukka houses.
- Only around 60% respondents had access to sanitation facility, 10% water supply and 70% electricity but the duration of its supply was only 2-3 hours a day.
- Poor repaying capacity to service multiple debts including KCC and loans from other sources.So, people faced refusals from bank for housing loans.

- The construction, extension, or repairment of the house was done by the KCC amount or loans from informal sectors (like friends, relatives etc.)
- Mostly people have to pay 0 interests if they took loans from their relatives or friends.
- The amount of loan taken is very small ranging between Rs.10,000 to Rs. 1,00,000. People had to bear an overhead cost of Rs. 2,000 to 3,000 before getting their housing loan sanctioned of around Rs.1.00 lakh. So, people also faced problems due to corrupt framework.
- Rural households also showed dissatisfaction with Bank correspondents (Bank Mithras) as they did not give complete information about the bank schemes. People were totally unaware of any housing loan schemes which impeded credit flow to this sector.
- No survey or vigilance was ever done by any government body for such schemes. In IAY the needy people (BPL) were often removed from the list and instead some other people were added to it.

Supply Side Perspective:

- Out of the 120 households, only 20 households -12 in Barabanki and 8 in Raebarelli districts availed housing loans from banks. Thus, only a small fraction of 16.7% of the families availed housing loans. In addition, 35 households – 18 in Barabanki and 17 in Raebarelli districts utilized their KCC loan for housing purpose.
- Out of the total family surveyed, 33% in Barabanki and 20% in Raebarelli district belonged to the beneficiaries of IAY / RMLAY.
- The size of individual housing loan taken was ranging between Rs.50000 to Rs.100000/-. There were 2 households who took loan of Rs.5,00,000 & 7,00,000 respectively as they belonged to salaried class and the agricultural land owned by them was leased out.
- The housing requirement was fulfilled by two ways-

For the Economic Weaker Section (EWS) and Below Poverty Line (BPL) households direct assistance for housing was provided by the state government.

For the economically sound person indirect assistance was provided through rural housing loans and other credit facilities.

- The quantum of housing loan sanctioned by different branches were found to be in the range of Rs. 1,00,000 to Rs.2,00,000.
- A high percentage of NPA was observed in the branches visited. In fact 80% of the loans sanctioned were NPA. Due to poor recovery, banks are now not forthcoming for providing housing loans to the low income group people.
- People are depending on agriculture, this leads fluctuating income hence they could not repay the loans timely.
- Banks could not take the benefit of the SARFAESI ACT to recover the default in most of the cases as their holding size was less than 3 acre.

- DCCB, Harakh branch faced loss in last financial year due to high rate of NPA.
- Two group loans under microfinance - One SHG financed by Gramin Bank of Aryavart for Rs.10,000 and the other financed by Sonanata Microfinance Limited for housing purpose of Rs.12,000, indicating demand for housing finance even for the very low income group people.

Major Recommendations:

1. Filling up the Gap between Demand and Supply of Housing Credit:

The number of housing loans in the two districts was very less (around 20) due to high interest rate & cumbersome process, still the rural households want to get credit at a reasonably lower rate of interest. The focus should be given on current housing conditions, family size, asset holding, income and occupation, alternate sources of income and other indicators to assess the actual housing credit need.

2. More Penetration of Credit Institutions:

Lending institutions like banks and HFCs fail to assess low segment housing finance market and supply credit to meet their credit need. There is grossly underestimation of size of low segment housing finance market. So the penetration of these institutions needs to be more focused in the rural areas.

3. Objective Method of Loan Appraisal:

It is suggested that loan limit/slab may be fixed on the basis of the total income of the family or the total land holding as in case of KCC which may help in increasing credit flow to these areas. For example, for a household with 4 acres of land, loan of ₹80,000 could be given by taking the identity proof of the person.

4. Providing Credit Through MFIs, JLGs and NGOs:

4.1 The microfinance institutions and NGOs were not very active, but this could be a very effective way of providing credit to the rural areas, particularly by involving small amount of loans and better recovery performance could be seen by these institutions.

4.2 More focus should be given on providing credit for rural housing through Self Help Groups and Joint Liability Groups in which the members bear each other's responsibility thereby helping in better recovery of loans and more people could be accessed.

5. Housing Subsidy:

Subsidy should be provided to poor households on the basic housing material like cement, bricks etc to make the loan cheaper for a rural households to construct their houses. Further, interest subsidy on the housing loans for those repaying in time may also be provided.

6. Flexibility in Repayment of Loans:

The banking institutions should be little flexible in repayment instalments of households whose income source is only agriculture that fluctuates and depends on nature.

7. Simplification of Legal Formalities:

The rural households did not avail housing loans due to complicated process of documentation and legal formalities. Due to this they have to bear overhead cost of Rs.2,000 to 3,000 for a loan amount of Rs.1 lakh. So there is a necessity for simplifying these formalities.

8. Low Cost Housing Technology:

Low cost housing technology should be a part of housing programmes which is suitable for the local conditions. Cost effective building material which are already being developed should be made available in the hinterland and the locally available housing material should also be focused.

9. Review and Monitoring of Govt Schemes:

The government schemes should be reviewed and inspected to ascertain that the allotted funds have reached the proper beneficiary. This could help in reducing the fraudulent activities of different player in implementation. Moreover, the rural inhabitants should also be given complete information about any scheme. As, observed during the study that many people did not know that KCC loan is only used for agricultural purposes rather they used it for all other activities.

10. Coordination among Lending Institutions:

The government of India, respective state governments, public and private sector banks and other financial institutions should make some policies on which they may work together and coordinate each other for rural development. This could be done by making integrated programmes and schemes by different banks and institutions that can play a catalytic role in development of these areas.

11. Stabilization of Govt Policies:

As the government changes, the policies get changed. This also gives trouble to the rural people. So the Govt. policies, either the State or the Central, once made should not be changed frequently with the changing government at least for the priority sector.

12. Emphasis on NABARD Guidelines for Financing Rural Housing Projects:

NABARD had made refinance for rural housing as an eligible activity in the year 2001-2002 under the sub-segment of 'Rural Non-Farm Sector Refinance' products. The 3 products presently available are:-

1. Direct Loans for Rural Housing (loans only- without grant)
2. Direct Loans for Rural Housing (Loan-cum-grant assistance)
3. Composite Loans for Rural housing along with income generating schemes.

The financial institutions should avail the benefits of these three products.

13. Employment Generation:

The people in the mid income group who are marginally above the BPL and are also economically not very sound. They neither get houses under government schemes nor could take housing loans due to high rate of interest. As a large portion belongs to this category, it would be better to provide them some alternative way for increasing their income. This entails the need of providing following:

- Employment generating opportunities in the rural areas
- More factories and industries should be set up
- Better training centers for women and adults should be opened.
- Instead for free subsidy, pay for work strategy should be followed by giving them jobs either as daily wagers or by any other means.

Summary No-15

Profile of the Student:

Name: Balwant Koranga

Degree Programme: MBA

University/ Institute: College of Agribusiness Management, G.B.Pant University, Pantnagar

Profile of the Mentor:

Name: Berinder Singh

Designation: AGM

Department: CPD / DOR

Name of Regional Office: Uttarakhand (Dehradun)

Objectives of the study:

- i. To find out the shortage of Rural Housing

Sample State/ Distt/ Blocks/ Villages: Udham Singh Nagar, 3 Blocks

Sample size: 150

Research Methodology:

Primary data (Questionnaire + Structural interview)

Major Findings:

- (i) The subsidy amount is short of the requirement.

Major Recommendations:

- (i). Loan component should carry interest subsidy
 - (ii). Grant/ capital subsidy should be increased.
-

Summary No-16

Profile of the Student:

Name: Harnidh Kaur

Degree: Masters in Public Policy

Institute / University: St. Xavier's College (Autonomous), Mumbai

Profile of the Mentors:

(i).Name: Dr. Gyandendra Mani

Designation: DGM

Department: DEAR

Name of Office: Head Office, Mumbai

(ii).Name: D.K.Panwar

Designation: AGM

Department: DEAR

Name of Office: Head Office, Mumbai

Objectives of the study:

The major objectives of the study are as under;

1. To evaluate the progress of Indira Awaas Yojana (IAY) in Nandurbar District of Maharashtra
2. To identify the problems in the implementation of IAY
3. To enumerate lessons for take away for the upcoming Pradhan Mantri Awaas Yojana-Gramin.

Research Methodology:

Research Design & Procedure: To gauge beneficiary administration response in order to get a perspective on the implementation of the Indira Awaas Yojana in the Nandurbar district of Maharashtra. A sampling procedure with questionnaire was used to extract information for the various factors impacting the implementation of the scheme. The beneficiaries of the IAY scheme comprised of waitlist, and those who qualify, but haven't availed the scheme, local banks, and gram pradhans/sevaks in six villages of the Nandurbar District, Maharashtra

Sources of Data: The data sources comprised of survey mechanism where sampled farmers were interviewed and their responses were collected for further analysis and assessment. Since the research also includes surveying of administrative functionaries, grassroot level officials like the employees of DRDAs and Panchayat members were also interviewed.

Sample Size: 120 households (20 households each from 6 villages). 20 non-beneficiaries from Control Group and 6 banks.

Major Findings:

1. The IAY is still limited in its ability to be inclusive and adequate. The beneficiaries felt that their quality of life had improved from the time they were allotted a housing unit.
2. There was a general improvement in the living environment, safety measures and the surety of maintenance requirements. The scheme allowed the beneficiaries' access to medical and educational facilities at a closer distance than they did previously (even though the facilities are limited).
3. The paucity of funds and the lack of the scheme's cohesiveness. While the scheme provided four walls and a roof, it ignored sanitation, community building, ventilation and utility supplies.
4. Despite immense emphasis on employment generation in the scheme; the only time employment was generated during the construction itself. An alarming number of beneficiaries, in fact, stayed without employment (including MNREGA), after acquiring houses.

5. Gendered budgets have made their presence but they don't trickle down to the implementation of social schemes. This reality was stark in the study of the Indira Awaas Yojana, with women (despite spending most time in the house) having the least say as the beneficiary.
6. The National Urban Housing and Habitat Policy, instated in 2007, gives ample proof (and impetus) for a rural equivalent for focused housing capacity building in rural India. The upcoming Prime Minister Awaas Yojana- Gramin does not create checks and balances sorely needed, as experienced from IAY.
7. It also remains uncomfortably gender-blind, and does not allow for comprehensive habitat building. While it has increased the sanction amount, and amenities the scheme ideally provides to the allottees.

Major Recommendations:

- 1) Homestead land should be provided to the potential beneficiaries who do not have their own piece of land/house, as suggested in the National Rural Housing and Habitat Policy.
- 2) Dissemination of information about the IAY should be made on TV and radio, and also through NGOs, that can go down into the grassroots.
- 3) The number of beneficiaries from the non-SC/ST categories, and non-Hindu categories (especially Muslim minorities) should be increased from the existing 40%.
- 4) Standardization of plinth size, and the increase from 20 sq. m. to 25 sq. m. under PMAY-G is welcomed, but functionaries need to make sure it is followed, and need to dissuade people who want to build bigger houses (and eventually are left with incomplete ones). The construction of more than two rooms should not be allowed.
- 5) The materials used by the beneficiaries should firstly be from local sources, and if that is not possible, the materials should be stockpiled by the Gram Panchayats to make sure the allottees are paying the correct price for the same.
- 6) While the increase in the sanction amount by the PMAY-G is appreciated, there needs to be active budgeting education and dispensation by the functionaries. NGOs should be contracted to help people understand how to budget their sanctioned money better.
- 7) There is a severe lack of civil society involvement. NGOs and local bodies should be given a lot more ability than they have been given yet and they should be harnessed to oversee construction and for regular safety and quality audits.
- 8) Though the guidelines demand that local and traditional inputs be taken for the housing work but there's an abject lack of the same. While the engineers do come once to explain the construction work to the labour, they rarely, if ever, do follow-ups. It should be made mandatory for all engineers involved to do at least 3 follow-ups, one at every sanction stage.
- 9) Instead of sanction not being given for the lack of construction of sanitary facilities, and the use of smokeless chullahs, money should be deducted from the beneficiary's account for non-compliance.
- 10) The construction of 'shops-cum-residential housing', 'only shops' and 'small-scale industry-cum-residential' type of houses should also be promoted to support the employment of the beneficiaries.
- 11) Strict provisions should be made to prevent the beneficiaries from selling their houses.
- 12) The AWAASoft software and datasets need to be verified and utilized more often and should be a prerequisite for disbursement of funds from centre to state.
- 13) Gendered budgeting must be introduced at the implementation levels of all rural upliftment schemes.

Summary No-17

Profile of the Student:

Name: Bhaskar Prasad

Degree Programme: M.Sc. Economics (Development Studies)

University/ Institute: Symbiosis School of Economics, Symbiosis International University

Profile of the Mentors:

(1) Name: S.P.Sathaye

Designation: DGM

Department: DOR, DPSP & Rajbhasha

Name of Regional Office: Maharashtra (Pune)

(2) Name: G.Ramasubramanyam

Designation: AGM

Department: DOR & OFDD

Name of Regional Office: Maharashtra (Pune)

Objectives of the study:

- To assess the needs of the people residing in rural areas with respect to housing.
- To assess the obstacles which the rural households face in building a home.
- To assess the challenges faced by lending agencies in rural housing.

Research Methodology:

Survey report and Econometric Analysis using Analysis of Covariance model.

Sample State/ Distt/ Blocks/ Villages: Ambegaon, Baramati & Junnar blocks of Pune district and Akkalkot, Barshi & South Solapur blocks of Solapur district.

Sample size: 121 households.

Major Findings:

- i. Households residing in rural areas experience severe congestion. Significant proportion of the households surveyed does not have access to basic facilities such as drinking water source within premises, toilet-cum-bathroom (54% and 44% respectively).
- ii. After having faced successive droughts, there is a tendency among the residents to look for non-agricultural employment opportunities.
- iii. Source of finance is a very important determinant which increases the spending allocation for housing. If finance from formal institutions is available then households allocate at least two to four times more money for constructing their houses. Non-availability of relevant documents (Non-Agriculture plot sanction and Town Planning sanction) and meagre and fluctuating income levels act as barriers to accessing institutional finance.

- iv. Use of concrete in constructing the roof and mosaic/tiles in flooring major drivers which push the cost up. Further, if these materials are procured from the city there is an even further increase in cost of construction.
- v. Lack of adequate money and shortage of skilled masons adversely affect housing construction in rural areas.
- vi. Lack of cooperation by the officials and staff at lending agencies. There were many households who had never approached any formal financial institution for a home loan.
- vii. Almost all the households were ready to accept composite loan wherein they had to utilize 25% of the loan amount for ancillary income generating activities. The proportion of households who were not willing to take the composite loan can be considered negligible
- viii. Only 24% households surveyed preferred a monthly repayment schedule. Annual repayment schedule was preferred by 10%, half-yearly by 16% and 4% wanted quarterly repayment schedule. It is interesting to note that 46% were unable to make a choice in respect of repayment schedule.

Major Recommendations:

- Interactions with lending agency officials suggest that successful implementation of Direct Finance scheme greatly depends on timely repayment. Interest subsidy for those borrowers who are regular with respect to repayment schedule is desirable
 - The average cost of construction is Rs. 3,11,357. While, the average cost of construction using durable construction materials goes up to Rs. 4,36,000. Therefore, the upper limit of the composite loan component should be kept in the range of Rs. 4-5 lacs.
 - None of the officials at lending agencies have reported to have provided any technical advice to the borrowers with respect to low cost building construction material. It should be noted that banks employ civil engineers, architects etc. who are in a position to offer such advice. This would reduce the cost of constructing houses and give rural housing the required boost.
 - Although many respondents have shown willingness for taking up non-agricultural employment, their financial condition is still weak. In this context counseling with respect to subsidiary income generating activities is highly desirable. BCs/BFs are well suited for such a role.
 - A follow up study emphasizing various aspects of demand low building material should be taken up as this provides an alternative which can reduce cost of construction and make rural housing more viable.
 - A study aiming to ascertain the feasibility of alternative credit delivery mechanisms viz. Self Help Group (SHG), Joint Liability Group (JLG) etc. is also desirable.
-

Summary No-18

Profile of the Student:

Name: Pooja Bhosale

Degree Programme: M.Sc. Agribusiness Economics

University/ Institute: Gokhale Institute of Politics and Economics, Pune

Profile of the Mentor:

Name: G.Ramasubramanyam

Designation: AGM

Department: OFDD

Name of Regional Office: Maharashtra (Pune)

Objectives of the study:

- To assess the needs and aspirations of the households with respect to housing
- To analyse the obstacles faced by households in constructing a house
- To find out the constraints faced by lending agencies in providing home loans in rural areas

Sample State/ Distt/ Blocks/ Villages: Maharashtra, Dist: Kolhapur and Raigad, Blocks Covered : Karveer, Radhanagari and Gadhinglaj (Kolhapur), Mangav, Roha and Sudhagad (Raigad)

Sample size is 110 beneficiaries

Research Methodology : Primary data collected by interviewing the individuals, Discussions with bankers were held and then statistical Analysis.

Major Findings:

- In Kolhapur 60% of the households, whereas in Raigad 56% were not satisfied with their present house & want to do changes in their present house. Some people want to repair or renovate their house, some wish to add the rooms in the existent house, few want to have asbestos sheet instead of machine made tiles and part of them wish to have floor tiles in their house.
- Nearly 80%households in Kolhapur and 68%in Raigad are ready to have the composite loan product
- Rural houses lack basic amenities like toilet and bathroom
- **Key constraints are:**
 - Poverty /Low income
 - Documentation
 - Lack of awareness(regarding health & hygiene, regarding the other schemes which are connected with the IAY & Unaware about the special loan products related to housing)

Financial constraints :

- a. Inadequate guidance from the banks.
- b. Difficulty in getting the title to the property.
- c. Difficulty in obtaining the surety required by the bank.
- d. Cumbersome bank procedure and numerous documents.
- e. Problem of transfer in the case of ancestral property.

- f. Problem in obtaining legal opinion from the layer, valuation etc.
- g. Very few banks was ready to give loan for repair and renovation purpose.
 - Infrastructure (including social infrastructure lie education & health facilities)
 - Technological barriers
 - Inadequate access to building materials and quality labors
 - Non Agl land

Major Recommendations:

- Role of SHGs
- Extension programs through SHGs/ SHG Federations
- The SHGs can be included in the awareness programs related to sanitation. It would definitely help in raising the number of toilet and bathrooms in the villages.
- SHGs or JLGS from nearby 3-4 villages can come together and establish one stop shop of construction material. As these groups have banking linkages, it will be easier for them to arrange for finance. Such one stop shop near the village would certainly provide a route to housing by lowering the transportation cost.
- For Poverty alleviation
- Generate some new employment sources by establishing food processing industries near the villages
- Adoption of public private partnership model
- Governing bodies may encourage private industrialists to set up units like food processing units by providing incentives like market availability. For the ease of doing business these industries would then work with the government to augment the connectivity of the village. This would ensure easy exchange of services required for housing and creation of employment opportunities. It would not only make the people economically stable but also imbibe into them a sense of confidence, which is a primary requirement to solve a problem. Easy availability of raw material would benefit the industries and regular demand of raw material by the industries would empower producers creating a win-win situation
- Suggestion regarding composite loan for rural housing along with IGA
- According to the policy guidelines of NABARD regarding direct lending for rural housing, limit on composite housing loan will be up to Rs.3 lakh. But according to the field survey average cost of construction is Rs. 4.68 lakh in Kolhapur and Rs.5.45 lakh in Raigad district. So, it is opined that the amount mentioned in the guidelines would not be sufficient for the combined use of construction of house and IGA. Hence, NABARD may increase the limit on housing loan up to Rs. 5-6 lakh.
- Technology support and its transfer
- State Government technical training institutions in each district on the ground of ITI, to train the already existent masons, artisans, carpenters and other building related workforce.
- Arrange workshops for them at the block level. These trained workers then can be used to construct the IAY houses.
- Demonstration of such technologies at the village level, so that the villagers become aware of such technologies and the construction labors can use it.

Summary No-19

Profile of the Student:

Name: Dhruti Vyas

Degree Programme: MBA (International Agri-Business)

University/ Institute: International Agri-Business Management Institute, Anand Agricultural University, Anand

Profile of the Mentor:

Name: Ashwani Kumar

Designation: DGM

Department: DFIBT, IDD, DOR-ST

Name of Regional Office: Gujarat (Ahmedabad)

Objective of the study:

1. To assess the status of housing in rural areas: Demand-Supply, Kachha-Pucca, etc.
2. To examine the institutional support for financing the rural housing needs and flag the issues/hindrances.
3. To examine the government initiatives/schemes for supporting construction of houses in rural areas and flag the issues/lacunae/hurdles in implementation of the scheme, and
4. To suggest measure to overcome these issues/hurdles.

Sample State/ Distt/ Blocks/ Villages: Survey was carried in Morpura, Vasaipura, Valipura, Palaswada & Bhilapur villages of Dabhoi Block and Lakshmipura, Sangma, Dabhasa, Tajpura & Latipura villages of Padra block of Vadodra districts of Gujarat.

Sample Size:- 25 beneficiaries under govt. Scheme, 50 non-borrower (other source of finance) and 50 borrowers from banks. Total -125

Major Findings:

1. As per Census of India 2011, there is a phenomenal growth in construction of houses and the gap between households and housing stock is narrowing down.
2. There is an improvement in share of pucca houses from 31.4 % in 2001 to 44.9 % in 2011. 71.6% of households live in houses with one or two rooms. Ownership status of houses is better in rural areas than urban areas which is 94.7% and 69.2% respectively. Access to household amenities like toilet facilities, drinking water, electricity are also increasing in rural areas from 21.9%, 80.5%, 43.5% in 2001 to 30.7%, 87%, 55.3% in 2011 respectively.
3. There are 880 thousands households in Vadodara district out of which 418 thousands are under rural households and 183 thousands are BPL households. Nearly 62% households have latrine facility in their premises.
4. Out of 50 farmers surveyed, who are not taking housing loan but are availing other type of credit from both institutional and non-institutional sources, 62% are taking credit from institutional sources mainly crop loans and 38% are taking credit from non institutional sources.
5. Major microfinance Institutions in rural areas of Vadodara district are Janlakshmi, Survoday, Bandhan, etc. They are involved in providing Group loan, personal and business loan. Interest rate charged by the MFIs varies between 25-27% normally. .

6. Mainly housing loan is taken for the purpose of construction or ready possession houses in surveyed areas(34 out of 50 respondents) and 16 out of 50 respondents had taken loan to supplement their fund requirement for purpose of completion of house.
7. The documents which the banks demand for Housing loans are ownership documents, caste certificate, income proof, address proof, zoning certificate, rent receipt (if living on rent), copy of “tharav” from gram Panchayat, document signed by TDO/Sarpanch, 7/12 , 8/12 document copies.
8. Issues faced by the institutions in providing housing loans are non availability of IT Return, income proof, low income level in rural areas, less value of the property, large family size, etc.
9. Issues faced by the respondents for availing housing loans are long time for approval, fewer amounts sanctioned than required, cumbersome documentation procedure, lack of IT proof, income proof, lesser income value of properties, lack of clearance of title, lack of awareness about procedures, etc.
10. Under IAY an amount of Rs. 70,000 & Rs 75,000 is given as grant in plain & hilly/difficult areas respectively.
11. Study indicates that minimum Rs. 30,000-35,000 additional amount is required for the successful construction of houses in govt. schemes.
12. Issues in government schemes deficiency in allocation criteria of houses, wrong selection of beneficiaries, inadequacy of unit cost, size of dwelling and structural facilities, implementation issues and monitoring, ownership issues, etc.
13. There is a strong need for increasing the awareness level of the population in rural areas about the procedures/ benefits of the housing loans. Need for simplification of documentation procedures and availability of documents, in government schemes all the central and state level schemes should be clubbed in one and amount of grant and area provided should be increased, also the amount of loan for housing under government scheme should be increased.

Major Recommendations:

1. The banks and Govt. agencies should participate in awareness creation programmes through various mass medias such as television advertisements, News papers, etc. Others mediums such as exhibitions, farmer’s club may also be utilised.
2. To reduce long approval process of loan and documentation procedures of the financial institution, banks and other financial institute should create quick and hassle free loan procedure and government should provide facility of getting documents online like 7/12, 8/12 documents.
3. Some modifications or changes may be done in RBI norms related to land mortgage to the banks so that housing loans can be provided in rural areas on larger scale and meet the credit requirement of rural population.
4. Risk perception of the Branch Managers also play important role in sanctioning loan. Those managers who believe that housing finance provide more security than other scheme sanction more housing loan than others who believe that it is more risky. Sensitisation training should be provided for the purpose.
5. In Government schemes i.e. IAY & SAY it was observed during study that more than one or two house is allocated to one family. To avoid these kinds of cases all schemes should be clubbed under one scheme and also proper selection of beneficiaries should be made.
6. Under IAY, beneficiaries can avail loan of Rs 20,000/- which is very meagre amount. It needs to be increased. And for construction of house the amount of grant provided is up to Rs 70,000 in IAY and Rs 40,000 in SAY which is not sufficient to construct a good liveable home. The beneficiaries can only construct one small room without kitchen. This amount also need to be increased.
7. Area provided under rural housing schemes i.e. 20 sq ft and pit level which is only 2 ft for toilet are not sufficient, it need to be increased.

THEME-3: Financial Inclusion-Issues & Constraints

Summary No-20

Profile of the Student:

Name: T. Manasa

Degree Programme: MBA (Finance)

University/ Institute: Andhra Mahila Sabha School of Informatics, Osmania University, Hyderabad

Profile of the Mentor:

Name: Ashok Kumar Mishra

Designation: DGM

Department: CPD / MCID / OFDD

Name of Regional Office: Andhra Pradesh (Hyderabad)

Objectives of the study:

- i. To identify the approaches adopted by different banks
- ii. To know about the customer response towards the banking approaches under financial inclusion.
- iii. To Study the government initiatives, policy issues , operational mechanism and challenges with regard to PMJDY scheme & role of various institutions to promote financial inclusion in these areas.

Sample State/ Distt/ Blocks/ Villages: Andhra Pradesh/ Guntur District – Bodampadu, Gudavalli & Kornepadu Villages, Kurnool District – Mothkuru & Thadakanapalli Villages

Sample size: 80 Households

Research Methodology: Conducting survey with residents through personal interaction. Convenience sampling technique was adopted.

Major Findings:

The sample included 57% male and 43% female respondents, with an average household size of 3 to 4 members. On an average every household had one earning member, with an aggregate monthly income of Rs. 5000 to 10,000 per household.

58% of the respondents save regularly with an average savings of Rs. 100 to 300 per month. While all the respondents are aware of PMJDY, only 10% had clear knowledge of the benefits of the scheme. 70% of the respondents have their A/Cs opened more than 1 year back and 55% of the respondents have already availed loans from their banks.

Major reason for the household to open the A/c was to receive the payment under DBT and other government schemes. 72% of the respondents operate their A/Cs frequently i.e., more than once a month; whereas the others felt they don't have enough money to save and did not feel the need to operate the A/c.

60% of the respondents receive SMS alert to their mobile. 98% of the respondents are aware of the name of their bank and only 2% were not sure. Awareness regarding ATMs, usage of ATMs, money transfers was found to be 53%.

The awareness regarding PMJJBY & PMSBY was 90% with 73% having both PMJJBY & PMSBY, 85% have PMSBY & 60% have PMJJBY & 27% have none either because of not being aware or not being eligible.

90% of the respondents are unaware of cheque book facility with 0% having provided cheque book by the banks. There is a need for awareness of KCC among people with only 36% being aware of it. Only 30% of the respondents have been issued KCC. It is also observed that, 40% of the respondents were aware of the OD facility with remaining 60% being unaware of it. Although 40% were aware of the OD facility only 20% were having clear knowledge of its working.

High level of awareness was observed among respondents about various Social security Schemes such as PMJJBY & PMSBY. 73% respondents have insured under both PMJJBY & PMSBY. 85% of Respondents have availed accidental insurance under PMSBY and 60% of respondents have insured life under PMJJBY

90% of the respondents are aware of the FLC being conducted in their villages with 80% having attended the FLC and they found it beneficial.

85% respondents felt that the interaction with the bank staff was good and helpful.

Major Recommendations:

To develop low cost bank branch model (possibly attached to village post office) for further Financial Inclusion.

To strengthen BC model through infrastructure support. Financial literacy teaching in schools and colleges, outsourcing the service during peak season/hours and Incentivizing students to open Jan Dhan accounts may be encouraged.

The banks are complying with RBI norms in terms of opening branches, offering no frills account, kisan credit card, simplifying KYC norms, but still much effort is needed to be put in for financial inclusion progress.

Biometric cards should be introduced for security in transactions as well as saving time.

Business correspondents should be employed in villages and trained in advance for promoting financial inclusion program.

Banks need to open its more branches within rural areas and creating more awareness about banking services among rural people by educating them about the benefits of the banking services.

Summary No-21

Profile of the Student:

Name: Yogita Sahu

Degree Programme: MBA

University / Institute: Shri Shankaracharya Institute of Prof. Mgmt & Tech, Raipur, Chhattisgarh

Profile of the Mentor:

Name: Vijay Shanker

Designation: DGM

Department: BID / DSM / FPF / SPD / WIF / DPSP / Rajbhasha / Library

Name of Regional Office: Chhattisgarh (Raipur)

Objectives of the study:

1. To study the banking habit among the people.
2. To examine the awareness level of people about financial products and services.
3. To identify the major sources of information about financial products and services.
4. To identify the reason for opting for Public sector or Private sector banks.
5. To analyze the current status of financial inclusion in Durg District.
6. To identify the issues and constraint of financial inclusion.

Sample State / Dist. / Blocks / Villages: Chhattisgarh; **District :** Durg; **Block(s) :** Durg, Patan & Dhamdha

Villages : Nankatty & Patan

Sample size: 50

Research Methodology: The study was conducted based on two sets of data i.e. primary and secondary data and which were compiled for analysis. Primary data used consisted of the sample data collected from Durg district. The data was collected from branches of Commercial Bank, Co-operative Bank, RRBs, PACS and direct interactions with clients of these institutions.

Major Findings:

A. Conduct of financial literacy programmes and use of financial literacy material:

1. Branches/FLCs conduct awareness programmes/workshops within a radius of 5 to 10 km of their location. The FLCs/branches had Financial Literacy materials like pamphlets, handouts on deposit /loan / other banking products and the same were distributed among the participants during the camps.
2. Arrangements are made for opening accounts & providing other financial products such as GCC, KCC, RuPay debit card etc. in the camps.

3. The decision for opening bank accounts was mostly influenced by the information provided by the bank branches, word of mouth publicity by satisfied customers of the bank and conduct of financial literacy camps.
4. While opting for loan from bank, behavior of bank's personnel and conduct of the camps influence the decisions of people.
5. The registers maintained by the FLCs, for the persons seeking guidance, were having columns like Sr. No., Name, purpose of visit, contact number, date of follow up, whether banking service availed and signature. There are no records of benefits accrued to the branch or branches after conduct of camps by FLC.

B. CBS :

The CBS activities carried out by the DCCB H.O can be divided into;

1. Daily / Monthly / Quarterly / Half yearly / Yearly activities and activities to be performed on as and when basis.
2. All types of transactions are done with CBS.
3. Certain reports, viz. LBR, District level report, ATM reconciliation, etc., are done manually.

C. BC / BF (Commercial Banks & CRGB) :

1. BCs act as a bridge between villagers and banks.
2. Create awareness about savings and gives advice to villagers, about how to save/invest and how to arrange/manage loans. Help the villagers to open bank accounts.
3. Preliminary processing of loan applications for example viz. verification of person's identity, home-address etc. Collect loan applications, forward them to bank.
4. Help the Self Help Groups (SHG) / Joint Liability Groups (JLG), to get loans and the bank to collect EMIs and recover loan money.

D. Issues with ATM functioning and Connectivity Issues of ATM

1. Poor network coverage and erratic power supply are main hindrances for installation of ATMs in remote places.
2. Lack of awareness, mainly of rural customers, who do not know much about the ATM card usage.
3. Timely replenishment of cash in ATM machines.
4. Banks also have problems regarding ATMs like, theft, robbery, system problem, network errors, server problems, etc., due to overload and over usage of the means.

E. PACS

1. PACS have been providing credit and other services to its members.
2. The PACS are also undertaking procurement of paddy on behalf of State Govt.
3. PACS in Dhamdha and Patan blocks of Durg district were visited and the following points were observed:

(Nankatty):- All transactions are done by CBS. The computerization and Data Digitization of Nankatty was of high standard. TCS provides Facility Management (FM) Support, Deploy manpower & User training for PACS Orientation, Basic Computer Training, Process Training and Application Training. The PACS conducts awareness programmes and camps within a radius of 10 km of the village.

(Patan):- All transaction done manually and details are maintained in Registers. Maintains all details in CBS but the CBS works offline. All banking process is done in offline mode. There are problems in registers maintenance and process takes too much time.

F. LDM Office :

1. Lead District Manager (LDM) plays a pivotal role in the area of financial inclusion. It is a repository of all data regarding every banking activity in the district.

Major Recommendations:

1. Branch Manager should not be given the assignment of Financial Literacy Counselor as he is busy in day to day business of the Branch/Bank.
 2. An extra column may be added, in the visitors register maintained by FLCs, for recording the advice given to visitors.
 3. The bank may give wide publicity of setting up of FLC in the area of operation of the bank through flex board in branches as also in Gram Sabhas. The address and contact numbers of FLCs may be printed in the pamphlets and other material printed by the bank.
 4. Insurance and Pension schemes and subscription thereof may also be discussed in the FL camps.
 5. More incentives for the BCs, utilizing existing banking network and creating awareness about the use of banking technologies.
 6. Financial literacy needs to be given importance in schools and student small saving programs, where bankers visit schools and collect small deposits, needs to be revived. School teachers can also be tapped as BCs.
 7. Allowing BCs to offer additional financial products like insurance and mutual funds. And to raise the permissible limits of cash disbursement for BCs.
 8. Encouraging banking habits amongst the unbanked masses by installing audio-video enabled ATMs to announce simple instructions in local language.
 9. ATMs can be installed in the premises of post offices where trained guards can facilitate withdrawals.
 10. Better leveraging satellite connectivity technology in remote areas to avoid connectivity bottlenecks.
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Summary No-22

Profile of the Student:

Name: Sheena Bansal

Degree Programme: MBA

University/ Institute: Kurukshetra University, Kurukshetra

Profile of the Mentor:

Name: Pankaj Yadav

Designation: AGM

Department: FID / DFIBT

Name of Regional Office: Haryana (Chandigarh)

Objectives of the study:

- To assess level of awareness on PMJDY, PMSBY, PMJJY, APY
- To assess the level of usage of benefits arising from the schemes.
- The level of penetration of these schemes, etc.

Sample State/ Distt/ Blocks/ Villages: Haryana /Karnal. All 6 blocks of the district were selected for field visit.

Sample size: 125 respondents spread over 6 blocks.

Research Methodology: Simple random sampling and simple statistical tools such as average, percentage, growth, etc. were used for the study. Both type of data i.e. primary and secondary data were collected for the study.

Major Findings:

1. The coverage of major schemes i.e. PMJDY, PMSBY and PMJJY was satisfactory. The coverage under PMJDY was 79 percent but the coverage of APY was 10 % in the samples. The reasons for low coverage under APY was lack of awareness & low amount of pension after 60 years.
2. The awareness level among the sample respondents about major financial inclusion schemes was 79 %. However, in some villages of Asandh Block (i.e. Rugsana, Chochada) the awareness level about the schemes was 'Nil'. Not even a single account was opened by co-operative bank branch of Chochada village under these Financial Inclusion Schemes.
3. SSAs & Wards allotted to CBs, RRBs under PMJDY were covered 100 %. As Karnal DCCB was not fully on CBS platform it was not allotted any SSA/Wards.
4. Only 8 % of the sample respondents who had bank accounts were issued Rupay Card. All bank accounts were Aadhar linked.
5. The main reasons for not having bank account by 21 % respondent are:- 50 % didn't have much money to keep in their bank account, 11 % found opening a Bank a/c as lengthy procedure, 35 % are not aware and 4 % were not interested in opening of bank account.
6. However, 19 % respondents having account had more than one bank account. 27 % having bank accounts opened with the help of relatives and friends and 64 % with the help of bank officials. Thus, Bank branches and friend & relatives were important instruments under PMJDY for account opening.

7. 47 % respondents having bank accounts availed direct benefits of LPG Subsidy and 7 % of sample respondents having bank accounts were receiving old age Pension directly in their accounts.
8. The sample respondents having bank account did on an average transaction of Rs. 10,117 per a/c during 2015-16.
9. 86 % respondents having bank account availed insurance under PMSBY and 52 % of these also had vehicle insurance.
10. The 14 % respondents having bank account did not avail any type of insurance because most of them found it too expensive.
11. 56 % respondents were aware about details such as eligibility, premium, sum assured, etc. under PMSBY. During survey, it was also observed that all the people were satisfied with the auto debit Mode of Payment.
12. 41 % respondents having bank account availed PMJJY and 71 % of these were fully aware about the scheme.
13. 12 % respondents having bank account availed APY which indicate that coverage of APY was not satisfactory. Bank branches were the main source of information about the scheme among sample respondents.

Major Recommendations:

1. Government of India along with State Governments and banks should strive to create more awareness about financial inclusion at grass root level. The details of these schemes may be included in school and colleges curriculum. More Financial Literacy and Credit Counselling Centre may be opened and strengthened.
2. To spread banking services in remote and far flung area ICT based mobile app, etc. may be developed. The use of these technologies can reduce transactions and other administrative cost to a great extent.
3. The coverage of Atal Pension Yojana is not satisfactory. The main reasons behind it as per feedback received from field a). People were not aware about the scheme, b) The low amount of pension after attaining age of 60 years. So, the more awareness camps/ programmes may be conducted to increase the awareness level at ground level.
4. No target was given to co-operative banks under PMJDY. Now, the Cooperative Banks are fully on CBS platform these banks may be involved in financial inclusion drive.
5. Private sector may be involved in process of financial inclusion awareness drive under corporate social responsibility.
6. Regular capacity building programmes for Business Correspondents may be conducted. Their remuneration and other facilities such as travel, etc should be reasonable to retain them in the banking fold.
7. Only 8 % respondents having bank accounts were issued RuPay Card. There are lot of benefit of having Rupay Cards so more awareness may be created at ground level and more numbers of cards should be issued to account holders.

Summary No-23

Profile of the Student:

Name: Rammuanpuui

Degree Programme: MBA

University/ Institute: ICFAI University, Tripura

Profile of the Mentor:

Name: D.V.Ramana Rao

Designation: DGM

Department: Not Available

Name of Regional Office: Tripura (Agartala)

Objectives of the Study:

- i. To identify the achievements of PMJDY, PMJJY, PMSBY, PMMY and APY.
- ii. To investigate the issues and constraints relating to the supply side in attaining financial inclusion.
- iii. To investigate the issues and constraints relating to the demand side in achieving financial inclusion.

Research Methodology:

The study carries out the research fencing within the state of Tripura, on that ground to represent the total population of the state a random sampling was performed for the deduction and selection of districts. Distinguished questionnaire was developed for each and every distinct groups of entity, essentially – for Business correspondents (BCs), rural population, Self-Help Groups (SHGs) and for financial institutions. Survey was conducted with the individual groups of identified entities in 18 villages of the 5 selected districts primarily based on face to face interactions and observations.

Sample Size: Amongst 8-district, data was collected from 5 major districts mainly – West, North, Khowai, Dhalai and South, drawing altogether 150 samples. Individual groups of identified entities in 18 villages of the 5 selected districts primarily based on face to face interactions and observations were also covered.

Major Findings:

- i. Financial inclusion requires a paradigm shift that goes beyond opening bank accounts and facilitating direct cash transfers through government subsidies to the financially excluded. Even though enough efforts are being made by all stake holders viz Regulator, Government, Financial Institutions and others, the efforts are not yielding the kind of result expected.
- ii. The demand side barriers in financial inclusion are low literacy levels, lack of awareness and knowledge/ understanding of financial products, irregular income, lack of trust in formal banking institutions, inappropriate infrastructure and technological availability in rural areas causes complexity in providing inclusion.
- iii. The banks have BCs in the unbanked areas to provide basic banking services the main issue that remain from the supply side is lack of manpower with the banks to reach out the financially debarred

families. The major barriers cited to constrain extension of appropriate services to poor by financial service providers are the lack of reach, higher cost of transactions and time taken in providing those services.

- iv. The goal of financial inclusion is not new in the country and even in the state of Tripura. RBI has also been particularly instrumental in introducing initiatives in this regard but the impact of these did not yield satisfactory results.

Major Recommendations:

A. Financial Literacy

It is very essential to convey more information about financial matters, performing financial counselling, giving investment advice and providing financial education to the people, especially in the rural remote places, starting it from the importance to save money. Financial Literacy camps/ awareness must be organized in each and every village so that the people in the areas may familiarize about the various financial products and the pros of having an account with a formal financial institution.

B. Information, Communication and Technology

Technology indeed plays a crucial role in the process of inclusion. The potential of mobile banking largely remains untapped. With deeper penetration of mobile technology, mobile banking have great prospects of increasing accessibility of financial services to the poor, especially in areas where bank branches cannot be opened due to infrastructure issues and less population. But this may take time for proper utilization without employing special training facilities by the Government because majority of the people in the rural areas do not avail ATM cards also which is the basic requisites in banking technology. This is the main drawback among the rustic areas.

C. Increased penetration of Banks

There are still numerous villages in Tripura where formal financial institutions do not exist. As a result people residing in the rural areas have no option other than borrow money from the money lenders who charge exorbitant interest rates. At least Ultra Small Branches must be opened in such remote areas.

D. Responsibilities of BCs, NGOs and SHGs

Organizing motivational training programs to the BCs, NGOs and SHGs is very necessary as they are the key holders to open the lock of financially excluded areas. Most of the BCs in Tripura do not perform as their actual responsibilities. Also the same problem is emerging with NGOs and SHGs because they do not get proper instructions towards the matters.

Summary No-24

Profile of the Student:

Name: Seayam Prava Das

Degree Programme: M.Sc.(Agriculture)

University/ Institute: Banaras Hindu University, Varanasi

Profile of the Mentor:

Name: Raghunath B.

Designation: DGM

Department: MCID & DFIBT

Name of Regional Office: Uttar Pradesh (Lucknow)

Objectives of the study:

1. To study the trends, pattern and extent of financial inclusions in UP
2. To access the role and efficacy of various financial services, including BC/BF/Bank Sakhi, provided under financial inclusion.
3. To access the socio-economic impact of financial inclusion on rural population
4. To identify the barriers confronted by vulnerable groups in accessing credit and financial services including demand, supply and institutional constraints
5. To identify the role of information and communication technology in enhancing the financial inclusion of unbanked population.
6. To suggest strategy to extend financial services to small and marginal farmers and other vulnerable groups to enhance the outreach of banking system

Research Methodology:

The study was covered by interviewing the rural inhabitants mostly the marginal farmers and daily laborers.

Sample Size: The sample size comprised of 100 rural inhabitants. 50 inhabitants each were covered in the Varanasi and Unnao districts. The bank officials of the Lead bank, RRBs, DCCB, members of FLCs, different Bank Mitras, and Bank Sakhis were interacted to know the supply side barriers.

Major Findings:

(A).DEMAND SIDE:

Issues related to Households:

1. The people above 60 years of age (5%) are financially excluded because of lack of knowledge and ignorance and the young people the range of 18 years to 30 years (28%) are also financially excluded as they are unemployed.
2. Mostly the women of the rural households are financially excluded due to cultural obstacles and less independence in the conservative society. Illiteracy is more among the female members of the society.

3. Majority of the respondents were illiterate (37%) and semiliterate (25%) which implies that their literacy level was not enough to understand a financial product, or the complications attached with opening a saving bank account or operating it conveniently.
4. 27% of the families were having sole earning member. 61% of the families have 2 earning members. No. of earning members are less with respect to the large family size which affects the saving behaviour of an individual.
5. Mostly the labourer class is deprived of the financial products as they are illiterate. They are unaware of government schemes. The lack of a regular or substantial income is the main reason for financial exclusion. Some of them also don't have job cards because of political issues. They struggle to save a penny.
6. 79% respondents are engaged in the unorganized sector viz. laborers, farmers and weavers.

Issues related to Financial Positions:

1. Out of the 68 rural households who save a part of their income 41(60%) said they save 0-5% of their income which means they generally have very small amount for savings.
2. The earning of most of the rural inhabitants (67%) ranges from Rs. 2000-4000 per month. The earning pattern is either daily for the laborers (27%) or monthly for the marginal farmers and weavers (73%).
3. Most of the respondents have a bank account but they prefer to save cash at home instead of bank.
4. Even if they keep their savings in the bank they use it regularly, weekly or monthly.
5. Most of the rural Individuals have a saving bank account for applying for a ration card, job card or KCC accounts.

Issues related to Banking Habits:

1. Many individuals (37%) had more than one bank account but they were inoperative.
2. Though almost every rural inhabitants had an Aadhaar card (94%), their account were not Aadhaar linked.
3. Most of the rural people (87%) did not had knowledge of ATM card they were using a withdrawal slip to withdraw money from bank.
4. The overall transaction cost to the customers in terms of both time and money proves to be a major deterrent for visiting financial institutions. The excluded section of the society find informal sector more reachable due to proximity and ease of transaction. Moreover they find dealing with organized financial sector cumbersome.
5. Due to illiteracy many people have a misconception about the PMJDY. There is a notion that they will be getting money by opening account under this scheme. So the people who have a previous bank account are also opening no frill account again.
6. Mostly the persons interviewed have availed service products such as payment and remittances (25%), loans and advances (30%), Kisan Credit Card (45%). Very few rural people use ATM/Debit card (13%). RuPay cards are in the process of distribution. Net banking and Mobile banking is still a long way to achieve

7. Most people use their account for depositing and withdrawing money. Some use it for accumulating fund and interest earnings.

Issues related to Credit pattern:

1. Most of the people borrow from their relatives and friends (70%). Most of people have taken KCC crop loans for meeting their other personal needs.
2. The cost of maintaining an account and procedural problems in accessing formal credit act as disincentives for consumers with weaker financial background.
3. Most of the banks need collateral for their loans. It is very difficult for a low income individual to find collateral for a bank loan. They think taking loans from bank will affect their social reputation.
4. The weavers who are mostly Muslims said earning interest money is against the Islamic laws.
5. The farmers are taking KCC loans but due to their poor repayment their interest rate increases which is also a major issue as it becomes a burden on them.

Issues related to other financial services:

1. Only 30% of the respondents have got access to insurance schemes. Most of them have life insurance. Only 25% of the respondents have access to govt. schemes like PMJDY, APY, PMSBY. Hardly anyone knows about Fasal Bima Yojana.
2. The rural people generally access their remittances through a bank account.
3. People are less aware about golden schemes like PMJDY, APY, PMSBY, and Fasal Bima Yojana.
4. The low income group is unaware of the collective action and advantages of institutions such as cooperatives, SHGs and JLGs. The financially excluded segments and regions are characterized by a very low level of social organization. Due to prevailing levels of distress and uncertainty, people are often reluctant to collaborate or contribute to any common cause.
5. They are less involved in financial literacy programs.

B. SUPPLY SIDE:**BANK**

1. The Credit to Deposit ratio is unfavorable in most of the banks.
2. The bank at times face problems when opening the account of a new customer due to identity mismatch. The customer then has to approve the identity proof from the village Pradhan.
3. The banks hesitate to finance tenant farmers as they do not have documentary proof of their right to till the land for raising crops or for investment purposes.
4. The recovery position is very poor in the rural bank branches. The poor customer fails to repay loan in most of the time. As a result the interest rate also increases. The bank face problem in regulation of the loan amount. The rising NPA due to non-repayment of loans by farmers also prevents bank from financing.
5. As most of the rural masses have a low earning they have a poor saving habit. Even though they have saving accounts they fail to save regularly as a result the zero minimum balance accounts are maintained at zero only.

6. Many of the Bank sakhi appointed by the bank are inactive, defeating the various purposes they were recruited.
7. Branches located in the rural areas are in worst condition having lower connectivity as major telecom companies like BSNL do not have access to these areas for which customer service is adversely affected.
8. There is negligent contribution of private banks in financial inclusion.
9. Many SHGs formed during the year to avail only subsidy interests. There is no cooperation between the members due to non-systematic formation of the SHG. The SHGs lack patience.
10. People are not taking interest in the overdraft facility under PMJDY due to lack of information. Many people are not opening accounts under APY due to its long term nature.

Business Correspondents

1. Commission per transaction is very less to earn a livelihood for the BCs. The Bank Sakhi are playing a crucial role in increasing the outreach of the bank. They are getting a commission of 2 Rs.per transaction which is very less.
2. The Bank sakhi do not have an identity card, uniform and identity board. So they face problem when they approach the people.
3. There is mostly a network problem in rural areas. There is mostly server problem during transactions.
4. The infrastructure of CSP office is very poor. When there a defect in POS machine it is not immediately solved. There is no substitute if smart card is damaged.
5. There is no Cooperation from Pradhan and bank manager in some villages to the BC.

Major Recommendations:

1. There could be regular interactive training workshops organised in the post offices or fair price shops or gram panchayats offices on financial products suited to the local population. Banks should create awareness among the public about financial management and counsel people who are struggling to meet the repayment obligations and helping debt resolution, helping in rehabilitation of borrowers in distress.
2. Financial literacy needs to be given importance in schools by including financial literacy chapters in the school curriculum, and student small saving programs should be conducted where bankers visit schools and collect small deposits, need to be revived.
3. Methods of financial literacy need to be changed from distributing printed literature to audio and visual media such as radio and TV programs, especially in local languages.
4. The FLC reach out should increase to the people in the villages. Opening of bank accounts only indicates reach. PMJDY's next focus should be on increasing the usage of the accounts to make real financial inclusion happen.

Improving Access of Vulnerable Groups to Formal Financial System:-

1. SHGs should be formed among rural people with common interests to collaborate or contribute to any common cause.

2. Formation of JLGs can financially strengthen the landless labors, marginal farmers and weavers. The labor class can have access to loans which otherwise they cannot borrow from banks due to want of collateral security.
3. Since majority about 50% of the rural mass are marginal farmers formation of farmer's club (10 members) can help farmer's to discuss about the problems related to agriculture knowing about different govt. schemes and in adopting the new technologies to increase their financial status.
4. More Rural self-employment Training Institute (R-SETI) should be set up in rural areas to make the rural youngsters of BPL families self employed by giving them training in various fields and enhance their capacity building.
5. The need for financially inclusive services has actually increased in recent years as the cost of social commitments such as health, safety and security has risen along with improved life expectancy. While people retire relatively young they need adequate funds to maintain their standards of living. The need for financial services such as insurance, remittances, reverse mortgage loans, facilities for pensioners and deposit schemes for the older population has grown over time.

Increasing Outreach:

1. Brick and mortar bank branches for every village with population more than 2000 should be established.
2. The pilot project of GBA on using SHG members as Bank sakhi launched in Unnao district was a great success. They are playing effective roles as BC to offer financial services in unbanked villages. This project should be scaled up in other districts of UP through the help of RRBs.

3. Business Correspondents

- A BC need to be rebranded as a banker against the existing image of a travelling salesman which would enhance the acceptability of BCs among general public. This would reduce the attrition rates of BCs and increase their loyalty towards the profession.
 - The status of a bank employee to a bank sakhi would help them to counter regressive objections of women being salespeople.
 - Banks could also look at skill development by conducting regular, structured training sessions for BCs. Active CSP should be given more villages. Mini statements of Aadhaar linked account should be facilitated.
 - PACS can also act as BCs of Cooperative Banks for their better outreach
 - Banks can tie-up with India Post by setting up small banking counters at each of their post offices, especially rural branches thus solving the high fixed cost issue for banks in establishing a new brick and mortar branch. If audio-video enabled ATMs are installed to announce simple instructions in the local language in the premises of post offices, then trained guards could facilitate withdrawals, deposits and also account opening forms.
4. Similar to the post offices, network of fair price shops can be utilized by launching a joint venture of banks and Food Corporation of India to install devices which will be used for both Public Distribution System (PDS) and banking transactions through smart card and biometric identification.

5. Every bank should be made to offer No Frill Saving Account with basic services without terms and conditions which are class/ group specific but are applicable to all.
6. Private sector banks should be involved in process of financial inclusion and they should be made realize that it is not only a business opportunity for them but corporate social responsibility too. Commercial Banks can act as spokes in the wheels for drive to achieve 100% Financial Inclusion in India. Commercial banks can step in to augment financial inclusion by providing non- Banking services like and support.
7. Aadhaar enrollment should be encouraged to make the opening of accounts and accessing to bank services more easily. Though most of the people have Aadhaar card they don't have Aadhaar linked accounts which make them financially excluded from various govt. schemes.
8. The DCCB and RRBs are playing a great role in financial inclusion of the rural mass to a great extent w.r.t to the negligence of the commercial banks. The infrastructure of this bank should be improved.
9. The village Pradhan is playing a crucial role in making the people aware of various govt. schemes and financial products. But people are excluded from the financial system just because of political issues. The working of Pradhan needs enhancement at grass root level. Awareness Programme for village Pradhan can be considered.
10. In remote rural area it is not possible to get connectivity from all mobile service providers. Smartcard which is given to BC should have good network connectivity within the village. This will enable the BCs to get internet connection anytime in day and transaction can be possible anytime without going here and there.
11. Digital mediums like mobile phones, internet banking, etc. to transact, save, make and receive payments, etc. should be encouraged. Government agencies should actively participate in that campaigns that communicate mobile banking to be user friendly and safe. Common consumer knowledge in rural areas about dialling to a toll-free number should be leveraged to provide introduction to financial literacy as well as instructing people on steps to use mobile banking.
12. More ATMs should be established in village bank branches. RuPay card should be issued to all account holders especially the Kisan Credit Card holders.

Role of Government:

1. Improvements should be made in the human, social and physical capital. The people have to be healthy and educated to be productive. Programmes for enhancing access to land water become relevant for small farmers to build the ability of using the credit. Investments should be done in roads, bridges, canals, power supply, market yards and warehousing in financially excluded regions to increase the local economy. The gram panchayats, commodity cooperatives, local administration and even local markets should be made well developed to bring the rural mass under formal financial system.
2. The real sector or demand side interventions to enhance agricultural productivity can generate demand for additional credit. People should be encouraged to make value added products to make use of finance. Effective increase in demand for credit can be done by improving market linkages and minimising risk issues in agriculture.

Summary No-25

Profile of the Student:

Name: Kinjal Shukla

Degree Programme: MBA-Tech

University/ Institute: Narsee Monji Institute of Management Studies (NMIMS), Mumbai

Profile of the Mentor:

Name: Dr. K.J.S. Satyasai

Designation: DGM

Department: DEAR

Name of Office: Head Office, Mumbai

Objectives of the study:

- 1) To study the relation between financial inclusion and inclusive growth.
- 2) To study the current use of financial services.
- 3) To find the awareness levels of households on financial service
- 4) To study the impact of social capital on financial inclusion behavior of HH.
- 5) To understand the role of ICT based financial services in enabling and availing the financial services.
- 6) To get an insight of the banks perspective of deploying ICT based financial services.

Sample State/ Distt/ Blocks/ Villages: Gujarat; Ahmedabad; Alidhara, Khadhipadi, Jhanjarada and Barwara

Sample size: 88 households, 2 banks

Research Methodology:

Primary data was collected from households regarding asset value, use of ICT devices, use of banking services, different channels to avail those services and influence of social capital regarding financial awareness. A structured questionnaire was prepared for the same. Data was collected using survey mechanism. Method of analysis includes constructing a Financial Inclusion Index (FII) and Information and Communication Technology Index (ICTI). The methodology for the proposed for developing these indices is similar to the one adopted by UNDP for constructing the Human Development Index (HDI). The determinants were analyzed using frequency distribution tables, regression and other tabulations.

Major Findings:

(A) Related to Household:

While all the surveyed households availed saving and loan services, there were zero households availing pension and smart card services.

- The major reason for saving among households was to accumulate wealth.
- A high awareness and high usage (78 out of 88 households) was observed in the case of Kisan Credit Card. The awareness levels were also high in case of Rupay Card.
- 100 % awareness levels were observed in financial services like savings, loan, pension and insurance; 80 % in Kisan Credit Card and 79 % in Rupay Card and 5% in Smart card.
- Considering awareness as a parameter, the probability of a household availing the service is 1 in case of savings, loan and Kisan Credit Card; 0.49 in Rupay Card and Insurance service.

- The most commonly owned ICT based device by households is mobile phone (97 %) followed by Television (90 %).
- Reasons for not owning ICT devices were: non-requirement and lack of sufficient funds.
- The major reasons for using ICT based devices with respect to financial inclusion are: a) financial awareness, b) Ticket booking and online shopping, c) Bank balance enquiry.
- 97 % households had Aadhar card and 9 % of household's bank account was linked to Aadhar card. Gas subsidy was a major benefit derived through Aadhar card linkage.
- The highest services per household (breadth of financial inclusion) was observed in case of Alidhara which was 1.63 service per household.
- The highest average depth of financial services was observed in savings account, followed by Kisan Credit Card. Alidhara stood highest in terms of total depth of all services.
- There is a positive relation between Financial Inclusion Index and Information and Communication Technology Index and Financial Inclusion Index and Inclusive Growth.

Related to GSCB and ADC Banks

These banks were specially incorporated as a part of the study to acknowledge their efforts in financial inclusion with respect to ICT.

- In GSCB and ADC, continuous implementation of ICT based banking devices is taking place, latest being the incorporation of micro-ATMs and mobile banking RTGS/NEFT services.
- Offline mobile service- NUUP (*99#) and micro-ATMs serve as the future of financial inclusion in rural areas through ICT. Both of these services are live in GSCB and ADC.
- Expansion of number of ATMs and micro-ATMs is expected in this year for both ADC and GSCB.
- Also, GSCB will be going live in providing net banking financial service by the end of this financial year.
- Around 30% of GSCB customers are active on mobile banking.
- In ADC, currently honest micro-ATMS are live in 8 talukas. Micro-ATMs are imparting services like cash withdrawal and all other non-financial services. They are not inter-operable. Because of the positive response gained by the micro-ATMs, another 48 micro-ATMs are expected to launch by the end of this year.
- 1 lac RuPay cards have been issued at ADC bank since the inception of PMJDY.

Major Recommendations:

- Proper maintenance of banks in villages are required. Staff needs to be trained to understand the needs of the Households.
- Since mobile is the commonly owned ICT device, more awareness regarding how to use mobile to access all banking facilities should be created.
- Mobile also can be used as a source of awareness to help connect bank better.
- More powerful product delivery system for Insurance, Pension, Kisan Credit Card, and Remittance should be introduced.
- Procedure for availing bank loans should be simplified.

Summary No-26

Profile of the Student:

Name: Anjana K.V

Degree Programme: M.Sc.(Quantitative Finance)

University/ Institute: Puducherry University

Profile of the Mentor:

Name: K.Arthanareeswaran

Designation: DGM

Department: SPD / RIDF / NIDA / FPF / RIPP

Name of Regional Office: Tamil Nadu (Chennai)

Objectives of the study:

- i. To study the progress of Financial Inclusion(FI) in UT of Puducherry
- ii. To study the extent of awareness on FI among households
- iii. To identify the issues and constraints of FI

Sample State/ Distt/ Blocks/ Villages: UT of Puducherry/Districts: Puducherry and Karaikkal/
Villages: Bahour, Puducherry and Koonichempet in Puducherry and Kalaraipet, Keezhakasakudy,
Thalatheru and Varichikudi in Karaikal dt.

Sample size : 170

Research Methodology: Purposive Sampling Technique was used. Primary data{Field Survey (Schedules) & Direct Interview} b. Secondary data {Reports, SLBC proceedings & Annual Credit Plan (ACP), Official statistics, Journals & government publications.}. Period of Analysis from FY 2005-06 to FY 2014-15. Survey conducted during the period May to June 2016. SPSS & Excel. Discriminant Analysis, Chi-square Tests pie- chart, bar diagrams are used as statistical tools.

Major Findings:

- i. The majority of the respondents (54%) belong to the working age group of 25 – 44 years and most of the respondents belong to the Scheduled Caste category (49%). Agriculture and related activities is the major occupation of the respondents (45%). It is noted that majority of the respondents (64%) belong to Below Poverty Line with an annual income less than Rs.25000/-
- ii. The study found that 100 % respondents possess bank account and a majority of them (92 %) have Basic Saving Bank Deposit Account (BSBDA). Thus it is clear that the Financial Inclusion initiatives of the UT of Puducherry succeeded in attaining deposit penetration.
- iii. For 92 % respondents, banking accessibility is easier as it is within 5kms. It is also noteworthy to say that 62 % households have more than two accounts which comply with the PMJDY requirement of possession of at least two accounts per household.
- iv. Commercial Banks and Regional Rural Bank (Puduvai Bharathiar Grama Bank) play an important financial role in the UTP as majority of the respondents have their bank accounts in these two banks (99 %). Despite having lesser bank branches than Commercial Banks, the RRB plays an important role in the UTP under FI.
- v. 37 % of the respondents choose banks for their credit requirements. 48 % of the respondents who have availed loan have utilised for agriculture purpose and the beneficiaries have responded that they were able to repay the loan taken from the banks.

- vi. Karaikal is poor in credit penetration in comparison to Puducherry. Out of 89 respondents in Karaikal only 13 of them availed credit facility whereas in Puducherry 47 out of 81 respondents availed the credit facility.
- vii. Aadhar card linkage in the UTP is successful as majority has linked their Aadhar with bank accounts, which is a magnificent Govt. Policy achievement. DBT for LPG, MNREGA wage and enablement of subsidies are core reason behind it, as revealed by eighty five per cent of the sample respondents.
- viii. After one year of commencement of the insurance scheme under Pradhan Mantri Jan Dan Yojana (PMJDY), the number of respondents opting for these insurance products is very low. Out of the three insurance schemes introduced under PMJDY, more participation is under Pradhan Mantri Suraksha Bima Yojana (PMSBY) over the other two (Pradhan Mantri Jeevan Jyothi Yojana and Atal Pension Yojana).
- ix. Only 41 % of the respondents have attended the financial literacy programmes of the UT conducted by the Financial Literacy and Counselling Centre. Those who have attended the Financial Literacy campaigns feels it useful and helpful. This calls for in-depth development in these areas and to induce the coverage of all the verticals under the Comprehensive Financial Inclusion.
- x. Majority of the respondents (43 %) opened the bank account with an insight of saving their income, which is a positive note. This implies people understand the importance of saving under the institutional framework.

Major Recommendations:

- i. Granting Credit Facilities: RBI has already taken the initiative in granting small credit facilities in form of Over Drafts, GCC/KCC, etc under FI programme. However, there is declining trend in its issuance and usage. Banks should ensure that all the eligible persons are granted these small credit facilities. The customers should be made aware of the usefulness and usage of cards and facilities he possess.
- ii. More focus on Insurance Products: The banks should know the importance of protecting the risk factors of their customers. They should guide their customers and promote them to take up insurance products that reduce their risk elements. This will enable the people to be protected under the umbrella of institutional framework.
- iii. Gear up MFI Linkage: The Micro Finance Institutions (MFI) have become a powerful tool for fighting poverty. The banks must gear up the SHG and JLG bank linkages for effective delivery of financial services.
- iv. Expanding Financial Literacy Programmes: Even though, the works of FLCC in imparting financial literacy is commendable, it should not confine to a few villages and districts. More FLCC needs to be set up throughout the UT and a proper orientation needs to be given to the people on its usefulness. Attaining financial literacy is an important tool in achieving Financial Inclusion. Financial Literacy Programmes can be made more interactive and innovative by introducing live demonstrations rather than having mere classes and lectures. These small steps can make a big difference in imparting financial knowledge among masses which ultimately removes Financial Exclusion.
- v. Monitoring Financial Inclusion: Separate wing or monitoring cell may be set up for supervising Financial Inclusion status of the villages falling under the covered area of the bank branch. These cells can review the performance, suggest measures and recommend policies on a regular basis for effective implementation of FI programme.

Summary No-27

Profile of the Student:

Name: Kanika Aggarwal

Degree Programme: MBA

University/ Institute: College of Busines Studies, Panjab University

Profile of the Mentor:

Name: Somainder Singh

Designation: AGM

Department: FID

Name of Regional Office: Punjab (Chandigarh)

Objectives of the study:

- To examine the extent of availability and access of financial services
- Identify the major constraints faced in the access of financial services
- To examine the growth of financial inclusion and assess the issues and challenges in financial inclusion in Punjab

Research Methodology:

- This report is based on primary as well secondary data. Research has been done by primary data collection which has been collected by interacting with various people and by visiting banks. The secondary data has been collected through various journals and websites.

Sampling Unit:

- The sample of the study consisted of respondents in the rural and semi urban areas of Ropar, Mohali and Patiala districts of Panjab. Data was collected through personal visits to respondents, by formal and informal talks and through filling up the questionnaire. The data collected has been analysed by using mathematical/Statistical tool.

Sample Size:

- 300 respondents; 6 villages (2 villages from each district); 50 respondents from each village.

Major Findings:

- The major occupation of respondents in Ropar is Agriculture which scored 44%, while Mohali has the highest percentage of others (73%) and Patiala has the maximum respondents falling under the category others with 48%
- Overall, 2.33% respondents are earning upto Rs.50000, 23.67% are earning between Rs. 50000-100000, 35% are earning between Rs. 100000-200000, 27% are earning between Rs. 200000-400000 and 12% are earning Rs. 400000 and above annually.
- The earning pattern showed highest results for monthly having 37.67%. 28.33% respondents earn daily, 24.33% earn half yearly, 6% earn irregularly while only 3.67% earn weekly.

- The per capita annual income calculated works out to be Rs. 2,10,750 for Ropar, Rs.2,00,250 for Mohali, and Rs.2,25,750 for Patiala. The overall per capita income works out to be Rs.2,11,833.33.
- The literacy level affects the per capita income of respondents. Graduates have the highest per capita income i.e. Rs 311666 followed by Sr. Secondary passouts with Rs 291279 per capita income. School Dropouts have the least per capita income as Rs 174172 only.
- The average land holding per person in Ropar works out to be 3.47 acres. It was found to be 3.66 acres in Mohali and 4.87 acres in Patiala. The number of people holding land is the highest in Ropar followed by Patiala. But the average land holding is higher in Patiala than Ropar indicating that fewer people in Patiala have more land than more people in Ropar.
- Self employed respondents have the highest per capita income i.e. Rs 244696, followed by respondents doing agriculture (Rs 223125). Least per capita income was of landless labourers (Rs 121296).
- Maximum percentage of respondent saves between 0-5% of their earnings in Ropar (60%) and Mohali (51%). In Patiala, maximum respondents (42%) save between 5-10% of their earnings. The overall picture shows that 50% respondents save only 0-5% of their earnings and only 4.33% save more than 15% of their earnings.
- The per capita savings are calculated using weighted average method. The highest per capita savings are in Patiala i.e. Rs.25,679.06 followed by Mohali with Rs.13,266.56. Ropar has the least amount of per capita savings being done i.e. Rs.11,327.81. The overall per capita savings works out to be Rs.13,327.84.
- The average number of bank accounts is highest in Patiala i.e. 1.45. It is lowest in Ropar i.e. 1.3. The overall picture shows average number of bank accounts as 1.36 in the 3 districts.
- 5 respondents in Ropar, 5 in Mohali and 2 in Patiala have no bank accounts. The reason for having no account is low level of literacy in 10 cases and tedious procedure for opening bank accounts in 2 cases.
- The per capita income and per capita savings are linked to average number of bank accounts. Patiala has the highest per capita income and per capita savings and thus the highest average number of bank accounts too (1.45). Mohali, having the lowest per capita income still shows higher savings than Ropar and has higher average number of bank accounts than Ropar.
- Ropar has the largest number of PACS members and KCC holders (68) followed by Patiala (63) and last Mohali (4). The average loan outstanding on KCC card works out to be highest in Patiala i.e. Rs.97,656.82, followed by Ropar (Rs.56,933.82) and then Mohali (Rs.52,500). The average loan outstanding per acre of land is highest for Patiala i.e. Rs.20,052.73. The lowest average loan outstanding per acre of land is of Mohali i.e. Rs.14,344.26.
- The average number of transactions done in a month is highest for Patiala i.e. 3.08 followed by Ropar (2.96) and then Mohali (2.32).
- The relation between average number of bank accounts and average number of transactions done in the 3 districts shows that Patiala has the highest average number of bank accounts and highest

average number of transactions done in a month. Ropar, inspite of having least average number of bank accounts still has higher average number of transactions in a month than Mohali.

- The major source of borrowing for respondents is Banks (33.33%) followed by friends or relatives (16.33%), other sources (13%) and moneylenders (9.67%). 27.67% respondents have never taken a loan.
- 85% respondents out of 50 have not availed credit facility. 72% out of 42 respondents have not taken loan because they did not require it, 14% are scared of debt circle and increasing suicides and 14% have not taken loan due to lack of knowledge.
- The relation between Income level and source of borrowing shows that the maximum number of respondents who borrowed from Banks belong to the Category D i.e. earn between Rs.200000-400000. Maximum respondents who borrowed from Moneylenders earn between Rs.50000-100000. Maximum respondents who borrowed from Friends/ Relatives earn between Rs.100000-200000.
- Maximum respondents who have taken Insurance belong to Patiala (57) followed by Ropar (40) and then Mohali (38). Respondents having Government Pension are highest in Patiala (19) followed by Mohali (12) and then Ropar (11). Overall 45% respondents have Insurance and 14% have govt. Pension.
- 58.02% respondents having income between Rs.200000-400000 have Insurance. 52.77% having income Rs. 400000 and above have Insurance. 26.76% having income between Rs. 50000-100000 have Insurance while 28.57% earning less than Rs. 50000 have Insurance.
- In terms of Social security schemes, 39.67% have PMSBY, 25.33% have PMJJBY and 3% have PMAPY.
- 80% respondents i.e. 40 out of 50 have not taken social security schemes under financial inclusion (PMSBY, PMJJBY and PMAPY). 52.5% have not taken because they are not eligible due to their age, 22.5% have not taken these schemes due to lack of knowledge while 25% are already availing some other social security scheme apart from these.
- Only 27.67% respondents have attended Financial Literacy Camps while 72.33% have not.
- The relation between education level and attending FLC shows that 73.33% Graduates have attended FLC. 39.53% Sr. Secondary pass outs have attended FLC while only 17.88% of School dropouts have attended FLC.
- The data of KCC holders collected from two bank branches of SBOP and Patiala Central Cooperative Bank in Kallo Majra village of Patiala district showed that 7 names appeared in both the lists out of 162 KCC indicating 4.32% duplicity of KCC.

Major Recommendations:

- Exclusive mass financial literacy and awareness among the marginalized sections of people are required to be designed and customised.

- For meaningful financial inclusion, banks and other organisations should take a proactive role in spreading financial literacy. More financial literacy camps should be organised and maximum number of people should be educated about the benefits of the scheme.
 - Timings of Financial Literacy camps may be suited to the timings of such beneficiary. Camps for the beneficiary may be held in the evening time to enable them to attend the camp.
 - Financial literacy programmes must be tuned to the literacy level of people. 50% respondents in the research are School dropouts. The financial literacy campaigns must be designed keeping the education level of people in mind. Use of jargons should be avoided
 - More Brick and Mortar branches should be opened in villages so that the villagers have more access to services.
 - Authorities should take necessary steps to include financial literacy programmes in the school curriculum. It will help to rise a financially educated new generation.
 - Private Banks, Insurance companies and other financial service providers may concentrate more on the village people because they are not yet fully financially included. In the case of private sector banks, rural branches accounted for just 13.3% of their total branches in March 2013 (while in the case of public sector the same stood at 33.1%). Opening more branches in rural areas will help the private players to increase their customer base as well.
 - More focus is required on enhancing the risk bearing capacity of the poor. Insurance can play an important role here. Micro-Insurance is fast emerging as an important strategy for the low-income people engaged in a wide variety of income generation activities which are exposed to a variety of risks.
 - Benefits of social security schemes to vulnerable groups should be the focus. There may be exclusive programmes/schemes for such target groups.
 - Over 70% of total population resides in the rural areas of the country. However, insurance reaches less than 3% of the total population. Due to high competition and relatively high market saturation in the urban areas, rural areas provide ample business opportunities for insurance firms –both life and non-life.
 - PACs penetration in rural areas is far more than that of bank branches. Banks may make use of this largest rural network of cooperatives as BCs. Recent NABARD circular also envisaged that PACs can be utilized as BCs for CCBs/SCBs.
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THEME-4: Documentation of Case Studies on Climate Smart Agriculture /Water Management Practices Adopted by Farmers in Chhattisgarh (Chhattisgarh & West Bengal); Need & Scope of Climate Finance in Promoting Climate Smart Agriculture (Karnataka); Climate Finance & Banking in India (Head Office)

Summary No-28

Profile of the Student:

Name: Shilpa Kumari Rajak.

Degree Programme: MBA

University/Institute: Shri Shankaracharya Institute of Prof. Mgmt & Tech, Raipur, Chhattisgarh.

Profile of the Mentor:

Name: K. Subramaniam.

Designation: DGM

Department: DOR / CPD / FAD / RMD / NABCONS.

Name of Regional Office: Chhattisgarh (Raipur)

Objectives of the study:

- i. To study the Climate smart agriculture and water management practices adopted by farmers
- ii. To assess the potential for up-scaling the models being implemented in different parts of Chhattisgarh.

Sample State / District/Block/Village: State-Chhattisgarh, District-Surguja & Korba, Blocks-Batauli & Korba; Villages : Boda, Jahardih, Taragi, Bhatgaon, Dondro & Rogbahri.

Sample Size:200

Research Methodology: The study was conducted based on primary and secondary data, which was compiled for analysis. Primary data consisted of the sample data collected by interviewing local villagers / farmers of Batauli and Korba Block where WDF and Jal Gram programmes are being implemented. Secondary data was compiled by reviewing the existing material on climate smart agriculture and water management.

Major Findings:

- i. PFA plays a major role in bringing change in the mindset of the people and building resilience of the local farming communities.
- ii. Women in these areas were less aware of implication of climate change and its effect on agriculture.
- iii. Scope of expansion of agriculture can be increased through micro irrigation facility.
- iv. Watershed development has ensured availability of water and raised the income level.

- v. Diversification of agriculture has taken place.
- vi. Social engineering has taken place in the form of people's organizations viz., VWC, SHGs and farmers' clubs.
- vii. Women participation in socio-economic activity has been visible.
- viii. More number of employment generated in the locality.
- ix. Landless people could get engagement through non-farm activities.
- x. Vegetable cultivation has been taken up as a livelihood activity.

Major Recommendations:

- There is a need to have some risk assessment tool to identify and implement more focused and location specific interventions at micro level (village level).
 - Women and men have different awareness levels to deal with impact of climate change. Hence there is a need to implement more gender specific research projects.
 - Need to strengthen our climate services and weather based crop advisories by partnering with software services companies to start a mobile application where farmers can post related problem.
 - Encouraging farmers to use Smart Phones and educating them about how they can use the latest features of their mobile phones to share information put up queries and get handy solution to their specific problems as and when required.
 - There is a need to have community based approach like encouraging communities to impose social regulations on groundwater extraction to control excessive extraction of groundwater.
 - The community saved groundwater by undertaking watershed development and controlled the demand for groundwater by deciding not to grow water intensive crops. Such community based efforts need to be encouraged and have to be taken to a larger scale.
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Summary No-29

Profile of the Student:

Name: Piyali Banerji

Degree Programme: MBA (HRM)

University/Institute: Indian Institute of Social Welfare & Business, Kolkata

Profile of the Mentor:

Name: M.N.Rao

Designation: DGM

Department: FSDD / FSPD / NABCONS

Name of Regional Office: West Bengal (Kolkata)

Objectives of the study:

- 1.) To develop case studies based on technical aspects of the Watershed projects of Burdwan and Bankura districts and the psychological/ socio-economic aspects of farmers based in those areas.
- 2.) To study the impact of the Watershed project on the environment in that region.
- 3.) To determine the impact the Watershed projects on the livelihood of the farmers.
- 4.) To check the effectiveness of the trainings imparted to the farmers on the interventions.
- 5.) To bring out the gap between the expectations and satisfaction of the villagers if any with regard to the Watershed projects.

Research Methodology:

The study was carried out during the pre-sowing period of paddy in the month of June in the Bankura and Burdwan districts of West Bengal. A combination of purposive and systematic random sampling was employed. The districts were purposively selected for the descriptive study as it falls in the Red Laterite zone of the state which enjoys rain-fed agriculture and gets disrupted due to delayed rainfall. This makes the region ideally suitable for sustainable and judicious use of land and water, thus the need for developing watershed regions. Questionnaire was used as a tool to collect data from the respondents for the purpose of field study. The data were collected with the help of structured interview developed for this purpose from the respondents through personal interview as well as focus group discussions. It is indispensable to be mentioned that unstructured probing of questions has helped to reveal many interesting facts which would have otherwise not come to light.

Sample Size:

15 villages covering 150 farmers. Salanpur Block of Burdwan district, Borabhuyin, Ramdih, Basketia, Majladih, Denduya and Dhanguri mouza, in the Ranibandh area of Bankura Khejuria, Makhnu, Katiaam and Gadra mouzas and in the Chhatna area of Bankura Chhachhanpur, Beriathol and Jamthol mouzas were selected for the study.

Major Findings:

- i. Training communication is abrupt. It does not reach/ percolate properly to all the farmers who may be interested.
- ii. Many farmers are ignorant of the purpose of attending a particular training programme. They have been selected merely in order to fill the requirement of fulfilment of trainee number. It was reported that rice cultivator not interested in pulse cultivation attending training on Pulse programme.
- iii. The projects undertaken such as digging of ponds etc lose importance for the villagers if there is no rainfall. In such cases they do not perceive the worth of the assistance provided to them for digging the pond.
- iv. Many farmers are not willing to put extra effort even though they are aware of better return. Thus, attitude problem is observed.
- v. Most of the farmer families want financial assistance or free samples and have been imbibed with over-dependency on grants.
- vi. Seeds do not reach to the farmers on time from the Local bodies. It is thus of no use when they get the samples.
- vii. Traditional tribal food is being popularised in the Chhatna region of Bankura district.
- viii. The yield of paddy has almost doubled in both the districts.
- ix. The number of vegetables grown in the villages has also almost doubled Post water-shed development.
- x. More drought-tolerant crops are being introduced.

Major Recommendations:

1. Palm and date trees abundantly grow in these districts but has not been popularised as business. It can be grown as an industry.
2. Black pepper can be tried to grow in the Bankura district.
3. Motivation training of the farmers should be imparted.
4. Options of assistance for water availability in the critical dry seasons should be looked for by other means than investment on regular project implementation.
5. All the projects such as animal husbandry, mixed cropping etc needs more popularization and awareness among the locals through wall writings, street plays (jattras) involving them.
6. More number of technology based trainings such as Satellite based training programmes can increase the geographical area coverage highly so that one training can cover people from various areas instead of individual trainings in each of these areas.

Summary No-30

Profile of the Student:

Name: Nagesh N S

Degree Programme: M.Sc (Agriculture)

University/ Institute: University of Agricultural Sciences, Bangalore

Profile of the Mentor:

Name: V.S. Balasubramanian

Designation: AGM

Department: FSDD

Name of Regional Office: Karnataka (Bangalore)

Objectives of the study:

1. To document the case studies on Climate Smart Agriculture (CSA) technologies and practices.
2. To document the present institutional framework of climate finance with reference to CSA
3. To study the role of NGOs and other civil societies in promoting CSA
4. To study the role of banks and institutions in promoting CSA
5. To develop a mechanism to track climate finance and incentivize projects influencing adaptation and mitigation against climate change impacts, both directly and indirectly.
6. To recommend appropriate policy measures to promote CSA

Sample State/ District/ Blocks/ Villages: 05 districts of Karnataka namely : Mandya, Tumakuru, Dharwad, Raichur and Dakshina Kannada. 5 DDMs, 01 LDM, 04 Select Bank branches and financial institutions, 9 NGOs and Civil Societies, 03 Government departments and Agencies and 10 Primary grass root level stakeholders like farmers (10)

Research Methodology:

Five districts were selected for the study based on two important considerations. Firstly, all these districts belonged to different agro climatic zone and secondly, all these districts belonged to different levels of climate change vulnerability (based on NICRA prioritisation). An unstructured (open ended) questionnaire was designed to collect the primary data from various stakeholders listed below:

From all the stakeholders, data was collected on the climate change impacts, their vulnerabilities, interventions carried out in this regard and their outcomes. The experiences of the NGOs and other stakeholders in this regard are documented along with supporting case studies.

Major Findings:

- 1) Major obstacles on the implementation of CSA technologies/ practices at small holder level are lack of resources, access the technology and cost barriers.
- 2) NABARD promoted solar powered irrigation pump sets, implemented is highly beneficial to the farmers which have substantial mitigation potential.
- 3) Scalability of some CSA technologies remains a concern particularly for the small and marginal farmers, who are the most vulnerable groups.

- 4) Agriculture demand side management (Ag DSM) under UPNRM by replacing the old and energy inefficient pumps had been very effective as it promoted energy efficiency and proved a bankable model.
- 5) Awareness level is very low among the bankers about climate change and climate finance.
- 6) No standards are available with the Bankers on Environmental and Social safeguards and majority of them expressed helplessness in this regard.
- 7) The scope and the possibility for tracking the climate funds at sub national/local is limited.
- 8) Most of the activities undertaken by farmers are climate smart but unfortunately, they are not explicitly defined.
- 9) Most of the CSA technologies and practices are initiated on a project mode and their scalability on a sustainable basis remains highly uncertain.

Major Recommendations:

1. There is a need to create awareness among all stakeholders on climate change issues in particular. Climate change education should be provided the utmost priority as it enhances the resilience of communities.
2. Awareness has to be created among the various stakeholders on various aspects of Detailed Project Report (DPR) preparation and appraisal system for expediting more projects under climate change financing. Procedures to access climate funds have to be simplified, particularly with respect to proposal preparation, to achieve more wide spread realization of benefits.
3. Since climate change is a global public good, individuals lack incentive to work towards its mitigation. Thus incentives are essential. Incentives should be designed in such a way that they account for the positive and negative externalities created by a project sanctioned by the bank. Views of various stakeholders need to be considered while designing the incentive mechanisms.
4. NABARD may collaborate with the research institutes and universities to undertake studies to design a suitable incentives for the wide spread adoption of climate smart technologies/ practices and effective use of National and International Climate Funds.
5. NGOs and other civil societies should be effectively involved in promoting CSA and monitoring. This will help to overcome the moral hazard issues faced by the bankers.
6. Classification of the presently prevalent loan products and the subsidy schemes, in terms of their contribution/ support towards adoption and mitigation towards climate change impacts, both directly and indirectly, needs to be standardized and documented in explicit terms.
7. There exists a need to collect and analyze the data regarding the various climate smart technologies/ practices and incorporate the same in the Potential linked credit plans of NABARD.
8. The benefits of adoption of CSA are not always appreciable in the short term, but the costs are borne immediately. Finance has an important role to play in helping the farmers to bear the cost and risk effectively.
9. Handholding of farmers during the initial years of CSA technology/ practice adoption is very much essential.

Summary No-31

Profile of the Student:

Name: Ashwani Pushkar

Degree / Course: MMS Finance

Institute / University: Sydenham Institute of Management Studies, Research & Entrepreneurship Education (SIMSREE), Mumbai

Profile of the Mentor:

Name: Sanjay Kumar Dora

Designation: DGM

Department: FSPD

Name of Office: Head Office, Mumbai

Objectives of the study:

- a. To understand the awareness and commitment level of banks w.r.t green initiatives & climate finance.
- b. To identify the key drivers for climate finance.
- c. To identify perceived challenges
- d. To understand voluntary measures undertaken.
- e. To get an insight of innovations and future plans of Banks in climate finance and green initiative.

Research Methodology:

It's a descriptive research where convenience sampling was done. The methodology consists of identifying the banks across public sector, private sector as per the market capitalization of the banks or geographical spread. Also Regional Rural Banks (RRBs) and State Cooperative Banks (SCBs) were included in sample. The use of market capitalization gives an indication of the how the market values a particular bank and a comparison of the green practices by such a bank. After identification of the banks, the next step is the Study of reports of the individual banks, RBI, various websites for the collection of the required secondary data.

Sample: Data was collected from the banks (Private, Public, RRBs & SCBs during 20.05.2016 to 08.06.2016. A questionnaire was designed and circulated to over 30 banks through mail and regular follow up was done. Field visits to corporate office of few public and private banks were undertaken
Sample size: 30 Banks where 24 are primary respondents while rest are covered under case study approach (based on secondary data sources)

Major Findings:

Findings are grouped under six major headings:

Awareness

1. Weighted average score of importance of climate issue turned out to be 3.94 out of 5 i.e 79%.
2. 61% of respondents said Climate Change was on their agenda.
3. Only 4 % of respondent had separate department looking after climate finance.
4. 61% of respondent banks had CSR policy in place.

5. 50% of banks considered climate change mitigation project under CSR.
6. 91% of banks felt that Climate change would have significant impact on conduct of business; they also felt RRBs can play an active role in addressing climate change.

Preparedness

1. 20% of respondents have written statements describing the purposes and objectives of the organisation to reflect a commitment to climate change activities.
2. 35% of respondents were engaged in capacity building activities on climate change issues.
3. 43% of respondents said that they came up with new product w.r.t climate change mitigation initiative.
4. 50% of respondents had schemes for energy saving project for MSME in their region.
5. Only 17% respondent gave Green home loans and 13% had solar powered ATMs.
6. Almost all respondents promoted paperless banking.
7. While RRBs had nearly 75% of their advances as PSL, only a miniscule amount of it was being spent on Green initiative or climate related stuffs.
8. Few Private Sector Banks have diversified portfolio for investments in Renewable Energy. While others are yet to foray into climate finance. Though at office level most of them contribute in some way or the other.
9. In case of RRBs climate finance has been limited to Solar Home Lights System, Solar Water Pumps and Capital Subsidy Scheme under JNNSM.

Key Drivers

The motivation could be driven by both External & Internal factors.

1. Three major external drivers are (a) Environmental Benefits (29%) (b) Social & Community Benefits (29%) & (c) Business Opportunities (24%)
2. Three major internal drivers are (a) Economic benefits & profitability (40%) (b) Marketing Benefits (26%) (c) Improved Shareholder Value (14%)

Barriers

1. Three major barriers as felt by respondents: (a) Lack of awareness about climate change (22%) (b) Lack of Regulatory policies (20%) (c) Lack of technical knowhow (19%)
2. Further, nearly 44% of respondent said Credit Risk was the major barrier to implement climate change activity.

Voluntary Measures

1. Only 10% Banks had green channels
2. Only 8% respondents are member of any global / national policy framework. Majority of public and private banks are part of some or the other policy framework.
3. Only 15% of primary respondents are willing to join one in future.

4. Only 10% respondents measure their carbon footprint.
5. Only 17% Banks have emission reduction plan in place. It is done at two levels (a) Internal: Here Energy efficient resource are being used at the organisation level (b) External: Here only those projects are financed which checks their carbon emission.
6. 15% respondents had formal partnerships at some level to initiate climate change activities.
7. 15% of respondents have undertaken Energy Audits in their organisation.
8. 37% of Climate Change Initiatives are into Energy Sector, 26% in waste minimization and 15% each in education and purchases.

Innovation & Future plans

1. Only 15% respondents have sustainability benchmarks in place.
2. 21% respondents incentivise people taking loans for renewable energy or any green initiative.
3. 11% respondents were involved in the trading of project based carbon credits.
4. Only 11 % respondent launched any products or services to customers that promote low carbon products and services.
5. 15% respondents have incorporated climate and carbon issues into retail banking area till date.
6. Only one respondent (Axis Bank) had incorporated any climate and carbon issues into research activities till date.
7. 26% respondents said they are engaging with IREDA to emulate best practices for financing renewable energy projects.

Major Recommendations:

Awareness:

Though at level of Banks sufficient awareness seems to be existing (79%) but still they think Lack of awareness about climate change (22%) to be as the major barrier. This calls for more capacity building and awareness generation on the issue. This could be done by the CSR wing of Banks.

Preparedness:

Banks seems to be prepared for undertaking Green Initiatives, but only at their organizational level. Like having solar panels in their organization or having water harvesting structure in their office. This call for setting up a strong and dedicated Project Finance department which could reap benefits of being a early starter into climate finance initiatives which is going to boom in coming days. Climate Finance can be seen akin to health sector which are here to stay. Only limiting factor here is the need for low cost long term finance and improved technology. This in due course of time is surely going to improve. This enhanced preparedness would lead to diversification in portfolio of Renewable Energy projects that gets financed by Banks.

Voluntary Measures:

Only few Banks are part of International Policy framework which calls for voluntary disclosure, compliance & reporting of their funds invested in climate finance. (eg. IDFC is part of Equator principle). Others should follow the step of IDFC for more transparency and accountability.

Innovation:

As Axis Bank has become the 5th Indian Bank to launch Green Bonds, in search of low cost & long term capital, same may be pursued by other banks too.

General:

- i. After Energy Sector, Manufacturing is the next big polluter the sector needs to be adequately targeted.
- ii. RRBs horizon of investment into Renewable should diversify from existing SHLS.
- iii. The biggest impediment for investing in India's RE project is its high interest rate, same needs to be reworked & softened after due diligence so as to align with Global standards.
- iv. Aggressive bidding in solar projects needs to be weeded out, otherwise in long-term the sector could be jeopardised.
- v. In context of Basel III kicking in from 2019, for long term capital investment, Banks can pool the loans extended in different RE projects, trench them and sell them down to various groups of investors so as to improve their Balance Sheets.

Sectors to be targeted:

- a. Solar & Wind Energy Generation Projects (as per International Solar Alliance & India's ambitious RE target)
 - b. Smart Cities: Prime Minister Modi has launched an initiative to create 100 "smart cities" with better transport systems, utilities, and energy networks to address the challenges of urban growth. India's National Mission on Sustainable Habitat also includes initiatives such as the Energy Conservation Building Code, mandated for commercial buildings in eight states, and actions to support recycling, waste management, and improved urban planning.
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THEME-5 : Use of Non Conventional Source of Energy in Agriculture-Extent of Use & Benefits (Himachal Pradesh); (Uttarakhand); Rural Energy (Head Office). Use of Solar Power Pumps for Agriculture and Livelihood Enhancement in Salt Pan Areas (Gujarat);

Summary No-32

Profile of the Student:

Name: Ajay Thakur

Degree Programme: M.Sc.(Environment Science)

University/ Institute: Institute of Integrated Himalayan Studies, Himachal Pradesh University, Kusumpti, Shimla

Profile of the Mentor:

Name: Manavpreet Singh

Designation:AGM

Department: SPD, RIDF

Name of Regional Office: Himachal Pradesh (Shimla)

Objectives of the study:

- To study the use of non-conventional source of energy in agriculture in Himachal Pradesh.
- To study the use of solar fencing, solar water pump and solar drier in agriculture.
- To assess the viability, feasibility and bankability of the solar application in agriculture.
- To study and analyze the bottlenecks and impediment for non-adoption of solar application in agriculture.
- To study policy measure for wide spread adoption of solar induced application in agriculture in Himachal Pradesh

Sample State/Distt/Blocks/ Villages: Himachal Pradesh/Solan & Kangra /1 University, 2 villages

Sample size: 14

Research Methodology:

The study was based on both primary and secondary data. The study was conducted in two districts of Himachal Pradesh i.e. Solan and Kangra. The primary source of data is based upon the interview questionnaire circulated to the respondents. The purposive based random sampling method has been used for sampling of the respondent. The reason for identification of respondent on the basis of purposive sampling is that limited unit of solar fencing, solar water pump and solar drier have been established in Solan and Kangra district.

Major Findings:

A. Solar Fencing:

- Himachal Pradesh receives maximum global insolation ie. 7.53kwh/m²/day during the summer in the month of May.

- Lower- and middle-altitude (<3500m) districts of Una, Bilaspur, Hamirpur, Solan, Mandi, Sirmaur, and Shimla receive annual average GHI (Global Horizontal Insolation) above 5 kWh/m²/day. The districts of Lahaul Spiti, Kinnaur, Kullu, and Chamba located at higher altitude (>3500m) receive annual average GHI in the range 4.5–5 kWh/m²/day.
- Department of agriculture has prepared models for solar fencing i.e. Model No. 1-7. Average 7 wires (2.10m) of solar fencing covering different area were observed in order to study the economic viability of solar fencing model.
- Model No. 1 and 2 were found not to be viable for financing because total investment cost including running meter cost was very high and area covered by solar fencing was very low. The IRR and BCR was very low hence these models were not economical viable. However Model No. 3&4 were found to be economically viable covering an area of 300m (1.5 acre) and 500m (3.7 acre). The running meter cost was less and area was more in comparison to Model No. 1 and Model No. 2.
- All of these entire models were based without financial assistance by any government agency or Department. It means after availability of subsidy these models result in higher benefit to farmer.
- In a nutshell it is clear the Model No. 3 onwards were viable for small and marginal farmer.
- After calculating Bankability it was found that repayment schedule works out to be 9 year to repay the loan amount given by bank.
- After Model no. 3 onwards, are more viable and accordingly, the no. of year in repayment schedule should decrease.
- In the Study area it was found that before implementation of solar fencing there was approximately 69% loss to the fruits due to wild animals. Thus resulting, in huge loss of money to farmer. But after construction of solar fencing there was no damage to plants as it provides 100% protection.
- It was also observed from the study that district wise viable in districts of potential of investment in solar fencing was Kangra, Una, Bilaspur, Mandi, Shimla, Hamirpur, Soaln, Sirmaur, Kullu, Kinnaur and Lahulspiti. So solar fencing can be widely replicated in almost all the districts of HP.

B. Solar Water Pump:

- The total agriculture was rainfed dependent upon the monsoon rainfall in the months of July, August and September. Farmers have no alternative source of irrigation.
- Solar water pumps play an important role to lift water from Well/Khad/Kuhl/River and irrigates the agriculture field.
- NABARD has provided different models for Solar Water Pump. SPV pump sets capacity ranges from 1.5 hp to 4.0 hp. But while calculating the financial viability of different solar water pump; it was observed that they are not viable because investment cost was high. Farmer may face loss in solar water pump without any government assistance.
- But with financial assistance in solar water pump all models are economical viable. Model 1 for 1.5 HP SPV pumpset resulting in total internal rate of return was 17% and benefit costs ratio was 1.06. This shows that this model was financial viable.
- IRR and BCR were continuously increasing from model 1 to model 4. It means solar water pump was more viable for models with higher acreage.

- It was found during the study that for model 1 (1.5hp) the repayment of loan was above ten years. It means farmer takes >10 years to repay the loan. So model was not bankable. Reason behind non-bankability of model 1 is that in study area the farmers only grow food grains and do not give preference to grow vegetables.
- Solar pumping has great potential in every district of Himachal Pradesh. It uses clean energy for lifting water and increasing productivity without any harmful effect on the environment.
- Growing of only food grains does not give very high incremental income. Therefore, in order to make the investment bankable, the farmer need to diversify the farming to high value crops like vegetables, floriculture, fruit etc

C. Solar Drier:

- It was found during the study that 15 units of solar drier were established in high insolation area where solar driers receive maximum radiation in both summer and winter seasons.
- Solar drier was feasible in any geographical region because in summer average sun hours/ day were 12hrs and in winter average sun hours/day were 8 hours. It plays important role in remote area to improve the income of farmer.
- In sun dried products the farmer do not earn high margin for the products because in open sun dried many factors affect the quality of product like dust, fungus, overheating, and moisture etc.
- It was revealed in the study that benefits or loss in solar drier depends upon market value of products and number of products dried. More the number of products dried, maximum benefits will be earned. Single product can give more benefit to farmer only if market value of product is high like pomegranates, kishmish, apple chips, garlic etc. In study area found that 233% increase in cost of pomegranates after dried in solar drier. Because the market value of product was high.
- Products dried under solar drier have earned higher value in the study area. Farmer dried many products like red chilli, peas, turmeric and pomegranates etc. Total cost of Sun dried product was Rs.19050, while in open sun dried cost of same products was Rs.8150. This shows that there was a total increase of 57% in income of farmer.
- Model for Pomegranates found that total IRR resulting from product was 78% and benefit cost ratio was 2.37. It means model was viable even for a single product dried.
- After calculating bankability for pomegranates it found that the repayment period was 5 year. To repay the loan farmer will take five year. This shows that this model was bankable.
- Like pomegranates other models for two and three products were also viable. Total internal rate of return from two products was 54% and benefit cost ratio was 1.94 and for three product model IRR was 72% with BCR 2.27. That all shows that model 1, model 2 and model 3 were viable. It can be easily replicated in any part of state. . .
- Many remote area in Himachal Pradesh like Kinnaur, Lahul Spiti, Chamba, kullu solar drier may play important role to start own small business of post harvesting processing of products. In these areas fruit like grapes, apple, apricot, etc. are cultivated in large scale.

Major Recommendations:

- 70.36% people were not aware about solar fencing, solar drier and solar water pump. It means most of the people in Himachal Pradesh do not have any knowledge of these solar applications. The government of Himachal Pradesh and its agencies like HIMURJA should take appropriate steps in order to publicize the solar based applications.
 - 60% people stated that non-availability of maintenance services is an important reason for non-adoptions. So, Government should encourage private players and manufacturers for maintenance services. It would be beneficial in generating the employment in the state.
 - Government of Himachal Pradesh provide subsidy in solar fencing. Ratio on subsidy for solar fencing was 60:40. This has increased the acceptability of solar fencing by the farmers. Similar provision for subsidy may be extended to other applications like solar pumping and solar drier by the government.
 - Wherever demonstration unit of solar application are established, local people from that area show their desire to also adopt these applications. This means solar application established on experimental based have shown good impact over the community. So to increase the acceptance of solar applications all over state, more experimental unit may be established in all geographical region of state.
 - 64.2% farmers stated that they had to complete many formalities for installation of solar water pump and solar fencing. Government should reduce the formalities in adoption of solar application so that farmer does not suffer from undue delay in procedures.
 - Farmer who used solar drier have faced problem in selling the dried products in local market because in local market price of dried product was not good. So Government should provide a platform for farmer to sell the solar dried product in the state.
 - Experimental unit of solar drier should be established in remote area like Kinnaur, Lahulspiti, Chamba etc. because in remote areas there is very limited source of earning and by attaching small house group with solar drier in remote area they earn profit by drying Chilgoza, Kishmish, apple chips etc. It may help in increasing the income of SHGs in remote area.
 - Maximum capacity of solar drier to dry the product was 25kg. Due to this farmer was restricted to dry product in a given quantity. But in order to gain more benefit capacity of solar drier should be increased. This may help farmer to open small industries to drying the product and gain profit from it.
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Summary No-33

Profile of the Student:

Name: Surabhi

Degree Programme: MBA

University/Institute: College of Agri Business Management, GB Pant University of Agriculture & Technology

Profile of the Mentor:

Name: Urvashi Garg

Designation: AGM

Department: MCID/OFDD/FID/DEAR

Name of Regional Office: Uttarakhand (Dehradun)

Objectives of the Study:

- i. Extent and benefits of use of Solar Energy in Agriculture

Sample State/ Distt. / Blocks / Villages: Uttarakhand / Dehradun / Rishikesh and Dehradun

Sample Size: 50

Research Methodology : (i) Primary Data (Questionnaire and structured interview)

(ii) Secondary Data (Internet / UREDA/NABARD)

Major findings:

- (i) Max. Number of users were graduates in the age group of 30 – 40 years and belonged to either general or OBC categories.
- (ii) Bottlenecks implementation and popularizing solar energy wads cost, lack of awareness, small land holdings, hesitation to operate, lack of after sales services etc.
- (iii) Lack of awareness about facilities available from the government.
- (iv) Lack of awareness amongst bankers also. Both the Consumer and Banker dependent on the supplies for filling up form / documents.

Major recommendations:

- (i) Awareness should be created amongst farmers on benefits of solar energy in Agriculture.
- (ii) Awareness about schemes of the govt. and procedures for availing the facilities should be increased.
- (iii) Relaxation in taxes and excise duties etc. should be introduced which will help bring down the cost which is a major hindrance in popularizing solar energy.
- (iv) Improvement in after sales services by suppliers should be made. Maintenance upto 3 years to be made mandatory.
- (v) Awareness amongst bankers should be created so that they can properly guide the farmers instead of being dependent on suppliers.

Summary No-34

Profile of the Student:

Name: Mahesh N Butley

Degree Programme: Masters in Management Studies (Finance)

University/ Institute: Alkesh Dinesh Mody Institute of Fin and Mgmt Studies, University of Mumbai

Profile of the Mentor:

Name: B V S Prasad

Designation: GM

Department: DEAR

Name of Office: Head Office Mumbai

Objectives of the study:

- a) To study and understand the different forms of energy requirements of the people
- b) To examine the level of energy consumption and efficiency of use
- c) To estimate the cost of energy consumption and find energy cost of their requirements
- d) To analyse gap between energy consumption and actual requirements and suggest the alternative forms of energy to full fill their requirements

Sample State/ Distt/ Blocks/ Villages: Maharashtra/ Yavatmal and Washim / Arni, Ghatanji, Manora and Karanja/ Deurwadi (Bu.), Pimpalner, Dangargaon, Sanadapur, Waigul, Hatana, Mahuli, Malegaon, Anai

Sample size: 100 household by Cluster sampling method from 2 districts.

Research Methodology:

In order to develop the database required for analysing the stated objectives, it was proposed to conduct a primary survey at household level in some sample villages in Yavatmal and Washim Districts in Maharashtra.

For this study, both primary as well as secondary data was used. For this study, the researcher selected 100 households randomly. Research type is applied research. Cluster sampling method is adopted for data collection. This data was collected through a predesigned structured questionnaire method. Simultaneously interviews of experts and group of farmers were taken by the researcher. The collected data was processed and analyzed with appropriate statistical tools.

Secondary data was collected from leading journals, books, government reports, research works and internet.

Major Findings:

- 1) The highest energy consumption was recorded in Manora region (SA III) situated in the vicinity of forest and the lowest was recorded in the Ghatanji region (SA II). Thus it is evident that energy consumption pattern and availability of fuels are proportionally related.

- 2) The share of modern sources was the highest in the SA II Whereare villages are near to headquarter or situated near by the main road connecting headquarter. It is also noted that the share of commercial fuels was lowest in Karanja region (SA IV), a typical agricultural belt. These trends establish that nearness to commercial centers and the degree of urbanization motivate and initiate a shift towards modern sources.
- 3) The study reassured that the most frequently used source of rural energy is firewood. Among the all sample villages, all village used fuel wood as the major fuel. For all these villages fuel wood is easily available from their farm land or the forest area near by them.
- 4) Modern fuels played relatively an insignificant role in sample villages. However, among them, LPG and Grid electricity is the most important one and Kerosene is the least preferred because of other cheap and efficient resources available in the area. From the study it was felt that Kerosene could not create much impact on rural community. This may be due to the easy accessibility to other alternative fuels in rural areas in relation to the limited supply of Kerosene.
- 5) The share of collected (free) fuels is high in all sample villages. This confirms the earlier argument that nearness to source of fuel material is an important determinant in deciding the type of fuel.
- 6) In all the villages the most important end use is cooking. For other purposes like lighting, water heating and transportation majority of the rural flock preferred different fuels subject to the convenience and availability. It was interesting to note that not a single household used electricity for cooking.
- 7) Among the non-commercial sources, firewood is the dominant fuel in all the income categories. Hence it may be inferred that the type of fuel and the income levels are not significantly associated. Rather than income, status and availability still influence the preferences for fuels.
- 8) As mentioned earlier, a major portion of energy is used for cooking among all income categories. Within this broad trend, some association was noticed between the levels of income and the proportion of energy used for 'lighting and others'. This suggests that the energy used for 'lighting and others' is linked to the socio-economic profile of the households. One of the arguments to prove this claim is the high correlation observed between the uses of electricity for lighting among higher income brackets. On the other hand, the lower income groups depend to a greater extend, on kerosene for 'lighting and others'.
- 9) The study established that the level of energy consumed and the family size are directly related to a large extent. As a corollary to the earlier argument, it may be said that higher.
- 10) Kerosene was used by a good per cent of households either as a major lighting fuel or as a supplementary fuel.

Major Recommendations:

- 1) The study established that preferences for rural fuel are very much influenced by the availability of local of fuel materials. Hence while formulating rural energy policies, stress should be given on identification and managing of locally available fuels. Along with locally available fuels commercial

fuels like LPG must be promoted to reduce dependence on fuel wood which causes environmental issues like deforestation and carbon emission.

- 2) It was observed that there is a tendency to over exploit the free and common property resources. This leads to waste of fuel and depletion of common property resources. Hence there must be a check on the use of such resources.
 - 3) It is found interesting that not a single household in the rural area used electricity for cooking. It is recommended that there must a program promoting all energy efficient devices use.
 - 4) The present study, identified over dependence on fuel wood. As suggested in the case of common property resources, the use of forest resources as a source of energy is to be scientifically managed. In this context, the possibilities of a shift from firewood to non-conventional sources like LPG, solar energy and community biogas can be explored. As for use of biogas the main reason given by the peoples is that is it not convenient and lack of knowledge of use.
 - 5) In India solar energy is available abounded. For more than 300+ day's solar energy is available in all parts of the India. So greater emphasis must be given on the use of solar energy.
 - 6) The importance of energy conservation is widely debated in recent years. But the present study revealed that these practices are not effectively followed in rural areas. Thus an awareness program is the need of the hour, which should be initiated at the household level. This awareness package should include the details on problems due to non-conservation, methods available for conservation and the benefits of conservation.
 - 7) Programs like UJALA (Distribution of LED bulbs at cheaper cost than the market rates) and UJJWALA (Free LPG gas connection to BPL to the women who belong to households that are below poverty line (BPL)) must be implanted aggressively. Government must try to reach out the needy people.
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Summary No-35

Profile of the Student:

Name: Pushpendra Kumar Gupta

Degree Programme: MBA-IAB (International Agri-Business)

University/Institute: International Agri-Business Management Institute, Anand Agricultural University, Anand

Profile of the Mentor:

Name: Gyanjit Kumar Mandal

Designation: DGM

Department: BID, SPD, DIT & DPSP

Name of Regional Office: Gujarat (Ahmedabad)

Objectives of the study:

1. To assess the cost benefit comparative analysis with the use of solar pumps over diesel pumps in salt pan areas and with diesel and electric pump in agriculture.
2. To assess the viability and bankability of the solar power pump for irrigation purposes and for saltpan areas
3. To get insight of socioeconomic aspects, living conditions and health issues of the individual and family members working in salt pan areas
4. To assess the various possible issues & constraints in deployment and use of SPIP

Sample State/ Distt/ Blocks/ Villages: Gujarat /Anand, Kheda (village Dhundi) and Surendranagar (various villages in salt pan areas).

Sample Size: 50 SF/MF & 30 Salt-pan workers Total-80

Research Methodology:

Collection of primary data with the help of survey interview based on questionnaire having open and closed ended questions. Secondary data from Government websites, research studies by government agencies and government publications and some other institutions, etc. Sampling method: Non-probability and Probability. Sampling technique: Stratified sampling, purposive sampling, simple random sampling. Sampling units: Farmers, Salt-pan workers, Solar Pump manufacturers, Coop. Banks, NGO & DISCOM. Data collection tool: Questionnaire, Schedule and Observation, Analytical tool: Tabular analysis, graphical presentation, NPV, etc.

Major Findings:

1. Solar irrigation pumps will play a definite part of changing India's energy landscape into the use of solar energy. A solar power pump is a sustainable innovative technology which has potential to resolve the irrigation as well as climate issues that the country and the world faces due to the increased use of fossil fuels for generation of electricity.
2. Based on the analysis of costs and assessment of viability and bankability of the Solar Power Pump (SPP) over a time period of ten years, it has been found that without subsidy SPP is not bankable or viable as the income from the SPP including savings arrived at with the use of SPP is not even closer

to the investment made. Subsidy under the scheme is therefore necessary without which installation of SPP cannot be to be done by the farmers.

3. Solar Pump Irrigators' Cooperative Enterprise (SPICE) pilot model running in Dhundi, a village in Gujarat's Anand district has shown a way out. Members of this cooperative — the first of its kind in the world — are using solar power not only to run irrigation pumps, but also pool their surplus energy to sell to the Madhya Gujarat Vij Company Ltd (MGVCL) at Rs 4.63/unit under a 25-year power purchase agreement (PPA).
4. The working environment of saltpan workers is not satisfactory. The basic amenities such as drinking water, toilet and bathroom, leisure room, electricity facilities, first aid room etc. are totally absent, several villages do not have transportation facilities, workers health getting affected in salt farming, schooling of the children is problem specially female child are not getting education and these salt farmers do not have access to credit from any formal sources they have to depend upon the traders for loan.
5. SPP for salt pan areas is very beneficial and results into savings with which loan can be repaid very easily.
6. The saltpan worker they do not have any collateral security so that they can not avail finance directly from the banks for the SPV pumps installation.
7. Solar Power Pump ensures the following benefits to the farmers:
 - i. Low operating cost: The operating cost of the pump is negligible, since no fuel is required for the pump like electricity or diesel.
 - ii. Low maintenance: A well-designed solar system requires little maintenance beyond cleaning of the panels once a week.
 - iii. Harmonious with nature: It gives maximum water output when it is most needed, that is, in hot and dry months. Solar water pump uses peak solar array output which frequently coincides with high water demand during long, dry summer days.
 - iv. Flexibility: The panels need not be right beside the well. They can be anywhere up to 20 m away from the well, or anywhere you need the water.
 - v. Income from saved power: Additional Benefits can be taken by connecting with Grid to obtain income by selling power to DISCOM during non-agriculture season.
 - vi. Convenience to Irrigation: Farmers get reliable electricity during Day Time.
 - vii. Ability to adopt efficient irrigation: Farmers will be motivated to adopt efficient irrigation practices like micro irrigation as they will understand the need to save water and also electricity as under buyback arrangement they will try to sell maximum electricity generated to DISCOM.

Major Recommendations:

1. Existing GoI subsidy for the solar power pump @40% is not good enough to make farmers give up the Electricity connection and install Solar Powered Irrigation Pumps (SPIP). There is a case for State Govt. to give additional subsidy to make the total subsidy to 85% to incentivise the farmers to go in for the scheme.

2. In view of 85% of farmers in India ploughing small landholdings, it is not feasible for this category to install individual pumps. Cooperatives on the line of Solar Pump Irrigators' Cooperative Enterprise (SPICE) running in Dhundi village of Gujarat should be incentivised.
 3. Adequate publicity should be given to the scheme of subsidy as there seems to be an ignorance about the scheme. Awareness programs should be run in the villages with the involvement of local banks and village Panchayats about SPIP and its benefits and also about the PPA for the electricity produced from SPIP.
 4. Initially this project can be targeted to the areas where diesel pumps are being used inclusive of salt pan areas as this technology is highly beneficial for replacing diesel pump with solar pump.
 5. Salt farmers should be given SPP through bank finance with the formation of JLG (Joint Liability Group) or any other provision should be made to finance them for SPP as they don't have any collateral security.
 6. For the quick deployment of SPIP, each potential bank branch should be given a target of financing one solar power pump a year.
 7. Under JNNSM each village Panchayat can be assisted to install at least one grid connected SPIP and Panchayat can charge for providing irrigation water to farmers and can also generate electricity and can supply in to grid.
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THEME-6 : System of Crop Intensification –Rice (Himachal Pradesh); Protected Cultivation in Income Maximization of Farmers (Karnataka); Organic Farming in Tamilnadu: Issues & Challenges (Tamilnadu); Commodity Specific Study of Pulses in Telangana (Telangana).

Summary No-36

Profile of the Student:

Name: - Rakhi

Degree Programme: - M.Sc. (Environmental Science)

University/ Institute: - Institute of Integrated Himalayan Studies, Himachal Pradesh University, Shimla

Profile of the Mentor:

Name: Kuldeep Chand

Designation: AGM

Department: FSDD / Rajbhasha

Name of Regional Office: Himachal Pradesh (Shimla)

Objectives of the study:

- 1) To study the alternative system of farming in the State with special reference to Rice cultivation in the State.
- 2) To compare the economics of Traditional and SRI technique in the State.
- 3) To assess the adoption of SRI technique in the State.
- 4) To suggest the policy measure for wide spread adoption of SRI technique.

Sample State/ Distt/ Blocks/ Villages: - Himachal Pradesh/Bilaspur,Kangra/3 villages

Sample size: - 80 farmers

Research Methodology: - Primary data on various aspects of System of Rice Intensification was collected from a total of 80 farmers. The data/information was collected through a Questionnaire designed for the purpose.

Major Findings:-

- 92.5% SRI adopted farmers have agriculture as their primary occupation and 7.5% as secondary occupation.
- There are no tenant farmers in SRI system. 77.5% marginal farmers adopt SRI and 22.5% farmers were small farmers.
- 82.5% traditional farmers have agriculture as their primary occupation and 17.5% as their secondary occupation.
- There are no tenant farmers in Traditional system that means all farmers have their own land. 85% marginal farmers adopt SRI in study area. And 15% farmers were small farmers in study area.

- Expense on seeds in SRI was Rs. 392 (10.87%) per acre and Rs. 898 (14.30%) per acre of total cost of cultivation in Traditional system. Seed requirement is very less in SRI because in this method single plant is transplanted per hill as compare to the 3-5 plants per hill in Traditional system.
- Expense on fertilizer in SRI was Rs. 171.17(4.74%) per acre and Rs. 459 (7.30%) per acre of total cost of cultivation. In traditional system farmers use more chemical fertilizers but in SRI farmers used very less chemical fertilizer they were used vermin compost in their fields.
- Expense on weedicide in Traditional system was Rs. 350 (5.57%) per acre of total cost, while it was Rs. 135 (3.74%) per acre of total cost of cultivation. In SRI weeders were provided by the NGO's on community basis for this purpose but in Traditional system chemical weedicides were used for the removal of unwanted weeds from field.
- Expense on pesticides was Rs. 485 (7.72%) per acre in traditional system and 122.86 (3.40%) per acre in SRI. In Traditional system more plant protection chemicals are used as compare to the SRI.
- There is a decrease of 42.58% per acre in cost of cultivation in SRI as compare to the Traditional system.
- Production is increased by 41.67% per acre in SRI system.
- Net income is increase by 195.80% per acre in SRI system.

Major Recommendations: -

- Govt. should take some steps to make aware farmers more about advanced techniques in farming, for efficient use of their land assets. Agencies like NABARD and PSI mainly implement their work on SRI through NGO's. It was found that some farmers were not aware about SRI scheme. NGO's should take some appropriate steps to make aware all farmers. NGO's must work with village panchayats for better implementation of SRI scheme.
 - All SRI adopted farmers responded that with this system their production increased about 20-30%. They suggested that it is best system to improve the economy of the farmers by increasing their production. Therefore the government should take initiatives to promote the SRI throughout the state with the help of panchayats, as NGO's work area is very limited and they can't implement schemes as widely as panchayats. With the help of panchayats this system can be implemented in more effective way.
 - Mainly women do the field work. So there is a need for "gender sensitization" in agriculture.
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Summary No-37

Profile of the Student:

Name: Raksha P R

Degree Programme : MBA (Agri-Business Mgt.)

University/ Institute : Indian Institute of Plantation Management (IIPM), Bangalore

Profile of the Mentor:

Name: R. Ganapathy

Designation : AGM

Department : NABCONS

Name of Regional Office : Karnataka (Bengaluru)

Objectives of the study:

- 1) To understand the increase in income of farmers by the adaption of protected cultivation.
- 2) To know the subsidies that is available for the protected cultivation by various organisations.
- 3) To study the difficulties involved in accessing for subsidy.
- 4) To evaluate the market availability for the vegetables grown under poly house.
- 5) To understand the advantages of protected cultivation over the open field cultivation.
- 6) To know the limitations of protected cultivation.

Sample State/Distt/Blocks/ Villages : 03 districts (Bangalore Rural, Tumkur & Chikkaballapur)

Sample Size: 50 Farmers (small, marginal & large farmers)

Research Methodology:

Selection of the district was based on number of farmers cultivating protected cultivation of vegetables.

The study was supplemented by questionnaires survey to assess how income maximisation occurs with the help of Pre and Post developmental approach i.e. the annual income status of farmers while cultivating crops in open field and annual income status of farmers after adapting protected cultivation is compared. Multistage sampling such as Purposive sampling and Random sampling are followed to select the sample size from the selected districts (Bangalore Rural, Tumkur & Chikkaballapur).

Major Findings:

A. Protected cultivation:

- 1) The profit under protected cultivation of capsicum is considerably high compared to capsicum under normal cultivation
- 2) Coloured capsicums are in great demand in urban markets.
- 3) The demand is mostly driven by hotel and catering industry.
- 4) In polyhouse, the crop duration of green and coloured capsicums is about 7 -10 months and the yield is more than 50 tonnes per acre compared to 20 tons with crop duration of 4-5 months under normal field conditions.
- 5) Production is possible throughout the year. Though the capital investment in polyhouse is more, farmers are going for polyhouses as the yield obtained is usually 3 times more than the open field condition.
- 6) The average life of UV stabilized plastic cover is 5-6 years. Replacement is essential after 5 years.
- 7) All respondents used capsicum seeds supplied by the company "RijkZwaan". Red coloured capsicum -Inspiration and Yellow coloured capsicum-Bachata.

B. Financial aspects:

- 1) Regarding costs of production ,fertilizer cost is the major one (Rs. 1,51,200/-), followed by labour cost (Rs1,06,560/-) ,and seedling cost (Rs.91000/-).
- 2) Investment cost is more in the beginning, but the returns are high. From the open field cultivation, the maximum annual net income will be 1-2 lakh, but under protected cultivation farmers can obtain a income of nearly 15 lakh annually.
- 3) The BC and IRR ratio of the protected cultivation of capsicum grown, without the subsidy component is 1.53% and 71% respectively. Therefore it is stated that protected cultivation of capsicum is viable even without subsidy.
- 4) Under 50% subsidy and 90% it is observed that the BC ratio accounts to 2.38 and 3.89 respectively and the IRR is very high.

c. Issues Observed

- 1) Tumkur district (Taluks such as Sira and Gubbi)) -higher initial investments(92%),lack of owned sources (90%), lack of credit facility (55%) and also lack of technical guidance(74%).
- 2) High cost of pesticides -major problem in Tumkur district (88%) as well as in Chikkaballapur district(88%).
- 3) Non availability of high yielding and pest resistant varieties in Bangalore rural (75%), Tumkur (73%) and Chikkaballapura (70%)
- 4) Pest Resistance to chemicals
- 5) Labour problem

Major Recommendations:

- 1) Since protected cultivation of vegetable is still in its infancy stage, in Tumkur district, especially in the Taluks such as Chikkanayakanahalli, Gubbi, Kunigal and Turuvekere, more emphasis should be given by the horticultural department to popularise the technology.
- 2) When compared to Bangalore Rural and Chikkaballapura district, the existing protected cultivation farmers in Tumkur district lack technical guidance. Technical know how regarding the cultivation aspects, selection of varieties, crops for the protected structure through training programmes.
- 3) A farmer who is new to the protected cultivation is advised to take the support from agriculture and horticultural departments or the farmers who are already practicing protected cultivation
- 4) Focus on to develop F1 hybrid varieties and supply of seeds to farmers at affordable cost so that cost of planting material can be reduced
- 5) Need for research towards developing cost effective agro-techniques for growing of different vegetable crops in the different types of polyhouses and lowering energy costs of the green house environment management – may be taken up by the ICARs/SAUs
- 6) High tech polyhouses should be encouraged by the government with adequate financial support and farmers should be oriented towards growing of export quality products. Government initiatives/ efforts in popularizing the greenhouse technology among the farming community of the country are to be strengthened.
- 7) A documentation procedure for subsidy is to be simplified.
- 8) Farmers should be encouraged to go for other high value crops such as cherry Tomato, Broccoli and Leafy greens.
- 9) Protocol should be developed for the minimum usage of pesticides and also for sanitization and removal of pesticide residues from the crop as well as from the soil

Summary No-38

Profile of the Student:

Name: Sree Pruthvi B.

Degree Programme : M.A.(Rural Development & Governance)

University/ Institute : Tata Institute of Social Science

Profile of the Mentor:

Name: C.S.R.Murthy

Designation : DGM

Department :BID / CPD

Name of Regional Office : Telangana (Hyderabad)

Objectives of the Study:

- To analyse trends in area, production and productivity of selected pulses
- To find out issues and constraints in harvest and post harvest management of pulses
- To analyse forward and backward linkages in pulses
- To assess efficiency of different channels of marketing and role of MSP in pulses
- To evaluate role of institutional interventions in pulses production
- To benchmark with advanced agricultural practices and identify areas of intervention

Sample State/Distt/Blocks/ Villages:03 Districts vizAdilabad, Mahboobnagar and Ranga Reddy

Sample Size: 50 farmers each from 5 villages in Adilabad and 4 villages in Mahboobnagar, 01 Business Services Initiative Centre of WASAN and a visit to FPO (Praja Mitra Raithu Federation).

Research Methodology:

Primary and Secondary data collection. Interaction with each actor in the Value Chain viz farmers, input suppliers, KVKs, banks including NABARD(UPNRM cell) Processors, wholesalers, Commission agents, retailers and consumers . Visit to Tandurmandal – largest market for pulses in Telangana for understanding of marketing structure and visit to Centre for Collective Development in Adilabad to understand functioning of farmers’ federation promoted by CCD

Major findings:

- Low SRR – Low availability of newly released varieties - Implementation of seed village programme
- Increased focus not only on seed PRODUCTION but also on MARKETING by Govt Departments
- Popularizing Pulses as an INTERCROP through KVKs and linking up ATMA programmees
- Monocropping is fraught with risks- Higher chances of pest attack, delayed income
- To obviate risks, farmers in Adilabad are growing Red gram as an intercrop with cotton
- Involving FPOs for promotion of productivity enhancing practices in Pulses cultivation

- Limited outreach of “Farmers Field School” promoted under NFSMin bringing farmers under their fold for extension services
- Removal of VAT Promotion of e-marketing on the lines of Bidar in Karnataka
- Pooling and Selling brings in higher margins to farmers
- Promotion of branding of pulses by the existing farmers federations to improve the margins
- Working capital is the constraint for setting up Pulses processing

Major Recommendations:

- The supply of good quality seeds may be made to the farmers. Therefore, the focus should be on proper implementation of seed village program.
- The farmers should be made aware of the benefits of growing pulses as an intercrop. So, more awareness campaigns may be carried out by KVK's and other NGOs
- A number of agencies are working in each sector. There should be coordinated efforts between all the agencies to develop the sector as a whole.
- The issues of credit can be addressed through provision of assistance for establishment, expansion and working capital as this can provide support them to set up processing centres.
- There is a need for a greater linkage of markets through cooperative marketing which can be tried out on an experimental basis.
- There are currently only 49 FPO's in the state as per 2014 statistics. The training programs can be arranged for them in collaboration with institutes like ATMA and KVK's to promote scientific cultivation of pulses. These FPO's must be promoted to ensure better institutional intervention.
- Since the red gram is a rabi crop farmers need to be made aware of fertilizer management of the crops, to adapt to scientific agricultural practices like Non-Pesticide Management (NPM), organic cultivation methods and proper irrigation methods.
- Another important intervention should be made in the way of removing VAT on pulses. It would benefit the pulses farmers to a large extent.
- Promoting organic farming is also a viable intervention strategy. Increasing credit facility to organic farmers and providing warehouse support through establishment of cold storage facilities will encourage them to shift to organic farming practices. Also the organic pulses should be given subsidies either in the form of prices or credit access.
- Currently the marketing facilities present are through open bidding and open sake of produce. E-marketing will be greatly beneficial to the farmers as the farmers physically need not bring the produce to the market, transactions will take place online including e-transfer of money totally eliminating any malpractices. Also it will increase greater transparency in transactions.

Summary No-39

Profile of the Student:

Name: Devarapalli V.Sankari

Degree Programme :MBA

University/ Institute : Tamil Nadu Agriculture University, Coimbatore-641 003

Profile of the Mentor:

Name: K.Arthanareeswaran

Designation : DGM

Department : RIDF

Name of Regional Office : Tamilnadu (Chennai)

Objectives and Methodology of the study:

- To have an overview on the status of organic farming in Tamil Nadu
- To study the regulatory framework for organic farming
- To study the financial framework available for organic farming
- To put forth the challenges faced by the organic farmers
- To find out the opportunities towards organic farming

Sample State / Districts: Tamil Nadu / Madurai and Thiruppur

Sample size: 100 organic farmers, 50 each in Madurai and Thiruppur district.

Methodology:

Primary data collection from the sample respondents (organic farmers), through a structured questionnaire. Secondary data collection from sources like government publications, annual reports, websites, other publications. Snowball Sampling Technique was adopted and percentage analysis, Linear Regression Analysis and Benefit Cost Ratio were carried out.

Major Findings:

- a. Majority of the sample organic farmers were in the age group of 41-60
- b. 46% of the sample farmers had agriculture as their only occupation
- c. Major crops in Thiruppur was coconut and vegetables and it was minor millets in Madurai district
- d. 34% of the sample farmers shifted their total land holding to organic in one go and the rest 66% converted only a portion of their land, to begin with.
- e. The credit linkage was found to poor in both the districts, 26% in Madurai and 42% in Thiruppur district
- f. The crop insurance penetration was only 19%
- g. The KCC usage was found to be abysmally low at 3%
- h. According to the survey data, 56 % of the organic farming was with small farmers, 26% with big farmers and 18% with marginal farmers.

- i. Mixed farming was practiced by 78% of the sample farmers with dairy and poultry
- j. 58% of the organic farmers were members of Farmers Club
- k. The study observed that all the sample farmers were willing to recommend organic farming to other farmers.

Major Recommendations:

- a. The State Government(GoTN)may consider to develop Organic Farming Policy
 - b. Central and State Governments to implement more promotional schemes to encourage organic farming with subsidy and other support systems, focussing on financial means to compensate initial yield reduction.
 - c. To improve credit facility to organic farmers through banks
 - d. Lending through KCC to be improved and separate scale of finance to be finalised for organic crop cultivation
 - e. Promotion of separate markets for organic produces with storage facilities both dry and wet storages
 - f. NABARD to take a lead role in promoting organic farming by collaborating with many related organisations
 - g. To promote Organic Farmer Producer Companies through which the major problems like input sourcing, agency convergence, certification and marketing can be addressed
 - h. Training and capacity building of organic farmers to enable them to locally produce bio-fertilizers, bio-pesticides, botanical pesticides, vermi-compost etc.,
 - i. To identify organic farming zones, promote such zones through co-operative farming and to protect such zones from poisonous agro chemicals.
 - j. Local Farmers' Call Centres to be developed in local areas to help and guide the organic farmers.
-

THEME-7: Value Addition to FPOs-Issues & Constraints (Andhra Pradesh); Support Mechanism & Linkages Required for Sustainability of FPOs in J & K –Issues & Challenges (Jammu & Kashmir).

Summary No-40

Profile of the Student:

Name: Satya Priyanka. P

Degree Programme: M.A(Rural Development and Governance)

University/ Institute: Tata Institute Of Social Sciences, Hyderabad

Profile of the Mentor:

Name: B.Suri Babu

Designation: DGM

Department: BID, PRODUCE, SPD, HRMD

Name of Regional Office: Andhra Pradesh (Hyderabad)

Objectives of the study

- a) To understand issues concerning post-harvest handling and marketing of agriculture produce by the farmers.
- b) To analyse the extent to which farmer's institutions like producer organizations help in achieving the value addition and marketing issues and realize a better share in the consumer rupee.

Sample size : 60 and group discussions with member communities

Research Methodology:

The methodology involved collection of primary data from the farmer members of respective farmer producer organisations (FPOs), through structured questionnaires (annexed). The secondary data (authentic) was utilized for further analysis. Along with focussed group discussions.

Major Findings:

- i. With the intervention of POs there is considerable reduction in the production costs. Inputs are made available to producers at a cheaper rate than the market rates. There is also a report of reduction in volumes of fertilizers, pesticides used due to early detection of pests and promotion of best practices with focus on organic inputs application especially in chilli and turmeric. This was made possible due to facilitation of extension services by POs to their members.
- ii. Cost effective technology is being employed like trap crops, sticky boards. One of the interesting findings is willingness of the producers to undertake activities to promote organic agriculture. It was reported that though secondary processing is yet to begin, primary processing is actively being undertaken in case of turmeric.
- iii. Fine tuning producers to market requirements was reported in case of turmeric where there is a shift to varieties with higher curcumin content, which call for better prices in markets.

- iv. Successful marketing is reported in case of chillies, where linkages with trading houses are established. In case of fisheries establishment of collection centers for input procurement and as market access brought in better monetary benefits to the producers.

Major Recommendations:

- i. Imparting management skills to producers and bridging the information gaps is crucial for sustenance of POs. This can be achieved by using technologies, like SMS based alerts.
 - ii. In the arena of management trial practices like rotating committees can be formed, each rotating committee can be assigned particular work related to management for a particular time period. This approach develops a mutual feeling of ownership among members.
 - iii. Godowns are highly demanded by turmeric farmers. If construction of huge godowns is not feasible, mini-godowns can be built which can utilize new technologies for proper storage.
 - iv. Product quality certification infrastructure (Quality Control labs) is one of the building blocks for POs, time lags in quality certification needs to be addressed, this can be done by promoting on field tests and certification, quality testing kits distribution can help resolving this issue.
 - v. The gaps in infrastructure are compelling the producers to settle for cheaper prices, and is also causing distress sales in times of glut and therefore need to be addressed according priority.
 - vi. Among fishing community, diversification (alternative livelihoods) is a major problem especially during fishing ban period. The issue has to be addressed for deepening the impact of POs. Other livelihood opportunities must be made an integral part of POs structure (business plans) for vulnerable communities (especially fisheries). The off- season activity can go beyond fisheries framework and training in activities like paper- plate making, tailoring can be provided. Such demand is also expressed by the community. Addressing diversification issue should form part of the business activity plan of FPO.
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Summary No-41

Profile of the Student:

Name: Ratik Gupta

Degree Programme: MBA

University/ Institute: The Business School, University of Jammu

Profile of the Mentor:

Name: K M Bijutkar

Designation: DGM

Department: CPD / DEAR/ MCID

Name of Regional Office: Jammu and Kashmir (Jammu)

Objectives of the study:

- To understand the process of evolution of Farmers Club into federation called Farmers Producers Organisation.
- To study the organisation structure of the Farmers Producers Organisation (FPO).
- To map backward and forward linkage of the FPO.
- To evaluate Internal Control System with understanding of control at different levels.
- To identify and prioritize the needs of organisational structure & capacity building of FPOs.
- To explore the financing requirement of the FPO based on their stages of life cycles.
- To focus upon FPOs sustainability, development oriented resulting in more income to its members

Sample State/ Distt/ Blocks/ Villages: State-Jammu and Kashmir / District – Udhampur and Reasi/Villages – Sudhmahadevi, Gaurikund, Pooni.

Sample Size:80-Members of Sudhmahadev Vegetable Producer Company, District Udhampur promoted by ACTEC AGRO, Reasi Vegetable Producer Company, District Reasi promoted by ACTEC AGRO, Simple Random sampling strategy was use, with 40 respondents from Udhampur and Reasi districts, 24 farmers clubs of Udhampur district and 21 FC of Reasi district, The Sudh Mahadevi FPO is having 1 chairman, 9 directors, 175 members with membership fees of `1000/- each, thus equity base of company is `1.75 lakh, The Reasi Vegetable company has 119 members with membership fees of `1000/- each, thus equity base of company is `1.19 lakh.

Research Methodology:

- Primary Data - Questionnaire, Discussion with FPO members, detailed field interviews.
- Secondary Data - Statistics from Government department, printed booklets of Govt. Departments.
- Discussion with Government Officers, DDM, Udhampur.

Major Findings:

- There is lack of staff to run the company like accountant, marketing personals, office boy etc., which affects professional management of company. The thought process is more agriculture oriented than business oriented.

- The marketing strategy to lure in new members is lacking. Though company offers products like sprayers to the new entrants and sale of fertilizers at subsidized rates.
- 65% of respondents are marginal farmers who cultivate less than 1 ha of land.
- 60% of the respondents have and avail credit using KCC. The KCC should be provided to all farmers by the banks with effort of company.
- There is lack of vital information like Government policy framework, guidelines, subsidies, information regarding best agricultural practices etc. including timely availability of the same. There is need for bridging the gap between lab and land. The latest scheme like PM Fasal Bima Yojana is good for farmers etc., and it should reach farmers.
- The existing set up of office bearers is fine, however, there needs to be frequent interaction between government officers and farmers. There is lack of training and capacity building efforts.
- There is need for integrated network, wherein, the knowledge base of Govt. Departments, NGOs, farmers etc. is available on common platform. An FPO can have a website where the FPO related information is available to all FPOs, including knowledge and best practices adopted.
- FPO needs long term financing requirement with capital investment in godowns, storage area, farming equipments. The bank credit was on individual basis but not a credit line to the FPO. Short term working limit can be considered for FPOs. Though grants are to be avoided as it makes them lethargic, but capital grants on storage structures can be provided.
- The price realization is low during post-harvest season primarily due to glut of produce in market. As they lack storage space they are unable to take advantage of large produce, due to lack of storage space. They need storage space and APMC like space to sell.
- The formation of FPO has led to reduction in exploitation of the farmers. The shorter supply chain has led to less intermediaries and better price realization.
- Brand building of FPO will lead to better price realization, though it is an issue with the company, though they have registration. The organic produce are not branded which can bring them better price realization. The awareness of organic foods is increasing and packaging of produce will provide better remuneration.
- The interaction of FPO with various agencies and integrated approach to nurture FPOs is missing. No subsidy or training is available from Government, as running an enterprise is a specialized subject. There needs to be serious work done on integrated farming and market linkage. The work through ARTIAS needs to be avoided, thus alternative mechanism of APMC, regulated mandis or food processing & packaging facility needs to come out from State Government.
- The sale proceeds should form a part of corpus to company as it is important for the company to be profit making venture.

Major Recommendations:

- The FPO has to go in for major membership drive and increase its land availability.

- The new farming techniques to increase production and productivity have to be adopted for increasing yield.
 - The marketing channels are to be exploited by the FPOs. There is a major need to build brand on organic produce being cultivated by company office bearers.
 - The FPOs are to be provided working limit through banks for their daily operations.
 - Hiring of consultant by NABARD for nurturing these companies into effective profit making enterprise. As professional guidance to these companies will go in long way in building of enterprise and will work towards bridging of gap between company and consumers. It will also supplement the efforts for capacity building, professional guidance. Further, constant guidance is available; the same will result in better management of company, as the current approach of company is more agrarian, than commerce.
 - The capacity building efforts needs to be promoted for the smooth operation of enterprise.
 - There is need for proper and effective marketing linkage. The inefficient and ineffective marketing linkage leads to loss of remuneration to company.
 - Developing few rural railway stations in every state as agricultural packaging hubs, which will help farmers to fetch good prices in neighbouring states.
 - All the KVKs, Argicultural office, Horticultural offices, Mandis, Agri University to be connected with Agri Net, where price of various commodities is listed.
 - Agrinet to intergate agricultural services at one platform, which will also reach smart phone like Whats App platform.
 - The latest scheme like PM Fasal Bima Yojana is good for farmers etc., and it should reach farmers.
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THEME-8: Area Development Schemes and Assessing the Potential for ST Loans Other Than Crop Loan in Coops & RRBs (Head Office); How to improve Ground Level Credit Particularly Term Loan in Jharkhand (Jharkhand).

Summary No-42

Profile of the Student:

Name: Yogesh Venkatrao Mahajan

Degree Programme : PGDM Rural Management (Emerging Economies)

University/Institute : Prin. L.N.Welingkar Institute of Management Development and Research

Profile of the Mentor:

Namer: Y N Reddy

Designation : GM

Department : DOR

Name of Office : Head Office, Mumbai

Objectives of the Study:

- To Study area development schemes in brief which is implemented in various districts of Maharashtra
- To check how these schemes are helping farmers for generating more income
- To Suggest the schemes which will benefit the local community and ultimately which will increase their income without disturbing their livelihood
- To trace out the difficulties occurring to bank as well as farmers in end to end process of loan sanctioning and Repayment process
- To find the scope to NABARD for refinance in the short term sector (other than crop loan) for cooperative as well as regional rural banks

Sample State/ Dist/ Block/ Villages: Maharashtra /Districts-Kolhapur, Washim & Chandrapur

Sample Size: 100 household. From each district sample beneficiaries selected randomly from the blocks visited. From each village beneficiaries were interviewed along with self-help group to understand the local culture of village.

Research Methodology:

The study was conducted on the basis of primary and secondary data collected during the course of field visits. The data was collected through a predesigned questionnaire method for each type of scheme. The three districts were selected because these districts covers mostly all regions of Maharashtra i.e. Vidharbha, Marathwada and Western Region. As Marathwada and Vidharbha regions are considered

as backward regions than the Western Maharashtra so to capture overall scenario these three districts were chosen.

Major Findings:

- The schemes are good enough for farmer's community as they developed by checking the geography of district by respective DDM's.
- Except Shade net scheme in Chandrapur the other schemes are helping the rural people to increase their income.
- The main focus is to implement the scheme and in Washim and Kolhapur district it implemented with efficiency but there is gap in forward linkages in dairy sector. The only exception is Janseva Farmers Club.
- Most of the farmers are getting more income on the same produce as dairy farmers getting 20% more rate per litre of milk whereas the productivity of sugarcane increased by 25-30% on the same field by introducing drip irrigation.
- The Shade net and dairy scheme require one time large investment, but the dairy development scheme gives return generally from day 1 and shade net is totally dependent on the nature.
- 3 out of 4 shade net installed were dismantled due to natural calamities and now only 2 are in good condition after repairing.
- The schemes are developed by considering small and marginal farmers as a central point. But, the Shade net scheme failed to grab the attention of farmers in the vicinity.
- Due to Area development scheme the new generation in villages are taking active participation in farming by introducing new technologies like Ice-cream processing and drip irrigation via Society.
- Schemes like this making rural people greedy and ultimately will generate more income so assistance from institutions like NABARD will be helpful to make their desire completed.

Major Recommendations:

- As the schemes are working efficiently in the most of the districts so now while developing the New Year plan for same scheme, respective authorities should focus on the forward and backward linkages so that farmers will get benefit and ultimately it will increase their income.
- In Chandrapur district, the Shadenet scheme is not that much successful as compared to other districts so with shadenet the authorities should consider Dairy, Poultry or Goatery. As the main crop of Chandrapur district is rice and Jowar, The straw i.e. byproduct of Jowar is used as fodder for the goats as well as buffaloes whereas the byproduct of rice is used in poultry.
- In Washim District, there is scope of making fishery as one of the area development scheme. Since, 143 societies are working for fish production and in 2014-15 total fish production was 4053 M.

tonnes. Also 5722 hectare area out of total 6037 hectare (village ponds, reservoirs, surface water area, etc.) has been brought under fishery.

- During field visit while discussing the scheme with farmer, I got to know that due to drip irrigation marginal farmers are now dependent on machines and going to field for only 3-4 hours per day. Due to which they are looking for alternative employment in the cities, so introducing a new scheme like professional poultry can boost their income and they can utilize time properly.

- **NABARD – DCCB Direct Linkage**

Linking DCCB bank directly to NABARD regional office by bypassing the original structure which has intermediary as state co-operative bank will accelerate the process of sanctioning loan and ultimately increase business in short term OSAO sector.

This will also simplify the process improving the ease of doing business for DCCB as well as NABARD

- **Extensive Awareness Campaign**

Installation of Information booth in weekly Haat's and Mandi's in villages to create awareness about the less popular schemes which are initiated by Nabard and simultaneously solve farmers queries at booth so it will lead to ground level awareness.

- **Lower Interest rate**

Lowering the interest rate as much as possible of OSAO schemes to make it affordable for the farmers as well as rural artisans at ground level and it will also help small & medium scale industries which are dependent on financing agencies for working capital

Developing agricultural warehouses in untapped rural areas will help small and marginal farmers to store the crop at warehouses and get loan against negotiable warehouse receipt and at the same time ideally NABARD's business will increase by two-fold.

Summary No-43

Profile of the Student:

Name: Nidhi Dubey

Degree Programme: MBA (Agri-business)

University/ Institute: BIRSA Agricultural University, Ranchi

Profile of the Mentor:

Name: A. K. Sarangi

Designation: DGM

Department: SPD, DOR, NABCONS, FAD & DEAR

Name of Regional Office: Jharkhand (Ranchi)

Objectives of the Study:

- To study the trend of institutional credit flow under agriculture & allied sectors in the state of Jharkhand.
- To highlight the contribution and performance of different types of credit institutions under various schemes in dispensation of agriculture credit in the state.
- To understand important developmental and credit programmes pertaining agriculture development and access the scope of credit through these programmes.
- To study the gap between the potential for and actual flow of agricultural credit in the state together with the factors attributable for it.
- To understand the customers' issues and other bottlenecks coming in the way of smooth availability of agriculture credit at ground level.
- To analyze the flow of credit district-wise/ region-wise.
- To highlight the flow of term loan under government sponsored schemes.
- To provide suggestions, relating to probable strategies and linkages / support services needed for bringing about desired improvement in ground level credit flow under agriculture sector.

Sample State/ Dist/ Block/ Villages: Badkagaon (10 farmers), Lesliganj (20 farmers), Armadag (10 farmers) & Koh (10 farmers) villages of Hazaribagh, Palamau, Ramgarh & Bokaro districts respectively of Jharkhand.

Sample size: 70 (Farmers-50; Bankers-13; DIF-01; GoJ-01; DDM / LDM-04 & SLBC-01)

Research Methodology:

Primary Data : Redesigned structured schedule for farmers, Line deptt, Banks, SLBC, DIF and Directorate of Agriculture (GoJ). Semi-structured interactions with LDMs, DDMs and farmers. Secondary Data: NABARD State Focus Paper, SLBC Agenda, Articles and Research Papers & Internet source (Wikipedia)

Data analysis – Data has been prepared in tabular and pictorial form (like Bar diagram, pie chart, etc). Average, percentage, etc. were used for analysis of data.

Major Findings:

- Branches did not have complete set of information about the schemes being run by the line departments. Lack of flow of relevant information to branches led to their remaining largely blind to the changes taking place in the business environment.
- Bankers in many cases lack required confidence level in farmers who are proposing to take dairy, poultry and horticulture activities and approaching banks for loans to manage such projects.
- Awareness level among the farmers was very low which has suppressed the credit demand.
- Farmers in the villages were found to be ignorant about the availability of Govt. support and incentives.
- Farmers interacted during the study were largely found to have been covered by the KCC scheme and large proportion of farmers approached bank for credit support under identified activities but they couldn't get a loan as they found the requirements of banks as cumbersome.
- Lack of integration or convergence of Govt. schemes with the Banks schemes.
- Availability of insurance service was a major impediment in promotion of poultry sector.
- Lack of mushroom spawn and fish seed was observed at Hazaribagh district and there were or few instances of private agencies are supplying substandard seed from West Bengal

Major Recommendations:

- All stakeholders, viz, GoJ, Banks, NGOs need to provide for in their policies and programmes a special status to the FPOs so as to nurture and strengthen them. Hence, banks are required to take pro-active steps so as to develop a relationship with FPOs in their respective areas of operation right from the beginning.
- The banks need to closely align and integrate themselves with the developments taking place in the external environment, viz, improvement in irrigation potential, rural connectivity, improvement in market linkages, improvement in agricultural practices as a result of implementation of Govt. schemes, etc. at district level so as to be able to tap the additional accredit potentials created by such factors. The DLCCs / DLRCs or their special sub-committees on agriculture need to specifically mull these aspects extensively in their meetings.
- Area Based Banking Plans pertaining to potential sectors, viz, dairy, poultry, fisheries, irrigation, etc. prepared by NABARD have the potential to become yet another growth driver for investment credit under agriculture sector. It needs to be owned-up by all the stakeholders, viz, line departments (agriculture / dairy development / animal husbandry / fisheries, etc), bank branches, district administration, technical institutions / NGOs, etc. and implemented in the identified pockets with full vigour in a mission mode.
- A small advisory-cum monitoring group may be constituted at state level with participation from major stakeholders like Agriculture, Horticulture, Animal Husbandry and Dairy Development departments.
- Deptt., SLBC, major banks and NABARD to facilitate a convergence of Govt.'s subsidy linked schemes with banks' schemes and to ensure a prompt and effective transmission of awareness amongst banks and avoidance of information gaps, if any, regarding availability of subsidies under various schemes.

- At district level, the line departments may provide the subsidy allocated to them to banks for utilization in respect of borrowers to be selected by banks. As banks are competent to undertake borrower appraisal, this arrangement would lead to both credit off-take and proper and full utilization of Govt. subsidy.
 - Banks may be impressed upon by the DLCCs / DLRCs to select and finance the borrowers in a cluster so as to enable the line departments to provide forward and backward linkages in a smoother way.
 - The attention of DCs of all the districts who are also the Chairmen of the DLCC / DLRCs in their respective districts be drawn by the DIF, GoJ to ensure that review of term loan under agriculture sector be kept as a separate agenda item and high importance is accorded to the same.
 - Better availability of extension and support services under important sectors like dairy, poultry, animal husbandry, fisheries, horticulture, vegetable and food processing, etc. being an important pre-requisite for success of economic activities would significantly improve the credit absorption capacity of farmers.
 - As the NPAs has been found to be a great dampening factor for banks holding them from taking exposures, the Govt. needs to re-calibre its response to the issue so as to take care of banks' concerns and facilitate creation of a supportive environment for recovery of agriculture loans.
 - Concerned Line Departments need to conduct sensitization and awareness generation programmes for farmers at block and district levels which may also be attended by the bankers of the area to enable a smoother fructification of credit potentials into GLC flow.
 - On the lines of NABARD's Area Development Banking Plans, Line Departments may also plan in association with banks concerned for promoting investment activities in a cluster with the support of bank finance.
 - Govt. needs to create infrastructure like common facility centres, storage centres, transportation facilities, cold chambers and cooling units especially for vegetable and horticultural produces which will boost private investments including through bank credit in the sector.
 - With a view to enhancing outreach of both the line departments and banks, networking with reputed NGOs, Farmers organizations / forums like NABARD promoted Farmers' Clubs or ATMA promoted Farmers' Interest Groups would prove to be of immense help for implementation of various Govt. schemes like BGREI, NFSM-Pulses, etc.
 - Proper training arrangements and provision of technical know-how for the agripreneurs identified for being supported by banks with credit facility with active involvement of the concerned line department would go a long way in enhancing the success rate of such enterprises and encourage the banks to provide credit in larger numbers.
 - Schemes for rain water management viz. construction of series of check dams, watershed development programmes, canal irrigation, construction and renovation of water reservoirs, rain water harvesting etc. can be strengthened. State govt. may consider setting up of base nurseries/ progeny orchard at block level and setting up of Seed multiplication farm cum Training Centre.
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THEME-9: Water Management Practices (Maharashtra); Water Management & Shift in Cropping Pattern in Watershed Areas (Odisha).

Summary No-44

Profile of the Student:

Name: Rohit Harish Bhanushali

Degree Programme: M.Sc.(Agribusiness Economics)

University/ Institute: Gokhale Institute of Politics and Economics, Pune

Profile of the Mentor:

Name: Dr. D. Ravindra

Designation: DGM

Department: SPD / BID / DSM / NABCONS

Name of Regional Office: Maharashtra (Pune)

Objectives of the study:

- Mapping the irrigation scenario in Maharashtra
- Studying the existing water management practices in use by farmers
- Understanding two important water management practices viz. drip irrigation and farm ponds
- Analyzing the efficacy of the two water management practices in the identified districts
- To study the advantages and disadvantages of drip irrigation and farm ponds
- Studying profiles of the farmers with respect to their incomes, education, land sizes and other necessary criteria
- Calculating the cost for implementation of identified water management practice per unit area
- Calculating the credit requirement of small medium and large farmers with respect to drip irrigation and farm ponds
- To study the technical details regarding construction, design and maintenance with respect to drip irrigation and farm ponds
- Comparing the area under effective irrigation with the total area under cultivation with respect to yield rates, water conservation and other parameters
- To study the impact of drip irrigation and farm ponds
- To study the utility of drip irrigation and farm ponds in a period characterized by two years of successive drought in the state of Maharashtra

Sample State/ Distt/ Blocks/ Villages: Maharashtra / Ahmednagar district:-Rahuri: Ambi, Deolali, Himmat Gram Prkalp (Snehalaya), Shevgaon: Malegaon, Akhatwade, Samargaon, Kopargaon: Pohegaon, Karanji, Sanvadsar, Padegaon, Aurangabad District: Rampur, Kachcheghati, Mahalpimpri, Palsi, Kolthan, Krishnapurwadi, Pokri, Lamkana & Ghersawli. Kolhapur district:-Shirol: Bubnal, Arjunwad, Aurwad, Alas, Shedshal, Ganeshwadi

Sample size: Drip irrigation: 101; Farm Ponds: 29; Total: 130

Research Methodology:

To analyze the efficacy of water management practices adopted by farmers with special reference to drip irrigation and farm ponds and undertake field surveys for the same involving data collection and analysis through questionnaires from various farmers and holding interactions with various NGO's, bank heads, sugar factory CEO's, district development managers and other officials at Ahmednagar, Aurangabad and Kolhapur districts of Maharashtra.

Sources of data :Primary data: The primary data is collected from the farmers of the selected districts. The data for drip irrigation has been collected from farmers who were cultivating sugarcane under drip irrigation in the districts of Kolhapur and Ahmednagar and from farmers who were cultivating cotton under drip irrigation in Aurangabad district. The data for farm ponds has been collected from farmers having the presence of a fully built farm pond in their fields and cultivating any crops in the districts of Ahmednagar and Aurangabad. The data is extracted with the help of designed questionnaire. Secondary data is collected from the published sources like economic survey, statistical abstract etc. for the supporting the results of the present study. The secondary data figures provide the guideline and insight for planning and implementing the research work.

Method of research included extended data mining and analyzing the irrigation trends using advanced statistical and business analysis tools in Microsoft Excel. Paired t tests were used whenever required to compare the effect of water management practices on various agricultural indicators. The results were used to provide suggestions and recommendations for further growth in the efficient use of water managements systems by farmers and development in sustainable, inclusive agriculture.

Major Findings:

a. Drip irrigation:

- Average sizes of farms in Kolhapur, Ahmednagar and Aurangabad districts were 6.157, 13.069 and 4.803 acres respectively.
- Out of the villages surveyed, 55.33% and 88.18% of area under sugarcane cultivation in Kolhapur and Ahmednagar districts respectively and 91.94% of area under cotton cultivation in Aurangabad district has been irrigated by drip irrigation.
- The average income per acre for sugarcane cultivation was Rs.146622 and Rs. 115016 at Kolhapur and Ahmednagar respectively and for cotton cultivation was Rs. 56296 at Aurangabad district.
- Out of the total farmers surveyed, 66.67%, 33.33% and 31.58% in Kolhapur, Ahmednagar and Aurangabad districts respectively had previous knowledge about drip irrigation.
- Two companies namely Jain and Netafim are playing a prominent role in supplying equipment for drip irrigation.
- Average total cost per acre for using ISI quality drip irrigation systems was Rs. 57671, Rs. 45634 and Rs.33961 at Kolhapur, Ahmednagar and Aurangabad districts respectively.
- Average loan amounts received per acre by the farmers for drip irrigation systems was Rs.53273.47, Rs. 31060.29 and Rs 28612.24 at Kolhapur, Ahmednagar and Aurangabad districts respectively.
- Average subsidy per acre was Rs. 16145.7, Rs. 14513.52 and Rs.17272.97 at Kolhapur, Ahmednagar and Aurangabad districts respectively.
- Out of the farmers surveyed, 62.96%, 77.78% and 78.95% of them reported a delay in receiving their subsidies.
- Average yield under sugarcane before drip irrigation was 38.89 tons per acre at Kolhapur and 38.33 tons per acre at Ahmednagar districts and after drip irrigation was 71.96 tons per acre at Kolhapur and 54.89 tons per acre at Ahmednagar districts. Average yield under cotton before drip irrigation was 7.67 quintals per acre and after drip irrigation was 13.54 quintals per acre.
- Post drip irrigation, an increase of 85% and 43% in sugarcane yield at Kolhapur and Ahmednagar districts respectively and an increase of 77% in cotton yield at Aurangabad district was observed.
- Advantages of drip irrigation were- efficiency in fertilizer use when given through drip, reduction in water usage and labour input, reduction in pests and weeds, increased yields and incomes.

- Advantages of drip irrigation were- high initial costs, clogging and maintenance issues.

b. Farm Ponds:

- Average sizes of farms in Ahmednagar and Aurangabad districts were 15.47 and 8.48 acres respectively.
- In terms of surface area, the majority of farm ponds observed at Ahmednagar district were more than 20000 square feet and at Aurangabad district were less than 15000 square feet in size.
- It was found that the cost of construction at Ahmednagar district was Rs.1 lakh to Rs. 3 lakh and that at Aurangabad district was Rs. 3 lakh to Rs 10 lakh.
- Only 31.25% of the farmers surveyed in Ahmednagar district and 38.46% of the farmers surveyed in Aurangabad district received subsidies for the construction of farm ponds.
- 50% of the farmers surveyed in Ahmednagar district and 23.08% of the farmers surveyed in Aurangabad district availed credit for constructing farm ponds.
- It was found that 77.58% and 57.98% of the cultivable land was irrigated by farm ponds at Ahmednagar and Aurangabad districts respectively. Change in cropping patterns was observed from low to high value yielding crops after farm pond construction.
- Average yearly income through cultivation of crops under farm ponds was Rs.1087500 and Rs. 693077 at Ahmednagar and Aurangabad districts respectively.
- There was a negligible increase in surrounding well water levels due to farm ponds.
- Farm pond water was used in both Kharif and Rabi seasons in Ahmednagar but only Rabi season in Aurangabad districts.

Major Recommendations:

- Expansion of the 'Jal Yukta Shivar' project and completion of remaining works.
- Addressing the gap between subsidy allotted for farm pond construction and the subsidy demanded for it and increasing the number of subsidies for farm pond allotted in accordance with their rising demand amongst farmers.
- Selective farmers whose investment capital has been impaired by the drought maybe considered for another subsidy towards drip irrigation.
- Increasing the timely flow of beneficial information towards farmers.
- The rural literacy levels need to be raised. Higher, specialized and technical education needs to be promoted and extended to as many areas as possible.
- Strengthening the lender farmer relationship. Directing the subsidy payable to farmers for drip irrigation to the sugar factories so that their credit disbursements towards the farmers regarding drip irrigation are recovered. Checking the rising number of NPA's in banks regarding drip irrigation and farm ponds loans.
- The government needs to take stringent measures to ensure that the subsidy reaches on time to the farmers as delays in subsidy affects the farmer's working capital.
- Strengthening the insurance structure for drip irrigation and increasing the penetration of agricultural credit.

Summary No-45

Profile of the Student:

Name: Siba Narayana Mishra

Degree Programme: MA (Analytical & Applied Economics)

University/ Institute: Utkal University, Bhubaneswar

Profile of the Mentor:

Name: K S S Prasad

Designation: AGM

Department: FSDD/ DEAR

Name of Regional Office: Odisha (Bhubaneswar)

Objectives of the study:

- i. To examine the “impact of watershed development on shift in cropping pattern and water management”

Sample State/ Dist./ Blocks/ Villages: Odisha /Mayurbhanj and Koraput/ Biratpat and Barahampur watershed projects of Udala block in Mayurbhanj & Alekhamahima (Khudub) and MaaGumabhyarabi (Chatua) of Nandapur block of Koraput district

Sample size: 80 households (40 from each district)

Research Methodology:

The data has been collected mainly from the primary sources. The descriptive statistics such as percentage, frequency, average are used to analyse the impact of watershed development on different characteristics of area and farmer.

Major Findings:

- Watershed development has increased the land for agriculture by converting uncultivated land into cultivable land and providing landless farmers with opportunity to doing farming activity.
- There is a transformation from single cropping to bi-cropping or multi cropping by the farmers after watershed development. The cropping intensity has increased by 27%.
- Farmers are preferring cash crops and vegetable over traditional crops. Cash crops such as Ginger, Pipla and corn raised the farming income highly even from small piece of land. Farmers are more interested for modern agricultural method due to enhanced awareness, and capacity building on various agronomic practices.
- The productivity of all kinds of crop has increased significantly after watershed. This led to increase in marketable surplus, resulting in enhanced income of the farmer.
- The cost of production does not show any significant change between two situations. But the average income of the respondents has increased by 116%.

- Construction of more no. of water harvesting structure has addressed the issue of water scarcity.
- Water budgeting by the farmer for cultivation has resulted in efficient use of water.
- Land under irrigation in the area has increased after watershed development.
- Different developmental activities, treatments in area and drainage line for water conservation have increased the ground water level in the area. Increase in ground water level becomes beneficial for farmer in farming as well as taking other ancillary activity.
- There have also increase in no. of livestock in the area due to availability of fodder and subsidy given by government institutions.
- There has a decrease in migration due to availability of work with in the area.
- Agricultural land value has gone up and credit availability also increased in the area.
- Overall, watershed development has a positive and effective impact on the income and standard of living of the people of the particular area.

Major Recommendations:

- More no. of water conservation structure to be made to avoid the problem of water scarcity for cultivation (diversion canal, field channel & farm pond)
 - More no. of awareness programme to be conducted to train farmers about different profit earning crops and better methods of cultivation (more no. of cash crop and benefit from it and soil test by NGO financed by NABARD).
 - Development of marketing of agricultural product - (Especially of mango, sugarcane, corn & jack fruits by government of Odisha) for that Producers organization committee to be promoted.
 - Better coordination between government functionaries and farmers can improve the effectiveness.
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THEME-10: Crop Insurance Coverage Effectiveness & Likely Impact of PMFBY on Coverage (Haryana).

Summary No.46

Profile of the Student:

Name: Deepak Kumar

Degree Programme: Master of Business Administration (MBA)

University/ Institute: Kurukshetra University, Kurukshetra

Profile of the Mentor:

Name: Vinod Kumar

Designation: AGM

Department : IDD

Name of Regional Office: Haryana (Chandigarh)

Objectives of the study:

- To have an insight of physical coverage of crop insurance schemes i.e. no. of farmers' crops and area covered.
- Cost effectiveness of insurance schemes.
- Extent of monetary relief to farmers.
- To see likely impact of PMFBY on coverage.

Sample State/ Distt/ Blocks/ Villages: Kaithal district was selected & 16 villages were visited during the field visits.

Sample size: 115 farmers

Research Methodology: Convenient sampling and some basic statistical tools such as means , average, percentage, etc. were used for the study. Both types of data i.e. Primary and secondary data were collected for the study.

Major Findings:

- The average land holding size of Kaithal district is 2.75 ha. vis a vis 2.25 ha. of Haryana State. The major crops grown in the sample districts were wheat and paddy.
- Out of 49576 numbers of farmers in the district (agri census 2010-11) 20,500 farmers (37215 hect.) were covered under MNAIS during 2013-14 for Kharif season and, 20387 farmers (34215 hect.) in Rabi season during 2013-14. Around 41% of total number of farmers were covered under the insurance umbrella.
- 51 percent of the sample farmers were in the age group of 35 years to 45 years. 9 percent of sample farmers were in the age group below 35. However, around 32 percent of sample farmers were in the age group of 45 years to 60 years. The younger generation, however, was hesitant to take up agriculture as profession.

- The education level among the sample farmers was very poor. Around 74 percent of the sample farmers were either illiterate or educated below matriculation.
- In Haryana small farmers took land on lease and large farmers lease out their land to other farmers.
- More than 90 percent of the sample farmers raised wheat and paddy on their field and 96 percent of the farmers were having dairy and other allied activities as subsidiary activities. Average animal size holding of sample farmers was around four animals. Sample farmers were earning around Rs. 4000 per month per animal.
- In sample study, 9 percent farmers had other source of income. Wage labour was major component of 'other source of income'. Average earning from other sources was around Rs. 6000 per month.
- The average per acre income from wheat and paddy were Rs.21658 and Rs.27973 respectively.
- The access to institutional financing was around 75 percent in the sample farmers.
- The level of awareness about insurance scheme among the sample farmers was very low. Around 83 percent of the sample farmers were not aware about the insurance schemes.
- 63 percent of sample farmers who had availed crop insurance came to know about the scheme through banks and remaining 37 percent through fellow farmers. Thus banks and fellow farmers remained two important instruments in creating awareness among the farmers about the crop insurance scheme.
- 37 percent of farmers who had insured their crop got claim from the ICICI Lombard (premium collecting company in Kaithal district) under MNAIS which was applicable during respective crop season.
- In case of crop damage, there was around 43 percent probability that a farmer may come under the grip of money lender/ commission agent.
- All the sample farmers had tolerable level of crop loss to the extent up to 10%.
- 50 percent of sample farmers who were interviewed preferred for availing crop insurance scheme through rural agent at door step, 10 percent of sample farmers preferred insurance agents, 30 percent of sample farmers preferred commercial banks and 10 percent of sample farmers preferred post office for availing crop insurance scheme.
- 17 percent of sample farmers knew about the previous schemes. But awareness level about the latest crop insurance scheme i.e. Pradhan Mantri Fasal Bima Yojana (PMFBY) was very good at the district level. 80 percent farmers were aware about the Pradhan Mantri Fasal Bima Yojana.
- Banks, fellow farmers, newspapers, TV were the major mode of awareness of PMFBY as gathered during the study.
- 43 percent of the sample farmers expressed reservation about PMFBY. However, 57 percent of sample farmers expressed willingness for PMFBY.

Major Recommendations:

- In the absence of crop insurance, damage to crops compels the farmers to take credit from money lender/commission agent hence thrust may be given to crop insurance. Banks and fellow farmers were the main sources of information about crop insurance schemes. These modes of awareness may also be used for PMFBY.
 - Big number of farmers preferred availing crop insurance through rural agent or through commercial banks. These modes may be adopted under PMFBY.
 - There was a lack of awareness about the crop insurance schemes among the farmers. Consequently very little number of farmers were coming forward to obtain crop insurance. Hence it is suggested that state government/banks/insurance companies should provide wide publicity about the crop insurance schemes.
 - It was also observed that the farmers who had got crop insurance were not knowing about the major terms and conditions or features of the crop insurance schemes.
 - Banks and insurance companies should apprise the farmers about the benefits, main features and other details of the crop insurance scheme.
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THEME-11: Small Scale Agro Processing (Head Office).

Summary No.47

Profile of the Student:

Name: Meeta Sahijwani

Degree Programme: Masters of Management Studies

University/Institute : Prin. L.N.Welingkar Institute of Mgmt. Development and Research

Profile of the Mentor:

Name: B.V.S Prasad

Designation: GM

Department : DEAR

Name of Office: Head Office, Mumbai

Objectives of the Study:

A. Fruits and vegetables processing units;

- To study the status of food processing units in the district.
- To examine the growth prospects and potential of the food processing units.
- To understand the operation of the selected units
- To study the economics of food processing units.
- To analyse the breakeven point of the units.
- To study the backward and the forward linkages of the food processing industry.
- To study the various problems faced by the food processing units.
- Lastly to suggest recommendations to the food processors for healthy growth of their business.

B. Cashew nut processing units:

- To understand the operation of cashew nut processing units in the district
- To carry of the cost structure of the selected units.
- To study the economics of the units.
- To analyse the breakeven point of the units.
- To study the problems and prospects of cashewnut processing and to develop strategy for future growth.

C. Wheat processing units:

- To understand the operation of the units in the district.
- To carry of the cost structure of the selected units.

- To study the economics of the units.
- To study the various problems faced and to suggest recommendations for healthy growth of their business.

Sample State/District/Talukas/Villages: Maharashtra/ Ratnagiri (Ratnagiri-Charveli, Neware, Pavas, Pali, Hatkhamba, Mirjole; Lanja- Gavane, Sangameshwar- Karanjani; Rajapur- Oni)

Sample Size: 8 units each of fruits and vegetable processing, cashew nut processing segment and 4 units of wheat processing units

Research Methodology:

The study was conducted on the basis of primary and secondary data collected during the course of field visit. Both types of data i.e. Primary and Secondary are to be used to conduct the study.

The data was collected through a predesigned questionnaire method for each type of industry. Selected industries were interviewed and deeper insights were gained through in-depth interviews. Secondary data was collected from internet, books, reports and journals.

Major Findings:

- The average Gross Profit Margin earned by Cashew processing units was 12.02% and that of fruits and vegetable processing units were 17.62% and that of wheat processing units were 15.44%. The Gross Profit margin of fruits and vegetable processing units was the highest.
- The Operating cost ratio was the lowest for fruits and vegetable processing units which were 69.88% and that of cashew processing units and wheat processing units were 76.15% and 84.56% respectively.
- The Net Profit Before Tax was higher for fruits and vegetable processing units which was 14.06%
- The Current Ratio of cashew processing units was ideal when compared with the other two sectors which was 2.05:1
- Inventory Turnover Ratio of fruits and vegetable processing units was higher than the other two sectors which were 4.21 times. This means that inventory is getting converted into sales every 4.21 times in a year. There will be no inventory turnover ratio for wheat processing units as no inventory is required for processing wheat.
- The Breakeven point in volume of cashew processing units was the highest amongst all which was Rs. 5, 36, 80,000. This means that the company is able to recover its fixed costs and even earning profit which is a good indicator.
- The Net Present Value of fruits and vegetable processing units was higher than other two which was Rs. 50, 38,000. If NPV is positive, it is advisable to invest in that business. In this case, NPV of all the three sectors is positive. So that means it is profitable to invest in any of the businesses but the NPV of fruit and vegetable processing unit is the highest followed by cashew processing unit. That means it is more profitable to invest in fruit and vegetable processing units or to start it as compared to the other two businesses.

- The Retained earnings of fruits and vegetable processing units were higher than cashew nut and wheat processing units. The only reason for this could be the increase in the cost of raw cashews, thereby increasing the cost of cashew processing units and thus decreasing the profit in the hands of the owner.
- The amount of capital and number of employees required by the cashew processing units and fruits and vegetable processing units were more or less the same and that of wheat processing units very less capital was required to start the business and no need of any employees was required due to its small scale of operation.
- The common problem faced by all the three sectors was that of lack of power supply. Another major problem faced by few of the units was lack of funds to expand their business. Also one of the major problems faced by cashew processing units was that of increase in cost of raw cashews from Rs. 90/kg to Rs. 150/kg which is an increase of 66.67% thereby increasing the costs tremendously.

Major Recommendations:

- Liberal Loan facilities at low rate of interest may be provided by Banks to the units. The government should also take necessary steps to offer subsidies to the increase production.
 - The government must take necessary action and must provide electricity especially during peak hours so that the production of these industries is not hampered
 - The government should aid the units for advancement of their technology and machineries so as to meet the emerging challenges. There is an urgent need to bring efficiency in production process through either maximizing the output or minimizing the cost. Therefore, technology is the key for improvement in growth and efficiency in food processing sector.
 - The Central Government should form a separate 'Cashew Board' for the development of cashew cultivation, procurement of raw nut and marketing of cashew kernels. This Cashew Board should function like the tea board, coffee board, rubber board and the coir board.
 - The problem of shortage of raw nut can be solved by increasing the domestic production of cashew nut. High yielding varieties and improved technologies capable of boosting cashew production in the country.
 - Co-operative cashew processing units are required to be established in this area for getting additional benefit in income and employment.
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THEME-12: NPA in Agriculture Lending by Banks in Tripura with Special Chapter on NPAs under Loans by Banks to SHGs Formed at NABARD's Initiatives (Tripura).

Summary No.48

Profile of the Student:

Name: Biroj Bhowmik

Degree Programme: MBA

University/Institute : School of Business Studies, National Institute of Technology, Agartala

Profile of the Mentor:

Name: D.V.Ramana Rao

Designation: DGM

Department : Not Available

Name of Regional Office: Tripura (Agartala)

Objectives of the study:

1. To assess the agency wise Ground Level Credit (GLC) flow for agriculture in Tripura during the last 3 years.
2. To assess the net benefits accrued to small/marginal/medium farmers, with respect to income & employment generation, crop productivity and quality of life.
3. To evaluate the agency wise status of loans provided to Self Help Groups(SHG) of NABARD.
4. To assess the recovery performance of banks under agriculture lending, with special emphasis on SHGs.
5. To study the sustainability aspects and status of Non-Performing Assets (NPAs), with reference to the sample SHGs.

Research Methodology:

The study was based on primary and secondary data. Primary data was collected from banks, farmers and Govt department. Secondary data was collected from publications of NABARD, GoI, Agriculture Universities and State Govt departments. The data collected was analysed using standard statistical tools like Bar-Diagram, Percentage method and Pie-chart as a visual aid for the better understanding by the reader to assess the impact of the investments/activities.

Major Findings:

1. The Agriculture Lending is maximum in Gomati District, Growth % of 38.19% in respect of North Tripura, is 14.69% , Dhalai Tripura is 27.96% and South Tripura is 32.77%.
2. The NPA Position as per the Analysis in three Districts is as follows :

Analysis 1 : Gomati Tripura, comparing (1) TGB and (3) SBI, Udaipur Branch, the NPA position is TGB has Agri NPA of 2.15 % of NPA, SHGs under NPA of 87.69%, and SBI has Agri

NPA of 16.25% and SHGs under NPA of 13.39%. And (2) TGB, Gokulpur Branch of Agri NPA of 13.33% and SHGs under NPA of 92.68%.

Analysis 2 : Dhalai Tripura, comparing (5) TSCB and (6) TGB, Gandacherra Branch, the NPA position in TSCB has Agri NPA of 25.68% and SHGs under NPA of 1.99%. TGB has NPA position of Agri NPA of 81.43% and SHGs under NPA of 49.07%. (7) UBI, Ambassa, has Agri NPA of 60.96% and SHGs under NPA of 19.71%.

Analysis 3 : Sepahijala, (4) SBI, Sonamura Branch, has NPA position in Agri NPA of 6.01% and SHGs under NPA of 92.68%.

3. The Recovery performance of the Banks in the Districts are in Dhalai District, the Recovery performance of 3 years is 63%, Gomati Tripura is 60.50%, South Tripura is 66.07%, and North Tripura is 58%. Hence the Recovery performance in Dhalai District is good out of the four districts.
4. The Condition of the farmers is that, the farmers who avail loans from the Banks, belongs to a very poor financial conditions. The problems which often occurs during the utilization of loans is the repayment. Due to genuine reasons repayment cannot be made in time. So the farmers faces difficulties in repaying the loans.
5. The Condition of SHG are formed in the villages, the members belong to poor financial conditions which bounds them to avail loan for the proper flow of their business or work. So the Banks offer loans under Govt. Schemes. The SHG faces difficulties in recovering loans due to genuine reasons or sometimes with the group is broken or close down.
6. The Crop Insurance is a crucial matter for the Agriculture loan, the farmers are not aware of it and some do not know which may be helpful for reducing NPA to pay premium at 1.5% of the Insurance Policy.

Major Recommendations:

1. The bank must take necessary steps for crop insurance and aware the borrowers.
 2. The bank should provide loan, by following up the farmers' ability to repay.
 3. In case of repayment by the farmers, the bank must do telephonic conversation and visit the place for investigating the situation for the non repayment.
 4. The borrowers who don't turn up to repay the loans, legal actions is to be taken.
 5. In case of genuine reasons for non repayment of the loans, waiving off the interest amount or compromise of the loan account can be done.
 6. The recovery Camp in remote area with facilities for the borrowers can be helpful for the recovery purpose.
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THEME-13: NABARD's Integrated Development Projects in Wayanad-Looking Back to Look Forward (Kerala).

Summary No.49

Profile of the Student:

Name: Divya Sebastian

Degree Programme: MA(Applied Economics)

University/ Institute: Centre for Development Studies, Trivandrum, Kerala

Profile of Mentor:

Name: Patrick Jasper

Designation: AGM

Department: Climate Change

Name of Regional Office: Kerala (Thiruvananthapuram)

Objectives of the study:

- i. To critically analyze the situation in the field
- ii. To evaluate the economic as well as social impact of the TDF project.
- iii. To suggest further policy recommendations

The implementation of NABARD's Integrated TDF projects in Wayanad is delegated to a Project Implementation Agency (PIA). Field studies for three such projects in Wayanad were visited and analyzed:

Sample Size: 81 households. TDF projects in Thondernadu (WSSS), Thavinjal (FLAME) & Nenmeni, Noolpoozha (Shreyas)

Research Methodology:

Primary data: 81 tribal households were visited in the district of Wayanad for collection of primary data. 20 households from Thondernadu Panchayat (WSSS TDF-1) out of the 203 households enrolled for TDF. 10 households from Thondernadu-Thavinjal Project (WSSS TDF-2) were visited for a comparison between the Pania community in the two projects and also a comparison between TDF-1 and TDF-2 projects. 26 households from Thavinjal panchayat (FLAME) out of 258 families were interviewed. 25 households from Nenmeni-Noolpuzha Panchayat (Shreyas) were interviewed out of the 250 families enrolled in the project.

Further, discussions with the PIA and VPC heads were made to enquire more about the project and the target area and group. A few houses at TDF Kannampady (PDS), Idukki were also visited as comparative case studies.

Secondary data has been used from the Census of India data for population distribution statistics.

Major Findings:

The first project visited was the Integrated TDF project in Thondernadu (WSSS), with 203 households of which 20 households were surveyed.

- It has been one year since the project period (five years) got over.
- A majority of the families are from the Pania Community, the most primitive community among the tribals.
- The cultural and historical peculiarities of the community are somewhat responsible for their exclusion and backwardness.
- The project has had no follow-ups and wadis were found to be abandoned.
- The survival rate of coffee and pepper plants was also very low due to the drought in the current year and also due to neglect on part of both farmers and the NGO.
- Since it was the first project by WSSS, it had certain limitations that were subsequently improved upon in their second project, the Thondernad-Thavinjal project, where community organization is stronger.
- The mix of Pania and Kuruchiya communities has helped the former to abandon many myths and created a healthy competitive spirit.

The second project visited was the Integrated TDF project in Thavinjal (FLAME), with 258 households of which 26 families were surveyed.

- The majority of the tribals belong to the Kuruchiya community, a more forward community than the Panias.
- The farmers were educated and made aware of the long term goals of the project.
- They were sensitized by the NGO about the importance of community organization. The main problem faced by these households was a lack of proper tarred roads and transportation as well as a lack of drinking water or a proper irrigation system.

The last project visited was the Integrated TDF project in Nenmeni, Noolpoozha (Shreyas), with 250 households where 25 households were interviewed.

- This area primarily comprised the Katunaika community; members of the Pania and Uraali communities were also enrolled for the project.
- The most important aspect was the successful vegetable patches, where ₹ 500 worth of vegetable seedlings were given with a 10% loan component wherein the vegetable patch once harvested can be regrown every year and this has helped for a self-sustaining living.
- Since most of the colonies were in the forests, the farmers faced a threat from wild animals, especially in the current year as the elephants started coming in herds due to lack of food in the forests. The buffalo rearing activity brought a significant amount of livelihood support for the families in terms of dung and high price on resale.
- Alcoholism, tobacco chewing, etc., are some of the vices that plague the community and are responsible for their exploitation and backwardness.
- The changing food habits of the community are also a matter of major concern.

- The Forest Rights Act, 2006 (FRA) and other policy restrictions come with living in forests and dwarf the development process of tribals , but are important nevertheless for conservation of forest land.

Major Recommendations:

- Increasing loan component: Each community, with its cultural background or income group or territorial disadvantaged area should have a different tailored scheme, with different percentages of loan components.
 - Continuous following up of projects: Resources need to be set apart for proper following up under the scheme, especially if the people themselves cannot organize and monitor themselves. A processing and marketing unit and its continual monitoring will ensure participation of people.
 - Computerization of MIS accounts: MIS accounts should be computerized and also, if possible, should be translated to English for complete transparency and accessibility.
 - Training of field staff: It is necessary not only for the staff to be well versed with the rules and traditions of the community, (which is followed by all NGOs) but the staff should also be trained well so that they can look beyond short term goals and focus on the long-term goal of development.
 - Availability of literature on the internet: Even though this is often put aside as a minor issue, it is very important for research work to be published online. There is potential for carrying out rigorous impact evaluation and randomized control trials (RCT) in this area but this is not done due to either a lack of opportunity or in this case the neglect of the importance of modern technology.
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THEME-14: Value Chain Analysis for Horticulture Produce (Arunachal Pradesh).

Summary No.50

Profile of the Student:

Name : Takam Kaha

Degree Programme : MBA

University/ Institute : Rajiv Gandhi University

Profile of the Mentor:

Name: Binod Kumar

Designation : DGM

Department : DEAR

Name of Regional Office: Arunachal Pradesh (Itanagar)

Objectives of the study:

A.Primary objectives:-

- i) To analyze the value chain of the large cardamom:- It focuses on the activities involved in the process of creating value, which starts with the clearing of forest to the marketing and sale of the products to the brokers/agents in the market.
- ii) To find out the difficulties faced by the farmers:- The farmer faces many difficulties while cultivating cardamom, in the form of shortage of labor, regular maintenance of the field etc. which has been discussed in the detail in this report.
- iii) To find out the financial sources available to the farmers:- Cardamom cultivation is a labor intensive and it requires regular maintenance of the field and for that it requires fund, which they get from the nearby sources such as-from small; money lender, from friends, from family etc. And also other sources have discussed in the report
- iv) To find out the marketing structure:-Since the farmer have just started cultivating cardamom in recent years, the reports deal with the marketing structure available in the region.
- v) To find out the economic conditions of the farmer after adopting this crop:- The cultivation of cardamom is a profitable activity, which is attracting almost all the farmers to cultivate this crop and farmers are doing good in it.

(B). Secondary objectives-

- i) To find out whether, weather conditions supports/affects quality of productions:-Weather conditions play important role in the quantity production as high rain and excess heat of sunlight affects the crops and its productivity and also heavy rain leads to landslide in many parts of the state which damage the cardamom plant.
- ii) To find out the level of involvement of people in the cardamom cultivations:-Almost all the farmers have started cultivating cardamom and some of them are cultivating it in the area in which they used

to cultivate rice. Since it is cash rich crops, not only the villagers but also the educated, employee of the govt. and students have also started cultivating it.

- iii) To find out whether it generates employments in the area:-The cultivation of the cardamom is generating an employment for the unskilled labor directly in the area and also youth of the area are taking it as a source of income.
- iv) To find out the impacts of opium cultivation in the area:-In some parts of the state farmers are cultivating opium as an easy source of income.

Sample State / District/ Villages: Arunachal Pradesh / Lower subansiri, kra-dadi and Anjaw/ Yazali, Yachuli, joram, Ziro, Talo, Deed and Dem inl/subansiri :Tassar, Palin, Yaglung, Amji, Pungte, Meer and Oldpalin in kra-d: Huilong, Tulangkano, Sengung, and Hawaii in Anjaw.

Sample size: 90 samples.

Research Methodology:

Primary Sources:- (i)Observation:- Observation was the most important tool used in the field survey to collect primary data/ information relevant to the study. To conduct a survey and collect data for the study, the three districts of Arunachal Pradesh have been covered and interacted with the farmers of these districts and collected information through questionnaire, along with it the observation played a significant role by removing communication gaps- as these three districts consists of various tribes and sub-tribes whose dialects are different, which are difficult to understand by the outsiders. In this case, by observing the activities and resources available in the area researcher needs to collect all the relevant information of the project.

As the some objectives of the report seeks experience of the researcher, such as- to know the effects of weather conditions on crops, difficulties faced by the farmers and to find out the level of people involved in the horticulture productions. (ii) Questionnaire:- Questionnaire is the most important tool for the collections of primary data for the study, by framing a proper questionnaire in advance which covers all the necessary questions to gather information required for the study. The questionnaire can be in structured and unstructured form and contains various types of the questions, such as- Open ended, closed ended and mixed question.

In this research, to collect the data, both structured and unstructured questionnaire was used, structured questionnaire was used to collect the information related to the cultivation of the large cardamom and unstructured questionnaire was used to collect the other horticulture crops. And also various types of questions were used in the questionnaire such as- open ended, in which respondent had been given a free space to respond in their way. Closed ended questions, where respondents were given 'Yes or No' type questions and mixed questions were also used.

To cover the three districts of Arunachal Pradesh, 90 questionnaires were prepared, 30 questionnaires for each district. The questionnaire were used to interact with the farmers (face-to-face and indirectly) of the three selected districts. Structured questionnaire were used most of the time, which focused only on cardamom cultivations and cultivators. And unstructured questionnaire were also used to collect the relevant information for the study.

Secondary Sources:- In this reports almost all the data have been collected through observation and questionnaire except information regarding marketing channel of large cardamom in the state which has been collected from the spices board divisional office, Itanagar. This report is fully based on the field survey.

Major Findings:

- **Cardamom farming as main source of income: -**

The cultivation of the cardamom is not only the source of income available to the farmer and reason is farmers are engaged in many other activities other than cardamom farming, and also they are farming many other horticulture products in their field such as Apple, Kiwi, Pineapple, orange etc. Cardamom cultivation involved cost and time and also all the farmers do not know the proper way of cultivating it.

- **No Financial support from any organization:-**

The farmers have not got any financial supports from any organization. The survey revealed that all the farmers do not go for the credit rather they managed by themselves, in some cases family members contributes for cultivation. As cardamom cultivation is labour intensive, farmers require credit to cultivate and maintain the cardamom plants which can be seen from diagram 6.

- **Weather condition affects the quantity of production:-**

98.88% of the farmers are experiencing problems of bad weather and they found that this leads to the decrease in the quantity production. Cardamom plants get affected by the bad weather; heavy rainfall affects the flowering of the plants and also leads to the landslides and floods which greatly affect the cardamom farming, and also sunlight heat affects the cardamom plants, sunlight heat dries the plants.

- **Processing of large cardamom by local method:-**

According to the data available in the questionnaire, by taking the reference of the data available, 84.4% respondents have responded that they first go for processing then they go for selling their product. And there is no specific processing method, farmers use natural resources available to them such as firewood, sunlight heat for processing their cardamom and in some places they are using modified drier made of water pipe which also require huge amount of firewood.

- **No established Market for productions in the state:-**

Since the farmers have just started cultivating it in recent decade there is no proper market establishment in the Arunachal Pradesh for the cardamom marketing. It makes difficult not only for the farmer who is cultivating in small area and putting all their effort and resources but it also affects the large farmer, in some cases in fear of rodent and damages they sale it in a very less price to the brokers.

Since there is no established market for the farmers whether they are small farmers or the large farmer, here brokers or license holders are dominating the price and structure of the cardamom market in the state.

- **No Support of transportation system to farmers:-**

The farmer faces problem of transportation as road of the state is not well constructed and connected, there are many villages in the Arunachal which are not connected with the road and even if they are connected they are not motor-able. So they have to carry everything with the help of labour and there are families who unable to hire labour also to carry their product from field.

License holders also face the problem of transportation as there is limited means of transportation, there is only roadways which involves various unwanted problems and hurdles such as donation to the union, donation to the police personnel even if they pay all the tax to the tax and excise department.

- **Cardamom cultivation is a better source of income than other activities:-**

As per the diagram 10, the survey report shows 74.44% farmers responded that it is a better source of income than other activities where on the other hand 25.55% farmers responded that there are some other sources of income which are better than the cardamom cultivation.

Here it can be concluded that though they have just started cultivating it in a recent year the farmers believe that it is better source of income which clearly indicate that the farmers are doing well in this particular crop.

- **Practising organic farming:-**

Since the farmers of the state have just started cultivating large cardamom in the area they are unaware about the scientific way of farming so they are practicing organic farming in the state. They are not using any kind of machine, tools, technology and chemicals in the fields. They are purely practicing in a traditional way of farming which is organic in nature. Even they avoid using any kind of chemicals in the fields in a fear of losing quality of the products and also buyer of the product does not take products from the farmers who used any kind of chemicals in their field.

The farmers are using fertilizer or chemicals in their rice field but they do not use it in the cardamom farm as cardamom cultivation is a labour intensive and require huge amount of money to cultivate it and by using chemicals they might lose the quality of the productions. And to avoid such kind of loss, farmers are purely practicing organic farming.

Major Recommendations:

After going through the survey, it has found that there is a great potential of cardamom grower in the state but there is no proper value chain in the state to create value. There is no support from any organization, no basic training to the farmers, no processing unit in the region, lack of transportation and marketing structure to create values.

To improve the production and create value following activities are needed to be undertaken: -

- Impart training and create awareness among farmers: - Survey revealed the needs and necessity to improve the productions and creates values; farmers are needed to impart training regarding methods of cardamom farming and create awareness among farmers about the cardamom farming. The numbers of growers are increasing every year without any training and experience. And by imparting training and creating awareness the production of the cardamom can be improved manifold in the state.
- Extend credit supports: - The cardamom cultivation is a labor intensive and require huge amount of investment in its activities. Starting from the clearing of forest, preparation of land for cultivation, maintenance of land for whole year, collection of fruits, processing and sale of the product in the market. All these activities require investment and as per the survey report there are no credit facilities available from any individual or organization in the area, which is hindering in the quantity

production and creation of values. Thus as per the Govt. and non-govt. organization should extend credit facility to the cultivator to improve the quantity productions.

- Horticulture and spices board needs to play a vital role: - To improve the quantity production and creates value in the value chain both Horticulture department and Spices board have to play an important role by extending their supports in term of providing saplings, by giving aid and advices, and imparting basic training to the cultivator. By doing this they motivate the cultivators to focus more on cardamom cultivation which in turns improves the quantity productions.
- Creates local market: - The survey report shows that there is no established market in the state to sell their product in a good price but due to the absence of market, cultivators have to sell their products to the agents and dealer license holder in a price fixed by them. Establishment of local market for the cardamom will motivate the cultivator to add values to their products.
- Establish processing unit: - The farmers are selling their production to the dealer license holder and agents after simply drying it and again they sell the same products in neighbouring state without adding any value on it. Every year cultivators are doing in the same manner and price fluctuation also de-motivates the cultivator but by establishing the cardamom processing unit the farmers can be re-motivated on their activities and also it will generates additional employments in the state.

There are many other activities indicated by the cultivators through which the production can be improved and value can be created in the cardamom value chain and above are the most important area in which immediate action is required to motivate the cultivators, improve the productivity and creates value in the value chain of the cardamom.

THEME-15 : Home Stays in Sikkim: Issues & Challenges (Sikkim).

Summary No.51

Profile of the Student:

Name: Pranay Khatiwara

Degree Programme: M. Com.

University / Institute: Sikkim Manipal University

Profile of the Mentor:

Name: T.K. Ganeshkumar

Designation: DGM

Department: Not Available

Name of Regional Office: Sikkim (Gangtok)

Objectives of the Study:

- To study the scope, viability and challenges faced by Home Stay operators in the State

Sample State / Distt / Block / Villages: Three districts of Sikkim State (East, West and South)

Sample Size: Information collected by visiting 52 Home Stays across the three districts out of 193 registered Home Stays functioning in the State. Total Sample Size-80.

Research Methodology:

Personal interview through semi-structured questionnaire. Interaction with Tourism Department. Sample size covers included Home Stays operated under Government Scheme and by Private Entrepreneurs.

Major Findings:

- **Inspiration to Start a Homestay**
- Promoting village culture, tradition, food and the natural diversity of the locations
- A source of additional income over and above their normal earnings
- To take advantage of the favorable location of the village in terms of tourist flows
- **Home Stay Operators' Capacity**
- Educational qualification or any formal training is not a must to start the Venture
- Identification of beneficiary for allocation of Government Constructed Home Stays not linked to entrepreneurial capabilities
- Delay in construction of home stays under Government Scheme- construction work is generally awarded to Contractors Cooperative Societies
- No regular follow-up and monitoring leading to delays

- Home Stays run by Private Entrepreneurs were generally Constructed as houses initially & later one/two rooms were converted to Home Stays by providing attached toilet/bath facility
- Home-stays are taken up as an supplementary activity by majority of the sample covered
- Homestays (Government Homestays) which were initially operated in a Committee approach did not sustain due to non-functioning of the Committee
- PRIVATE Entrepreneurs who had educational background and who had formal training in tourism sector could earn better income
- Occupancy rate of such enterprises was also higher due to their ability to host webpages, advertise through travel related websites
- Room tariffs varied from Rs.650/day to Rs.5850 depending upon the location and facilities offered
- Even minimum room tariff is profitable, provided the tourist is regular and in large groups so that operators are able to take advantage of the economies of scale.

Major Recommendation:

- Infrastructure viz., all season good motorable roads must for increasing tourists foot falls
 - Erratic electricity supply hampers tourist morale
 - Net-work connectivity is poor in many location-needs to be strengthened
 - Banks need to streamline and simplify loan procedures
 - Nearest Airport and Railway Station are far-off. Need to expedite completion of Airport project in Gangtok
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Theme-16: Scope & Impact of Custom Hiring on Profitability of Small Farmers' Financial Viability of Agro Service Centers (Punjab)

Summary No.52

Profile of Student:

Name: Shubham Arora

Degree Programme: MBA

University/Institute: University Business School

Profile of Mentor:

Name: Dinesh Raina

Designation: DGM

Department: DFIBT, IDD, DOR-ST

Name of Regional Office: Punjab (Chandigarh)

Objectives of the study:

1. To analyze the hiring scope of custom hiring Services in Punjab
2. To understand the awareness of Custom Hiring Services in selected district.
3. To measure the impact of custom hiring on small and marginal farmers profitability.
4. To measure the relative benefits of custom hiring versus owning machines on farmer's income.
5. To look into the factors affecting custom hiring decisions among farmers of Punjab.
6. To know the detailed component wise expenditure of agro services.
7. To check the economic viability of Agro Service Center.
8. To assess the economic viability of Agro Service Center by NPV, IRR and CBR analysis.
9. To analysis performance of Agro Service Center from farmers' perspective.
10. To analyze the problems faced by Agro Service Center.

Limitations of Study:

The study includes analyzing the financial performance of 28 agro service centers from 7 districts. However, there are over 3000 agro service centers in 22 districts of Punjab. Though utmost care was taken in selection of sample with the use of quota sampling procedure, the difference in results will be expected if the numbers are taken for the whole State. The Percentage of marginal and small farmers in study was close to 66.6% while in Punjab 80% of total farmers are marginal and small farmers. Also a larger sample size of farmers might change the percentage of opinions. However, the use of open ended questions ensured that varied opinions were incorporated in the study.

Sample Design and Methodology: The selection of Sample was divided in three stages: Selection of District, Selection of Agro Service Center & Selection of farmers. The selection of districts was crucial in the research, as sample selected should reveal the diversity of custom hiring in Punjab. Based on data

obtained from the Registrar, Cooperative Societies, Punjab about the number of PACS running Agro Service Centers six districts namely, Ludhiana, Fatehgarh Sahib, SBS Nagar, SAS Nagar, Ropar, Patiala were selected for the study. Care was taken to ensure equal coverage to districts having Percentage of PACS running Agro Service Centers as well those with low Percentage.

Major Findings & Recommendations:

The agriculture sector in Punjab is characterized by over mechanization, resulting in a significant increase in fixed cost of farming, declining profitability, and relatively high levels of farmer indebtedness. At a time when most of the farm operations in major crops like wheat and rice have been mechanized, comparatively high cost of farm machinery are endangering the economic viability of farmers, especially of small and marginal farmers. The study reveals that there is greater awareness and demand for custom hiring.

The impact of custom hiring Services on profitability of small and marginal farmers was measured and it was found that those small and marginal farmers who takes a tractor and implements on custom hiring rather than owning, can earn up to 87 % more than those who owned machines / implements. Even if the small and marginal farmers purchase only tractor and other implements, they would still earn 48% more than those who own machines/ implements. Thus, custom hiring has a positive on small and marginal farmers.

But if a large farmer takes tractor and implements on custom hiring he/she can lose up to 20% that those who own machines/ implements. So, it is advisable for large farmers to use his / her own machinery for farm operation.

The maximum size holding for which benefits of custom hiring Services can be derived was measured at 9.38 acre.

Though there are some technical and non-technical drawbacks associated with the Agro Service Center if managed properly, they are likely to become viable since there is great demand of custom hiring and it has positive and significant effect on profitability of small and marginal farmers.

Thus custom hiring Services has a positive impact on small and marginal farmer.

The Agro Service Centers were started to provide the custom hiring Services of various machines to the farmers at appropriate times and at reasonable rates so as to reduce the fixed costs of farm operations and reduce the burden of capital investments. The study revealed that only six out of the total number of Agro Service Center studies, had BCR of more than 1 and IRR more than 15% further there were five Agro Service Center having BCR ranged between 0.8 – 1.0.

On deeper examination, it was observed that Agro Service Center, with BCR less than 1 suffered from the drawbacks viz. Injudicious judgment in purchasing machines, Unreliable Machine operator & Lack of Technical awareness among the Agro Service Center staff.

If the above drawbacks are addressed, Agro Service Centers are likely to become viable since there is great demand of custom hiring marginal farmers. Thus it can be concluded that if the Agro Service Center are managed properly, they can be viable activities.



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