

RESEARCH HIGHLIGHTS

2016-17



National Institute of Rural Development and Panchayati Raj

Ministry of Rural Development, Government of India
Rajendranagar, Hyderabad - 500 030, India

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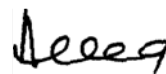
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Alka Upadhyaya, IAS
Director General
National Institute of Rural Development
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Hyderabad

FOREWORD

National Institute of Rural Development and Panchayati Raj takes up research studies across the country in order to achieve a set of objectives such as that of gaining first-hand insights about the requirements of rural population, process of rural transformation, implementation of flagship programmes of Government of India and assessing the impact of various schemes. These studies contribute significantly to knowledge creation on critical aspects pertaining to rural development, poverty alleviation, livelihood promotion, policy formulation, etc. The research findings provide a better understanding of the ground realities and give a clear picture of the prevailing situation as well.

In order to facilitate wider dissemination of the findings of the studies, NIRDPR is bringing out the annual publication of Research Highlights. With immense pleasure, I am presenting the Research Highlights for the year 2016-17. These studies are mainly related to social audit, social accountability, livelihoods, women empowerment, rural infrastructure, good governance and health & sanitation. The findings of these studies will be useful for policy makers, academicians and rural development functionaries to understand the ground realities.



(Alka Upadhyaya)

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Study on Compliance of Mahatma Gandhi National Rural Employment Audit of Scheme Rules - 2011

Dr. C. Dheeraja, Associate Professor & Head i/c, CSA

Introduction

Social Audit is an audit of Scheme/Programme that is conducted jointly by the government functionaries and the people, especially by those people, who were affected by or are the intended beneficiaries of such scheme. Section 17 of the NREGA mandates that regular social audits should be conducted in the Gram Sabhas at least once in every six months. To have a common understanding and uniform way of application of social audits in MGNREGS across the states, Mahatma Gandhi National Rural Employment Audit of Scheme Rules 2011 were notified in consultation with the Comptroller and Auditor General (C&AG) of India.

The rules have spelt out clearly who will facilitate social audits, the prerequisites for social audit, process of conducting the social audits, the roles and responsibilities of the officials at different levels and the actions to be taken and the cost of establishing the social audit units, etc. In this context the present study studied compliance of Mahatma Gandhi National Rural Employment Audit of Scheme Rules 2011 in all the 29 states.

Objectives

The Study was taken up with objectives like to assess the status of social audit units, their independence and functions and to analyse the challenges faced to adhere the Mahatma Gandhi National Rural Employment Audit of Scheme Rules 2011 in all the states.

Methodology

The study focused on the specific aspects like setting up of independent Social Audit Units, status of directors and governing bodies of Social Audit Units, notification of the calendar by the Social Audit Units, conduct of social audits in consonance with Audit of Scheme Rules 2011, recruitment of minimum personnel, submission of the quarterly report, Institutionalisation of monitoring mechanisms and the type of actions taken, awareness and transparency mechanisms followed, training of the social audit resource persons, preparation of formats, manuals, training materials, the roles and responsibilities of officials and social audit team, follow up actions of social audit-whether any recoveries, filing of criminal cases, disciplinary actions on the accused and timely disposal of the grievances, etc.

In all the states the officials of implementing MGNREGS and staff of Social Audit Units were met and information on the adherence to social audit rules was taken through a checklist.

Study Area: All 29 states

Findings

Establishment of SAUs

- Out of 29 states in 23 states, Social Audit Units are established. In Rajasthan, Haryana, Jammu and Kashmir and Goa, still social Audit Units are not in place
- In Maharashtra, Rajasthan, Haryana, Jammu & Kashmir, Goa, Tripura and Arunachal Pradesh independent society is not registered to do social audits
- For all the states registered under Society Act have Governing body. PAG is the member of the Governing Body in 19 states, i.e. Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Mizoram, West Bengal, Nagaland, Sikkim, Tripura, Telangana and Kerala have appointed three or more civil society representatives. Chief Secretary is the chairperson of the Governing Body in Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Meghalaya, Odisha, Tripura and Uttar Pradesh
- It's important for the SAU to have financial independence. The ability to sign checks should reside with the SAU staff and they should not have to depend on an external person either from the implementing agency or person holding additional charge. If this external person happens to be from the RD&PR department, then their level of independence could be further compromised. This is the case in the following states – Assam, Bihar, Gujarat, Himachal Pradesh, Jharkhand, Punjab, West Bengal, Odisha and Karnataka
- 11 states namely Andhra Pradesh, Assam, Chhattisgarh, Himachal Pradesh Jharkhand, Kerala, Maharashtra, Odisha, Punjab, Sikkim and Telangana followed the specified process for recruitment of the Director as per Auditing Standards (notified a selection committee followed by an open recruitment process) for appointment of Director
- In 21 states full time directors are in place – Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Mizoram, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttarakhand and Manipur
- Eight states have appointed civil society persons as Directors - Andhra Pradesh, Assam, Chhattisgarh, Jharkhand, Maharashtra, Odisha, Sikkim and Telangana

- 13 states have deputed government officers to act as Directors: Arunachal Pradesh, Bihar, Haryana, Kerala, Madhya Pradesh, Mizoram, Nagaland, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal.

Social Audit Resource Persons

- The SAU shall have an independent staff structure comprising State Resource Persons (SRPs), District Resource Persons (DRPs) and Block Resource Persons (BRPs) to facilitate Gram Sabha in the conduct of social audits
- The number of resource persons recruited by SAUs is adequate only in few states like Uttar Pradesh, Andhra Pradesh, Tamil Nadu, Telangana, Chhattisgarh, Karnataka and West Bengal.

Capacity building of SAU personnel

- MoRD, NIRDPR and TISS have developed a 30-day training module on social audit in MGNREGS. It was made mandatory that all state, district and block resource persons are supposed to undergo this certificate course. Total training cost is funded by MoRD. NIRDPR along with TISS trained the master trainers called Lead Course Coordinators (LCCs) and these in turn take up the trainings at SIRDs in each state
- SHG members are thought ideal candidates for facilitating Social Audit at the village level. A four-day training module has been developed for training Self-Help Group members to act as Village Resource Persons and thus creating a pool at village level.

Process of Social Audit

- The following states prepared an annual calendar – Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Punjab, West Bengal, Maharashtra, Meghalaya, Tamil Nadu, Tripura, Telangana, Uttarakhand and Karnataka
- From the 2,15,097 Panchayats reported by states, social audit was done in 88,293 (37%) Panchayats in 2016-17 and in 2017-18 till November, audits were done in 57,645 (24%) Panchayats
- Andhra Pradesh, Sikkim, Tamil Nadu, Gujarat, Karnataka and Telangana are the only states which are doing the audit nearing cent per cent at least once
- Block level public hearing is held in only 15 states - Karnataka, Uttar Pradesh, Telangana, Tripura, Odisha, Meghalaya, Maharashtra, West Bengal, Madhya Pradesh, Punjab, Jharkhand, Himachal Pradesh, Gujarat, Chhattisgarh and Andhra Pradesh

- In 2016-17, 5,25,876 issues were identified in social audits performed. But for only 43,849 (8%) issues action taken report was received. Total misappropriation amount reported was Rs.169 crore and the amount recovered was only Rs. 8 crore (5%). On 7,969 members actions were taken and overall, 240 FIRs were filled
- In 2016-17, approximately Rs.122 crore was spent by the Social Audit Units. The total MGNREGS expenditure in 2015-16 was Rs.44,002 crore. Thus, the percentage of money spent in 2016-17 (doing audits of works done in 2015-16) was 0.28 per cent.

There are many challenges faced by the Social Audit Units like independent status, funding, support and cooperation from the officials, action taken on the findings of social audit and lack of good MIS, etc.

Conclusion

- It is recommended that MoRD should hold joint review meetings with CAG, implement the recommendations of the task force committee, roll out good MIS, evolve common guidelines for recruiting the staff of SAUs, establish a national resource centre at NIRDPR, increase the funding to SAUs, support training programmes and cross learning practices, undertake pilots and test audits, etc.
- Few recommendations to SAUs include, they should get registered as independent society, should have independent governing body, social audit process to be followed as mandated in Auditing Standards, establish good transparency and accountability systems, correct the gender imbalances, should take up social audits of other schemes, should collaborate with civil society, ombudsmen and PAG, etc.

Social Accountability: Application of Citizen Report Card Method in ICDS Programme

Dr. C. Dheeraja, Associate Professor & Head i/c, CSA

Dr. K. Prabhakar, Assistant Professor, CGG&PA

Introduction

To counter the issues of under-five mortality, immunisation, underweight and malnutrition among the children, Integrated Child Development Service (ICDS) programme emerged in 1975 and became India's flagship nutrition programme. The ICDS aims at providing services to pre-school children in an integrated manner so as to ensure proper growth and development of children in rural, tribal and slum areas.

Goals and Policy framework of ICDS

- To reduce malnutrition in 0-6 year children
- Reduction of children with low birth weight
- To reduce Infant Mortality Rate
- To reduce Maternal Mortality Rate
- To educate mothers about nutrition & health
- To reduce anaemia, Vitamin A deficiency and Iodine deficiency among the Children below 6 years and mothers
- To improve the feeding practices
- To achieve the above goals Supplementary Nutrition Programme is provided to the children from 6 months to 6 years, pregnant and lactating mothers.

To achieve the said goals, ICDS provides following services:

1. Supplementary Nutrition Programme to pregnant and lactating women and children between 6 months to 6 years
2. Immunisation
3. Health check-ups
4. Referral services
5. Health and nutrition education to children, women and adolescent girls
6. Non-formal pre-school education to children

India's status on key child development and health indicators did not compare well with its own targets as well as with the neighbouring and other regions. The Infant Mortality Rate (IMR) was 48 for

1000 live births and the Child Mortality Rate (CMR) was 63 for 1000 live births in 2010 as against the targets of 30 and 31 respectively.

Social Accountability

In this context the present study is proposed to apply the Citizen Report Card method to assess the quality and accessibility of services provided under ICDS programme.

Social accountability refers to the various actions, tools and mechanisms that can be used by Civil Society Organisations (CSOs), the media, citizens and communities to hold elected public officials and non-elected public servants accountable. These tools complement and reinforce conventional modes and mechanisms of accountability, which include elections, political checks and balances, legal rules and processes and administrative regulations. The social accountability mechanisms, conventional and non-conventional, have increasingly come to play an important role in promoting good governance, development and social justice.

While the tools and methods of social accountability are diverse and varied, there are certain basic similarities. Common components include collection, analysis and dissemination of information, mobilisation of public support, advocacy and negotiation for change. Social accountability practices may also include enhancing citizen's knowledge regarding the conventional mechanisms of accountability and efforts to enhance citizen/ CSO participation in the 'internal' mechanisms of accountability (e.g. citizen involvement in public hearing and commissions). Social accountability mechanisms become extremely effective when institutionalised and linked to the various structures of governance and institutions involved in service delivery. Participatory Performance Monitoring, one of the social accountability mechanisms, refers to the involvement of citizens, users of services, or civil society organisations in the monitoring and evaluation of service delivery and public works. Participatory Performance Monitoring can make an important contribution to improving the quality of service delivery and reducing corruption and leakages in the system. Three commonly used methods of participatory performance monitoring are Citizen Report Cards, Community Score Cards and Social Audits.

Citizen Report Cards

Citizen Report Cards (CRCs) are participatory surveys that solicit user feedback on the performance of public services. CRCs can significantly enhance public accountability through the extensive media coverage and civil society advocacy that accompanies the process. Citizen Report Cards are used in situations where demand side data, such as user perceptions on quality and satisfaction with public services is absent. By systematically gathering and disseminating public feedback, CRCs can check state-owned monopolies that lack the incentive to be as responsive as private enterprises to their client's needs. They are a useful medium through which citizens can

credibly and collectively ‘signal’ to agencies about their performance and advocate for change where necessary.

Objectives

Using the CRC, an extensive assessment of the ICDS programme was done with following objectives:

1. To obtain feedback from parents and their children on the quality of services delivered in terms of accessibility, reliability and satisfaction
2. To obtain feedback from AWW/AWH on their assessment of the quality of services they provide in view of the trainings imparted to them, the infrastructure and support services provided to them
3. To assess the AWC in terms of adequacy and quality of infrastructure provided and their utilisation

To suggest measures to improve the initiatives in the direction of achieving the goal of ICDS.

Methodology

The study was conducted in five GPs of each state. In each GP, cent per cent anganwadi centres were selected. Sample comprised of lactating mothers, expectant mothers and children aged 0 to 3 years. Based on the number of beneficiaries the sample was fixed as 250 per state.

Survey instruments included interviews with officials implementing ICDS and beneficiaries (pregnant and lactating mothers, children up to three years) applying Citizen Report Card approach and Focused Group Discussions (FGDs) with the non-beneficiaries. Information was collected through structured data collection instruments (questionnaires) on the quality, accessibility and reliability of the services delivered under ICDS, infrastructure and support services available to AWW/AWH to deliver the services, satisfaction levels of the beneficiaries and non-beneficiaries regarding the services delivered and overall performance of the anganwadi centres.

Statistical and Qualitative techniques (percentages and cross-tabs) were used to analyse the data to understand the aspects involved in delivering the required services under ICDS, the constraints faced and the outcomes. **Service Delivery Index (SDI)** was developed. Content analysis was used to analyse the opinions, perceptions and satisfaction levels of the stakeholders at different levels.

Study Area

The study was conducted in three states based on the performance of ICDS. Planning commission has come out with Performance Index of ICDS taking into account the indicators like average number of days received Supplementary Nutrition Programme (SNP), percentage of children fully immunised, percentage of children able to write alphabets/words, percentage of women

reporting attended NHE meetings, percentage of mothers reporting seeking help from AWW when their child gets sick, percentage of mothers reporting received deworming tablets from AWC (Annexure-1). Thus, the states identified are Karnataka (highest performance), Madhya Pradesh (moderate Performance) and Rajasthan (lowest performance) Districts blocks and GPs were selected based on the same criteria.

Major findings

Awareness of /Access to ICDS scheme

Most respondents are aware of the various services available under the ICDS programme. Among various services availed at the anganwadi centre, supplementary nutrition, immunisation and health check-ups topped the list with maximum numbers of respondents availing these services under the ICDS programme. The least availed service was referral service.

Quality of services

Type of food received under the programme varied from state to state. The quality of the food supplied is rated high across the three states. Immunisation was another most availed service under ICDS across the three states. Both pregnant women and children have availed these services at the anganwadi centres.

Non-formal education for both health and nutrition have also been widely availed by the users. There is some variation seen in terms of user opinion on the usefulness of the education programme. Many users from Karnataka have not found this very useful in contrast to the opinions of users from other two states.

The service reach has been far from what is required. Many beneficiaries are not covered under the programme. The reason is not known however for this gap as reported by the anganwadi workers.

Problem Incidence and Resolution

It is delighting to note that the reporting of problem incidence is very negligible in all three states

Satisfaction with the services

Though the overall satisfaction reported by the users with regard to ICDS services has been good, among the three states, the complete satisfaction reported by users across various service parameters is generally low as compared to Madhya Pradesh and Rajasthan.

The sense of being able to serve children is one of the main motivating factors that keeps the anganwadi workers going in spite of various tasks they are required to do in their daily job.

Conclusion and Recommendations

The ICDS programme is being implemented well in the study area. The quality and quantity of services given are adequate. Most users are happy with the services received. The anganwadi workers are happy discharging their duties and have reported getting adequate support from users, peers and superiors. The satisfaction levels with the service delivery are encouraging. With some tweaks this programme can be made more successful and the set objectives can be achieved without much difficulty.

Some of the steps that can be taken towards improving the service and taking it to the next level are

- Since referral services are least availed, efforts must be made to build awareness among users about the availability and procedure to avail this service extended under the ICDS programme
- Essential infrastructure needs of the anganwadi centres have to be met such as electricity, water and toilet facilities
- Obtaining feedback from the current and past users of nutritional education service to understanding the gaps in actual content and ease in understanding the content to enrich the programme.

Compendium of Case Studies on Best Practices and Case-teaching material in Rural Development

Dr. Sonal Mobar Roy, Assistant Professor, CPGS&DE

Introduction

This is a compilation of some of the cases that emerged as ‘best practices’ and have been good enough for being replicated elsewhere. Case method is a powerful student-centered teaching strategy that can impart students/participants with critical thinking, communication, and interpersonal skills. Since the case studies are focusing on the best practices evolved, it is therefore important to understand what is meant by the same. Good practices tend to be effective, efficient, easily replicated by a wide range of communities facing similar constraints, responsive to real local needs and adaptable to specific local conditions. Programmes are sustainable if they are ecologically sound, economically viable, socially justifiable, culturally appropriate, humane and based on a scientific proposition. The compendium showcases the significant work done by the various rural development functionaries and experts in the fields. The topics covered in the compendium therefore stand to be of importance to the students of Post Graduate Diploma courses in National Institute of Rural Development and Panchayati Raj as they help in bridging the gap between theory and practice and help students become better RDM professionals. Also, it will be helpful to participants in various training programmes and would act as a workbook in various training programmes across sectors. This compendium highlights lessons learnt at the programme and field level and may be used as a resource for future initiatives under the Rural Development Programmes. The cases range from a wide spectrum, from factors that led to villages emerge as model villages, to issues of quality education, drinking water facility, access to health, education, justice and social accountability. This compendium provides a snapshot of initiatives undertaken in recent years, focusing on projects where valuable lessons could be drawn. Also, a few discussion questions are designed at the end of each vignette to help students.

Objectives

This study bank incorporates the achievements and experiences of different scenarios, institutional models, community mobilisation approaches, capacity building methods, convergence of schemes, innovative approaches, etc., from various regions in the country. It suggests ways of developing system for replication of these good practices at a larger level. The major objectives of this case study are:

- i. To identify and document the best practices in implementing the RD programmes at district/block/GP levels

ii. Draw lessons for replication from the ideal models anywhere else in the country by disseminating the best practices to achieve sustainable growth through execution of RD programmes.

Methodology

The methodology of compiling the compendium involved a mixed-method approach. From review of literature and government reports, to field visits in project areas, conducting personal interviews, the methodology was exploratory in nature. The instruments of enquiry such as interviews schedule and questionnaires were used and were mostly open-ended to gather qualitative inputs from the programme functionaries and beneficiaries. Tools to gather both qualitative and quantitative data were designed and implemented.

Parameters for a best practice would include:

- The initiative should have positively impacted a reasonably larger area at the minimum a Gram Panchayat or equivalent
- The initiative should be in operation for more than a year in the rural area
- The initiatives should be replicable and sustainable.

Study Area

The fifteen cases are from all across the country. The best practices were collected from Telangana, Chhattisgarh, West Bengal, Uttar Pradesh, Tamil Nadu and Andhra Pradesh.

Findings

The fifteen cases have been identified and acknowledged because of the

1. Case Study one: Making of a model village-Juvallapalem
2. Case Study two: Making of a model village through good governance-Hajipalli
3. Case Study three: Pure drinking water project at Jaigiri, Telangana state
4. Case Study four: Re-kindling of hopes, re-opening of school at Ontimamidipally
5. Case Study five: Nurturing the NextGen through Arogya Lakshmi and Supplementary Nutrition programme
6. Case Study six: Waste to Wealth-Solid Liquid Resource Management (SLRM) at Ambikapur, Chhattisgarh
7. Case Study seven: AWISH-Tele-clinics for the poor in Telangana state
8. Case Study eight: Organic farming in Ointimamidipalli
9. Case Study nine: A2J-Access to Justice in Barabanki, Uttar Pradesh
10. Case Study ten: SAI- Social Accountability Intervention Project in Sultanpur, Uttar Pradesh

11. Case Study eleven: Ingenious ways of overcoming credit shortage during demonetisation in Gosaba, West Bengal
12. Case Study twelve: Gantlavelli-Emerging of a model village
13. Case Study thirteen: Tank de-siltation at Ontimamidipally, Telangana
14. Case Study fourteen: Historical waste and garbage mining-cleaning garbage dumps
15. Case Study fifteen: ANMOL- New Digital Tool for India's Auxiliary Nurse Midwives.

Conclusion

It was seen that places where some motivation and handholding was provided by an NGO (such as Bala Vikasa and World Vision India), the interventions were successful. In such cases, the role of youth was commendable as they could connect with the changes envisaged. Where ever there was an enthusiastic leader, the interventions could see fruition as crowd-mobilisation had been a good strategy in achieving the goals collectively. From the gender lens, it was observed that women had better aptitude towards risk-taking. Women appeared to be better equipped for taking a decision and ready for changes. Technological interventions garnered more attention. Incentivisation boosts morale: be it an award, restoration of natural resources, high yields, better quality of health and education, etc. Moreover, crowd- sourcing definitely plays a strategic role in making a practice – ‘best practice’. All SDGs are mapped through one case or another. Thus, an attempt had been made to encapsulate the spirit of development in the true sense.

Impact Assessment of Andhra Pradesh Non-Governmental Organisations Alliance (APNA)

Dr. G. Rajani Kanth, Associate Professor & Head i/c, CWE
Dr. S.V. Rangacharyulu, Sr. Resource Person, CWE
Er. H. Kurma Rao, Project Consultant, CWE
Dr. P. Anuradha, Assistant Professor, CWE

Introduction

The implementation of Mahatma Gandhi NREGS demands a broad-based approach and emphasises on institutional promotion and this has been one of the prime concerns of States. In this background, the Government of Andhra Pradesh constituted **Andhra Pradesh Non-Governmental Organisations Alliance (APNA)** comprising 253 NGOs in 428 Mandals with a view to empower them to fully utilise the entitlements provided under MGNREG Act in order to ensure transparency and accountability at all levels in the implementation of MGNREGS.

Objective

The basic objective of the study was to assess the impact created by APNA on rural poor in terms of providing access to their entitlements under MGNREGS.

Methodology and Study area

The coverage of various sampling units for the study are as follows: 57 NGOs (drawn in proportion to the number in each of the 13 districts in the state), 86 Community Resource Persons, 1189 scheme mates, 101 GP Samakhyas, and 75 officials.

Summary of Findings and Conclusions

- The participating NGOs under APNA scheme are required to ensure that the workers received their wage in 15 days of participation in the scheme. Although the position was not discouraging at the overall level, 11 NGOs (out of 57 NGOs studied) have to focus on this issue
- Another issue which is of serious nature is irregular payment of salary to the CRPs. Out of the 70 CRPs who responded to this question, 16 CRPs did not get their salary in 2016 (the field survey was done in October- November of 2016). As abnormal delay in payment of salary will demoralise the CRPs, necessary measures need to be taken to rectify the problem
- Besides ensuring the workers of the scheme got employment for longer durations, the

NGOs are also required to ensure that the workers got access to facilities including food security, health aspects, housing and education. But the evidence emerging from analysis is not encouraging- not more than 45 to 50 per cent of the NGOs interviewed could attend to these. More efforts are required

- The *Shram Shakti Sanghas* (SSS) group meetings were being held without any specific periodicity. Though some mates expressed the view that no exclusive meetings may be warranted as the both workers and mates meet every day at the work place, holding the meetings needs to be more formalised- as it is, in about 10 per cent of the cases (out of 1189 mates), no meetings were held during 2016
- Another issue that needs the attention of NGOs (and of course their CRPs) is that not more than four per cent of workers could complete 100 days of employment
- There was a complaint from all most all groups of respondents interviewed for the study that the workers were not getting the minimum wage (of Rs. 194). In fact, the study shows varying figures for different groups of respondents, namely NGO, CRP and GP Samakhya, but these figures hover around Rs.150. This is mainly because of two reasons-first, due to low productivity of the worker and second, clocking in smaller hours (researchers were witness to a situation in some places in the field where the workers work for MGNREGS in the forenoons only and afternoons, they get engaged in some other occupations- both paid and unpaid). The CRPs and mates need to explain to the workers that the minimum wage is possible only when both the requirements are met
- Under the guidance of CRPs, three committees need to be formed with workers as members and they are muster roll read-out committee, facilities monitoring committee, works monitoring committee and the position leaves much to be desired. The performance (in terms of their meetings and also the tasks accomplished against those set) in respect of any of these three aspects is not more than 40 per cent across the state. As these committees play a larger role in ensuring that the entitlements as envisaged in the act reached the workers group, it is imperative to pay due attention to this issue
- Though there is substantial reduction in the incidence of the contractors participating in MGNREGS works or use of machinery, still efforts need to be made to bring it (the incidence) to 'zero' level
- Another important issue is delay in payment to CRPs in some cases. A system needs to be put in place towards addressing this issue. Equally important in this regard is

the fact that a relook is necessary at the quantum of money paid as salary to the CRPs. The amount of Rs. 3,500 which was fixed at the time of conceptualising and implementing APNA was being followed even now. And, if we go by our field observations, there is a cut in this amount to the extent of about Rs.1,000 by NGO in some cases. In this background it is unfair on to expect good quality work from the CRPs. Whether direct payment of salary to the CRPs bypassing the NGO would be feasible is a moot question.

- It is not fair to tar all participating NGOs with the same brush- some NGOs are really doing good work in the name of APNA scheme. It is also learnt that they pay the salaries to the CPRs from their funds when timely fund-support is not received from the higher authorities.

It is also necessary to closely monitor the work of CRPs/NGOs and towards this a checklist focusing up on half-a-dozen critical indicators that reflect the performance of CPRs/NGOs may be developed and administered bi-monthly. The APO in-charge of MGNREGS should be given the responsibility of this exercise and PD, DWMA should call a meeting of all participating NGOs in his/her jurisdiction (district) once in six months and inform the laggards to improve their performance. In the same breath, NGOs showing outstanding performance may be given some incentives.

Further, the following is the gist of actionable points on various issues:

S. No.	Aspect	Position	Remarks/Action required
	A. NGOs		
1.	Role of NGOs in securing / ensuring the following:		
	-Food security	50 per cent	Calls for some attention of the NGOs
	-Right to Education	54.4 per cent	
	-Health aspects	54.0 per cent	
	-Housing benefits	46.0 per cent	
2.	Receipt of wages by workers within 15 days of participation in work		
	Pre APNA period	8 NGOs	
	Post APNA period	46 NGOs	Needs improvement
3.	Impact of training programmes of NGOs	Larger impact at the GP level in terms of proper planning of the schemes to be taken up for the benefit of the community	Very heartening

4.	Problems faced by NGOs		
	Wage seekers are reluctant to come for the meetings at GP level due to low wages	More efforts are required to ensure that the workers clock eight hours a day	
	Political interference in MGNREGS activities	To be looked into	
	Abnormal delay in payment of wages	To be looked into	
	Non-cooperation from the government officials especially the field assistant and the technical assistant	The government staff need to be informed that they should cooperate with NGO for better results from MGNREGS	
	Pressure from the sarpanch in electing his own persons as the office bearers of GP and mandal samakhyas	To be looked into	
	Demand of the workers for increase in the employment days	Possibility may be examined	
	Non provision for payment of TA and DA to the GP Samakhya representatives for attending meetings at mandal level and	Possibility may be examined	
	Indifferent attitude of APOs in strengthening the activities of federation, etc.	To be looked into	
5.	Whether the alliance in the form of APNA should be continued?	41 out of 57 NGOs said 'yes' (72 per cent)	Many expressed favourable opinions about the need for continuance
B. CRPs			
6.	CRPs reporting a salary of Rs. 3,500	80 per cent	This is the amount prescribed
	CRPs reporting Rs. 3,000 salary	20 per cent	Needs to be looked into
7.	FTA of Rs. 1,000 paid by NGO	A very few NGOs	NGOs are paying on their own
8.	Number of CRPs who got salary in 2015 latest (prior to 2016)	16 out of 70 CRPs	Very unsatisfactory situation- needs to be looked into
9.	Average wage earned by workers	Rs. 151.39	The workers need to clock more working hours
10.	Problems faced by CRPs		
	Irregularity in payment	Almost 100 per cent	Needs to be looked into on priority basis
C Mates			
11.	SSS group meetings are held on monthly basis	46 per cent	Action needed
12.	SSS groups that took membership in GramSamakhya	79.5 per cent	The gap needs to be bridged
13.	Each worker got Rs. 138. 28 on an average per day in 2015-16 against a minimum wage of Rs. 194	The workers should work eight hours a day as per the requirement	
14.	Not more than four per cent of workers completed 100 days of employment	NGOs and CRPs should pull their socks	
15.	Presence of contractors- pre APNA- 16 per cent		

	Presence of contractors - post APNA - 0.4 per cent		To be brought down to zero level
16.	Incidence of use of machinery- pre APNA- 0.5 per cent		
	Incidence of use of machinery- post APNA- 0.9 per cent		'zero' should be the target
17.	Access to checking the muster roll by workers/mates- pre APNA- 44 per cent		
	Access to checking the muster roll by workers/mates- post APNA- 88 per cent		Though position is good, the existing gap of 12 points also needs to be bridged
18.	Average per day- Pre APNA – Rs. 146		
	Average per day- post APNA- Rs. 189 (as against a minimum wage of Rs. 194)		The situation calls for improvement
19.	Average number of days of employment- post APNA	71.3 (days)	Does not appear to be realistic
20.	Issuance of acknowledgement when the demand for work is registered	Less than moderate	Calls for a critical review
21.	Percentage of mates comfortable with the present assignments	100 per cent	Very good
22.	Life style improvement among workers due to MGNREGS	85 per cent reported favourably	Veryimpressive
23.	Reasons for discontinuance of APNA (remaining 19 per cent)	CRPs hardly make visits	NGOs should make a note of it
	D. GP Samakhya		
24.	Implementation of MGNREGS is as it was- no improvement -Even earlier, the workers were aware of the provisions and therefore no significant change is visible in the villages -Interest of staff of NGOs has waned due to non-receipt of funds	24 per cent	The interest of the NGOs has waned mainly due to non-receipt of funds- to be looked into
E. Officials			
	Reasons for continuing alliance: NGOs could create awareness about the rights and entitlements-NGOs could mobilise works for participation in the scheme NGOs are serving as good liaison between government and the workers Workers are able to get access to muster rolls reasons for continuing alliance: NGOs could create awareness about the rights and entitlements-NGOs could mobilise works for participation in the scheme NGOs are serving as good liaison between government and the workers Workers are able to get access to muster rolls Employment levels have gone up		

25.	Reasons against continuing alliance: -NGOs have already brought about changes in the mind-set of workers -CRP, being a part time worker for MGNREGS, is not able to do justice to the scheme. CRPs themselves are not well informed in regard to entitlements, changes in the guidelines etc.- need orientation		To make a note of it
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The study has thrown a mixed bag of both good performing NGOs and not so impressive NGOs. Whatever be the case, the interventions made through APNA have their impact in promoting grassroots level institutions under Mahatma Gandhi NREGS. The state of Andhra Pradesh is in fact one of the pioneering states in promoting SSS Groups and they were adequately nurtured through creation of APNA. Now the SSS groups have to go on their own steam instead of looking further towards APNA. This being so, further continuance of APNA may not be result ing in any extra value addition.

Mahatma Gandhi NREGS Assets: Its Comprehensive Assessment

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Introduction

India has witnessed many programmes and schemes in the past to reduce unemployment and alleviate poverty in the country. This resulted in the growth of Indian economy, but there are specific pockets in the rural areas which need special attention. Of late, the unemployment rates have been rising and hovering around 8 to 10 per cent. To address the issue in the right earnest, Government of India (GOI) has been introducing a number of wage employment programmes. However, owing to the top-down approach of implementation and lack of community participation, these programmes have not performed to the desired extent. In this background, with a view to achieving inclusive growth, GOI has opted for an intervention which is rights-based in its character. In keeping with this, the Indian Parliament has enacted the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in 2005, which came into force in February 2006 and towards implementing this act, a scheme known as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) was introduced.

The significant trends that have emerged during the last 12 years of MGNREGS implementation evidently indicate increase in employment opportunities and market wage rates and reduction in poverty. Studies show that MGNREGS has helped in restoring ecological balance and creating assets for the country on the one hand, it has helped the needy in getting guaranteed employment on the other hand it became a safety net to the vulnerable sections and the needy.

MGNREGS is the largest public works employment project in the world. Its most direct poverty reduction pathway is through boosting employment and income for the poor. MGNREGS gives the government an opportunity to address the prolonged issue of rural infrastructure neglect by creating watershed development, restoration of water bodies such as tanks and canals, activities aimed at forestry, land development, and soil erosion and flood control, construction of roads, and drought proofing measures like afforestation, etc. Thus, the focus of MGNREGS is not just to provide employment alone, but to create assets useful to the community, which serve as a livelihood-base for the rural poor.

National Rural Employment Guarantee Act, 2005 had emphasised on permissible works which have been grouped into eight categories of works, which are listed as here under:

- (i) Water conservation and water harvesting
- (ii) Drought proofing (including afforestation and tree plantation)

- (iii) Irrigation canals including micro and minor irrigation works
- (iv) Provision of irrigation facility, horticulture plantation and land development facilities to land owned by households belonging to the Scheduled Castes and Scheduled Tribes or below poverty line families or to beneficiaries of land reforms or to the beneficiaries under the Indira Awaas Yojana of the Government of India or that of the small farmers or marginal farmers as defined in the Agriculture Debt Waiver and Debt Relief Scheme, 2008;
- (v) Renovation of traditional water bodies including desilting of tanks
- (vi) Land development
- (vii) Flood control and protection works including drainage in water logged areas
- (viii) Rural connectivity to provide all-weather access
- (ix) Other categories of works

Further, in the financial year 2008 Operational Guidelines were revised. The Act has expanded the list of permissible works by including another eight categories of works to enhance the employment opportunities so that every registered household would be able to achieve 100 days of employment.

Objectives

The specific objectives for the study were:

- To study the reactions of the stakeholders to the quality, timeliness of completion and usefulness of the assets
- To examine the role played by the Panchayati Raj Institutions in the maintenance of the assets and
- To identify the states which need to ensure quality in the assets further

Methodology and Study Area:

The study was carried out in two sets of states. Chhattisgarh and Jharkhand are specifically chosen on the basis of predominant tribal population, high incidence of poverty and also quantum of assets generated. The second set of states include Uttar Pradesh (Bundelkhand region) and Maharashtra (Vidarbha region) where the assets generated have huge impact on livelihood scenario due to deficient rainfall.

Sample Selection

District Selection

Multi-stage sampling was followed for selection of districts, blocks and GPs. From each state two districts were selected and the selection is based on the quantum of assets generated. Following this procedure, top two districts (occupying the first two positions in the number of assets created) were selected for the study.

Block Selection

In each of the selected districts, two blocks were drawn randomly. **Gram Panchayat Selection** From each block, two Gram Panchayats were drawn keeping in view the diversity in assets created. Ecological concerns were also given due importance in the selection of GPs.

Asset Selection

For the assessment of the impact of the works, from each sampled Gram Panchayat, up to 15 works (assets) were drawn from the number of assets that were completed in the last five years. While drawing this number, care was taken to ensure that they come under different work categories.

- 8 districts (2 Districts in each state)
- 16 Blocks (2 Blocks in Each District – 2X8)
- 32 Gram Panchayats (2X16)
- 480 Works (15X32)

Thus, in all, the study covered 480 assets.

To seek the reactions to the quality and other aspects of the assets created, 50 stakeholders from each GP have been covered, out of whom about 40 are the workers of MGNREGS (some of whom might have worked for the sampled assets) and the rest represent a cross-section of the community (key informants, caste leaders, members of GP, etc., but not the officials who are either or directly involved in the implementation of works for creation of assets).

Summary Findings and Conclusion

A. Quality of assets

- Cat-B assets stand apart in so far as the reaction of the sample respondents is concerned with a satisfaction score of 83 percentage points. Next comes in order is cat-D works with 72 per cent satisfaction score. In rating, the least is cat-A works.

- Chhattisgarh assets of cat-A were perceived to be having better quality than assets in other states. However, in cat-B Maharashtra emerges as the best one. In cat-D assets, there is a tie between Chhattisgarh and Maharashtra.

B. Timeliness in completion of works

- Cat-B and cat-D works are almost on par in so far as timeliness in completion of works is concerned (about 74 %). Of the three categories of works studied, cat-A lags behind other two categories in so far as adherence to the timelines set for completion of works. This is possible as cat-A works are larger in magnitude and as such time over-runs could be common.
- States do depict variation in the perception scores- Chhattisgarh and Uttar Pradesh top the list with about 80 per cent rating score, Jharkhand lags well behind other states in respect of this dimension.
- Gender differentials are less conspicuous in any of the four states-- both male and female respondents perceive alike in regard to adherence to the timelines set for completion of works.

C. Usefulness of the assets created

- The perception on usefulness of the assets is relatively higher for Cat-A assets as compared to either Cat-B or Cat-D assets
- State wise perception scores differ among the work categories and the variation is highest in respect of Cat-A works
- Gender wise, females of Chhattisgarh, Jharkhand, and Uttar Pradesh are ahead of male respondents in their respective states (except for Maharashtra where males' perception on usefulness is higher). It may be noted that this comparison is made regardless of the nature of assets created in a particular state. Similarly, it is interesting to note that perception scores of males and females of a given state on usefulness also differ despite the fact the perception is on the same set of community assets (of a given state) created under rural infrastructure.

D. Current status of the asset

- Individual assets yield larger rating at 78 percentage points as compared to other two categories cat-A with 75 per cent and cat-D with 76.5 percentage score, the reason being the beneficiaries are taking larger care as they happen to be individual assets

- The status scores vary across states for a given category and also among categories. In respect of cat-A, the difference is 13 units which is the lowest difference of all the three categories (Maharashtra 80 points and Uttar Pradesh 73 points). The highest difference of 21 percentage points is noticed in cat-B (Chhattisgarh 86 points and Jharkhand 65 points) while cat-D presents a relatively moderate picture with 16 percentage points difference (Chhattisgarh 87 points and Jharkhand 71 points). This shows that the authorities concerned need to pay more attention for cat-A assets in Jharkhand and Uttar Pradesh, Jharkhand for cat-B assets and Jharkhand and UP for cat-D works
- Gender differentials are not significant in a given state they almost tally with the state picture.

Maintenance of assets by GPs:

As regards cat-A works which relate to water harvesting and water conservation and cat-D works pertaining to creation of rural infrastructure, GPs in Chhattisgarh and Maharashtra play a significant role if we go by the study results. But such an initiative is not coming forth from the GPs of Jharkhand and Uttar Pradesh. It appears imperative that these two states also need to take the responsibility of maintaining the assets created under cat-A and cat-D. (as cat-B works are taken up at the individual level, the role of GP is quite minimal in maintenance).

Demand Capturing and Facilitating Access to Potential Wage Employment under Mahatma Gandhi NREGS: An Exploratory Research in Nalgonda District, Telangana

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Introduction

As MGNREGA is a right-based programme, participation of the community enriches the spirit of the programme. The Act empowers ordinary people to play an active role in the implementation of employment guarantee schemes through Gram Sabhas, social audits, participatory planning and other means. Various rights and responsibilities enacted under the Act drive home the fact that the works taken up under the scheme have rich participation from all sections of the society who desire wage employment as well as the villagers in general since the works taken up help strengthen rural livelihoods. However, many factors are responsible for lower participation of wage seekers in the recent past and one of the prime reasons often quoted is lack of awareness on various provisions under the Act. The crucial aspect in this regard to provision of wage employment is based on the demand from the wage seekers. Further, several of the 'rights' provisioned under the Act for Wage Seekers require threshold level of awareness to access the wage employment through the processes laid down in this regard.

It is often observed and also reported in the existing literature that some of the needy wage seekers are unable to access the wage employment opportunities due to lack of information and also their participation in planning of works and other aspects have also been quite low. As a result, the purpose of the Act is being defeated and the targeted wage seekers take recourse to migration in search of wage employment. Lack of awareness on procedural issues among wage seekers due to their low level of literacy, low capacity building initiatives among the cutting-edge level functionaries and so on are often cited as causes for less demand for wage employment.

Given this scenario, it is opportune time for the Centre for Wage Employment to venture into practical action and facilitate better and improved access to wage employment opportunities for the registered wage seekers under the Act. Such exploratory research enables the faculty to understand the ground realities that are thwarting the better access to wage employment among the targeted community and also the study area acts as **social platform** to experiment with ways and means of community mobilisation and facilitating social interactions to generate awareness among them and utilise opportunities concerned. The action research interventions also provide an opportunity of

Objectives

The objectives of the exploratory research study are:

1. Sensitise the wage seekers on 'rights' and 'responsibilities' provisioned under the Mahatma Gandhi NREGA
2. Promote collective action to reflect demand for wage employment
3. Enable wage seekers to form into SSS (Shrama Shakthi Sangas) groups
4. Enable wage seekers to participate in the processes of Mahatma Gandhi NREGA and
5. Facilitate households to access 100 days of employment.

The interventions of the study are more meaningful in an area where the active job cards are more and yet the access to employment days is minimal or low. In other words, an area which is having more active job cards reflects the need for wage employment and, on the other, the incidence of low access to employment days denotes unfulfilled demand from wage seekers.

Accordingly, based on the statistical profile available, Nalgonda district in Telangana is selected for the study since the district possess 8.88 lakh job cards and, out of which, as many as 4.86 lakh job cards are active. However, in terms of employment days accessed the district fared low with only 37.56 days of employment. Based on the same parameters of high active job cards and low access to employment days, **Penpahad Mandal** is selected wherein the active job cards are high (out of 13,115 job cards in the mandal, as many as 9,497 active job cards (72.41%) were registered but the average employment days is only 33.14 days. Within the Mandal, two Gram Panchayats, viz. **Dupahad and Gajulamalkapuram** are selected since both the GPs possess high percentage of active job cards but low access to man-days of employment.

Summary Findings and Conclusion

There is conflict among the wage seekers at Gram Panchayat with MGNREGS staff on rate of measurement, underpayment of wage structure for work assigned at onsite. The online database shows that the wage expenditure being larger than material component, but whereas there is no transparency and lack of access to database of wage seekers, where no receipts were issued at post office after wage payment.

Still on average a 45 days of wage seekers payment is pending with the MPDO, Devarakonda, as per the reporting from ground level. The feedback redressal mechanism of MGNREGS is critical and complex where there is no acknowledgement receipt for grievances.

Intervention Made: Rate of payment and measurement of work at onsite

Next Intervention

- To monitor the Gaps addressed in previous session, to supervise the measurement of work and rate of payment
- To effectively conduct field demonstration on measurement of work. Conflict resolutions on delay payment issues
- To conduct training and field exposure on different works executed
- To conduct measurement and rate of payments sessions at adjoining villages to ensure transparency in measurement.

Capacity Building Measures for MGNREGS Wage Seekers

- Local field exposure should be part of material expenditure under learning and sharing knowledge on best practices on MGNREGS Works
- Innovations in MGNREGS Should be encouraged among the youth and adolescent group to take part in village development plans and developing good governance practices for smart villages.

Horticulture Schemes under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in Telangana

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Introduction

Given the category of works taken up under Mahatma Gandhi NREGS, many a state embarked upon promoting land development along with horticulture development and the principal idea behind this is sustainable development in view of the expected consistent income generation through horticulture plantations over a longer period of time. Government of Telangana is one of the pioneering states in this regard to lay emphasis on land development and then dovetailing the same with promoting horticulture plantations.

Objectives

The objectives of the study were:

1. To identify the nature of activities taken up under horticulture scheme
2. To understand the nature of convergence between horticulture and MGNREGS
3. To assess the impact of convergence in terms of improvement in the survival rates of plants and plant yield rates
4. To identify the social groups that benefited more from the horticulture scheme
5. To suggest measures for better implementation of horticulture scheme.

Methodology

The study was taken up in all the 29 districts in Telangana (excepting Warangal urban and Hyderabad districts) and from each district a mandal was drawn randomly. Even for selection of one Gram Panchayat from each of the selected mandals, the same procedure is followed. As regards selection of horticulture beneficiary households, a sampling frame consisting of all households covered under the horticulture scheme in the selected GP during the period 2007-08 to 2012-13 was prepared. And, a sample of 10 households, wherever possible, from a GP was drawn for the purpose of the study.

Study Area

The study covered 29 districts except Hyderabad and Warangal urban districts. A total of 29 mandals, 29 GPs and 267 horticulture growing farmer households were included in the study.

Summary of Findings and Conclusions

- As regards the socio-economic background of the sample beneficiaries, out of 267 farmers, slightly over four-fifths are male members, about half the sample are illiterate, over one-third are OBCs and 30 per cent are SCs by their caste and 50 years old on an average
- Interestingly, the percentage of households having irrigated land is higher (214 out of 267 or 76.4%) than households having dryland (55.8 per cent). Each reporting household has 3.18 acres of irrigated land and own (irrigated) land forms the major chunk (96%)
- Each farmer in the sample has taken up horticulture in an extent of 1.80 acres on an average and the group where convergence of MGNREGS is reported with land development and irrigation registers the largest extent of 2.14 acres, very closely followed by the group with convergence with irrigation. Thus, horticulture farmers where convergence with irrigation happened have larger extents under horticulture than others (without convergence)
- Not only mango, as the analysis shows, other species including guava, lemon, palm oil and sweet orange are the species planted under MGNREGS and out of these, mango accounts for 80.5 per cent of the farmers, while sweet orange, the next important species, was taken up by 11.6 per cent of the farmers. Of the five species, palm oil is with lowest percentage of farmers of just two per cent and guava and lemon are with three per cent each
- Convergence between MGNREGS and horticulture was reported in 123 cases (69 cases only for land development and 54 cases for land development and also irrigation). But in the first group, cent per cent of land (105.26 acres) the farmers possessed was taken up under land development programme while only 94.0 per cent of the land has come under convergence in the second group
- According to about one-fourth of the farmers in this group, farm bunding must be given larger emphasis than at present. Some farmers were of the view that there should be greater efforts to ensure that what all activities are required on the land should be taken up in a comprehensive way, instead of taking up only one or two activities in a piece meal way; and then only the land will become fully suitable for horticulture scheme
- The horticulture farmers in whose case convergence between horticulture and MGNREGS is reported in the form of land development participated in land development activity and earned some wages. Each farmer got on an average 15.08 days of employment attributable to land development
- An extent of 480.43 acres of land was under horticulture scheme among the sample famers, of which 37.2 per cent was brought under irrigation in the form of convergence between the horticulture scheme and MGNREGS
- Out of 89 farmers, 83 farmers (93.3%) got drip equipment while the remaining six farmers got open well, bore well, farm pond, percolation tank, water recharging pit and feeder

channel, one each. The drip equipment was supplied under Micro Irrigation Project (MIP) except for three farmers who got the equipment directly from MGNREGS. Besides extending technical assistance about how to use the equipment, subsidy was also reported in 12.4 per cent of the farmers. In a few cases, chipping in the cost of drip equipment by farmers was also reported

- The crops grown under horticulture scheme have some gestation period and therefore, the farmers grew some intercrops too which fetched them some money in the meanwhile. Groundnut and vegetables are reported to have been grown by 65 farmers (29.4%) and vegetables by 12 farmers (5.4%). But other 64 farmers were growing other crops as intercrops.
- As many as 35,255 plants of non-teak species were supplied to 267 study farmers by horticulture department (under MGNREGS) and of these only 11,284 plants survived resulting in a (low) survival ratio of 32.0 per cent. But the survival ratios are relatively higher for categories where convergence with land development and irrigation departments (separately) was reported and between these two, convergence with irrigation department has proved to be more beneficial. The respective survival ratios for these two categories are 50.5 and 41.8. This shows clearly that convergence has helped in achieving higher survival ratios of the plants that were supplied by horticulture department.
- Besides the plants of non-teak species, teak plants were also supplied to 38 farmers in the total group of 267 farmers and the total number of plants was 9,760 of which 4,811 were reported to have survived (50.1% is the survival ratio) and this ratio is higher as compared to the corresponding figure of 32.0 for non-teak species by about 18 percentage points. But, unlike in the case of non-teak species, the convergence with either land development or irrigation did not help much. This throws up a question - why then convergence helped in non-teak species only but not teak species. It could be possible that water from the source under convergence was available when non-teak plantation was taken up/raised. Not with standing these problems, teak plantation holds more promise than is the case with non-teak species
- All the farmers who got plants from horticulture department were not comfortable with their (plants') quality and therefore some preferred to supplement the lot/stock given by horticulture department by the plants (of non-teak species) of their own choice and such number was 46 (17.2% in the total sample) farmers. The total number of plants of non-teak species planted by these farmers was 4,811 but among these plants the survival ratio is higher at 71.6 per cent and this is higher by about 40 percentage points than the plants supplied by horticulture department. Here, though convergence of horticulture department

with irrigation shows higher survival rates, the higher percentage is perhaps attributable to the quality of the plants only.

- The convergence of horticulture with irrigation helped in improving the survival rate of plants mostly in respect of non-teak species, either supplied by the horticulture department or procured by the farmers themselves
- But the survival rates computed for each period depicts a different picture. While the survival rate of plants (of non-teak species) in the overall group is 41.6 per cent, survival rate of period-1 (2007-10) is higher by about six percentage points (than the overall group). Not only this, period-2 (2010-13) lags behind period-1 in survival rate by 15.6 percentage points. This means that our hypothesis that older plants (period-1) would register lower survival rate has been rejected. What could be the reason for this huge difference? Is it because the farmers in the first group have got the 'convergence' advantage with irrigation department and the answer is partly yes. Second reason could be that the quality of plants supplied in period-1 is better when compared to that of plants supplied in period-2
- As for productivity of horticulture crops, the group (68 farmers) as a whole got 1,376 quintals and the productivity is of the order of 9.69 quintals per acre and it is to be noted that this a combined figure of all crops grown under horticulture scheme. Converted into monetary terms, each farmer got produce worth Rs.36,791 and per acre returns from the produce *per se* are Rs.17,364. Besides, 14 farmers reported in this year income from intercrops too. All sources put together, the average income per farmer in the group of 68 farmers works out to Rs. 40,514 and average income per acre from horticulture scheme from all sources is Rs. 19,407.
- Can the scheme be seen as the one which will ensure consistent flow of income and can it also be seen as a drought proof measure, etc.? As for the responses of 68 households on 'consistent flow of income', except for about 13 per cent of households, others gave a favourable response. In the view of 47 per cent of households, the flow was moderate while in the case of the remaining 40 per cent the flow is either significant or very significant. Further, according to 90 per cent of farmers, horticulture can be seen as a drought proof measure
- In regard to the suitability of soil, not much of a difference in the percentage is noticed. Almost both the groups (production reporting and no-production reporting) reacted uniformly to this aspect. This means that suitability of the soil cannot be a factor that determines the failure or success of the horticulture scheme

- But technical advice appears to be a critical factor that determines the success of horticulture scheme. In the 'no production' group, as high as 80 per cent were **not satisfied** with the technical advice offered while in the case of 'production group' the corresponding figure is 65 per cent. Thus, technical advice received by the farmers emerges an important factor that determines survival rate of the plants
- In the total operational land of 1,198. 54 acres (both dry and irrigated land put together), an extent of 480.43 acres was brought under horticulture and this forms 40.1 per cent. But only 149 farmers reported survival of the plants in 60.2 per cent of the total area under horticulture. This means that in an extent of 191. 04 acres, the horticulture scheme failed. Even in the area where survival was reported, only 49.1 per cent recorded production of the crop. Thus, the wastage of efforts and resources are to the extent of 39.8 per cent (where plants did not grow at all). However, the remaining part (between the area where survival is reported and the area where production started) of 147.43 acres is expected to be coming under the production stage in course of time
- This only suggests that the success of horticulture scheme can be seen from different angles-percentage of farmers that reported survival of the plants and in this study it is 55.8 per cent, percentage of area where the plants survived in the total area under horticulture (60.2 per cent) and lastly percentage of area which reached production stage in the total area where the plants survived (49.1 per cent). But if we take the percentage of farmers that could reach the production stage in the total sample, the figure is just 25.5 per cent only
- The failure of horticulture scheme is not attributable to lack of water in the source alone - while this is the reason as mentioned by a large majority of sample farmers, supply of poor-quality plants, inadequate extension help and disinterest in the horticulture plantation among farmers are also other reasons.

Impact of MGNREGS on Socio-Economic Conditions of Rural Households in Telangana State

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Introduction

In the realm of Rural Development initiatives across the country, the enactment of Mahatma Gandhi National Rural Employment Guarantee Act (NREGA) in the year 2005 and its implementation effected in 2006 is the most important phenomenon. The Mahatma Gandhi NREGA ensures guaranteed wage employment for a minimum period of 100 days for a household which registers under the Scheme. Various other provisions like payment of wages through post offices or banks, work-site within 5 Km distance, work-site facilities, equal wage, payment of minimum wages, payment of wages within 15 days, Social audit, etc., made the scheme one of the unique and pioneering ones in terms of poverty alleviation. Massive allocation of grants under the scheme made its presence more emphatic across the rural areas. Additional interventions in the form of convergence with other line department activities/schemes and specific category of works to be taken up, etc., made the scheme spread across every nook and corner of the country. The rural poor, who largely consist of agricultural labourers, small/marginal farmers, etc., have been in the fore-front in regard to accessing the scheme and improving their social and economic conditions.

The government of Telangana is one of the pioneers in implementing the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in terms of works taken up, number of wage seekers provided with employment, etc. The State has emerged as one of the consistent performers in terms of implementing all provisions under the act. The convergence activities and quality of scheme implementation made the State ensure the rural poor access the benefits from the scheme. Since the scheme was being implemented for the last ten years, it is appropriate to assess the impact of the scheme on socio-economic conditions of rural poor, who are accessing the wage employment opportunities and other benefits from the scheme.

Given the scheme interventions, especially the wage employment provided to the households as well as a host of natural resource improvement measures, it is expected that the targeted households will benefit from the scheme by participating as wage workers. Besides, the measures taken for improving the natural resource base in the rural areas will have a positive impact on the livelihoods of the rural population in general. Thus, given the span of implementation of scheme, it is expected that certain social and economic benefits will accrue to the targeted beneficiaries in particular and the rural

population in general.

Thus, the study primarily aimed at assessing the impact of Mahatma Gandhi NREGS rural households who participated as wage workers and also those who accessed indirect benefits due to infrastructure and natural resources improvement measures taken under the scheme.

Objectives

The twin objectives of the study were as follows:

- Assess the quantum of wage employment provided and also qualitative and quantitative aspects of works implemented and
- Assess the economic development due to individual and community level schemes implemented under Mahatma Gandhi NREGS.

Methodology and Study Area

The methodology adopted for the study is as follows:

Sample Covered

- Each district in the state of Telangana has varying geographical conditions and therefore, all the nine districts except Hyderabad district were considered for the study. From each district, two mandals which represent extreme situations- highest and lowest number of days of employment days the workers got during the three - period (2012-13 to 2015-16) were selected for the study. Following the same criterion, two GPs from each Mandal were chosen. And, from each selected GP, 20 workers who got employment at least in one year in the three-year period were selected randomly from the sampling frames prepared at the GP level. Thus, the sample covered for the study consisted of 9 districts, 18 mandals and as many GPs and 360 workers.
- Structured schedules covering all the issues contained in the specific objectives were administered in the field after thorough pre-testing.

Summary of Findings and Conclusions

- The modal age group of the sample workers is 31-40 years (accounting for almost one-third of the total sample). No workers were found in the sample below 20 years and workers of old age (above 61 years) form 7.5 per cent in the sample.
- MGNREGS is open to all households whose adult members are willing to participate in unskilled manual labour and as such we can expect the participation of all caste groups regardless of their economic status (BPL and APL). In the present case, for every eight sample workers, one is from the 'other caste' group (other than backward and disadvantaged groups)

- When we analysed the data of the sample households on their household occupation, members of both the self-employed households and households engaged in both private and government services also took part in the scheme as wage labourers
- When we go by the results of analysis carried out on the income profile of the sample households, it can be concluded that households with higher incomes were also evincing interest in participating in the scheme. At least 47 per cent of the sample households fall under Above Poverty Line (APL) group if we go by the poverty norm of Rs.860 per month per capita for rural parts of Telangana (combined Andhra Pradesh figure for 2011-12)
- In Telangana, the incidence of landless is very low as compared to other states and the same is getting reflected in the sample households also (none of the sample worker households is landless)
- There does not seem to be any consistency in the household-employment days provided under the scheme in the individual years during the period 2012-13 to 2015-16 in the state of Telangana (combined AP). On an average, each participating household could get an employment of 55.7 days in 2012-13 but it has witnessed a dip in 2013-14 to 49.6 days. In the following year (2013-14) it has witnessed further dip to 43.6 days, but later (2015-16) it has slightly picked up to 46.7 days on an average. Juxtaposing these figures with the sample estimates (based on the present study) (a total of 63 days in 2012-13 to 68 days in 2015-16) it can be concluded that the performance of the scheme is much better in respect of sample households
- The results show that no single caste group is emerging as the one with the highest number of employment days in the individual years during the period 2011-12 to 2015-16. While SCs stand apart with 70 days of employment in 2012-13, STs get the first position among the caste groups both in 2011-12 (74 days) and 2013-14 (59 days). Workers from the other caste groups are ahead of other caste groups in 2014-15 and also the following year 2015-16. OBC works were never in the first position in any year during this period.
- Exposure to the individual and community schemes in the last five years has made varying impacts on the working group. Slightly over half the sample households (54 per cent) of individual schemes (individual ponds, horticulture schemes) perceived that their agricultural incomes have witnessed significant increase but when it comes to community assets (mostly in terms of common water conservation and water harvesting structures), the corresponding figure is as low as 21 per cent. This calls for more focused attention on the community schemes as compared to the individual ones

- Of all the schemes implemented, the gender wise reactions do not significantly vary on the usefulness of the schemes. Males perceived IAY as the most useful scheme (84.4 per cent) being implemented under MGNREGS as an individual scheme while for the same scheme nearly 90 per cent of females expressed satisfaction. Even cattle-shed construction taken up under MGNREGS yielded higher satisfaction scores. Similarly, on the community schemes front, higher satisfaction scores are in evidence. But, independent of gender, the schemes implemented at the individual level or at the community level that help improve the agricultural productivity like construction of farm pond, land development, plantation, providing irrigation and construction of vermin-compost pits did not seem to be receiving the attention they should receive. Towards improving the general wellbeing of the participating workers in particular and also the other population in general, it is imperative to lay greater emphasis on the water conservation and water harvesting schemes, be it at the individual level or community level
- Participation of workers in various stages of implementation of the scheme is critical for the success of the scheme. And, the stages include attending Gram Sabha meetings conducted for preparation of labour budget, social audit, etc. But, if we go by the results emerging from the analysis of the data on these parameters, the position leaves much to be desired. Concerted efforts need to be made by the implementing agencies to address the issue (of participation) in the right earnest.

Livelihood Analysis of Vulnerable Groups (Differently-abled) under MGNREGS

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Introduction

The definition of the population with disabilities is a key element in the design of a data collection activity, for it sets the scope and coverage of the whole data collection process. From the conceptual point of view, there is no universal definition of what constitutes a disability or who should be considered as having a disability. Moreover, there is no static condition of disability. A disability is a result of the interaction between a person with a health condition and a particular environmental context. For example, according to some experts, having access to technical aids, services or medication, or physical adaptation to the environment may help individuals overcome their (physical) disabling conditions. Questions should be designed in such a way that they help identify even less severe degree of disabling conditions.

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is the most progressive and social safety net instrument ever implemented in the country which recognises employment as ‘right’ and not as welfare intervention of the government. There were expectations that the Scheme developed for implementation under the Act will have a major impact on the inclusion of the marginalised. The scheme has specific focus on ‘inclusive development’ and different processes enshrined in the scheme favour the inclusion of the marginalised. However, unfortunately, one specific focus of inclusive development- including the differently-abled people in the workforce- has been largely ignored in the implementation of the scheme.

In India, the rights of the differently-abled people are protected by ‘**The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995**’. The said Act defines the role of the state actors as well as the private actors concerning the differently-abled people. Section 40 of the Act indicates that ‘the appropriate governments and local authorities shall reserve not less than three per cent in all poverty alleviation schemes for the benefit of persons with disabilities (PWD)’.

Objectives

Keeping the vulnerable groups in view, the following objectives were set for the study:

- To study the participation profile of differently abled persons in the MGNREGS
- To study the livelihoods of differently abled persons with and without MGNREGS
- To analyse types of works assigned among various categories of differently abled and

- To suggest measures for assignment of relevant works among different categories of differently abled persons to ensure their higher participation.

Methodology & Study Area

Out of 30 States and few Union Territories, five states have provided highest percent of employment to the disabled persons. Of which, States like Gujarat, Telangana and West Bengal has also provided considerable percent of employment to the disabled. However, consistency in providing employment to the disabled is noticed in states like Andhra Pradesh and Tripura. Besides higher percent of work provided to disabled persons, other factors such as consistency, difficult terrain conditions and number of studies conducted were also considered in identifying Tripura as the study area. Hence the study was carried out in Tripura, having highest percentage of disabled persons participated in MGNREGS over the past four years, i.e. 1.16 (next to Andhra Pradesh 1.30). Similar criteria were followed in selection of a district and two blocks. From the Dhalai district 2 blocks such as Chawmanu and Manu were selected and from each block adequate number of disabled persons was selected as the participation of this category of vulnerable group was less. In pursuance of Table – 2.6, the number of disabled persons registered in MGNREGS is highest in Manu block (784 out of 1500 disabled population) followed by Chawmanu (589 out of 1500 disabled population) block. In Chawmanu block only 50 per cent of the disabled job card holders have got employment opportunity under MGNREGS work while in Manu block only 52 per cent of the job card holders could work in MGNREGS project. The study covered 100 PWD beneficiaries of MGNREGS covering an average of 50 persons per block. Besides, 20 non-beneficiary respondents were also interviewed from two blocks.

Summary Findings and Conclusion

The Mahatma Gandhi National Rural Employment Guarantee Act becomes an important source of economic and employment support for PWDs in rural areas. The study reveals that though the participation of differently abled persons in the scheme is very low yet their participation is gradually increasing day by day which depicts a positive picture. The awareness level of the differently abled has increased due to their participation in employment. The employment in the scheme makes them more financially secured, aware, enable them to interact with various officials, enable them to negotiate the wage rate, participate in various local level institutions and share ideas which in turn enrich their self-dignity and reduce the negative attitude of the family and society.

Among the study districts 60 per cent of the wage seekers from Manu District have reported that after introduction of the scheme, there is a noticeable improvement in land development, only 16 per cent of the total sample reported that an increase in wage rate in agriculture, out of the total

sample 94 per cent agreed to some extent that there was reduction in distress migration, etc. In Chawmanu RD block majority (92%) of the beneficiaries identified minimum wages as the motivating factor for participation in the MGNREGS followed by support of the family, timely wages, equal wages and self. Very few beneficiaries identified group arrangement, mode of payment, NGOs encouragement, SHG membership, attitude of the officials as the motivating factors. Similarly, in Manu RD block all the beneficiaries identified minimum wages as the motivating factor followed by timely wages, work taken upon their own land, assets creation was beneficial, worksite facilities, mode of payment and attitude of officials as the motivating factors to participate in the work under MGNREGS. Very few beneficiaries identified equal wages, group arrangement, NGOs encouragement, SHG membership, as the motivating factors. Beneficiaries either fully agreed or partially agreed that participation in MGNREGS has improved some of the professional issues such as unity with other workers, realisation of personal abilities, self-right and responsibilities, access of beneficiaries to wider information, technical information about MGNREGS work, measurement of work, self-help among the disabled beneficiaries, interaction of the beneficiaries with various officials, utility of MGNREGS work, understanding of beneficiaries about natural resources.

Majority of the beneficiaries agreed that equal wages, wage opportunities in the vicinity, timely wages, regulated working hours, work with right work site facilities, reduced burden of distress was the best gain of the beneficiaries from the MGNREGS.

The study also identified an important shortcoming in the implementation of the scheme in respect of differently-abled workers-when the differently abled worker and also the spouse is away at work, there is no one at home to take care of infants. To address this issue, the implementing agencies should take all precautions to provide the worksite facilities especially the crèche. And, during the course of field study it also came to the notice of the study team that that still many differently abled persons were not able to take the advantage of the scheme. Concerted efforts are needed from the implementing agencies side to bridge this gap.

Socio-Economic Evaluation of Self-Help Groups for Women Empowerment

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Introduction

A report on the impact of interventions of Uttar Pradesh State Rural Livelihood Mission (UPSRLM), Bhoomi Sudhar Nigam (BSN), Rajeev Gandhi Foundation (RGF) and Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project (UPPFMPAP) of Japan International Cooperation Agency (JAICA) for promotion and strengthening of SHGs in Uttar Pradesh. The SSW report presents various aspects of the attempts being made by different departments for women empowerment through SHGs in their areas. The report presents formation process, types of working, record keeping system and the change experienced in socio-economic and political life of economically poor community. The report also presents an appropriate process of formulating, nurturing, strengthening and empowering women through group approach for their betterment.

Women Empowerment (WE) is not just a goal in itself, but key to all global development goals. Empowerment is an active multidimensional process to enable women to realise their identity and power in all spheres of life. The word 'empowerment' means giving power. According to the International Encyclopedia (1999), power means having the capacity and the means to direct one's life towards desired social, political and economic goals or status. The women SHGs play an important role in development of socio-economic status of their families. Empowering them is prerequisite for overall development. It is an accepted fact that Women Empowerment (WE) is a key that opens doors to opportunities.

SHG and WE is a study conducted by the Deendhayal Upadhyaya State Institute of Rural Development (DDU-SIRD) Uttar Pradesh in seven districts to evaluate the process adopted by four different agencies to attempt for empowering women through SHG. Findings of the study were analysed to find the state of the SHGs, identify constraining and facilitating factors and evolve an appropriate process which may promote quality SHGs, which may accelerate rate of achieving the goal of women empowerment and find their active participation in planning and implementing various development and welfare activities of their village.

The study finds that the attempt of empowerment of women through Self- Help Groups (SHGs) is leading to benefits not only to the individual women, but also for the family and community

as a whole through collective action for development. Constraining factors of empowering rural women are being removed and the most appropriate process is being adopted by all the stakeholders of development to promote quality SHGs. A brief of findings of the study is being presented in this report.

Objectives

With the aim of identification of the most appropriate process for accelerating promotion of quality SHGs and sustain their partnership in bringing about a positive change in the life of rural women. The DDU-SIRD Uttar Pradesh conducted an intensive study on various aspects of women empowerment through SHGs. To achieve the aim some objectives were adopted to conduct the study, which are being mentioned below:

- Document the state of women empowerment and their achievements, through SHGs, in villages of Uttar Pradesh
- Comparative study on process of SHG formation adopted by different agencies in their project area
- Comparative study on activities organised by different agencies for women empowerment
- Identify income generating units that proved appropriate in establishing positive change at village level
- Identify appropriate tools used for management of SHG meetings and organising collective attempts to meet the goal of women empowerment.
- The study proved very successful in developing lessons from the same work done by different institutions in different manner and develops an appropriate process with tools to achieve greater success in empowering rural women through SHGs in Uttar Pradesh.

Methodology

To conduct the study two questionnaires were developed for collection of primary information. Door to door survey was conducted to collect primary information and women members of selected SHGs interviewed individually. Another questionnaire was to collect information in meeting of the SHGs as a group. The questionnaires were developed by experts in many meetings.

Secondary information about the group approach, adopted by selected stakeholder of rural development, was collected from the report of earlier studies conducted by individuals and institutions on similar topics. The secondary information was collected from books, journals and internet.

Study Area

The study was conducted in seven districts of Uttar Pradesh, i.e. Lucknow, Raibarailly, Lakhimpur, Barabanki, Hardoi, Hameerpur and Sitapur. 20 women SHGs were selected from each district and total 140 SHGs and all their members were interviewed to find the state and working pattern.

Out of 140 SHGs covering 32 per cent of Uttar Pradesh State Rural Livelihood Mission (UPSRLM), eight per cent of Bhoomi Sudhar Nigam (BSN), 46 per cent of Rajeev Gandhi Foundation (RGF) and 14 per cent of Uttar Pradesh Participatory Forest Management Poverty Alleviation Project (UPPFMPAP) of JAICA were studied. The SHGs of UPSRLM were studied in all seven districts. Except Barabanki the SHGs of RGF were studied in all six districts. The SHGs of UPPFMPAP were studied in Hameerpur, Lakhimpur and Lucknow. Hardoi, Sitapur and Lakhimpur districts were covered to study SHGs of BNS.

Findings

- Findings show that educational qualification and acceptance of group approach of development has negative relationship. Lower the educational qualification higher the acceptance and higher the educational qualification lowers the acceptance.
- It was learnt that majority of women (84%) knew that they are being organised as an SHG for their empowerment. Savings is the main objective of organising them into SHGs was said by 85 per cent of total women interviewed.
- Documentation of minutes of the meeting was found a weaker part of nearly most of the SHGs. The documents of the 28 per cent SHG were complete and in a very good in condition. These SHGs have bookkeeper to maintain their registers.
- In the study it was found that the factor of motivation was not stroked up to the requirement to let the women understand the spirit of group approach.
- The women were interviewed in detail to know the constraints faced by them and the process adopted to overcome. 91 per cent of total women told that the husband is supporting them to be a member in SHG. Most of all (99%) women said that local people have no hesitation in passing bad remarks but they never pay any attention on their remarks. Nearly, 50 per cent of women said that they are going to create a positive environment by setting their example at village level.
- It was interesting to note that members of successful SHGs like Vishwas Mahila SHG, Sai

Mahila SHG and Mapa Mahila SHG in Hardoi feel that after installing Atta Chakki (grain grinding machine) by their SHG the society started giving higher value to the group of women. They find it a grand honour and wish to grow if they may get proper and regular support of the government and the banks.

- It is a serious matter that recovery of loan from members has become a problem for majority of SHGs and this is one of the main reasons for a SHG to become non-functional.
- Total 87 per cent of the women interviewed said they could be organised into SHGs mainly because of an initiative taken by one or two women. The women had confidence on the local women who were taking initiatives. It showed that the leadership quality in some women played an important role in bringing the women at a platform to work collectively. 26 per cent women said that the leadership of the group vested in few hands. But it was a matter of satisfaction to find that a considerable number of women (63%) admit that their SHG could be sustained only because of very active participation of their members.
- A majority (73%) of women responded that they have availed facility of loan for various purposes from the group. The availability of loan at 1.5 to 2 per cent interest was the most facilitating factor for 93 per cent women to form their group and sustain.
- Saving was the most important problem for most of the women but once they started saving it played a very important role to sustain the savings in group. 87 per cent women said that saving in group is a facilitating factor to sustain the group.
- The study also attempted to know the perception of rural women about SHGs and the attempts being made to empower them for addressing their problems. It was noteworthy to learn that majority of women (51%) have better understanding of group approach. They find it is their group and they have to develop it. The sense of ownership was very high.
- 68 per cent women of UPPFMPAP (JAICA) followed by 56 per cent women of RGMSP (RGF) responded about a positive change in their income. Only 11 per cent women of UPSRLM and only 9 per cent of BSN admitted positive change in their income.
- The primary information shows the SHG was successful in bringing useful changes in food expenses. Food cloth and shelter are the important factor to assess success of the stakeholders in achieving their goal. The maximum women 32 per cent of UPSRLM, followed by 24 per cent of RGF said that they are enjoying positive change in quality and quantity of garments. The 11 per cent women in UPSRLM and only 9 per cent women in BSN reported an increase in income.
- Only 18 per cent women of SHG under the UPPFMPAP replied positive change in housing pattern otherwise in most of the cases the women said that there was no change.
- It was pleasant to note that 98 per cent women of UPPFMPAP, 87 per cent women of RGF and 56 per cent women of UPSRLM said that they have all the support of family members for

their working in SHG.

- The practice of collection of savings and loan was found in 98 per cent SHGs of RGF, 87 per cent SHGs of UPPFMPAP, 82 per cent SHGs of UPSRLM in intensive block but only 24 per cent SHGs of non-intensive blocks.
- The study could not find any SHG which made agenda to hold their meetings. They meet mainly to save money and disburse loan.
- In all sample districts the percentage of SHGs keeping updated bank pass book was 100 per cent. Account books of SHGs were found updated in 100 per cent SHGs.
- Analysing the findings of account registers of SHGs it was learnt that a considerable amount of loan is balance in their books. It was clear that the SHGs are good in granting loan to their members but not very good to get it back with interest. In SHGs of RGF the recovery was comparatively higher than SHGs of other stakeholders.
- Information available in the passbooks of members was also analysed to find the trend of payments. It is found that only 29 per cent members were paying in time and 33 per cent were paying partially. The remaining 39 per cent SHGs were going to become a reason of becoming SHG non-functional and creating negative models.

Conclusion

- It is found that the most successful SHG's start their meeting with motivational prayer followed by certain agenda. There is a need to let the women understand the spirit of Self-Help Group which leads them towards empowerment. The first agenda of meeting is to know about the individuals if any one has any problem. The successful SHGs were found very particular about the loan remaining with their members and present accounts of SHG in meeting. Collective action against the defaulter was the best practice to maintain highest degree of recovery.
- The study finds need of social audit of the SHGs followed by some action against the member found cause of making their SHG non-functional.
- The study found need to educate and support SHGs in writing minutes of their meeting. This easily helps to understand the local specific issue which is important for the women. In the study it was learnt that the concept of bookkeeper is working in the field.
- SHG members must be provided support intensively and regularly till they become independent for making decisions to take appropriate action in various situations.
- The initiation of formation of SHG must be like UPSRLM where projects have a period to achieve the target and simultaneously initiate a process of empowerment for development. Proper education of women on group dynamics along with regular support is very essential for success of SHG.

- Comparative study on process of SHG formation adopted by different agencies in their project area made clear that the approach of SHG promotion adopted by the RGF, i.e. inculcating awareness through live model (CRP approach) and the process adopted by the UPSRLM to achieve the goal in CRP approach and campaign mood is the need of time to achieve the goal. There is equal need to identify wrong practices from the field and rectify them collectively.
- Comparative study of activities organised by different agencies for women empowerment was also analysed to identify some of the most appropriate practices. In this exercise it was learnt that starting of meeting by a prayer followed by sharing of personal problems of member is very good practice to create better environment for meeting and mood for discussion seriously.
- It was learnt through the study that the concept of deputing a book keeper in SHG must be brought in practice. This is an appropriate practice to maintain transparency before the stakeholders and sustain development of SHG.
- Availability of money and commitment of working as a group could develop confidence of women to adopt sharing in crops and other income enhancing activities.
- Agriculture, animal husbandry, processing and marketing of rural products, production and marketing of organic fertiliser, pesticides and insecticides are most appropriate income generating activities as they were found successful for enhancing income of women and establishing positive change in villages studied. Establishment of grinding wheel (atta chakki) was the most profitable activity adopted by most successful SHGs.

Impact of Watershed Development Programme on Socio-Economic Status and its impact on Livelihoods, Income Standards and Behavioural Aspects of Stakeholders

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Introduction

Integrated Watershed Management Programme (IWMP) is to restore the ecological balance by harnessing, conserving and developing degraded natural resources such as soil, vegetative cover and water. The outcomes are prevention of soil erosion, regeneration of natural vegetation, rainwater harvesting and recharging of the groundwater table. This enables multi-cropping and the introduction of diverse agro-based activities, which help to provide sustainable livelihoods to the people residing in the watershed area.

India has a net cultivated area of 142 million hectares (ha). Out of this, only 85 ha is rainfed and suffers from low agricultural productivity, soil degradation, lack of water holding capacities, lack of fodder and poor quality of livestock. All these factors have together resulted in abject poverty and malnutrition for those living in these areas. The country is facing serious challenge because of extensive land degradation and water stress. The problem is more severe in rain fed areas of the country.

In 1994, Prof. Hanumantha Rao headed a committee set up to assess the efficacy of the Drought Prone Areas Programme (DPAP) and the Desert Development Programme (DDP). The Committee made several recommendations for bringing about a positive change in rural India. The IWMP was launched as a community based programme. The Gram Panchayat has been effectively involved to perform important function at Village/Watershed level to keep transparency and people's participations in planning, implementing, documenting and monitoring of activities under the IWMP. The GP is mandated to supervise, guide and monitor the Watershed Committee (WC) and audit all accounts under the watershed projects, as managed by the WC.

The Department of Land Resources has sanctioned 6,622 projects covering an area of 31.29 million hectare and has released the central assistance of Rs.8,240.61 crore to the States under IWMP since its inception in 2009-10 to 2013-14 (till November 2013). The benefits that were expected to accrue under the IWMP include:

- Increase in availability of surface water and groundwater
- Changes in cropping pattern from one to two crops annually
- Increase in fodder availability and increase in milk yield
- Increase in agriculture productivity and
- Increase in employment opportunities and household income.

The DDU, SIRD Uttar Pradesh conducted a study to identify impact of the programme and find room for development to achieve the objectives what could be achieved at village level. This is brief report on the findings of the study.

Objectives

The Watershed Development Programme (WDP) initially envisaged as a measure for poverty alleviation and improved livelihoods has gained even greater importance in light of the world wide recognition of its effectiveness in combating climate change.

To ensure planned development and to achieve required production of food grains, fodder and bio fuel in problematic areas the concept of Watershed has traversed many changes over the years. These changes have expanded the purview of watershed in many ways from soil conservation to livelihood promotion, from top down to bottom of approach, etc. These changes have definitely influenced not only the implementation process of Watershed Development Programme but also financial patterns. As huge investments have been poured to implement Watershed Development Programme.

The SIRD Uttar Pradesh considered it very important to assess the impacts of investment made on implementation of WSD Programme. Therefore, an assessment was made at village level not only to measure the impact of IWMP but also collect opinion of community and PIA on how the desired goal may be implemented.

To achieve the aim SIRD Uttar Pradesh conducted a study to assess overall impact of the programme on:

1. The physical changes of watershed areas
2. The socio-economic changes of the user groups
3. The behavioural changes in the user groups
4. Livelihoods and income standards of the user groups.

Methodology

A well-structured questionnaire was designed and developed to collect information from the individuals. A questionnaire was also developed to collect primary information from the district officials of IWMP working at village level.

Small group meeting was organised with the beneficiaries of the IWMP at village level to let the voice of beneficiary be heard directly and documented.

Meetings were also organised with the officials at district level to learn from them for adopting an appropriate process for achieving what is still to be achieved for meeting the goal of IWMP.

Meeting with the watershed development committee was also organised to learn their meeting process to address their issues. The records available with them were also audited to find the documentation process of village level interventions.

To obtain some valuable information and insights regarding the changes in socio-economic and behavioural conditions of user group under WDP scheme meeting with the women SHG members were organised in most of the villages where they were functional.

Visits on the worksites were also made to understand the working and achievements in developing resources.

Study Area

The study was conducted in four districts of three regions selected from the Central plain and Bundelkhand zone of Uttar Pradesh. Fatehpur was taken from Central and Kaushambi from eastern region of the central plain. In Bundelkhand zone only one region was covered in the study they were Hamirpur and Banda.

In Fatehpur Barahar, Pariyarjna, Sujawalpur and Sultanpur the four catchment areas were covered. Four catchment areas Daulhpurwa, Chahitra, Datapurwa and Bhurari were also covered in Banda. In Hameerpur and Kaushambi three catchments were covered in the study. In Hameerpur Charudult, Jitkiri Danda and Suraili Bujurg and in Kaushabmi Kasiya, Kokhraj and Parsara catchments were covered.

Findings

- The individuals were interviewed in details about the utility of the project for them. A majority of people (97%) were highly satisfied with the IWMP. Only three per cent of total respondents said that the project was not useful for them
- The individuals were asked about their views about the main objective of IWMP. Analysing their answer it was learnt that majority (30%) are of the opinion that soil erosion is the main objective while 20 per cent said use of rain water, 18 per cent said saving water, 20 per cent said land development and 12 per cent of total respondents said that water level is the main objective
- Discussing about impact of IWMP on size of agricultural land it was learnt that the project was successful in making a positive change in size of agricultural land. The people responded that the project has increased in the size of their land used in agriculture. It was interesting to note

that the IWMP was successful in converting non-agricultural land into agriculture land. An average of 77.6 per cent people responded decrease in size of their non-agricultural land. The people also replied that the ponds constructed will also bring a positive change as there will be better charging after rain. Irrigation system has also made a positive change and seems to be better day by day

- In all the four districts the study noted a very little change in water level but positive. The respondents told that in most of the area water level has come up but, in few areas, it has gone down also. The study showed that in some of the area where the IWMP have worked the water level decreased only two feet in spite of very low rain
- Capacity building of the villagers is very important to get their active participation for bringing about a positive change at village level. The IWMP made attempt for capacity building of the local people. It was interesting to note that 92.5 per cent said that they have been trained by experts in relevant fields
- The IWMP proved successful in making a positive change in income of respondents. The majority of respondents (an average 75%) in all four districts said that the IWMP have brought a positive change in their income
- All the districts responded that the payment in time is the most constraining factor in completing the planned work for IWMP in due time
- Most of the officials were of the opinion that it is a work of experts so professionals were engaged in planning the project activities. Attempts were made to promote participatory management process. Unfortunately, very little or low participation of people was found in planning
- It was interesting to note that the work was considered as benefit of individuals. But the individuals who were selected as beneficiary participated in the meeting and the other people are waiting for their benefits. If any benefit is available for the other people they participate, otherwise they consider it the work of the government.

Conclusion

It was found that there was reduction in soil erosion in the watershed areas. However, the variation in the percentage of reduction primarily depended on quality of soil and moisture conservation activities in the respective catchments. The study found that there is good quality water harvesting structure in some watershed areas, but in some other watershed areas, it requires further attention.

It was observed that the programme is mostly successful in maintaining runoff reduction. There is positive change in the land use pattern reported in most of the catchments of all four districts. In these villages a considerable size of waste land was converted for productive use by the

farmers. In some villages there was marginal increase in groundwater level but some other districts exhibit better increase in groundwater level. This has resulted increase in net sown area in majority of the districts. Further, better land use pattern has helped increase in agricultural intensification and thus enhance agricultural production.

The analysis of women's empowerment shows that the women participation was not adequate. Mostly, women lack in mobility, voice in decision making at home or in community. Same is the case with landless members. In terms of fetching drinking water in almost all the study districts IWMP resulted positively in reducing the workload of women. The income of the community members has increased to some extent but watershed activities have been unable to make much visible impact in enhancing employment opportunities.

The Watershed Committees had been actively involved in the implementation of watershed programme in majority of the districts. User groups are formed in majority districts, but their degree of involvement varies. The user groups are hardly visible in watershed activities after completion of the work on his/her land. It was realised that participation of local community member is key to success of the watershed projects. Low participation could not enhance community empowerment. Poor rural households were less involved in planning and decision-making processes in the watersheds. Nevertheless, there is a need to find out the gaps and reasons so as to make it even more effective and realise full benefits of the programme. It was also found that majority of the households across all the study areas had reported slight improvement in their standard of living. The study suggests that the impact of watershed is more focused towards physical and biological achievement, but the focus on social aspects is limited. There are certain positive trends towards growth of water level, soil regeneration capacity, land use pattern, cropping pattern and livestock production, etc. However, social achievements have not been properly addressed with implementation of IWMPs.

Measuring Energy Expenditure Pathways, Time Use, and Food Intakes in Agricultural and Rural Livelihoods using Accelerometer Devices

Dr. Ch. Radhika Rani, Associate Professor & Head, CAS

& Dr. Nithya V. G., Assistant Professor, CAS and

University of Reading team, United Kingdom

Context

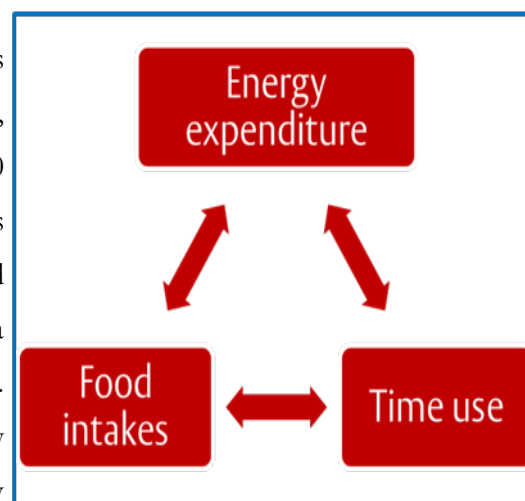
Rural transformation, including considerable poverty reduction, has been ongoing across developing countries like India for several decades. However, there is little empirical evidence on how these processes have affected patterns and intensity of labour-intensive activities in rural livelihoods. Although agriculture-to-nutrition linkages have received a lot of recent attention, the effects of development interventions on nutrition outcomes via changes in physical activity and human energy expenditure have largely remained unexplored.

The study 'New Keys for Old Black Boxes: Developing Methods to Improve Nutrition Assessment by Measuring Energy Expenditure' was conducted by Centre for Agrarian Studies, National Institute of Rural Development and Panchayati Raj in collaboration with University of Reading, UK to understand the intra-household labour and physical activity allocation decisions, including those associated with the adoption of productivity-enhancing agricultural innovations. Further, to better understand the labour intensification for women associated with the adoption of improved agricultural technologies and the gender differentiation in the labour allocation decisions of rural households in Telangana, India.

Methods

Study area: Two villages (Gonpad village- rain-fed farming and Bijjawaram the irrigated) of Jogulamba Gadwal district of Telangana state, India.

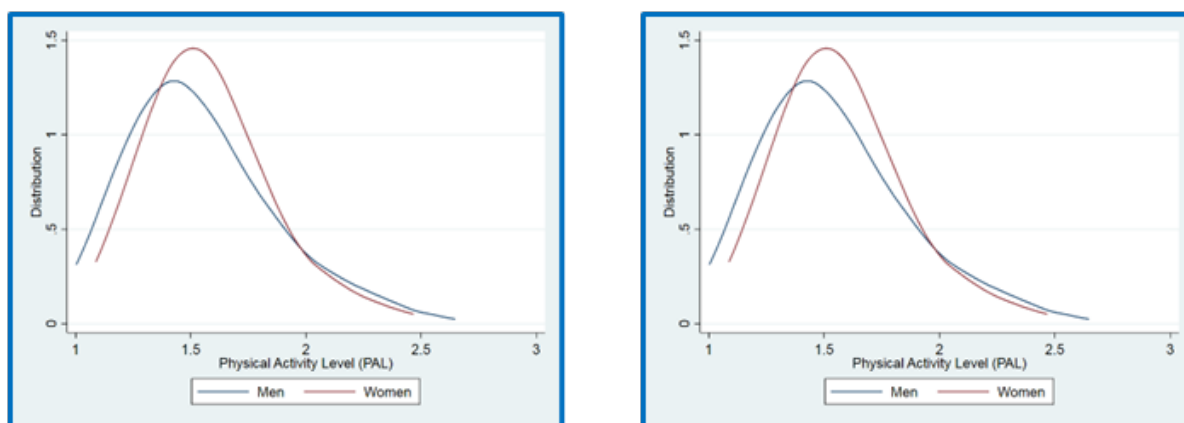
Data: Accelerometer data for four non-consecutive weeks across the whole agricultural season (land preparation, seeding and sowing, land maintenance, and harvest) by 20 wife-husband dyads. The physical activity data was complemented with daily information on dietary intake and time use data. The sample of 40 individuals yielded a dataset including 1,120 person/days and 26,880 hours. Combining energy expenditure data from accelerometry devices with self-reported time-use data provides a window



into agricultural and rural livelihood activities which had hitherto not been available.

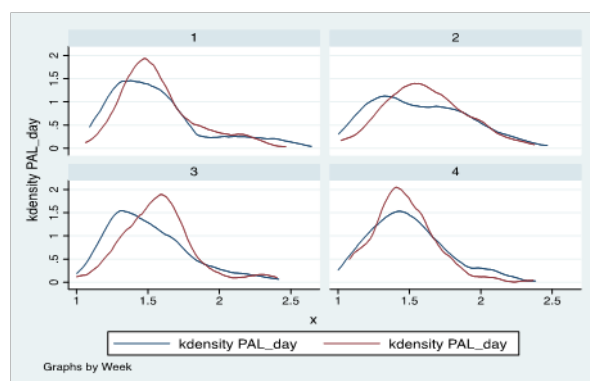
Main Findings

The study results reveal that the activities undertaken by men were more energy demanding (Graph 1), but women were physically more active in the performance of these activities as they require greater effort in relation to their BMR. This contributed to the overall higher levels of PAL for women in our sample (Graph 2).



Graph 1&2: Distribution of Activity Energy Expenditure (Kcals) and PAL by Gender

Overall, we captured higher physical activity levels (PALs) for women throughout the agricultural season (Graph 3). Women's PALs peak during seeding, sowing and land maintenance, while men's PALs peak during land preparation.



Graph 3: Physical Activity Levels (PALs) for Women throughout the Agricultural Season

Moreover, we find that the greater proportion of time and energy that women spend on domestic activities appears to involve a trade-off against opportunities for economic and social interactions (Table 1).

Table1: Activity Energy Expenditure (AEE) and Time Use for Activities, by Gender, India.

	Males		Females		Full sample	
	AEE (%)	Time (%)	AEE (%)	Time (%)	AEE (%)	Time (%)
Domestic activities	0.02	0.02	0.20	0.14	0.11	0.08
Economic activities	0.63	0.36	0.52	0.29	0.57	0.33
Sleeping and resting	0.07	0.10	0.06	0.10	0.06	0.10
Social activities	0.11	0.09	0.06	0.06	0.08	0.08
Personal activities	0.17	0.13	0.16	0.11	0.16	0.12

Conclusions

- Changing patterns of physical activity in rural livelihoods can have rather large impacts on calorie adequacy and on nutrition outcomes, and that such impacts are differentiated by gender, household characteristics and asset endowments
- Explicit consideration of the energy expenditure dimension can provide a better understanding of the pathways from productivity-enhancement to nutrition
- Changing the energy expenditure profile of men and women in rural households can provide an important route to nutritional improvement.

Policy Relevance

Agriculture and agricultural interventions play a role in improving nutrition and alleviating poverty. However, agricultural work competes with time and energy needed for domestic and social activities and resting. Considering time and energy trade-offs between a wider range of different rural livelihood activities in policy designs can help to tailor policies specific to different needs of women and men in rural India.

Sanitation Behaviour Assessment of Households in Gram Panchayats Declared as ODF

Dr P. SivaRam, Professor & Head, CRI

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Introduction

Swachh Bharat Mission (Gramin) was launched in October 2014 as a nationwide campaign to achieve sustainable sanitation target in terms of construction of Individual Household Latrine (IHHL) and its proper use. There are reports of independent agencies - of surveys conducted before the launch of Swachh Bharat Mission in October 2014 - that have found that up to 67 per cent of the toilets constructed in some states are unused (Down to Earth, 2014). It means on the one hand sanitation motivators, government along with development professionals and organisations are nudging rural people to construct toilets; while on the other hand there is continuous verification and re-verification going on in order to make sure that villages declared as ODF are really ODF. The commitment to make people use toilets, and improve sanitation standards at household and community levels is tremendous. The mystery is often they have the knowledge, and are intuitively aware of not only the ill-effects of defecating in open, but also how use of a toilet can prevent faecal-oral transmission of diseases, etc. But experience has proved often enough that this awareness does not translate into practice, which is observable in their behaviour. This holds good noticeably even in the cases of households that own a toilet. Keeping these facts in mind, the researcher is interested to answer the following questions:

- What are the psycho-social and technological factors at play in causing knowledge-practice gap in sanitation and hygiene behaviour?
- What are the methods and techniques that have worked effectively in nudging rural people in favour of adopting acceptable sanitation and hygiene practices?

Purpose of the Study

The purpose of this study is to assess the knowledge, explore the attitude and explain the practice of sanitation hygiene behaviour in rural India. The results of this study must help understand sanitation behaviour, and explain why rural people behave the way they behave when it comes to using toilets. Such an understanding shall help improve our intervention strategies on how to change sanitation behaviour. Thus, contribute to the literature on SBCC.

1. To identify methods and techniques that seems to work effectively in nudging rural people in favour of adopting acceptable sanitation and hygiene practice.

Research Design

The study has adopted explanatory research design, since it is the ‘why factor, that is being probed. Why are rural people not inclined to adopting sanitation and hygiene behaviour-despite massive sanitation campaigns creating awareness on the need to end open defecation practice, and on acceptable sanitation and hygiene behaviours? Since what is attempted is [sanitation] behaviour assessment adopting a completely structured approach in research may become lopsided. Therefore, the study has concurrently used mixed methods (i.e. structured approach as well as observations) collecting cross-sectional data from the study area.

Study area and target population for sampling

The study was conducted in three states viz. Bihar, Maharashtra, and Tamil Nadu covering 18 Gram Panchayats from six districts. The study has interviewed 1,353 households from all the three study states. Although head of the family in each household was interviewed, the questions in the data collection tool (especially in Safe-San Indicators) pertained to every member in every respondent’s family – including the children and aged people. Some of the households were nuclear and others lived as joint families. Thus, by and large, this study relates to nearly 7,000 rural people (about 1,353 x 5 members in each family).

Psycho-social Factors

In the study states, overall, about 78 per cent of respondents have own toilet facilities in their home; six per cent are using public toilets; one per cent report of using some kind of shared toilet facility. The remaining 15 per cent of respondents appear to be defecating in open places only. That means there are some families and some individuals in ODF villages that still defecate in open places, meaning they do not use toilet. The scale of this study is small, yet we are able to identify families in ODF villages that do not use toilets. It implies that large scale surveys of toilet use might come out with a considerable number of families and individuals who do it in open, despite owning a toilet.

It was found that of the total respondents with toilet facilities at home nearly 83.4 per cent of them reported that everyone in the family regularly use the toilet. About 12 per cent do not use the toilet, and four per cent of the respondents opined that toilet was for women in the family to use. From the discussions that emerged during data collection, it revealed that many men in the study villages, especially the older persons, seem to have a strong view that toilets are for women to use, and that men do not need them.

The apprehension is, possibly, because of the practice of more men going out - leaving the household toilet for women in the family to use. This requires exploring further. This is not explicitly stated or openly admitted as true by the respondents. Yet, this point came up across the study districts (Siwan, West Champaran, Gadchiroli, Kanchipuram) in all the states under study. It was openly admitted by 12.2 per cent of respondents that some members of their family are irregular in using the toilet. That means given a choice 12 per cent of the members of the family (especially men) feel comfortable going out to their usual open defecation place.

Probed about the respondents' perception of toilet use, more than 73 per cent of the respondents stated that people are not very particular about constructing toilet. In their opinion a usable toilet is costly, and maintaining a toilet clean and usable is additional work. They prefer going for open defecation because they are 'habituated to doing it outside'. In their view 'it feels good to go out'. The second most reason stated by the respondents (21.4% of them) was that toilets need regular maintenance. And if everyone in the family used regularly, toilets get dirty, stinky and disgusting. In Bihar more than 60 per cent of the respondents stated that maintenance was the significant issue that made people not interested to construct toilet. They felt that open defecation was trouble-free and unproblematic. Their saying is: *if you use a toilet, it is said: 'you flush and forget'. But defecating in open: you can 'simply relieve and forget' – you need not even 'flush'.*

Availability and non-availability of water could be an important factor that might encourage or discourage one to own or use a toilet. It was found that nearly 53 per cent of respondents' families have sufficient water available for toilet use; about 27 per cent of the respondents felt that the water facility available was not sufficient for toilet use, as they have to travel some distance to fetch water. About 20 per cent of people opined that they have serious problems of water – and so thinking of arranging water for toilet use would demand all out extra effort. In Maharashtra and Bihar people fully depend on groundwater so in summer season there was serious water scarcity.

With regard to disposing of child faeces, majority (76%) reported of throwing child faeces into open drainages/garbage dumps, etc. That is the widely practiced method of disposing child faeces. Hardly, 12 per cent reported of disposing it in toilets. There are others (about 12%) that evaded the question not giving a clear response. Most probably, they are also throwing in open drainages and in garbage dumps.

lets visited were found to be clean; whereas 17.31 per cent of them looked unclean, and not maintained for hygienic use. 24.7 per cent of toilets visited were moderately clean, meaning the toilet could be kept cleaner – left unattended for a few more days those toilets would glide towards becoming too unclean/unhygienic to use. Overall usage is fine, but the culture of keeping the toilet clean must be inculcated through health education campaigns.

With regard to frequency of cleaning toilets, the response from Maharashtra and Tamil Nadu are: either daily or weekly, whereas in Bihar it is mostly once in a fortnight or so. Very few households in Bihar clean toilets weekly or daily. This indicates why many toilets in Bihar are found unclean. Sindhudurg District (Maharashtra) has toilets that are clean, and it was found that households have the practice of cleaning toilets on a daily basis.

The awareness level of respondents with regard to hand washing with soap after toilet use revealed that a vast majority (76%) of the respondents are aware of the importance of washing hands with soap after using a toilet; the remaining 24 per cent of the respondents are unaware. However, only 52 per cent respondents reported of washing hands with soap after defecating. When we probed further regarding the frequency of hand-washing at critical times, it was found that 52 per cent of the respondents have the habit of washing hands with soap ‘regularly’ after they use a toilet; 25.5 per cent of respondents reported of using ‘sometimes’; and 22.7 per cent ‘do not have the habit of washing hands with soap’ after they use a toilet.

It shows that still many people are not considering that hand washing with soap is very much required after defecation. In almost all the study states, there are a good number of people, who have no habit of washing hands with soap after they use a toilet. This number is highest in Siwan District, Bihar. Going by this indicator ‘i.e. hand washing during critical times’, we can conclude one important element of hygiene behaviour is missing amongst the respondents in the study area. It’s critical to notice that even those who are aware of the importance of hand washing at critical times do not practice it in their actual lives. Knowledge and awareness do not straight away translate into action. Nudging beyond the level of knowledge is required.

Nearly 41 per cent of the respondents reported of having participated in awareness programmes related to sanitation and hygiene; and 59 per cent of the respondents had never witnessed or attended any awareness drive on toilet use, hand washing practice/ personal hygiene, etc. The IEC component of SBM-G perhaps focuses more on motivating people towards constructing toilets, whereas the behaviour change communication elements such as hand washing with soap, toilet maintenance and personal cleanliness, etc., is lacking. The SBM-G guidelines lays equal emphasis on SBCC like it emphasises on construction and capacity building. The scheme implementing officers must revisit this part of the SBM-G guideline if they are really being translated into practice.

Technological Factors

In the study villages of Kancheepuram (Tamil Nadu) there are also some toilets put up as temporary structures. In all the three study states the number of septic tank and cement ring toilets were found to be less compared to single pit and double pit brick work construction. 44.4 per cent respondents have double pit toilets, and an equal number have single pit toilet. Double pit toilets are adhered to in Bihar and Tamil Nadu, whereas in Maharashtra, single pit toilets are preferred by households. Very significantly it can be seen from the table that in all ODF (sample) districts number of double pit toilet construction is more except in the case of Sindhudurg district, where single pits are predominantly constructed. The reason stated for many single pit toilets in Sindhudurg (Maharashtra) was that most of those toilets were constructed even before the start of the SBM-G in 2014.

Safe-San Assessment

The behaviour assessment of people (through Safe-San Indicators) in the study villages of Bihar state that even in houses that have toilet some members of the family do it in the open – either ‘sometimes or mostly’. There are some who say: ‘sometimes I use toilet’, and there are others reporting: ‘I never use toilet’. There seems to be no much difference between men and women on this. Most school age boys and girls also have the habit of going to open defecation places along with their friends, although they have toilets at home.

In all the three study states (Bihar, Maharashtra and Tamil Nadu) for young children who are too young to use a toilet, after they defecate on the ground, most mothers do not have the practice of disposing of child faeces in the toilet. They throw it in the open drainage system or along with garbage on the streets. The same is the practice of elderly people who are sick, and who have never liked using a toilet.

With regard to the toilet use in Maharashtra, 382 households who have toilets were interviewed. We found that only 270 reported that they ‘Always use toilet’. That is about 70 per cent using toilet regularly. That means despite the fact that toilets are available in these houses, some members of the family do not use it for some reason or the other. The others reported: that they ‘sometimes use’; ‘mostly use’; or ‘never use’. Thus, even in households that have toilets, about 30 per cent of the members of the family are doing it in the open sometime or the other. This does not qualify for ODF. In almost all the study states, there are some women from every village going for OD, despite owning a toilet.

Among 382 respondents in Maharashtra who have access to toilet only 242 of them could assertively/categorically state that they never went for open defecation in the past one-week. This establishes once again, that even among households that have toilet all the members of the family do not use toilet, all the time.

The toilet use habit in Tamil Nadu shows that out of 380 households that has toilets, and were interviewed, 318 (84%) reported of always using toilet. The remaining 16 per cent reported of using 'sometimes or mostly'. There are 7 respondents who reported that they 'never use toilet'. When asked specifically how many mornings in the past one week the respondent used toilet for defecation, it was found that out of the 380 respondents, only 270 (71%) have used toilet. The remaining 29 per cent have reported of using toilet only 'some days or most of the days' in a week. There are twelve of them who 'never use toilet'. It is also reported from Tamil Nadu that men, most of the school-going children and even women do it in the open. Child faeces are hardly disposed of in the toilet.

One of the informal chats brought out that it's not sure when the money would be released if they chose to construct a toilet relying on a government programme. Money is released based on progress made by a batch of households. Moreover, they feel that government subsidy is not enough to construct a good toilet. So, they opined that when they would be able to arrange sufficient money, they would construct a good usable toilet. In their opinion, they would end up wasting space in anticipation of government funding for a toilet, which otherwise could be used for constructing a good toilet.

Conclusion

Even in ODF villages, some toilets are not used; some families do not have toilets; some members of the family prefer going for open defecation. The families that have toilets and some members of the family not using it is a matter of serious concern. Behaviour change communication must address such issues. The practice of maintaining the clean toilet and hand-washing at critical times are wanting. The disposal of child faeces in open drainages, and in garbage dumps is another serious issue. A good number of school-age children are not in the habit of using toilets.

Neither toilet use, nor OD is a social norm yet – at least at the societal level. This is because at family level many feel (and expect) that their family members should use toilet. The practice of people doing it in open places still prevails because they have been traditionally doing it in open places. It has been a customary practice. There is no social expectation or norm that one should use toilet or do it in the open. However, the moral norm of individual respondents is in favour of toilet use and not in favour of OD. This is a good trend because it should be possible for sanitation professionals to work towards shifting moral norm progressively to become social norm. We need to work towards making toilet use as universal social norm for India.

Women Representatives at Grassroots (PRI) Level: A Study in Select States

Dr. S. N. Rao, Associate Professor, CPR

Introduction – Women’s Political Space

Women’s political space is a continuous struggle in men’s political world. Although the political space for women is provided by the 73rd Constitutional Amendment with compulsory representation, the male dominance is putting many restrictions to their political participation and decision making. In parliament and legislative assemblies, the women’s representation in legislatures around the world is 15 per cent. Despite the pronounced commitment of the international community to gender equality and to the bridging the gender gap in the formal political arena, reinforced by the Convention on Elimination of All Forms of Discrimination Against Women (CEDAW) and the Beijing Platform of Action, there are only twelve countries where women hold 33 per cent or more seats in the parliaments (UNDP Report, 2005).

The women in India are 48.4 per cent of the total population (in 2018). But political representation was never near to the percentage of women in India. In sixteenth Lok Sabha the women representation was 12.6 per cent and the world average was 24.3 per cent. India stood 149th in the list of 193 countries (2019) ranked by the percentage of elected women representatives in their national parliaments, trailing Pakistan, Bangladesh and Afghanistan and dropping three places since 2018.

From 1952 to 2014 (16th Lok Sabha) the women MPs have increased from eight per cent to 12.6 per cent. In present (17th) Parliament in India the women representation is 14.4 per cent with 78 women members. There was one-woman MP for about eight million Indian women in 1952. By 2014 this was one for more than nine million women – equivalent to the population of Austria. According to data released by the Inter-Parliamentary Union, a multilateral agency in January-2018, Rwanda – currently ranked first country in the world and has 49 women MPs in its 80-seat lower house or one woman MP for 1,11,000 females. The women representations in national parliaments have increased by nearly one per cent to 24.3 per cent in 2018. According to Inter-Parliamentary Union in the Union’s press statement on the yearly report released on 5th March, 2018, the global share of women in parliament continues to rise; it stood at 11.3 per cent in 1995, 18.3 per cent in 2008 and 24.3 per cent in 2018.

According to Inter-Parliamentary Union President and Mexican MP Gabriela Cuevas Barren “More women in parliament means better, stronger and more representative democracies that work for all the people”. There are three African countries –Rwanda, Namibia and South Africa that have

more women participation in Parliament. But no Asian country is in the top 10 list of countries with significant female representation in parliaments, as on 1st January, 2019.

Female representation in state assemblies is even lower than Parliament. According to the data released by the Ministry of statistics and programme implementation (2017) over five years to 2017, female representation in state assemblies was the highest in Bihar, Haryana and Rajasthan (14%). The Mizoram, Nagaland and Puducherry had no elected women representatives in their assemblies.

The country is conducting 17th general elections in April and May 2019 to the Lok Sabha, the issue of women's representation in legislatures is gaining traction. The Indian National Congress chief Shri Rahul Gandhi has promised 33 per cent reservation for women in the parliament and state assemblies if his party comes to power. The Biju Janata Dal has promised to provide 33 per cent women candidates state assembly and Lok Sabha in Odisha. Shri Naveen Patnaik, the Chief Minister of Odisha after introducing the bill for 33 per cent reservation for women in state legislative assembly on 20th November, 2018 has said that "No household, no society, no state, no country has ever moved forward without empowering its women". In West Bengal the Trinamool Congress has fielded 41 per cent of women candidates for the Lok Sabha.

India's political culture must be changed. The women representation should be increased in Parliament and state Assemblies, like in Panchayati Raj system at grassroots level. The representation of women should be made compulsory. The women have the potential to change the society. According to study by the United Nations University World Institute for Development Economics Research (2018), there is a significantly higher growth in economic activity in constituencies that elect women.

73rd Amendment gave a political space to the women at grassroots level and it is a milestone in terms of breaking the barrier of patriarchal mindset. The women were considered 'less equal' than the male representatives in political arena. 73rd Amendment gave an opportunity of 33 per cent representation to the women at grassroots governance. This representation has provided an ample opportunity to women to prove their credentials of leadership, decision making, and delivery of services in rural areas, developing confidence and improving communication skills to change the destiny of rural areas for faster development.

Numerically, in India, there are more elected women representatives (EWRs) in India than the rest of the world. According to the Ministry of Panchayati Raj (website) there are about 13,45,990 lakh

women are in PRIs constituting about 46.14 % of all those elected. Also, there are about 80,000 female Pradhans.

There is growing awareness among women in the PRIs to develop rural areas through their enhanced inherent skills and continue to use them as effective community leaders. The West Bengal Human Development Report observes, 'The participation of women in Panchayats tends to have dynamic effects on the social and political empowerment of women in general. More significantly, the greater presence and participation of women in public life has powerful effects of the situation of women in local society generally. There are numerous examples of how local women leaders have emerged through this process, transforming their own lives and those of the society around them.'

73rd Amendment - Provisions for Women in the Act

The Act provided a reservation of not less than one-third of the total number of seats for women (including the number of seats reserved for the SCs and STs).

Further not less than one-third of the total number of offices of chairpersons was reserved in the Panchayats at each level. This would be rotated among different Panchayats at each level.

Although, the representation is provided to women in Panchayats, hurdles were put up for their participation. One of the hurdles is qualification criteria to contest for Panchayats. For the first time the states of Rajasthan and Haryana has put up a qualification for Panchayat Representatives to enter in PRIs. Later, the government of Rajasthan has repealed in 2018 as soon as the Indian National Congress party came to power. But the state of Haryana has continued the qualification criteria. The present study is a comparative study on 'empowerment and efficiency of qualified women PR representatives' with qualification criterion and women PR representatives without qualification criterion. The study was conducted with the following objectives:

Objectives

- To assess the political empowerment and efficiency of PR representatives with qualification criteria
- To assess the political empowerment and efficiency of PR representatives without qualifications and
- To offer the proximate solutions in further empowerment of women.

Hypothesis

The qualification criteria may enhance the performance of the PR representatives in performing their roles and responsibilities.

Opinions on Qualification Criterion

There are two types of opinion on qualification criterion:

Opinions in Favour of Qualifications Criterion

Literacy will check the embezzlement of funds at the hands of illiterate Panchayat- level representatives. They are in opinion that the Centre is spending crores of rupees on Panchayats and this goes directly to the Sarpanch. There are thousands of pending cases of fund embezzlement against these elected representatives in the state and the standard excuse is that “I am illiterate and put my thumb impression on whatever papers were given to me”

For better accountability

To encourage education in rural areas.

Opinions against Qualification Criterion

- The move is discriminatory to a large section of the rural population, particularly women among whom the literacy rate is the lowest
- The criterion of qualification is discriminatory. It is unfair to implement it with a set of people like Dalits, tribals and the poor who have not got an opportunity to go to school. Poor literacy rate cannot be used to against the disadvantaged sections
- Qualification criterion, excludes the rest of the non-literate women from the possibility of exercising their political right to contest elections thereby defeating the very purpose of the reservation of seats for women in 73rd Panchayati Raj Act
- Literacy should not be equated with their capacity to be effective elected representatives of people. In a democratic country, the minimum education requirement is hindering inclusive participation of all in the grassroots development and governance
- There are no educational qualifications for MLAs and MPs, then why such a rule for the most vulnerable sections who have the least educational qualifications.

There are different opinions on qualification criterion introduced by the states of Rajasthan and Haryana. This is an exploratory comparative study on status of empowerment and efficiency of PR women representatives with qualification criterion and without qualification criterion.

Methodology and Sampling

Two states were selected for the study. These states are Haryana and Bihar. The state of Haryana introduced the qualification criterion to the PR representatives. The state of Bihar has not set up a qualification criterion to PR representatives. It is a comparative study of women representatives of PRIs with qualification criterion and without qualification criterion. In each

state two districts were selected with criteria of women ZP Chairperson. In each district two blocks were selected. In selected blocks, six Gram Panchayats were selected for in-depth study.

In Bihar with the advice of the PR officials' two districts were chosen. These are Bhagalpur and Bhojpur. In each district two blocks were selected. In Bhagalpur district Kahalgaon and Sabour were selected. In Bhojpur district two blocks were selected. These are: i) Jagdishpur and Piro. In Jagdishpur block of Bhojpur district, the Gram Panchayats were Dawa, Chakwa, Sheopur, Harigawn, Bemawa and Shiaura. In Piro block the Gram Panchayats were Amei, Sukhrauli, Narayanpur, Tilath, Barawn, Jamuaon. In Bhagalpur district, Sabour block the Gram Panchayats were Fatehpur, Sardho, Lodipur, Lailakh, Chanderi, Mamalkha. In Kahalgaon block, the Gram Panchayats were Ekchari, Dhanora, Kurma, Siya, Nandlalpur, Gogha. The data was collected from women members. Likewise, In Haryana, two districts were chosen, i.e. Hisar and Kurukshetra. In Hisar district, two blocks, i.e. Barwala and Agroha were chosen. In Agroha block, the Gram Panchayats were Bhana, Chikanwas, Kirara, Mirpur, Sandol and Thaska. In Barwala block the Gram Panchayats are Badopati, Bobua, Dhad, Dhingtana, Khedar and Matloda.

In Kurukshetra district, Thanesar and Ladwa were the chosen blocks. In Thanesar block, the Gram Panchayats were Barna, Barwa, Dayalpur, Dherpur, Jogna Khera and Lukhi. In Ladwa Block, the Gram Panchayats were Bani, Mehra, Gadli, Niwarsi, Lohara and Sura.

The study was based on the qualitative and quantitative data generated from interviews, personal interaction from the sample population at the Gram Panchayat-level. The secondary data was collected from the officers and Panchayats. Semi-structured interview schedule was prepared and administered covering following indicators:

- Socio-economic and literacy status of women
- Education and awareness (roles and responsibilities)
- Education and participation in RD Programmes
- Education and perception
- Education and decision-making
- Education and leadership
- Education and communication skills.

The study examined the empowerment of women in light of 73rd Amendment, and recent amendments to the act by the states of Rajasthan and Haryana which have set up qualification criterion to the PR Representatives. Semi-structured interview schedule was canvassed among the women members and personal interaction was also held to know their opinions on different aspects of PRIs governance and the adequate data collected from the selected respondents to understand the empowerment and efficiency of women in PRIs with qualification criterion and without qualification criterion.

Findings

“No household, no society, no state, no country has ever moved forward without empowering its women,” - Naveen Patnaik, Chief Minister of Odisha.

The present research found that a majority of the women respondents belong to the age group of 31–45 and those of the age group of 21 – 30. It shows that young women have started entering into Panchayati Raj. The young and middle-aged women are more in number. This shows that the young and middle-aged women evinced in serving the people at village level.

Education is a means of acquiring knowledge. In the fast-moving technological world, education plays a vital role. The representatives have to go through several official papers, representations and letters. In India few states like Kerala and Mizoram achieved female literacy on par with male literacy. But rest of the states show a wide gap between male and female literacy. The present research finds the majority of women are from SSLC/SSC, Intermediate (10 + 2) educational background. The educated women have started entering in the Panchayats in Haryana, as the educational qualifications were made mandatory by the Government of Haryana. In other states also the educated women started entering in the Panchayats. It is an encouraging trend that graduates and post graduates also entered in gram Panchayats to serve the people. Besides there are technical people who did ITI also entered in the Gram Panchayat. The literate and primary are very less in selected respondents. There is an encouraging trend that qualified people are entering in Gram Panchayat to serve the people.

The study says that the women respondents are freshers to the political culture and political service. Very few respondents said that they have experience of 6-10 years and 11-15 years. The experienced women are in less number. The experienced members are those who served in the capacity of ward members.

The study shows that the National Political Party in power at centre has dominated at Gram Panchayat level. More than 50 per cent of the candidates are from the ruling party of BJP, which is at power in centre. Surprisingly, the independent candidates occupied the second position. The National party Indian National Congress has occupied the third position. The next number is assumed by the regional parties. It shows that the elections at grassroots level are apolitical, but the political parties do participate and help their candidates to win.

The study identified that the largest group of women respondents identified reservation as chief factor that elevated them to the present position. There are other factors like husband/family members/political parties helped to enter into Panchayats but, the women identified that reservation is the main factor for their representation.

Most of the respondents have studied up to 10th or 12th standard and have studied in regional language. The women members are not aware of the complexities of guidelines, procedure for planning, implementation and monitoring. Because of this weakness, the husbands, officials and local

political leaders exploit their ignorance and innocence. The women members are seen sincere and committed to do develop their villages and implement all the programmes.

The study reveals that a majority of women respondents support good decisions. Modern democracies are party based democracies. The views of majority party prevail in decision making. The need for supporting party views has become inevitable. The collective decision is also seen at the Gram Panchayat level.

Male dominating seems to be the single major problem. Lack of knowledge as a hindering factor is also a factor of negative influence. The next majority of representatives informed that social inequality/caste politics are also hindering factor. The next majority of the representatives informed that official apathy/lack of cooperation in GP. Manipulation of funds is found to be a great hurdle in the implementation of Rural Development Programmes. One Sarpanch of Gram Panchayat says, “officials come for signatures of Sarpanch and keep women representatives in dark, precisely to swindle money”. Many women representatives were hesitant to speak about officials’ misdeeds and also requested to keep their names secret. The researcher’s observations made it clear that on many occasions, the officials dominate women representatives in the meetings. Surprisingly, the officials also give preference to interact with the male members, who accompanied the women representatives.

The women felt that the women can become good leaders by serving the people and felt that few factors make them as leaders. These are: i) Cooperation from husband, ii) Decision making attitude, iii) Hard work iv) Cooperation from public/people v) Family support, and vi) Knowledge. Most of the women believed that husband is behind the success their leadership. A total of 39 per cent women believed that husband’s encouragement is the main factor for women to become as a good leader. The women quote the success of Mrs. Rabri Devi as a Chief Minister of Bihar was with encouragement of Shri Lallu Prasad Yadav to her. But very few women (5%) believed that knowledge/education makes the women as leaders. It is surprising that less women attributes education to make them as a leader. So, there is no correlation between educational qualifications and becoming leaders. But the women representatives know the advantages of education and education helps in many ways. Education provides the courage to speak, improving communication skills also in helps in communicating the people in better way. Education also helps them in knowing about the finances and controls the corruption.

At the grassroots level, the women were provided with the 33 per cent of reservation and at present 21 states have enhanced women representation to 50 per cent. The reservations provided the opportunity of compulsory representation at grassroots institutions. The opportunity of representation should be converted to participation in changing the society, particularly in developing rural areas. The participation should be in decision-making and providing services to the people. At grassroots the women are new to political service and there are many constraints to their participation.

According to the women, the main constraint is men. The politics was the considered the domain of men. The men felt that the women grabbed their political representation. So, the men put up their wives/relatives as candidates. The women failed to utilise the opportunity provided by the constitutional representation. Through the women, men representation continued, particularly in Northern India. Only few women demonstrated that they are good at political participation and made mark of their own.

Women's political representation through reservations grabbed the opportunity of men. Although, the reservations were provided, the women were not able to come out from the clutches of men. In Haryana the researcher went to one Gram Panchayat to interact and interview the woman Sarpanch and women ward members. But in Gram Panchayat the husbands were present. They have informed the researcher that the women members never visit Gram Panchayat. If the signature of the Sarpanch and members is needed the papers will be sent to their houses for signature. Most of the women (44%), expressed that they were still dependent upon husband/men/relative/family members. Although, women are provided the political space at grassroots only few women exercised their option of political space provided to them. So, the women's participation at grassroots level has a long way to go.

Conclusion

The empowerment is a slow process. Providing representation to the women is not enough but their capacities has to be increased to make them equal with the men. Once their capacities are increased, the women have the potential to change the rural society. To empower women, their capacities have to be enhanced. As soon as they were elected to Panchayats, the induction training should be provided in different modules. The first training should be about PR system, 73rd Amendment, 29 subjects and the PR as an institution of development and social change at grassroots level. The second module should be on inner strengths of women and their role as change agents at grassroots level. The module also should include leadership qualities and their capacity to reduce their dependency on husband/men/relatives and family members. Third module should be on GPDP, i.e., annual and perspective plan of Gram Panchayat and also to plan, implement and monitoring of RD Schemes.

The other modules should be on skills of participation, decision-making, service delivery should be provided. The training should be provided with the interval of every three months. In each module the women should be taught independent political participation without being dependent on husband/men/relatives/family members. The study concludes that there is no correlation between and educational qualifications and performance at grassroots level. The women members felt that education is important and enhances the knowledge and communication skills. But qualification criterion is a negative and stops the growth of the people, politically. The women members felt that

there is no educational qualification criterion to be elected as the President of India, the Prime Minister, the members of Parliament and the members of Legislative Assembly.

But for Panchayat members, the educational qualification criterion is a negative aspect and stops the initiation of political career and felt that this act should be repealed immediately. Although, the women take the help of husband/family members, in guiding their political career, they have also started taking independent decisions. This fulfils the process of empowerment of women. Shri Mao Zedong, Chairman of Chinese Revolutionary Party rightly says that “Women hold up half the sky”.

GIS Based Study of Existing Community Infrastructure and Optimum Requirements at Gram Panchayat Level for Assessment of Gaps using Participatory and Departmental Approach: A Case of Gram Panchayat Hantra, District Bharatpur, Rajasthan

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Introduction

Planning at village/GP-level is a crucial aspect in Rural Development. Planning is done at the level of GP in pieces and in scattered manner. Secondly, every department is having their own norms and guidelines. Further, works remained continued in the villages since the formation of villages and, in more formal manner after independence. Gram Panchayat Development Plan approach, started under the Fourteenth Finance Commission is also spreading its wings to cover all the schemes and functions in one umbrella at least for planning and monitoring purpose. In parallel other ambitious programmes of Government of India like Sansaad Adarsh Gram Yojana (SAGY), Rurban are also under implementation for making some models of development.

Generally, the works are executed without holistic approach in planning and there is no proper entry or exit criterion in the development cycle.

Having an entry criterion like, what are the existing assets in the village with continuous further inventory of assets will be important in planning and monitoring. Working on questions like ‘what are the problems/demands of villagers?’, ‘what are the norms of the departments?’, and as per those ‘what are the saturation/optimum requirement level for the assets?’, ‘what are the possibilities for reaching saturation level?’, and exit criteria like ‘what are the gaps between possibilities and demands?’ are necessary. These are the basic research questions or the primary steps in holistic planning to attain the saturation level of infrastructure, with further investment on maintenance aspects and incremental development with population growth only, in future.

Further, almost all regions in Indo-Gigantic plains have less slopes and poor drainage system. They are facing stagnation of water inside the villages and it is a major problem after the drinking water problem in these areas. The study involves applications of drone survey also for analysing and proposing solutions for drainage related problems of study village Hantra.

The study has dealt with above questions.

For having the focused approach out of diverse sectors of development at root level, only community infrastructures have been taken into consideration under the study.

The study comes under sixth area of ‘Basic Amenities and Services’ of eight holistic development areas for grassroots development of NIRDPR.

Objectives

- To survey and map existing community infrastructure of Gram Panchayat
- To assess ideal/optimum community infrastructure requirement of Gram Panchayat through participatory and departmental approach
- To analyse and map gaps in community infrastructure and suggesting infrastructure development plan of GP
- Estimation of tentative cost for works and suggestions on inclusion in GP and departmental development plans.

Methodology

For inventory of existing infrastructure open source mobile based Android app OSMAND was used and for all GIS related analysis open source QGIS software was used. Public needs/demands were collected 'Ward-wise' and validated and refined at Village and GP level through public meetings, focused discussions. Relevant departments at GP, block, district and state level were contacted for norms of having new assets and repairs and maintenance, etc. Demands were analysed with respect to saturation level of assets as per norms. Gaps were identified between possibilities and demands. Based on feasibility and demand and eligibility in guidelines, schemes or alternative resources were suggested. Drone/UAV survey 2D and 3D images were analysed for applications in drainage plans in particular and in other general aspects. The study covered following broad work flow:

Study Area

Gram Panchayat Hantra, block Nadbai, district Bharatpur comprises of three villages, namely Hantra, Arauda and Nagla Banjara. Village Hantra (Latitude 27° 8' 8.62" N, Longitude 77°14' 10.91" E), and Arauda (Latitude 27° 7' 57.21" N, Longitude 77°13' 5.85" E) are situated on NH- 11 between Jaipur and Agra and the third and small village named Nagla Banjara (Latitude 27° 7' 26.00" N, Longitude 77°14' 0.43" E) is situated in southern side of NH-11.

Findings

- With time gaps and frequent transfer of GP-level functionaries, the record of assets is not properly maintained. Searching physical location of old assets is also difficult.
- While the road construction is at first priority at National and State level in GPDP and FFC, it is at fifth in priority of villagers as per study.
- Open wells are abandoned in the area, hand pumps are non-feasible and deterioration of roads are result of poor drainage.
- In Health, Education and Electricity sector, service delivery is concerned more in comparison to quantity assets.

- Demands of villagers and priorities are having variations from official GPDP at GP level and from State and National levels consolidated plans/expenditures.
- Technical norms are less valued in comparison to public or political pressure and these norms are changed for public demand which may lead to severe stress on natural resources like groundwater.
- Habitation areas of villages are sprawled by 398 per cent in Arauda, 330 per cent in Hantra and 105 per cent in Nagala Banjara from originally allotted habitation areas in revenue maps of the villages.
- As per current norms hand pumps are to be at least 100 meters apart from each other. Out of 47 hand pumps only 4 are more than 100 meters apart from each other, rest all are less than 100 meters from other nearby hand pump.
- When more than one parameter like population, distance and time, etc., is under consideration in norms, the weightages and priorities within parameters are not clearly defined.
- Many strong local demands are not be permissible in general schemes (like Gaushala and solution for open electric wires), but these are on high priority of villagers in comparison to permissible demands/works.
- The demands like CCTV at selected places/towers, street lights and community toilets, etc., were felt as secondary demands and much interest was not shown by villagers, while these are more stressed in RURBAN and SAGY, etc.
- Maintenance of assets is a growing concern now with increased infrastructure at GP level and requires more systematic and formal approaches.
- Overall expenditure of GP is declining including MGNREGA. Local rivalry in GP representatives and transfer of secretary was shown as a reason. Hence, it is an indication that the development in villages is mostly person centric.
- For inventory, visualisation and analysis of internal assets and drainage management Drone/ UAV surveys of Gram Panchayats are essential to work in GIS, at household/parcel/ward/ village levels, which is not possible with any other commonly available remote sensing data.

Conclusion/Recommendations

Point wise details are as follows:

- Scope and definitions of wards are to be increased as planning unit, in addition to election purpose
- Local demands of high priority like Gaushala and solution for open and low hanging high voltage electric wires should be included in GPDP and be addressed with alternative resources and political will

- To remove local infrastructure disparity, concept of village wise asset density may be considered as a criterion in planning
- During planning, focus should be on problems and best solutions, not the budget and type of assets
- More stress is required on service delivery aspects in Health, Education and Electricity sector, in comparison to infrastructure
- For a type of assets, one department should be nodal for all its technical aspects, irrespective of executing agency
- A balance is required in public requirements and technical feasibility
- In PMGSY, population criteria should be linked to latest Census survey for new connectivity
- Prioritisation and integration of norms/parameters is required, if more than one parameter is to be considered in execution of any work
- Saturation centric, budget and scheme/guidelines independent planning is required at initial level
- Placing dedicated technical staff at each Gram Panchayat is necessary
- Proper guidelines for maintenance aspects of assets are required
- Coding and inventory of existing works with continuous update/addition with time is necessary
- Road levels are to be fixed permanently on important distance points on roads and maintained in future during road works to reduce drainage problems in villages and to save the houses along the roads from water stagnations
- Construction of Gaushalas in the area are required
- Environmental sustainability is to be given due priority in all norms
- Training and capacity building of selected block and Panchayat functionaries on use of GIS data generated from study is necessary.

Conclusion on use of Drone in Village level planning and generation of drainage plan:

Including MGNREGA, each Panchayat of country may be spending on and average around Rs. one crore per annum on development of their Gram Panchayat. Available satellite images are not of much use at GP/Village/Ward level for fulfilling the requirements of proper depiction, planning and monitoring at village/ward/asset levels. In this situation Drone/UAV survey is looking as essential

step towards 'Smart Village' concept and in comparison, to quantum of work and fund flow to the villages/GPs, investment of Rs. 2,00,000- 3,00,000 average on each Gram Panchayat will be a boon for having proper planning. If Drone/UAV surveys can be repeated after every 3-5 years, this will be ultimate resource for monitoring also as the temporal variations and development in infrastructure and natural resources can be monitored precisely. Many prevailing and perpetual problems of villages can be handled well with the availability of original drone surveys in open source GIS environment along with free mobile mapping tools.

Performance of Women Representatives at GP-level – A case study in Hailakandi Development Block of Hailakandi District, Assam

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Introduction

The 73rd Constitutional Amendment in 1992 has brought down a major change in the rural area and local self-governance. One of the important provisions in this amendment was to reserve seats for women in contesting PRI election. It was a remarkable step to provide political empowerment to women. The participation of women is increasing in different parts of the society but there are lots of cases, where women in public office are yet to prove their visible impact in terms of leadership positions and power over the decision-making process. There are many instances, where they are simply used as an extension of male power structures. Assam had implemented the new three-tier Panchayat Raj system under Assam Panchayat Act 1994. The outline adopted in the three-tier system of Panchayati Raj included a Zilla Parishad at the district-level, the Anchalik Panchayats at the block-level and Gram Panchayats at the Village-level. The Gram Panchayats have been playing a significant role at village-level with an objective of improving the standard of living of the rural people and attaining social justice. Their main functions are to provide pure drinking water, construction and repairs to roads, education, provide drainage facility, streetlight facility, and provide funds for backward class people, etc. The major income source of Gram Panchayats comes from house tax, fair, health, water and market, etc., penalty and fees, and various grants from state and central governments. The main focus of this research work was to identify the factors, which are affecting the performance of the women representatives. Against this backdrop, an attempt was made to study and document the performance of the women members of Gram Panchayats and offer suggestions. The analysis will be carried out for the lowest tier of local government — the Gram Panchayat (GP) more specifically the women representatives of GP.

Objectives and Hypothesis of the Research Study

The objectives of the present study are as follows:

1. To construct Performance Index of Women Representatives
2. To analyse the performance in development activities by women representatives of Gram Panchayats under Hailakandi development block of Hailakandi district

3. To study the influence of key socio-economic variables on the performance of the women representatives of Gram Panchayats under Hailakandi development block of district

The third objective needs clarification. The key socio-economic variables considered in this study that may influence the performance of the women representative are: (i) awareness (ii) Ward Sabha conducted (iii) roles & responsibilities (iv) participation in meetings (v) participation in school management committee meeting (vi) reservation (vii) training (viii) decision-making (ix) daily time devoted (x) educational qualification (xi) age (xii) number of family members.

Hypotheses of the present study are as follows:

1. There is no significant difference between the 'satisfactory women groups' and 'unsatisfactory women groups' in terms of their performance in the development activities of the village
2. Performance of the selected women representatives of Gram Panchayats under the Hailakandi Development Block of Hailakandi District are not influenced by the key socio-economic variables.

Methodology of the Present Study

In this study, the performance of women representative means performance in various important development indicators. Here, performance is explained in terms of percentage of achievement. Therefore, total five important sectors were identified: Open Defecation free (ODF), Literacy (LTRC), Safe Drinking Water (SDW), Rural Electrification (RE) and Liquid Petroleum Gas (LPG). During survey, the women representatives were asked to provide their opinion in the overall achievement in the Open Defecation free status of their respective village, literacy of their respective village, providing safe drinking water to the households of their respective village, providing rural electrification connection to the households and providing Liquid Petroleum Gas (LPG) connection to the households of their respective villages. Accordingly, Composite index has been formed using TOPSIS method using (i) Distances, (ii) Weights and (iii) Sum of Squares.

$$(PI)CI_j = \frac{L(J, IDR)}{L(J, IDR) + L(J, NIDR)} \text{-----} (1)$$

Where, $j=1, 2, \dots, m$

Both the values of W_i & CI_j lies between 0 and 1.

In the regression model, we generally regress the explanatory variables or Independent variables on dependent variables. The present study uses ordinary least squares regression analysis incorporating certain key variables that have pivotal role in determining the performance of the women representatives. From the review of literature, total nine independent variables were listed

which were supposed to affect the dependent variable, i.e. performance of women representatives. These independent variables are Awareness (AWN), Ward Sabha Conducted (WSC), Roles & Responsibilities (RR), participation in meetings (PAR), participation in School Management Committee (SMC), Reservation (RSVN), Training (TRN), Decision-Making (DM), and Educational Qualification (EQ). The dependent variable is Performance Index (PI) of Women Representative. We can write the Performance function as follows:

$$P.I = f(AWN, WSC, RR, PAR, SMC, RSVN, TRN, DM, EQ)$$

Therefore, the regression model for identifying the influences key socio-economic variables on Performance is:

$$P.I = \alpha + \beta_1 AWN + \beta_2 WSC + \beta_3 RR + \beta_4 PAR + \beta_5 SMC + \beta_6 RSVN + \beta_7 TRN + \beta_8 DM + \beta_9 EQ + \mu_i \text{ ----- (2)}$$

In this above model α is intercept coefficient, and all the β s are slope coefficient and μ_i is an error term. In this regression model four dummy variables are used, these are:

- School Management Committee (SMC), 1 for Member of School Management Committee and 0 for otherwise
- Reservation (RSVN), 1 for Yes and 0 for otherwise
- Training (TRN), 1 in case of attending training more than once per year otherwise 0
- Education Qualification (EQ), class I to Class V than it has recorded as 1, class VI to class VII recorded as 2, class IX to Class X recoded as 3, class XI to Class XII recorded as 4, Graduate and above recorded as 5.

Again, to test statistically significant difference among the performance of the women representative's, two separate groups has been prepared based on the Composite index result of performance in the development activities. The two groups are satisfactory women groups where performance index results is > 0.50 and another is unsatisfactory women groups where performance index result is < 0.50 . After this with the help of t-Test the significance has been tested.

Study Area and Data Collection Method: Data collected for this study is purely primary in nature. Sample selection is entirely purposive random sampling. A sample of 60 women representatives from the fourteen Gram Panchayats under Hailakandi development block of Hailakandi district were selected from the population of 77 by the determining sample size with confidence level of 95 per cent and confidence interval of five per cent. Only women Gram Panchayat Presidents and Ward Members were selected for interview with a well-structured pretested interview schedule. Hailakandi district has 05 (Five) development blocks and having a total of sixty two (62) Gram Panchayats (GP). There are 14 Gram Panchayats in Hailakandi Development Block with 14 GP Presidents (01

nos. in each GP) and 140 GP Members (10 nos. in each GP).

Findings

We have estimated the Performance Index (PI) equation as in equation (2) into four models due to multicollinearity problem and following results has been obtained.

Source: Author's estimates based on primary data,

Table: 1.1 Estimated Result of the Regression Model				
Independent Variables	Model 1	Model 2	Model 3	Model 4
Constant	.185 (5.15)*	.172 (4.88)*	.167 (4.11)*	0.352 (6.6)*
Awareness (AWN)	.009 (2.48) *	.009 (2.41) *	.007 (1.78)**	-
Ward Sabha Conducted WSC	.010 (2.68) *	.008 (1.98)**	.017 (4.42) *	-
Roles and Responsibilities RR	.024 (2.88) *	-	-	-
Participation in Meeting PAR	-	.001 (2.75) *	-	-
Participation in School Management Committee SMC	-	.053 (2.80) *	-	-
Reservation RSVN	.098 (4.23) *	.083 (3.51) *	.107 (4.46) *	-
Training TRN	.060 (2.15)**	.072 (2.79) *	.074 (2.71) *	-
Decision Making DM	-	-	.019 (2.12)**	-
Educational Qualification EQ	-	-	-	0.05 (2.48)**
Number of Observation N	60	60	60	60
R Square	0.770	0.792	.755	0.10
DW	1.893	2.11	1.87	1.97
F-Stat	36.184	33.555	33.336	6.15
Prob. (F-stat)	.000	.000	.000	0.016

Notes- Figures in parentheses are t-statistics, * & ** denotes significant at 1 per cent & 5 per cent level respectively,

In Model 1 we have regressed Awareness (AWN), Ward Sabha Conducted (WSC), Roles & Responsibilities (RR), Reservation (RSVN), Training (TRN), on Performance Index. Here, Constant is positive and highly significant at one percent level. All the selected variables are positive and highly significant at one per cent level except training is significant at five per cent level. The Model is also highly significant with R square value is 0.770, which means all the key variables are playing the significant role in explaining the performance of the women representatives; therefore, in this model we are rejecting our null hypothesis.

In Model 2 we have tried to regressed Awareness (AWN), Ward Sabha Conducted (WSC), Participation in meetings (PAR), Participation in School Management Committee (SMC), Reservation (RSVN), Training (TRN), on Performance Index. Here, Constant is positive and highly significant at one per cent level. In this model also all the selected variables are positive and highly significant at one per cent level except Ward Sabha Conducted is significant at five per cent level. The Model is also highly significant with R square value is 0.792. Which means in model 2 all the key variables are playing the significant role in explaining the performance of the women representatives; therefore, in this model 2 we are rejecting our null hypothesis.

In Model 3 we have regressed Awareness (AWN), Ward Sabha Conducted (WSC), Reservation (RSVN), Training (TRN), Decision Making (DM), on Performance Index. Here, Constant is positive and highly significant at one per cent level. In this model also all the selected variables are positive and highly significant at one per cent level except Awareness and Decision Making which are significant at five per cent level. The Model is also highly significant with R square value is 0.755. Which means in model 3 all the key variables are playing the significant role in explaining the performance of the women representatives. Therefore, in this model 3 also we are rejecting our null hypothesis.

In Model 4 we have regressed Educational Qualification (EQ) separately on Performance Index. Here, we can also find that Constant is positive and highly significant at one per cent level. In this model Educational Qualification is positive significant at five per cent level. The Model is also highly significant at one per cent level with R square value is 0.10. Which means in model 4, although the variable is highly significant but the fitness of the model is not satisfactory as the R square value is very less. But the important point is that Educational Qualification has a positive impact on the performance.

From the above regression results our finding is that all the selected determining variables, i.e. Awareness (AWN), Ward Sabha Conducted (WSC), Roles & Responsibilities (RR), Participation in meetings (PAR), Participation in School Management Committee (SMC), Reservation (RSVN), Training (TRN), Decision Making (DM), Educational Qualification (EQ) all are positively and also significantly influencing the performance of the women representatives and hence we are rejecting our null hypothesis.

Estimated Result of t-Test

Table 5.2: Result of t-Test: Two-Sample Assuming Equal Variances		
Variable	Mean	Mean Difference
Performance of satisfactory women's representatives' group	0.64	t = 12.89*
Performance of non-satisfactory women's representatives' group	0.38	

Source: Author's estimates based on primary data,

Notes- Figures in parentheses are t-statistics, * denotes significant at one per cent level, respectively.

Table: 5.2 represents the result of t- Test two sample assuming equal variance, where we can find that the mean value of Performance of satisfactory women's group is 0.64 and mean value of Performance of non-satisfactory women's group is 0.38. The |t| value is 12.89 and it is highly significant at one per cent level. So, we can reject our null hypothesis that there is no significant difference between the 'satisfactory women groups' and 'unsatisfactory women groups' in terms of their performance in the development activities of the village. It implies that the performance of women representatives in the development activities is highly significant.

Conclusion

Panchayat Representatives are playing a very vital role in improving the quality of life as well as local self-governance in the village area. In this study we have considered only the women representatives of Gram Panchayat-level that is GP president and Ward Members of various Gram Panchayats under Hailakandi Development Block of Hailakandi District, Assam. We have collected a sample size of 60 numbers of women Panchayat representatives to find out their performance and the various factors affecting their performance. Accordingly, performance index has been prepared by applying composite index TOPSIS method with Shannon's Entropy Measure of Weight and the performance index is regressed by various key factors using ordinary least square method. The result shows that Awareness (AWN), Ward Sabha Conducted (WSC), Roles & Responsibilities (RR), Participation in meetings (PAR), Participation in School Management Committee (SMC), Reservation (RSVN), Training (TRN), Decision Making (DM), Educational Qualification (EQ) all are positively and also significantly influencing the performance of the women representatives. It is also found that the performance of the women representatives in the development activity is also highly significant.

Bibliography

- Baluchamy, S. (2004), Panchayati Raj Institutions, *Mittal Publication*, New Delhi, pp. 178-193.
- Datta, Sujit Kumar and Ghosh, Dilip Kumar (2006), Institutions for Development: the Case of Panchayats, *Mittal Publication*, New Delhi
- Dinesh, G. M. and Nayak, Mangala A. (2005), Gram Sabha and Ward Sabha in Rural Development: A Review of Karnataka Experience, *Southern Economist*, Aug. 1, 2005, pp. 26-29.
- Dutta Nikunjalata (1989), Village Panchayats in India a Case Study of Assam, *Mittal Publications*, New Delhi.
- Geol S. L. and Rajneesh Saline (2003), Panchayat Raj in India Theory and Practice, *Deep and Deep Publishing Private Ltd.* New Delhi
- George Mathew (ed) (2000), Status of Panchayati Raj in the States and Union Territories of India, Institute of Social sciences, *Concept Publishing*. New Delhi.
- Gupta J.P.(2006), Rural Local Self Government in Punjab, Its Evolution, Functioning and Functional Deficiencies, *Centre for Research in Rural and Industrial Development*, Chandigarh. (www.crrid.res.in).
- Mathur, Kuldip (2013), Oxford India Short Introductions Panchayati Raj, *Oxford University Press*, New Delhi, 172pp
- Singh Satyajit (2016), The Local in Governance: Politics, Decentralization, and Environment, *Oxford University Press*. New Delhi, 2016, 144 pages
- Tiwari Nupur (2012), Women and Panchayati Raj, *Yojana* New Delhi. pp 36-40.
- Verma, B. M. (2002), Social Justice and Panchayati Raj, *Mittal Publication*, New Delhi

Comparative Study Between Annual Land Productivity of Shifting Cultivation and Nûl Farming (Seasonal Farming at River Bank) in Kolasib District, Mizoram, India

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Introduction

In Mizoram, most of the rural cultivators are practicing traditional shifting cultivation while a few of them adopted nul cultivation (cultivation in the river bank) as of today. In order to instil the importance and benefits of systematic and permanent farming practice to the rural populace, it is needed to come up with cogent evidence. For this purpose, a common cultivation practice among the local people called as nul farming (seasonal farming at river bank) was used to compare and analyse the economic potential of shifting cultivation.

Objectives

1. To study the productivity of shifting cultivation and nul cultivation practice
2. To obtain the benefit – cost ratio (BCR) for shifting cultivation and nul cultivation
3. To analyse the economy and efficacy of cultivation system/pattern with respect to shifting cultivation and nul cultivation.

Methodology

Sampling Technique: A sample of 40 farmers was selected in which 20 farmers represent shifting cultivators and while the remaining 20 farmers represent nul.

Data and its method of collection: The study was based on primary data like input for land clearing, sowing, weeding, harvesting, transportation and post-harvest management. The primary data recorded by the sample farmers have been collected on cost and return from the cultivation. The primary data required for the study were collected by using the pre-designed common questionnaire for both type of cultivations.

Analysis of Data

- Productivity of shifting cultivation and nul cultivation
- Benefit Cost Ratio (BCR)
- Analysis for economy and efficacy of cultivation system/pattern.

Study Area

S. No.	State	District	RD Block	Village	No. of respon-	Represent
1.	Mizoram	Kolasib	Thingdawl RD Block	N. Hlimen	20	Shifting cultivation
				Hortoki	20	Nul cultivation

Findings and Conclusion: In the present study, it is found that there may be no significant correlation between area of cultivated land and neither productivity nor benefit-cost ratio (BCR). On the other hand, it is observed that nul system of cultivation is giving better capacity to yield higher productivity with more benefit-cost ratio while shifting cultivation is resulting into lower productivity as well as lesser benefit-cost ratio.

Impact of Rural Housing Programmes on Infrastructural Development of Rural Poor - A Case Study of Kalahandi District of Odisha

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Introduction

Housing is one of the basic necessities for human survival. For a normal citizen owning a house provides significant economic and social security and status in society. For a shelter less person, a house brings about a profound social change in his existence, endowing him with an identity, thus integrating him with his immediate social surroundings. As per 2001 census, the housing shortages in India was 2.47 crore out of which 1.41 crore was in rural areas. The Central and State governments are relentlessly engaged in providing low cost permanent shelter under various housing schemes. IAY is one of such flagship programmes under the Ministry of Rural Development which has its origin in National Rural Employment Programme of 1980 when housing was a major activity. Initially, IAY was exclusively targeted for SC, ST and bonded labourers. Its scope was expanded to cover non-SC, ST and poor people since 1993-94. By the end of tenth plan, a total number of 2.25 crore houses have been constructed under this scheme. The rural housing programme is sponsored by the Central government with 75:25 Central and State share. In the earlier phase of IAY, greater emphasis was given for construction of cluster houses. These cluster settlements were normally located away from the main habitation and depended upon the availability of land. The cases are in abound where provisions were also made to create the common socio-cultural facilities, road linkage for access to create the common socio-cultural facilities, road linkage for access to market and place of work. But these infrastructure facilities were not adequate and in a new settlement, people were faced with several day-to-day inconveniences like having to walk longer distances to go to school, far of places for primary healthcare and most particularly the access to drinking water and sanitation, electricity, connectivity and employment. For these difficulties, the beneficiaries were encouraged to construct individual house in the main habitation, on their existing house-sites. This has obviously increased the accessibility of beneficiaries to various basic services like drinking water, sanitation, electricity, market, school, drainage, road and hospital leading to improvement in quality of life and standard of living.

Objectives

The objectives of the study are:

1. To study the coverage of rural housing programme in Kalahandi district and to find out socio-economic development of the beneficiaries
2. To assess changes in the infrastructure and habitat development in terms of the following aspects:
 - (a) Enhances livelihood opportunities and economic worth of the rural areas
 - (b) It includes provision of the core facilities of drinking water, sanitation, disposal of waste materials, power supply, roads, health care and education, etc.
3. To assess the participation of rural families in planning and implementation of housing programmes.

Study Area

Some efforts had been made to study the impact of various schemes and the deficiencies in implementation. The present study contemplates to supplement an impact study of Indira Awaas Yojana (IAY) to bring about the infrastructural development of rural poor. That has been passed on to the beneficiaries and problems if any in meeting the aspirations of the people. To begin with Kalahandi District of Odisha State is chosen as study area.

Status of Houses completed under IAY with respect to District, State and Country

Year	Kalahandi	Odisha	India
2015-16	7,283	1,20,379	5,66,766
2014-15	7,188	1,38,972	14,66,856
2013-14	4,718	1,15,947	15,38,566
2012-13	2,211	19,361	15,08,117
2011-10	102	2,274	5,88,919
2010-11	09	344	2,14,359

Methodology

A three-stage sampling design is adopted with first stage as the Gram Panchayat, the second stage as the village and the third stage as the beneficiary household. Four Blocks were selected out of 13 blocks of Kalahandi district of Odisha adopting purposive sampling method. The selected blocks are (1) Narla, (2) Bhawanipatna, (3) Junagarh and (4) Dharmagarh. These are well connected to the district headquarters.

The list of beneficiary households who were assisted under IAY over the period under study (2013-2016) with their year of receiving the assistance and caste group-wise break-up was obtained for

each village within each Gram Panchayat in the block of Narla, Bhawanipatna, Junagarh and Dharmagarh. A list is prepared on the basis of the register (year-wise/village-wise) that are with block Narla, Bhawanipatna, Junagarh and Dharmagarh. The village and GP 'sizes' are obtained from this updated list. The distribution of the number of beneficiaries assisted under IAY in all GPs of four blocks and in selected four GPs out of 26 GPs in Narla, four GPs out of 36 GPs in Bhawanipatna, three GPs out of 34 GPs in Junagarh and four GPs out of 24 GPs in Dharmagarh block were selected during 2013-2016 and the details of Blocks & GPs of the present study are also shown in Table 1.

Table 1: Distribution of Number of Sample Beneficiaries Covered under IAY during the Year 2013-2016 in Kalahandi District

S. No.	Name of Block	No. of sample GPs selected	No. of Sample Villages selected	No of Sample Beneficiaries
1.	Narla	4	20	100
2.	Bhawanipatna	4	16	72
3.	Junagarh	3	07	29
4.	Dharmagarh	4	12	81
Total		15	55	282

At the second and third stage, the selected sample beneficiaries are randomly drawn from villages of selected GPs of four Blocks of Kalahandi district, i.e. 100 sample beneficiaries from 20 villages of four GPs of Narla, 72 sample beneficiaries from 16 villages of four GPs of Bhawanipatna, 29 sample beneficiaries from seven villages of three GPs of Junagarh and 81 sample beneficiaries from 12 villages of 4 GPs of Dharmagarh Block are shown in Table 1. Thus, four blocks, 15 GPs, 55 villages and 282 sample beneficiaries were contacted under the study.

As it is a comprehensive evaluation, two types of data are collected (i.e. Primary and Secondary) at three levels, viz. District, Block and household. The primary data are collected from the field by one schedule for one respondent beneficiaries. Altogether 282 respondents are interviewed through these structural schedules. While secondary data is regarding target achievements and release of funds, etc., are collected from official records of the block/DRDA office, other important data like operational problems are collected by help of intensive discussions with PRI Members, field officers and staff. Specific case studies were undertaken in order to ascertain the concreteness and depth of some of the typical quantitative problems affecting the beneficiaries at the micro-level during implementation of IAY at the field-level. Therefore, to have a closer look at how the programme operates at the ground-level, in-depth interviews were conducted by an experienced investigator. These studies were carried out with a view to seek clarifications and to enforce the quantitative data collected through well planned schedules. All the three techniques, viz. survey method, personal in-depth interviews and case

studies were followed in order to capture the type of information needed in keeping with scope of this evaluation of different aspects of study.

Findings

The major findings of the study are as follows:

1. In the selection of beneficiaries, among SC/STs the STs have got weightage over the SC population. As against 60 per cent for both SCs and STs stipulated together in the guidelines, they comprise 63.1 per cent of the total beneficiaries. This may be due to the reason that extra care has been taken particularly in targeting the scheme to members of SC and ST population
2. The average family size of the IAY beneficiaries of the district is 3.3 per cent. The size of the house is 200 sft which is inadequate
3. The second largest number of beneficiaries for IAY house were found to be agriculture & non-agriculture labour who together comprise 40.5 per cent of the total allotment
4. As per guidelines, IAY houses should be allotted in the name of female member, only 34.0 per cent of houses were reported to be allotted in the name of female member
5. The study reveals that 47.2 per cent of the IAY households have been more benefited from the rural housing programmes as they have increased their income level and their annual income is more than Rs. 24,000 per household
6. Again, 42.2 per cent of the beneficiaries are however marginally benefited from the scheme. Their income level is slow. The annual income of these beneficiaries are Rs.12,000 to Rs.23,999. Also, 10.6 per cent of the beneficiaries are slightly benefited from the scheme
7. As per allotment of IAY house, 91.8 per cent of the respondents of the sample population of the study were reported to have possessed the pucca house while 8.2 per cent of the respondents have possessed the kutcha house
8. Majority of the IAY beneficiaries deviated from the norm of 200 sft built-up area. The primary reason given for exceeding the norm of 200 sft house was the inadequacy of accommodation for socio-economic pursuit of the beneficiaries
9. 57.1 per cent of beneficiaries reported having spent additional amount of over Rs. 15,000 for the IAY house. The beneficiaries mobilised additional investment from various sources like own savings, sale of their resources or loan from others
10. Majority 92.6 per cent of IAY beneficiaries were reported to use drinking water from tube well whereas six per cent from pipe water

11. Majority 92.6 per cent of IAY beneficiaries were reported to use drinking water from tube well whereas six per cent from pipe water
12. For all IAY houses, construction of toilets is mandatory. Only 44 per cent were constructed and a majority were not constructed
13. The IAY beneficiaries were to get assistance from different schemes like MGNREGS, social security schemes and food security schemes. 55.0 per cent respondent beneficiaries were to get assistance from MGNREGS, 15.2 per cent from social security schemes and 99.3 per cent from food security schemes.

Conclusion

The study specified that the Rural Housing Programme has a positive impact on the beneficiaries. It is observed that standard of consumption of food and nutrition, housing, clothing, education, health and entertainment, etc., have improved. During the course of survey, it has been found that about of the beneficiary household have improved with regard to food and nutrition, housing, clothing, education, health and entertainment, etc., in Kalahandi district. On different angle the Rural Housing Programme helps to improve the living conditions of the rural poor.

State, District, Block & GP-level functionaries play a central role in the housing and habitat development in rural areas. The Panchayati Raj Institutions have to make a lead in village-level micro-planning and prioritising housing and habitat development needs. The potential of Self-Help Groups in rural housing needs to be recognised and NGOs need to be involved in rural housing schemes for better implementation. The critical role played by the targeted beneficiaries has to be recognised. The role of private sector and manufacturing units will have to be harnessed suitably. Effective delivery will require capacity building of all the stakeholders involved in housing and habitat development.

Social Impact of Mahatma Gandhi NREGS Works: A Study on Sanitation Works in Bilkhawthlir R.D Block, Kolasib District: Mizoram

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Introduction

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is one of the important flagship programme of Government of India. It is an ambitious scheme providing employment to rural people of India. The basic aim of the scheme is to enhance livelihood security of households in rural areas. By this scheme government gives assurance of employment to unskilled rural labour for 100 days. It also aims at transforming the rural areas by improving the socio-economic conditions of people.

It (MGNREGA) is a powerful instrument for ensuring inclusive growth in rural India through its impact on social protection, livelihood security and democratic empowerment. The government has spent huge amount of money for the upliftment of rural poor every year. It is useful for the betterment of the rural people not only for the wage employment, but also for the improvement of their health condition through good sanitation practice. Therefore, it is essential to conduct a research to ascertain the effectiveness or impact of the rural development schemes and programmes socially or economically. So, the State may find a better way to improve implementation of the programme in the area. In this study, the main issues to be studied are to find out its social impact of the scheme.

Objectives

The study was exploratory in nature no formal hypothesis to be tested is put forward at this juncture.

The specific objectives of the study are as follows:

1. To study the planning and process of implementing sanitation works
2. To assess the utility and usefulness of sanitation works
3. To study the impact of sanitation works in terms of social benefits derived
4. To encourage the benefits of convergence with other development schemes.

Methodology

The main tool of data collection was the interview schedule. Primary data was collected from the various groups of respondents from the sample villages with using interview schedule. The people

of the villages form the most important source of information. For household- level, a total of 104 households with six Village Council members were selected. In all, 110 beneficiaries (including VC Members), from the three villages had been interviewed. Secondary data was collected from documents of the government institution like Block Development Office (BDO), Bilkhawthlir, CMO Office, Kolasib, Registrar, death and birth of the selected villages, etc. The household-level information was collected during the period from November 2016 to January 2017. The study was limited to three villages under Bilkhawthlir Rural Development block viz. Bukvannei, Saiphai and Bilkhawthlir.

The data was analysed and processed in Microsoft Office Excel by using statistical technique such as percentage and mean. In this study, we applied qualitative analysis and quantitative analysis. Qualitative analysis was done by observation of field visits and case studies, etc., and quantitative analysis was done by percentage of the beneficiaries of individual household. Moreover, the impact of sanitation works on the social benefit especially improvement in public health was measured based on health indication in comparison between before and after implementation of the scheme in the areas.

Study Area

The study area-Bilkhawthlir RD blocks, Kolasib district is situated at the northern part of Mizoram. It can be reached by road by taking the National Highway - 54 (NH-54). The other two villages, viz. Bukvannei and Saiphai villages are under the administrative block of Bilkhawthlir. Bukvannei is situated south-west from Bilkhawthlir and Saiphai is situated east side from the RD block headquarters.

Most of the people in the study villages are engaged in Agriculture (*Economic survey Mizoram 2015 -16*). According to the sample survey, farming and cultivation is their main occupation. About 59.09 per cent are engaged in agricultural farming and cultivation. People in the study areas mainly practice primitive method of Jhumming and shifting cultivation.

Findings

The findings of the study are summarised as follows:

- It is observed and found out that the implementation of the scheme in the area is helping the people to enjoy better socio-economic conditions. MGNREGS is very beneficial for their economic condition. The present study reveals MGNREGA has been successful in increasing the income by providing wage employment to rural households in the selected villages. 90 per cent of the respondents admitted that the schemes boosted their annual income. Mahatma Gandhi NREGS is very useful for the alleviation of poverty in the selected villages
- The use of single dialect and high literacy rate in the study area is an advantage for successful implementation of the programme on sanitation project. It helps in the speedy awareness

generation regarding sanitation in the public and in the household-level

- In the study areas, 20.98 per cent of the population is having Job Card. They regularly organised Gram Sabha. 83.18 per cent of the beneficiaries claimed that they had a Gram Sabha before implementation of Mahatma Gandhi NREGS works in their village. 77.78 per cent respondents from the Village Council members claimed that they were assisted by the government officials while preparing Annual Action Plan (AAP). When implementing the scheme, the rural development functionaries used to inspect the works. 72.89 per cent of the respondents agree that the government officials frequently visit the work for inspection. Vigilance and monitoring committees have also been set up in all selected villages as well.
- ***The utility and usefulness of sanitation works:*** A total of 75.70 per cent of the respondents agreed that the scheme is utilised for sanitation purpose in their respective villages. When the respondents were asked whether there are any infrastructural improvement or reinforcement of waste management or watershed management under the scheme in their villages. 81.30 per cent of the respondents believed that there are many such improvements in their villages. A total of, 88.89 per cent of interviewed Village Council members agreed that the scheme is very important for sanitation purposes – improvement of cleanliness. Out of the total respondents, 87.36 per cent opined that the sanitation facilities created under the scheme were fully utilised by the villagers. The scheme plays a key role for developing sanitation and cleanliness drive in the study areas. Improvement in garbage disposal is witnessed in the study area.
- ***Impact of sanitation works in terms social benefits derived:*** The Village Council members used Gram Sabha as a platform to campaign that every household should have a proper toilet in the study areas. This has imparted the importance of proper sanitation to the people. Every individual has gained knowledge about the importance of cleanliness through Gram Sabha and there is a mass improvement in cleanliness in the study areas. The scheme is utilised for providing safe drinking water to the people. The improvement in sanitation and provision of safe drinking water has direct impact on their health condition as the health condition has improved as compared to the years prior to implementation of the sanitation project by the Mahatma Gandhi NREGS, i.e. Measles Mumps Rubella (MMR), Infant Mortality Rate (IMR), etc., are improved.
- ***Benefits of Convergence with other development schemes:*** Works under convergence were not much seen during field visits, few assets which were constructed under convergence were there. However, it is found that all the assets which were built through convergence appear to be better than the assets made by using single scheme or programme. A total of, 69.16 per cent of the respondents thought that works under convergence of various

Conclusion

It is worth remembering that for efficient and more effective implementation of the schemes, careful measures should be taken in selecting the works to be implemented before implementing the scheme; Grassroots level planning through Gram Sabha should be encouraged more and more before implementing the scheme. The Village Council members as well as government functionaries are well aware of the importance of convergence. However, it is necessary that power and function should be delegated to them as much as possible for planning of convergence in their respective areas and villages.

We may conclude that the transparency and accountability of the officials and the people of the study area are an important component which contributes for the successful implementation of the sanitation projects. People's participation is observed right from the planning stage in the form of Gram Sabha. Also, the Village Council members are co-operating with the officials in the regular monitoring which plays a crucial role for the successful implementation of the project.

Study of Kapil Dhara Sub-scheme in MGNREGS and its Socio-economic Impact on Farmers (Special Reference to Shahdol and Umaria District)

Madhya Pradesh

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Introduction

Madhya Pradesh is one of the largest and poorest states of India. More than 37 per cent of its population lives in poverty. For Scheduled Tribes (20 per cent of the State population) and Scheduled Castes (15 per cent), the poverty levels are higher, at 57 per cent and 40 per cent respectively. The economy of MP (population of 60 million with an estimated 44 per cent living below the poverty line), is dominated by agriculture which accounts for 35 per cent of the State GDP, and 80 per cent of employment. More than one-third of the population belongs to socially and economically disadvantaged groups consisting of scheduled tribes and scheduled castes, one of the highest in India. Gender-based discrimination is reflected in the unequal sex ratio (930/1,000, against a national average of 940/1,000 in 2011) and lower human development indices for women. Within the state, there are significant regional inequalities, with extremely high poverty levels in tribal districts, where natural resource endowments are very poor and connectivity is at its worst. Productive absorption of underemployed and surplus labour in rural areas has in fact been a major issue in the rural development. Direct supplementary wage employment to the rural poor through public works is what has been a continuous effort of the government through launching various employment providing schemes. In this light the rural employment guarantee scheme under the Mahatma Gandhi National Rural employment Guarantee Act (MGNREGA) is certainly the largest in terms of its outlay, coverage and expected outputs. The National Rural Employment Guarantee Act, 2005 was notified on 2nd February, 2006 by launching schemes for wage employment in 200 (Phase I) most backward districts of the country. After inclusion of several more districts in the financial year 2007 – 08, MGNREGS became functional in 330 (Phase II) districts of the country. Currently the scheme is operational in all districts (Phase III) of the country. State governments have launched employment guarantee schemes for providing employment under MGNREGA. Panchayat Raj Institutions have been designated as principal authorities for Planning and Implementation of the works for implementation of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in their areas.

Objective of the Study

There has been groundwater scarcity in the state of Madhya Pradesh. This scheme is expected to create an impact on those areas thus providing irrigation facilities to the poor and needy in these areas. The objective of the study is to study Kapil Dhara sub scheme in MGNREGS and its socio-economic impact on farmers (special reference to Shahdol and Umaria districts) Madhya Pradesh.

- To review the current status of implementation of 'Kapil Dhara' sub scheme in Umaria and Shahdol districts
- To identify emerging strengths and weaknesses for wider dialogue for improvements
- To understand the scenario 'before' and 'after' situation of cropping pattern, irrigation potential
- To study the socio-economic change of Kapil Dhara sub scheme on the benefited clients (farmers in Shahdol and Umaria districts).

Methodology

A Combination of various tools and techniques including both quantitative, qualitative research techniques were employed in the study. Individual interviews, focus group discussions, case studies, baseline survey reports, policy and research studies are the various tools through which information has been collected from primary stakeholders and secondary stakeholders for the study. There was a control group and an experimental group. Kapil Dhara scheme was studied in the experimental group and the socio-economic impact was compared with the control group.

The study was conducted in Suhagpur and Jaisinghnagar blocks from Shahdol district while Karkali and Pali blocks from Umaria district were selected for the study. A total 10 Gram Panchayats were selected from the each Janpad and from each Panchayat 10 beneficiaries of Kapil Dhara in the last three years were selected. Thus, two districts, four blocks, 40 Gram Panchayats and 400 beneficiaries were selected for the study. The respondents included beneficiaries of Kapil Dhara sub-scheme.

Sarpanch, sachiv of Gram Panchayat, APO, CEO of Janpad Panchayat, CEO of Zila Panchayat as well as elected representatives of Janpad and Zila Panchayat were also interviewed. Data for the present study has been collected both from the primary and secondary sources.

Study area: MGNREGS programme is implemented all over the state. Madhya Pradesh has 52 districts of which two districts have been selected for study. In one district two blocks were covered. In each block 10 villages were included.

Selection of the district: Umaria and Shahdol districts are selected for the research study. Both districts are tribal districts. Umaria has three blocks. While in Shahdol there are five blocks.

Selection of blocks: Two blocks from each district will be selected based on the following criteria -

1. Blocks are tribal in nature
2. The selected blocks have SC/ST Population.

The selected blocks are Pali and Karkeli from Umaria district and Suhagpur and Jaisinghnagar from Shahdol district. From each block 10 villages were selected. Thus total 40 villages have been selected for the study. From each village 10 beneficiaries of Kapil Dhara on random sample basis were interviewed. Overall, 400 beneficiaries, 100 per block were included in the study.

Findings

1. Kapil Dhara sub-scheme is useful
2. Water for drinking, domestic and irrigation purposes is available throughout the year
3. Before launching of Kapil Dhara sub-scheme in Shahdol and Umaria districts only Paddy, kodo, kutki and maize were the main crops. Farmers were dependent on rainy season only but from the year 2007 after getting benefit of this scheme 93 per cent farmers are getting double crop, i.e. rabi and kharif both, due to this majority of the respondents have sufficient storage of grain in their houses whole year and all respondents are getting sufficient food and some quality of vegetables also
4. In Umaria district 11,000- acres of land is irrigated due to MGNREGS
5. In both the districts good quality of assets, wells are constructed. About four per cent respondents constructed borewell in the well itself to get sufficient quantity of water by their own resources
6. Due to the Kapil Dhara sub-scheme government has generated employment to majority of the beneficiaries of study area throughout the year. Because, in rabi and kharif seasons they are working in their own land or nearby and rest of the time through NREGS, as well as collection of Mahua, lac, Tendu Patta, etc., as part of employment
7. Due to availability of water resources three per cent barren land is converted into fertilised land and developed into a plantation
8. Convergence of different departments and schemes has been done but not remarkable though
9. A total of 49 per cent beneficiaries of the study area got diesel pump through SGSY Scheme
10. Agriculture department provided seeds, fertilisers to the beneficiaries of study area.

Conclusion

In Umaria and Shahdol districts two blocks from each district were selected for the study and in blocks 400 beneficiaries of Kapil Dhara were interviewed. From that we came to conclusion that there

is no big change in the socio-economic status of the families. The reason is that they hold land up to 3 areas. Due to Kapil Dhara they are able to do irrigation but 50 per cent beneficiaries have no pump and pipe, etc. They hire it and irrigate the land. Even then they are in a position that throughout the year they are able to have enough food for the whole family, except bicycle and a pair of bullocks they don't have any luxury item in their house. Due to limited sources of income all Kapil Dhara beneficiaries are not getting training, fertilisers, and seeds, etc., from the agriculture department.

If we want to change their socio-economic status there is a need to provide them sufficient electricity because use of diesel pump is very costly and time Consuming. The beneficiary of Kapil Dhara sub-scheme should get convergence of various departments like agriculture, (training, seeds, fertilisers, modern technology) tribe development plan (equipment for agriculture purpose, horticulture, veterinary and rural development) (seed, fertilisers, plants)

At present above departments are giving their services but this is not necessary that they give priority to Kapil Dhara beneficiaries. So, districts should take care of this.

Traditional Rural Handicraft Activities: A Case Study of Mask Making in Majuli and Bell and Brass Metal Works in Sarthebari, Assam

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Introduction

Assam has had the unique tradition of manufacturing handicraft products since time immemorial. The art and dexterity of the traditional handicraft products together with their utility not only make them a part of the life and culture of the Assamese society, but also serve as a source of livelihoods to many households in villages across the state. Though Assam is mostly known for its exquisite skills in cane and bamboo products, several other crafts have also successfully made their mark in the state. In fact, each region of Assam is known for its unique forms of art and handicrafts. Two such traditional handicraft activities which have survived for centuries in the state are the mask making craft of Majuli, and the bell and brass metal craft in Sarthebari in the BARPETA district of Assam. However, with the passage of time and open market economy, the above traditional handicraft activities are found to have been facing many challenges for survival. The present case study is therefore, an attempt to capture the transition of the above two handicraft activities in a dynamic globalised economy and their resilience for survival amidst all odds.

Objectives

The study has been taken up with the following objectives:

- To trace the historical background and present status of the two rural traditional handicraft art forms of Assam
- To bring out the challenges faced by the traditional handicrafts in mask making and items made of bell and brass metal in the changing economic scenario
- To document a few success stories for replication in similar traditional rural art forms elsewhere in the country.

Methodology

The study has been carried out using the case study method. For collection and documentation of primary information, field visits have been undertaken in the locations where these handicrafts are practised. Interviews and focus group discussions have been carried out using semi structured interview checklist.

Study Area

Majuli in Assam and Sarthebari in Barpeta District of Assam

Findings

The local restricting factors which are found to negate flourishing of the art among the youth in the island are mostly lack of family support and competition from non-artisans. But what is more lacking among the traditional artisans and the youth involved in mask making in the island is lack of exposure – exposure to quality products, diversified products, new tools and technology, art of packaging, and lack of knowledge on market linkages and dimensions of outside market. Simple hand tools like the dao, knife and hammer are used in making of the masks. With no proper worksheds and technology infusion, this art form is mostly practised in open and therefore, is governed by vagaries of nature. During monsoons, the artisans cannot practise the art of mask making as the masks are to be dried using sunlight. This has restricted the livelihood activity of mask making in Majuli to only few months of the year.

Conclusion

Mask making, an indigenous craft, is deep rooted in the tradition and culture of Majuli. Promotion of making masks with all seriousness will effectively strengthen the livelihood opportunities for the youth in Majuli. Given the challenges in mask making, both soft and hard interventions in the form of giving exposure to training in modern technology and quality management, training on new product development and product promotion, development of sales outlet, inculcation of market intelligence through participation in domestic and international fairs, provision of credit linkage and provision of worksheds and common facility centres, etc., can go a long way in making this rich traditional artform of mask making in Majuli a sought after livelihood activity among the youth in Majuli.

Successful Women Micro Entrepreneurs from Rural Areas of Assam

Dr. Ratna Bhuyan, Associate Professor, NIRDPR-NERC

Dr. R. M. Pant, Director, NIRDPR-NERC

Introduction

Women, who succeed as entrepreneurs, are risk takers and have their own identity in the world of entrepreneurship. Most of them are aware of their new economic role in the society. The enterprises promoted by women not only contribute immensely in economic empowerment of women but also generate sustainable livelihood avenues for the family as a whole. Till recently, the phenomenon of women entrepreneurship was largely confined to metropolitan cities and big towns in India. Today, a pretty strong group of rural women entrepreneurs have emerged and operate micro units in the villages. The emergence of such entrepreneurs may be attributed to – (i) prevalence of other dire economic activities which they cannot take up, (ii) family background or tradition in some skill or trade and the desire to have extra money for themselves and their families, (iii) certain personal characteristics such as achievement motive, power and influence, etc., and (iv) entrepreneurship as leisure time activity. Like most women entrepreneurs in India, the rural women from Assam have also embarked on their entrepreneurial journey but in a relatively smaller scale. They are mostly home based and have begun with traditionally women-oriented business-like garments, handloom, handicraft and fashion, etc. It is in this light that the present study examines and documents a few successful cases of rural women entrepreneurs of Assam.

Objectives

The study has been taken up with the following objectives:

- To study successful cases of women entrepreneurs in Assam
- To examine the challenges faced by the women entrepreneurs in promoting their ventures and the strategy and approach adopted by them to overcome these challenges
- Document their learning and experiences which can assist other prospective women entrepreneurs in shaping their approaches and strategies

Methodology

The study has followed the Case Study method. An open-ended interview schedule has been drawn for the study keeping in view the objectives. Focused interaction and discussions have been carried out with the women entrepreneurs for documenting the successful cases.

Study Area

The cases have mostly been drawn from the Kamrup (Rural) district of Assam along with a few cases from Bodoland Territorial Autonomous District Council, Assam.

Findings

The rural women entrepreneurs in Assam often face gender-based barriers in starting and growing their business-like cultural practices, lack of access to formal finance mechanisms, limited mobility, access to information and networks and lack of family support, etc. It is observed that most of the rural women entrepreneurs have successfully established their entrepreneurial units on their own. Support from government institutes and organisations in terms of training and access to capital have helped the women entrepreneurs to strengthen their business. Despite the efforts, there are hurdles and lacuna limiting their scope to expand their businesses like accessing new markets and coming up with new quality product line, etc.

Conclusion

Based on the findings of the cases, it is felt that there is a great need of support in helping the rural women entrepreneurs to create their own brand and creating an identity for their products. There is a need for marketing outlet and creating of e-portals. The rural women entrepreneurs should be facilitated with good market linkages from where they can get regular orders, organise skill development training programmes frequently, give them opportunities to attend more number of industrial fairs, etc. They should be visited regularly by the government officials to keep a check on the reach of schemes and programmes and explaining to them the procedure for applying and availing the schemes and programmes.

Decentralised Good Governance: A Success Story of Two Gram Panchayats in Sikkim

Dr. R. M. Pant, Director, NIRDPR-NERC

Dr. Ratna Bhuyan, Associate Professor, NIRDPR-NERC

Introduction

With more than three-fourth of the population of the country residing in the villages, it is rightly expressed that the soul of India rest in villages. However, the villages in India are still lagging behind in most of the development indicators and parameters, and the utmost approach for leading the villages towards the development course is to adopt the path of decentralised governance. Infact, empowering the rural masses to lead themselves to the path of development by having a control over their own resources, making appropriate informed decisions and using collective wisdom towards growth and development of the community in a sustainable manner can only be achieved by adapting to decentralised governance and collective actions. In this context, the present study throws light and provides insights into successful models of decentralised governance and collective actions adopted successfully in one of India's cleanliest and pictorial destinations, i.e. Sikkim. Two successful Panchayats in the state of Sikkim, viz. Gerethang Gram Panchayat in West Sikkim and Melli Dara in South Sikkim district have been taken up in order to understand the factors contributing to their success in the field of decentralised good governance.

Objectives

The study has been taken up with the following objectives:

- To understand the historical and socio-demographic background of the two Panchayats – Gerethang Gram Panchayat in West Sikkim and Melli Dara in South Sikkim district
- To understand the governance pattern and processes including decision making strategies
- To understand the role of the Panchayat in management functions leading to decentralised good governance
- To bring out the factors attributing towards good governance and performance, and the scope of replication of the same in other Panchayats.

Methodology

The present study has been carried out using primary as well as secondary data. Case study methodology has been used to probe into factors leading to good governance in the two Panchayats.

Interactions and focused group discussions have been carried out in order to explore the successful cases of good governance.

Study Area

Gerethang Gram Panchayat in West Sikkim and Melli Dara in South Sikkim district

Findings

There are numerous factors in the governance pattern and processes of the Labing-Gerethang GPU which have led the GPU towards good governance and performance and thus to the present state of development and recognition - able leadership, active participation of people in the process of administration, self-help groups and cooperative societies, revenue generation, single window system and good record keeping, solid waste management and well managed museum.

The Melli Dara Paiyong Gram Panchayat has seen a lot of positive changes in a short span of time and these changes were possible due to the vision of its great leaders - able leadership, equalisation policy, innovative management policy instruments, dedicated village administrative centre with dedicated functionaries and well-defined future plans.

Conclusion

The Labing-Gerethang GPU can collaborate with other successful committees, NGOs and SHGs from across the state to enhance productivity and experience of the GPU.

The greatest challenge faced by the Melli Dara Paiyong GPU today is sustaining its position as the best GPU in the state of Sikkim. The position the GPU holds today is the result of great vision put into practice under able leadership and mass public participation. This needs to be sustained through diligent efforts in managing the administrative function of the GPU. The Melli Dara Paiyong GPU has many a footfall from outside the state considering that it is the best performing GPU in the country as a whole. Therefore, the GPU administration has the scope to showcase its culture and promote cultural tourism in the GPU.

Horticulture for Livelihood: A Study of Dirang Thembang Circles of West Kameng District of Arunachal Pradesh

Dr. R. M. Pant, Director, NIRDPR-NERC

Dr. Ratna Bhuyan, Associate Professor, NIRDPR-NERC

Introduction

Horticulture in North-East India has been a part and parcel of rural household economy, though in very small scale. Moreover, most of the household units produce the horticulture crops for self-consumption. Commercial production of horticulture crops in North-East India economically has been found to be non-viable owing to many reasons. However, a few success cases of commercial production of horticulture crops abound in Arunachal Pradesh. The present study covers the success scripted in the horticulture sector in the two circles of the West Kameng district of Arunachal Pradesh viz. Dirang and Thembang which may have the potential of replication elsewhere in the country with similar terrain and environmental conditions. The study also tries to understand the marketing aspects of the horticulture produce in the district in order to come up with solutions for those horticulturists in the district who often face bumper crop syndrome due to the absence of market for their produce.

Objectives

The study has been taken up with the following objectives:

- To understand the historical background of the two circles – Dirang and Thembang
- To understand the livelihood patterns of the tribes in the two circles
- To understand the role of horticulture in shaping the socio-economic conditions of the study population
- To study and analyse the marketing issues of the horticulturists
- To bring forth successful cases in the horticulture sector in the Dirang and Thembang circles for possibility of replication in other parts of the North Eastern Region.

Methodology

The study has been carried out using primary as well as secondary data. The primary data has been collected through personal interviews and discussions held on field. Academic collaboration with KVK Dirang has been sought for an in-depth study on the concerned subject. Case study/descriptive research methodology is used to probe into the problems and prospects of the horticulturists in the two circles of Dirang and Thembang in the West Kameng district of Arunachal Pradesh.

Study Area

Dirang and Thembang in West Kameng district of Arunachal Pradesh

Findings

It is found that traditional skill in horticulture together with suitable climate for growing horticulture crops is no doubt aiding the households in the two circles in generating sustainable livelihoods in horticulture. However, use of mostly traditional and obsolete technology is somewhat marring the business prospects of the horticulturists. Lack of easy access to credit facility is also restricting the farmers into expanding the production of horticulture crops. Despite the lacuna, prevalence of general awareness about food processing among the horticulture households is providing them the scope for creating new market channels. A few horticulturists growing kiwis are extracting wine from kiwis and are exploring new market horizons. However, there is a need to check the quality of the wine extracted from kiwis to compete with established brands.

Bodumba, son of Late Sang Phuntso from the village Namthung in the Dirang circle is a successful horticulturist who has inspired many farm households in Dirang and Thembang to take up apple and kiwi cultivation and build nurseries to grow and propagate temperate fruit crops. Today, around 53 farmers in Dirang and Thembang are into apple and kiwi plantations. Moreover, most of the farmers in Namthung with their knowledge on propagation methods of temperate fruit crops like grafting, budding, raising of kiwi seeds, conventional apple seeds, walnut seeds, trench layering of clonal rootstock of apple, etc., have come up with small but successful nurseries thus adding to their household income.

Conclusion

Horticulture in Dirang and Thembang circles is yet to take to mass production keeping in view the market statistics at the national level. The farm households are still to learn the nuances of business and pick up the same in an organised manner. However, the gaps identified in the light of the felt needs reveal that the two circles of Dirang and Thembang offer ample scope for further growth and development of the horticulture sector in a more vibrant and viable manner with proper interventions and handholding.

The farm household operating at individual level are unable to access better technology and quality packaging, and hence are unable to have an access to a wider market. An exposure to quality production and packaging can push the horticulturists in the two circles of Dirang and Thembang on the path of growth. Sustainability of any sector depends on the marketability of its produce. As one of the major gaps identified in the circles is unorganised marketing without any common brand, step towards organising the marketing system either through linking with existing major brands or companies, or development of a common brand for the horticulture produce with neces

A Case Study of Integrated Planning under Autonomous District Councils (ADCs) of Manipur

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Introduction

North-Eastern region of the country is known for its uniqueness. The uniqueness can be observed in every walk of life. The socio-cultural, economy and political practices of the people inhabiting in this region not only differ from state to state but also from community to community. Even within a state the diversity or distinctness can easily be observed. As a result, variety of institutions have been evolved/formed by the group of people in course of time. These institutions are, basically, known as traditional institutions. Taking into account of the diversity, uniqueness and the local necessity of the tribal population, several efforts have been made in independent India to bring them into the formal and codified system of governance. Such as extension of the Sixth Schedule to the 'Tribal Areas' located in the state of Assam, Meghalaya, Mizoram and Tripura; creation of 'Village Council' in the state of Nagaland and Mizoram under the state Act and formation of Autonomous District Councils for the tribals residing in the 'Hill Areas' of Manipur by the Act of Parliament (later adopted by the State of Manipur). These institutions have been given statutory power as well as the customary practices. It is also significant to mention that the traditional system of local self-government in these states are protected by the Temporary, Transitional and Special Provisions under PART XXI of the Constitution of India. Such as the state of Manipur for the 'Hill Area' is protected by the Article 371C of Constitution of India.

Present study focuses on the functions, planning and decision-making process, resources, various sectors and dimensions, vertical and horizontal of integration and decentralisation of district planning to the grassroots.

Objectives

The objectives of the study are:

- To understand the formation and function of ADCs
- To understand the sources of resources, planning and decision-making process under ADCs
- To know the mechanism of Integration of ADCs planning to state level planning system
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Methodology

Both quantitative and qualitative data from various sources has been collected by using the data capture format, desk review, review of relevant documents, interview- observation and formal/informal discussion. To know the views, role and responsibilities of District planning committee officials and elected presentative of ADC towards planning process, procedure and peoples participation, some selected interviews will be conducted with the help of interview schedule. Field work was conducted during 8th -13th November, 2016.

Study Area

As per the provision of the Act 1971 (as amended), so far Six (06) Autonomous District Councils (ADCs) have been created in 1972 in the state of Manipur. Some variations are found among the ADCs, regarding planning process, steps, generation of own financial resources etc., but not significant. Therefore, to understand the functioning of ADCs in the state of Manipur one ADC namely Churachandpur ADC (multi-tribal) has been selected and studied in the month of November 2016.

Findings

The State of Manipur is the 21st State under the Union of India. It is situated in the North Eastern part of the country having a total geographical area of 22,327sq.km, which is 0.7 per cent of the total land surface of India. The beautiful land of Manipur is encircled by nine hill ranges on all sides with a small and beautiful oval shaped valley at the centre. The population of Manipur as per 2011 census was 28.56 lakh comprising 14.39 lakh of males and 14.17 lakh of females. Population of Manipur constitutes nearly 0.24 per cent of the total population of India.

The hill comprises of five districts namely (i) Senapati (ii) Tamenglong (iii) Churachandpur (iv) Chandel and (v) Ukhrul, while the valley consists of four districts, viz. (i) Imphal East (ii) Imphal West (iii) Bishnupur and (iv) Thoubal.

Manipur is the home of a number of ethnic groups of which Meiteis represent the major community because of its population size. While the Meiteis and Meitei Pangal (Manipuri slim) inhabit the plains of Manipur as their ancestral home, the tribes represented by several ethnic groups have settled in the hills of the state. Among these ethnic groups, 33 of them have been specified as the Scheduled Tribes by the state and they are as follows : Aimol, Anal, Angami, Chiru, Chothe, Gangte, Hmar, Kabui, Kacha Naga, Koirao, Koireng, Kom, Lamgang, Mao, Maram, Maring, Any Mizo (Lushai) Tribes, Monsang, Moyon, Paite, Purum, Ralte, Sahte, Sema, Simte, Tangkhul, Thadou,

Vaiphei, Zou, Poumai Naga, Tarao, Kharam and any Kuki tribes. All these scheduled tribes possess distinct languages, legends, traditions and other cultural traits of their own.

Administration of the Hill Area of Manipur

The 'Hill Areas' in the Manipur is determined by the President by any notification issued under sub- section (2) of section 52 of the Government of Union Territories Act, 1963 (20 of 1963). The Article 371 (C) which describes that 'Hill Areas means such areas as the President may, by order, declare to be Hill Areas.' Therefore, the classification of administrative territory of Manipur into Hill or Valley areas is the prerogative of the President of India, and not that of the state government of Manipur.

The administrative history of the Hill Area of Manipur has passed through the stage non-interference policy of monarchy to the indirect rule of British reign and to the formation of Autonomous District Council in independent India.

The Sixth Schedule to the Constitution of India under Article 244 (2) of the Constitution has been extended in the tribal dominated areas termed as 'Tribal Areas' in the States of Assam, Meghalaya, Tripura and Mizoram to safeguard the interest, customs and culture of the tribal. The Autonomous District Council/Autonomous Council/Territorial Councils (hereafter only Autonomous District Councils/ADCs) under the Sixth Schedule have been endowed with wide-ranging legislative, judicial and executive powers. So far ten such councils have been formed under the provision of the Sixth Schedule of the Constitution of India.

With the same spirit, the Government of India has enacted the Manipur (Hill Areas) District Councils Act, 1971 when the state of Manipur was a Union Territory.

The Manipur (Hill Areas) District Councils Act, 1971 was passed and enacted by the Parliament of India when the state of Manipur was Union Territory. The Act mandates for the establishment of District Councils in the Hill Areas of Manipur so that the people in the tribal area can participate in the development of that area. In fact, the district councils in the Hill Area of Manipur are modelled on the lines of the Territorial Council Act of 1956 with adequate executive power. The Act divides the nine-tenth of Manipur into six Autonomous District Councils (ADCs) with objectives to preserve the customs and culture and to safeguard the political and economic interests of the hill tribes inhabiting in the state of Manipur. In pursuance of the Act and in accordance with the powers vested on the Governor (the then Administrator) of Manipur, following six Autonomous District Councils were constituted on 14th February, 1972 in the five Hill districts:

- (i) Chandel Autonomous District Council
- (ii) Churachandpur Autonomous District Council
- (iii) Sadar Hills Autonomous District Council

Though Manipur has five hill districts, one of them, i.e. Senapati has two District Councils (Senapati and Sadar Hills).

Since the enactment of the Act, three amendments have been carried out. The third amendment of May 2008 was a comprehensive and pragmatic effort to continue the enforcement of the Manipur (Hill Areas) District Councils Act, 1971 with necessary amendments; and to consolidate/rationalise the law for establishment of the District Councils in the Hill Areas in the State of Manipur. The amendment has increased the number of council members from 18 to 24, entrusted the election of Hill District Council to the State Election Commission, inserted two new sections 27A & 27B, which dealt with the constitution of Executive Committee and salary and allowances of the Committee respectively. The Amendment also revised & substitute the entries (i) to (xvii) to the entries (i) to (xxvi), in sub-section (1) of section 29 of the principal Act, which deals with the list of powers/subject of the District Council. An additional section 29A was added to recommend the state government subject to a resolution passed by a simple majority of the total members of the District Council for recognition of village.

Power, Function and Administration

So far, the State government of Manipur has devolved 26 subjects to the ADCs through the third amendment act 2006. The Autonomous District Council is also empowered to carry out the district level planning on the subject accorded to them. The subjects entrusted to the ADCs are mentioned below:

1. The maintenance and management of such property, moveable and immovable, and institutions as such may be transferred to the Council by the Governor
2. The construction, repair and maintenance of such of the roads, bridges, channels and buildings as may be transferred to that Council by the Governor
3. The establishment, maintenance and management of schools up to class VIII
4. The establishment, maintenance and management of medical dispensaries and Primary Health Sub-Centres
5. The establishment and maintenance of cattle pounds including such function under the Cattle-trespass Act, 1871 as may be transferred to that Council by the Governor;
6. The establishment, maintenance and management of markets and fairs and the construction, repair and maintenance of all buildings connected therewith
7. Water supply and sanitation schemes
8. The construction, repair and maintenance of embankments and the supply, storage and control of water for agricultural purposes including minor irrigation schemes
9. The preservation, reclamation and conservation of soils
10. Animal husbandry and veterinary dispensaries

11. Management of such ferries as may be entrusted to the charge of that Council by the Governor
12. The initiation, inspection, and control of relief works
13. The allotment, occupation or use, or the setting apart of land, other than land acquired for any public purpose or land which is a reserved forest, for the purpose of agricultural or grazing or for residential or other non-agricultural purposes or for any other purposes likely to promote the interest of the inhabitants of any village or town situated within the autonomous District for which that Council is Constituted
14. The management of any forest not being a reserved forest, minor forest produce including fuel and fodder
15. The regulation of the practice of Jhum or other form of shifting cultivation
16. Fisheries
17. Co-operatives
18. Sports and youth affairs
19. Adult and non-formal education
20. Horticulture and floriculture
21. Rural housing and schemes under rural development including tribal development
22. Khadi, village industries and cottage industries
23. Small scale industries
24. Non-conventional energy sources
25. Library and culture activities
26. Any other matter which the Governor may, in consultation with the Hill Areas Committee, entrust to the District Council in the field of agriculture, animal husbandry, community development, social and tribal welfare, village planning or any other matter.

Administration of the District council that is called conduct of business is run by the Chairman, an elected representative and Chief Executive Officer, a Manipur state civil service senior officer. There are also members in charge who look after the different portfolio devolved to the Council. The Chairman of the Council is only whole-time and overall functionary.

Financial Powers of the District Council and Vesting of Property

As per the Act the District Council has the power to levy all or any of the taxes within its territory or autonomous district for which the Council is constituted. The Act also provisions for the constitution of the District Council Fund.

As per section 44 reads that all property of the nature specified below and situated in the autonomous district shall vest in and belong to the District Council but subject to the order of the Administrator of Governor.

The Budget of the District Council

As per the section (45), the District Council has power and responsibilities to prepare the Annual Budget of the District Council. As per the agreed date the District Council prepare an estimate of the income and expenditure of the Council each year for the next financial year and send it to the Governor.

Source of fund of the District Council

It was found that revenue generation by the ADCs is yet to commence in Manipur. The District Council is largely dependent on the external sources for funds. At present, the ADCs receive funds from the following sources:

- (i) Central Finance Commission
- (ii) State Finance Commission
- (iii) Centrally Sponsored Schemes
- (iv) State plan
- (v) Ministry of DONER

The Hill Areas Committee

The Hill Area committee has four legislative functions:

- All bills except money bills containing the Schedule matters shall be referred to HAC for consideration and report to the Assembly
- The HAC shall have the right to consider and pass resolution recommended by the government of the state, legislative or executive action affecting the Hill Areas with respect to the Scheduled matters
- The HAC shall have the right to discuss the Annual Financial Statement (State Budget) in so far it relates to the Hill Areas and to facilitate discussion in the budget of Hill Areas
- The bill recommended by the HAC may be passed by the Assembly with variation with regard to the general functions
- The HAC shall safeguard the interest of the people of the Hill Areas particularly the accelerated development of the area
- The HAC shall promote unity between the people of the Hill Areas and other areas of the state
- The HAC has special responsibility on the development plan of the Hill Areas. The development plan shall be placed before the HAC for its views and its views will be taken in account before the plans are finalised.

The government submits quarterly report to the HAC showing the progress of the implementation of the plans.

Scheduled Matters

The Scheduled matters which are under the Jurisdiction of the HAC are:

- i) The power and function of the District Councils
- ii) Development and economic planning
- iii) Allotment, occupation or use or sell a part of land
- iv) Management of forest (other than Reserve Forest)
- v) Use of land and water resources for the purpose of agriculture
- vi) Regulation of the practice of Jhum or the other forms of shifting cultivation
- vii) Establishment of village committee or council and their power and their matter relating to village administration
- viii) Public health and sanitation
- ix) The appointment or succession of chief or the headman
- x) Inheritance of property
- xi) Marriage and divorce
- xii) Social customs
- xiii) Any other matter, which the Assembly may by resolution declare to be a matter which shall come within the provision of the Hills Areas Committee.

The analysis of the power and function of the Hill Areas Committee shows that the HAC is a powerful instrument to safeguard the tribal interests and promote good governance and developmental process in the Hill Areas. However, it is necessary to examine how far the HAC has been able to protect the tribal interests.

The Manipur Village Authorities (In Hill Areas) Act, 1956

The village level administration in Hill Areas of Manipur is governed by the Manipur Village Authority (Hill Areas) Act, 1956. The Act was passed by the Parliament of India. The Act, which was implemented in 1957, determined the number of members of a village authority on the basis of the number of tax-paying. After the enforcement of The Manipur (Village Authorities in Hill Areas) Act, 1956 the election of members of village authority was to be conducted on the basis of adult franchise and the Manipur State Hill People (Administration) Regulation 1947 was repealed thereafter. Prior to the enforcement of the Act the village chief nominated the members of the village authority as per the provisions of Hill People Regulation 1947. There is completely lack of coordination between ADCs and Village Authority. The Village level administration is directly governed by the administration of Manipur state government through the Village Authority Act passed by Indian Parliament much before the ADCs Act of 1971.

Activities

Creation of Assets for Council

The following constructions were taken up under different heads for ADC churachandpur by MTDC:

- Construction of quarters For Chairman, Vice-Chairman, CEO and Councilor's Hostel at Bungmual Council land were completed by MTDC
- Construction of Council Hall, Veterinary building, Sentry post and Security Barrack at Council complex, Tuibuong and Head of Department's quarter, EM's quarter and one hall are taken up at Bungmual Council land by MTDC
- Under SPA, the construction of barrack type teacher quarters. First phase at five locations were completed and work started at another eight locations namely S.Kotlian, Singheu, Gamhui, Tonjang, Lungthul(I), Maukot, Kungpinaosen and Kangathe. The works are undergoing.
- Construction of Inter-Village Road (IVR), tribal hostel, vocational training centre, 20 nos. of water reservoirs, 58 nos. of ring well, 26 nos. of boys and girls toilet, 58 nos. of extension or repairing of school buildings, 36 nos. of school toilets and repairing of 45 nos. of school toilets were taken up under 13th FC and completed
- Shopping complex was constructed at New bazar and approach roads were constructed for Bungmual quarters and Sehken Dumping site under Urban amenities and connectivity from Hills Department
- One sanitary truck, one ambulance and one gypsy for school inspection were purchased under 13th FC
- Dumping site was developed at Sehken Council land and Vermi-compost plant was started
- Development of North-Eastern Region (DONER) has released Rs. 3,76,81,294 as 40 per cent of the project cost under SIDF for which different works such as construction of 2 nos. of model schools, barrack type teacher quarters, suspension bridges, school toilets for boys & girls, drains and culverts and improvement of rural roads (shingling) were started with the available fund. However, most of the works were not yet completed as 60 per cent of the fund was yet to be released by the DONER.

Activities under Devolution of Power

Horticulture and Soil Conservation Department received Rs.6,00,000 for financial assistance to small and marginal farmers which was given to 12 beneficiaries.

Social Welfare Department received Rs.0.5 lakh for awareness campaign on women empowerment which was conducted at Council Hall.

- Fund received under different schemes of TA & Hills:
- Financial Assistance to Women Organisations: Rs.12,00,000
- Financial assistance under Agri/Horti.: Rs. 45,00,000
- Financial assistance to Artisans: Rs.41,00,000
- Financial Assistance under animal Husbandry Scheme: Rs.47,50,000
- Financial assistance to patients: Rs.7,45,000
- Under Article 275 (1) Rs. 31,59,240 was received during 2014-15 and utilised for taking up different works such as construction of water reservoirs, marketing sheds and IVRs, etc.

Art and Culture: A total of Rs. 3,00,000 for financial assistance to organisations which could not be released in 2014-15. Received Rs. 50,00,000 for district library which was utilised for payment of wages of casual worker and for works which was deposited to DRDA.

Science & Technology Department received 825 LED lamps for distribution to beneficiaries.

Commerce and Industries Department: Received Rs.6,00,000 from Director, Commerce and Industries, government of Manipur for conducting of Handloom Mela for the year 2013-14 and 2014-15 which will be utilised in the next year.

Other activities

Conduct of free medical camps: The Council conducted free medical camps during the year with fund from 13th FC. Two-day medical camp at Sangaikot in August 2014, two-day medical camp at Taithu in October, 2014 and at Phaipheng Village under Thanlon Sub-division in November 2014. During the camp, medicine was distributed free of cost to the patients.

Conduct of Free Veterinary Camp

- With fund under 13th FC, the Veterinary and Animal Husbandry Department under this Council conducted free vaccination camp at the places namely Kangvai, Kawnpui and Tuining for Sangaikot area.
- The department was also involved in the monitoring team for Dog-bite within the District during January & February 2015.
- Awareness Campaign on Women empowerment was held on 22nd November, 2014 with fund provided by Social welfare Department.

Council Day

1st August was observed as Council Day which was observed as mass Social Work Day for Council staff.

Functioning of Schools

Inspection of Schools was made regularly by the Inspecting staff and each one was made to submit inspection report monthly. As per report, MB Saichang JB School has the largest enrolment as on 31st March, 2015 with student strength of 450 (Limited as there was no sufficient room) which was 372 last year.

The government also approved for upgradation of five Schools to Class-VIII level. They are MB Saichang JB School, Misao Lhahvom JB School, Seilal JB School, New Lamka JB School under Churachandpur Block and Saichang JB School under Henglep Block.

Conclusion

The state of Manipur has its own history of consolidation, formation and attaining the statehood. The topography and the people residing in it give a special status to the state. Within the state the diversity or distinctness can easily be observed. As a result, a variety of institutions have been evolved/ formed by the group of people in the course of time. These institutions are, basically, known as traditional institutions. Some of them have lost their usefulness in the society while some of them are still in practice. Taking into account of the diversity, uniqueness and the local necessity of the tribal population, several efforts have been made in independent India to bring them into the formal and codified system of governance. Working on the principle of integration several custom-built arrangements of governments have been made in the state. Such as protection of the rights under the Article 371C and the extension of the formation of Autonomous District Councils for the tribals residing in the 'Hill Areas' of Manipur by the Act of Parliament (later adopted by the state of Manipur). These institutions have been given statutory power as well as the customary practices.

The Autonomous District Councils of Churachandpur are one of the ADCs created for the tribals residing in the 'Hill Areas' of Manipur. The Councils also exercise administrative powers over subject of local importance like primary schools, roads, bridges, dispensaries, soil reclamation, forests (other than Reserve Forests) and land-management matters, etc. The Council has recommendatory powers of legislation for members of Scheduled Tribes on matters relating to inheritance, social customs, etc. Unlike the Autonomous District Councils under the Sixth Schedule, the Autonomous District Councils for Hill Area of Manipur do not have legislative and judicial powers.

As per the Act & amendments several powers and functions have been transferred but very few have been transferred with various ifs and buts. They are functioning in alienated way. There is conflict of power and political interest & aspiration. The administrative and executive structure of the Council is very weak and ad- hoc type. Funds routed to the Council via state departments are schemes based on a casual way. There is no proper mechanism for transferring of fund pertaining to the function devolved to them. Financial management at the Council is also very poor, no mechanism has been evolved. The integration with the state planning is minimal. There is an urgent need to relook the whole issue of creation of ADCs, power transfer to them and the role of state government in the areas where the ADCs has been created. There is a demand of extension of the Sixth Schedule of the Constitution to the Hill Area ADC in Manipur.

A Case Study on Communitisation of Rural Development and Public Services in Nagaland

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Introduction

Decentralisation and local self-government are recognised as basic components of democratic governance, since they provide an enabling environment in which decision making and service delivery can be brought closer to the people or under the ownership of the people, especially in the rural people. It includes the shifting of fiscal, political and administrative responsibilities from higher to lower levels of government.

North-Eastern region of the country is known for its uniqueness. The uniqueness can be observed in every walk of life. In the state of Nagaland, the local self-government, execution of development work and delivery of public services is carried out on the principle of communitisation. The term communitisation means sharing of ownership of the government institution and its assets with the user. It involves empowerment, delegation, decentralisation, capacity building and much more.

The state of Nagaland was created in 1963 after bifurcation of the state of Assam and bestowed with special constitutional provisions under Article 371A regarding the use of customary law and practices. Using the power conferred under the Article 371A, the state of Nagaland has created the own kind of village level government and developmental institutions by the Nagaland Village Area and Regional Council Act 1978 and Communitisation of Public Institutions and Services Act 2000. Therefore, these institutions are different than the normal format of local self-government and development found in the other states in India. These institutions are unique in all respect and are only found in the state of Nagaland.

For realising the concept, the state has set up three categories of institutions, i.e. Village Council (VC) by the Act 1978, Village Development Board (VDB) by Model Rule 1980 and Village level Management Committee for basic services under the Communitisation of Public Institutions and Services Act, 2002.

This study will look at the constitution and functioning of all three statutory institutions of governance and development. This study will also attempt to assess the role played by the VCs, VDBs and Village level Management Committees in the development of the village in Nagaland.

Objectives

The objectives of the study are:

- To understand the formation and function all the three types of community-based institution

- To assess the role and performance of VC, VDB and Village Committees in planning and implementation of various schemes and the process of decision-making in these Institutions
- To comprehend the role of District & Block Administration in the communitisation of governance and rural development.

Methodology

Both primary and secondary data from various sources were collected by using the various tools of secondary data, i.e. capture format, desk review and the review of relevant documents. To know the views, role and responsibilities of planning committee's officials and elected representative of VC & VDB towards planning process, procedure and people's participation, some selected interviews were conducted with the help of interview schedule/guide. The collected data was analysed.

Study Area

As far as the particular area of the study is concerned it has been decided with the consultation of SIRD and state department of local administration. To full fill the objective of the study and considering other aspects involved in conducting field work, Kigwema under Jakhama block and Tseminyu village under Tseminyu sub-division of the District of Kohima were selected where two major tribal communities namely Regma and Angami are inhabiting.

Findings

The state of Nagaland came into existence on 1st December, 1963 as the sixteenth state in the country after carving out of Naga Hills district of Assam and Tuensang Frontier Division of the North East Frontier Agency (NEFA—present Arunachal Pradesh). A distinctive feature of the new state was the special protection guaranteed under Article 371(A) of the Indian Constitution to safeguard the tribal law, traditional institutions and practices of the Nagas.

Nagaland is inhabited by 16 major tribes along with a number of sub-tribes. The major tribes are Ao, Angami, Chang, Konyak, Lotha, Sumi, Chakhesang, Khiamniungam, Kachari, Phom, Rengma, Sangtam, Yimchungrü, Kuki, Zeliang and Pochury. Each tribe is distinct and unique in character from the others in terms of customs, language, attire and political systems.

Communitisation: A Framework of Transformation of Governance, Development and delivery of Services

In order to revitalise massive programmes of social welfare and rural infrastructure an extensive and intensive innovative exercise was launched by the government of Nagaland in 2001 known as 'Imagine Nagaland'. In this exercise, members of both civil society and the civil services (government

servants) came together to dream of the Nagaland of the future and to design plans, to realise the dream. This quest to improve the extensive grassroots level service delivery network led to the evolution of the communitisation approach. The approach sought to pool the extensive resource base of the government with the richness of social capital lying latent within Naga society. And finally, the government of Nagaland enacted the Nagaland Communitisation of Public Institutions and Services Act, 2002, thereby creating the legal and institutional context for the Communitisation process to take off.

Communitisation of Governance and Rural Development in Nagaland

Before the attainment of the statehood, the governance and rural development was carried out by the parent state. But the actual concept of rural development through active participation of the village community began to take shape only during the 7th Plan period and it was only in 1980-81 that the idea of grassroots level planning and development became a reality by the constitution of the Village Development Boards (VDBs) in Ketsapomi village in Phek district on experimental basis in December 1976. On seeing the coverage of the success of the Ketsapomi VDB, a mass campaign was launched since 1980 to expand the coverage of this unique institution throughout the state. A VDB Model rules were enacted in 1980. Ever since the concept of Community Development Programmes has intensified on a large scale in all the recognised villages of Nagaland. With the direct involvement of VDBs in the planning and implementation of the development at the grassroots level, there is no denying the fact that there has been a facelift in the rural economic scenario of the state. Today, with the involvement of the 1,175 VDBs and 2, 29,684 households across the state several major schemes and programmes like the MGNREGS, IAY/PMAGY, GIA, NRLM, and state sponsored are being successfully implemented and its resources are mobilised at the grassroots level. The basic functions of the VDB are as follows:

- Identify and select priority-based schemes through General Body Meeting
- Ensure ground implementation of programmes
- Ensure community participation
- Ensure transparency and proper fund utilisation
- Maintain account, muster rolls & beneficiary records
- The Village Development Board is a statutory body, functioning under the core village level authority known as Village Council.

Schemes Implemented by the VDB

The Department of Rural Development has been implementing eight major programmes through the VDBs, namely: (i) PMAY-G: Pradhan Mantri Awaas Yojana- Gramin (ii) GIA : Grant-in –aid to VDBs (iii) MCG : Matching Cash Grant (iv) NRLM : National Rural Livelihoods Mission (v)

MGNREGS : Mahatama Gandhi National Rural Employment Guarantee Scheme (vi) PMF : Promotion of Micro Financing (vii) NRUM : National RURBAN Mission.

Grants-in-Aid to VDBs (GIA): Grant-in-aid to VDBs is one of the major state sponsored programme being implemented by the Department.

Nagaland Communitisation of Public Instruction and Service Act 2002

The present framework of communitisation came into force with the enactment of Nagaland Communitisation of Public Instruction and Service Act 2002. The preamble of the Act states that it is expedient to provide for empowerment of the community and delegation of the powers and functions of the state government to the local authorities by way of participation of the community in matters connected with the management of local public utilities, public services and the activities of the state government connected with education, water supply, roads, forests, power, sanitation, health and other welfare and development schemes and also to provide for promotion of community based schemes (Act 2002).

Communitisation at Grassroots

Kigwema is one of the large villages located in Jakhama of Kohima district, Nagaland with total 769 families residing in the village. The Kigwema village has population of 3,872 of which 1,858 are males while 2014 are females as per population Census 2011. Kigwema village has lower literacy rate compared to Nagaland. In 2011, literacy rate of Kigwema village was 74.15 per cent compared to 79.55 per cent of Nagaland. In Kigwema male literacy stands at 80.11 per cent while female literacy rate was 68.71 per cent. (<http://www.census2011.co.in/data/village/268264-kigwema-nagaland.html>).

The village is one of the oldest among the Naga villages of today. As per the migration chart given by J. H. Hutton in his book 'The Angami Nagas', the entire Angami tribe split up at Kezakenoma into three routes. Further, three groups were formed a) Viswema group (b) Kohima and Khonoma groups from Kigwema. Therefore, the village Kigwema is the dispersal point of all the present day villages of the Angami such as Phesama, Jotsoma, Khonoma, Mezoma, Sechüma, Kiruphema, Mima, Pfuchama, Thekrüzünama, Sochünoma, Razaphema, Chümukedima, Khabvüma, Piphima, Pherima, Medziphema, Chawüma (Choloma), Seithekema, Tsiepama, Vipphoma, their offshoots in the Chakhro Angami area of Dimapur District and the Kohima groups of villages (as informed by the Village Council).

This distinctiveness of village in Naga territory is due to distinctness in socio-cultural economic and political life of each Naga Community and it has also bearing on the future of development of socio-cultural, economic and political life of the people. In terms of political unit, the Angami village in pre-British or during British was sort of sovereign state and had distinct identity characterised by

homogeneity which is still continuing with statutory and constitutional provisions after independence.

At present every Angami village has a Village Council, a Village Development Board and similar other structures introduced by the government by framing laws. But the pre-changed socio-religious practices still survive.

The village customary and traditional authority is vested upon the Village Council in a democratic structure, with Khel representatives constituting the Council. The Council, unlike its counterparts in the rest of the country, is by custom conferred with judicial powers and is a customary court.

The various social organisations, committees and boards, function under the mandate of the Village Council and are answerable to it. Developmental programmes for the village, whether of its own or of the state government are all implemented with its consent and control. The Village Council is a participatory partner to the government in all community programmes.

Khel system is the core element in the Naga system of governance or community governance of the Village. There are four Khels in Kigwema. The name of the Khels are as follows:

- 1) Kipho-Mera Khel
- 2) Khamima Khel
- 3) Makhuma Khel
- 4) Meralietsu-Seca Khel

After Khels the next smaller unit is patrilineal decent or the clan. In Kigwema there 18 clan grouped into four Khels. These 18 clans named as Yhokha, Thorie, (Seca) Chale, Pfukha, Yano. Kiso, Neihu (Makhu) Zhasa, Kere, Bio, Yhoshu (Khami), Yakhro, Sale, Zutso, (Kipho-Seca) Mera, Phira, Khora (Merama).

Village Council Administration of Kigwema

The Village Council in Kigwema is traditional community council. After the enactment of Village and Area Council Act 1978, it has been brought under the statutory form of government but in practice it is still council of administration based on the Naga system of governance. As per the visit and collected information the Kigwema Village Council comprises of 20 executive members headed by Chairman, Secretary and Treasures as office bearers. The Village Council members are nominated by each Khel (4-5 as per the size) not elected. In addition to the Khel members, there are two women members, two from students union and two from youth organisation. There are 9 Gaon Burha, 1-2 in each Khel. All together they constitute Village Executive Committee. Out of the Village Executive Committee members five officer bearers are selected. These office bearers are Chairman, Vice-chairman, Secretary, Joint Secretary and Treasurer. As per the rule all the members should be elected. Each Khel used to send two members as representative in the Village Council or for constitution of

the Modern Village Council on traditional pattern. Each Khel has its own council comprising 3-5 members headed by Chairman, Secretary and Treasurer as office bearer. The village council executive is responsible for village administration and appointment of all sub-committees. The village council is directly supported by various organisations such women, youth and students.

Village Development Board

As mentioned, the VDB functions as a wing Village Council to look after the rural development activities, from planning to implementation. The VDB is headed by the Deputy Collector (ex-officio Chairman). Member of the VDB is selected from each Khel (2-3 members). There are nine VDB members including two from women development board in Kigwema. One out nine members is nominated as VDB Secretary by the Village Council. Hence, in case of VDB, one member is officer bearer as Secretary while eight are only members of VDB. A small amount of Rs. 3,000 as Honorarium was paid to the VDB Secretary. Hence, all the members are nominated by respective Khels and Secretary was appointed by government through village council.

It is worthwhile to mention that the VDB of Kigwema involves in implementation of three programmes (MGNREGA, PMAGY, NSAP). In addition to Rural Development Department programmes, they also implement some other one-time schemes sponsored by national and international agencies. Sometimes other than Rural Development Department schemes. All the village development activities and annual perspective plans are prepared for approval by concern authority. MGNREGA is the main source of fund through Rural Development Department.

Communitisation

New format of Communitisation includes school education, health and electricity. There were four schools which run under the tag of Comunitisation Act 2002. These were three government primary schools and one government middle school at Kigwema. There was a School Management Committee (SMC) which basically deals with the teachers' salary depending upon the performance and attendance. SMC has the power to deduct salary, if the teacher exceeds the casual leave limit (12 days)-one day wage. Deducted amount is used for school development/renovation. SMC is also responsible for administration and recommends for transfer.

Village Health Committee (VHC)

VHC looks after the Primary Health Centre located in the Kigwema. There was one doctor, five staff nurses, one technician and two Grade IV staff. There is only member/chairman under the VHC. Even he was not aware regarding the roles and responsibilities. He has only duty to monitor.

Village Assets and Activities of the People

The village has the locational advantage with a superior water source and inaccessible catchment forest along Mt. Japfü range and Dzükou Valley. This facilitates agriculture by terrace field cultivation and reduces pressure on deforestations of Jhum cultivation. 90 per cent of the families are sustained by agriculture.

Tseminyu Village

Tseminyu village is considered to be the centre of Rengma tribes. This is a large village located in Tseminyu sub-division of Kohima district, Nagaland with total of 602 families residing in the village. The Tseminyu village has population of 2,863 of which 1,398 are males while 1,465 are females as per Population Census 2011. It is situated 2 km away from sub-district headquarter Tseminyu and 50 km away from district headquarter Kohima.

Tseminyu village has higher literacy rate compared to Nagaland. In 2011, literacy rate of Tseminyu village was 81.40 per cent compared to 79.55 per cent of Nagaland. In Tseminyu male literacy stands at 87.21 per cent while female literacy rate was 75.88 per cent. (<http://www.census2011.co.in/data/village/268200-tseminyu-vill--nagaland.html>).

Tseminyu is main village of Rengma Tribes. Like other villages in Nagaland, the modern village council was constituted under the statutory provisions of the Act 1978. But as mentioned earlier there is no uniformity in the Constitution of Village Council. Every village constitutes the Village Council as per their tradition and convenience. What I found in the Tseminyu there was six Khels and 12 village council members, two from each Khel. In Tseminyu, there were seven clan groups. Head of village council, as per rule, is democratic leader but in the Tseminyu a retired engineer was selected who was more powerful. There was one student member from each Khel. Youth and women members were selected as members of Village Council.

The administration of justice in Tseminyu village is carried out by the Gaonbura. There were six Gaonburas, one from each of the Khel. They are selected by the Khel and certified by the Deputy Commissioner on the approval of the Village Council concerned. The institution of Gaonbura was instituted by the British but nowadays it has become an inseparable institution of Naga Society. A small amount Rs. 1,000 as Honorarium is paid to the Gaonbura.

Village Electric Committee

The Village Electric Committee is to look after the management and to ensure in proper supply of the electricity. They also collect the bill amount on behalf of the government. They are involved in maintenance of the electric items. There were five transformers and all the house were electrified. The VEC used to get 20 per cent commission on collection of the bill amount. This was a functional communitisation committee compared to other two committees.

WATSON Committee

The WATSON committee is responsible for safe drinking water and sanitation. The Chairman of the committee is nominated and appointed by village council. Members are nominated as representatives of Khels, churches, etc.

Water distribution point at Kigwema:

1. Six pipes to army camp
2. One pipe to Mima Village
3. One pipe to Pfuchama Village
4. Three pipes to Japfu Christian Collage
5. Two Nos 3" Pipe for Village Consumption

In addition to the pipeline, there were five wells in each Khel including sub-outlet to every colony.

Conclusion

The state of Nagaland has its own history of consolidation, formation and attaining the statehood in 1963. The story can be stated as district to a state. As far as Naga society is concerned with its history Nagas are known for its head-hunting culture but today the situation has changed. They very much believe in natural democratic behaviour. Other features and the diversity or distinctness within Naga society can easily be observed at every walk of life. As a result, a variety of institutions/organisations have been evolved/ formed by the Naga society in course of time. These institutions are, basically, known as traditional institutions. Some of them have lost their usefulness in the society while some of them are still in practice. But the most important thing observed by the researcher was a community spirit of Naga society. In fact, this community spirit is base or the source of all the institutions found among the different groups of Nagas. Taking into account of the diversity, uniqueness and the local necessity of the Naga population, several efforts have been made in independent India to bring them into the formal and codified system of governance. Working on the principle of integration several custom-built arrangements of governments have been made in the state of Nagaland.

Such as extension of the Article 371A which empower the state of Nagaland to function as per the customary practices and laws of Naga community. Following the principles of community spirit several statutory institutions such as 'Village Council', Village Development Board and the Communitisation of Public Institution and Services have created in the state. These institutions have been given statutory power as well as the customary practices. As far as functioning of these institutions are concerned, a lot has to be done such as uniformity in structure and function, funding like Panchayati Raj Institution, more women participation, record keeping and CAG auditing.

Generation of Rural Roads Geodatabase Compatible with C-DAC Specifications and Data Standards: A Case of Dakhin Bhola Gaon Panchayat of Rani Block, Kamrup District, Assam State

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Introduction

C-DAC (Centre for Development and Advanced Computing), Pune has carried out a ‘Software Requirement Specifications (SRS)’ study for formulating and designing a Web based road information system, with reference to the implementation of world bank assisted rural road projects-II, Pradhan Mantri Gram Sadak Yojana (PMGSY). The MoRD, GOI has decided to implement the outcome of the study in phased manner depicting the road information system under PMGSY. The states under the initiative are required to prepare the database as per the software requirement specifications and data standards. Towards successful implementation of the web enabled GIS technology in PMGSY, the engineers and data managers of the implementing agencies require GIS skill to develop a database according to the above-mentioned SRS.

Objectives

- Generation of geodatabase on rural roads as per the specifications and data standards mentioned in the SRS approved by NRRDA
- To learn and share the process of generation of rural roads database that is compatible with the specifications and data standard of SRS.

Methodology

In the study of Dakhin Bhola Gaon Panchayat, both primary and secondary data related to roads have been used. The use of high-resolution satellite imageries and GPS survey have been main basis for the study. The GPS survey has been conducted for all the ground control points on the known roads, important places, location of habitations and the existing infrastructure of a Panchayat. Based on this, geo-database has been generated compatible with C-DAC specifications and Data Standards.

Study Area

In order to gain the experience of handling effectively the new initiative and share as a case with the

participants ‘Generation of Rural Roads Geodatabase compatible with CDAC Specifications and Data Standards: A case of Dakhin Bhola Gaon Panchayat of Rani Block, Kamrup district, Assam State’ has been taken.

Findings

- This study has given us an idea of developing the geodatabase on rural roads
- Designed and developed a training module for conducting the training on ‘Application of Geoinformatics for planning and management of rural roads’
- Conducted about 40 training programmes during 2017-20 on the above subject to cover all the states in India in saturation mode. Shared our case study to the participants in the training programmes
- The major outcome of our effort, MoRD launched a web based national PMGSY ‘GRRIS’ (Geospatial Rural Road Information System).

Conclusion

The CGARD faculty has understood the issues clearly and gained the skill and experience of the generation of the geodatabase related to the rural roads. The study has also given the CGARD faculty for designing training module and a case in hand for presentation and sharing the same with the participants of the training with confidence.

A Study on Socio-Economic Profile and Assessment of Knowledge Level and Training Needs of Dairy Farmers of Pratapgarh District

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Introduction

Uttar Pradesh is a leading state in terms of dairy farming practiced mostly by small and marginal farmers. Department of Animal Husbandry, Government of Uttar Pradesh has started various schemes for dairy development like Kamdhenu Yojana, Mini Kamdhenu Yojana and Micro Kamdhenu Yojana. However, these dairy farmers used to face so many constraints related to their social and economic issues. Also, lack of knowledge about scientific management of different aspects of dairy farming is a big constraint. It is due to fact that they do it without having a proper training about dairy farming.

Objectives

Considering the facts mentioned above, the proposed study has been conducted on dairy farmers of Pratapgarh district with following objectives:

- To know the socio-economic characteristics of the dairy farmers
- To study the existing practices of dairy farmers
- To identify various constraints faced by dairy farmers
- To assess training needs/capacity building requirements of dairy farmers regarding scientific dairy farming.

Methodology

Selection of study area: This study was conducted in all 17 development blocks of Pratapgarh district. From each block, five villages were selected on random basis.

Selection of the respondents: From each sample village five dairy farmers, thus, a total 425 dairy farmers were selected randomly including some active beneficiaries of Kamdhenu Yojana, Mini Kamdhenu Yojana and Micro Kamdhenu Yojana.

Data Collection: Data for this study were collected from the study area with the help of a pre-structured and pre-tested interview-schedule developed in the light of objectives of the study. The respondents were interviewed, individually, at their home. The data included information about socio-economic characteristics, training needs and various constraints faced by the dairy farmers.

Analytical Framework: The data collected from the dairy farmers were tabulated and analysed in the light of the objectives set forth for this study. Statistical measures used in this study included percentage, weighted score method and Garret's ranking technique.

Findings

On the basis of the data analysis it was found that out of 425 respondents, 220 respondents (51.76%) belong to young age group, 162 respondents (38.12%) to middle age group and 43 respondents (10.12%) to old age group. A majority of the dairy farming is being done by male dairy farmers, i.e. 84.94 per cent, while percentage of female dairy farmers is 15.06 per cent. With respect to educational status of dairy farmers, it was found that most of the dairy farmers were educated up to middle level (33.88%) followed by secondary level (23.06%), primary level (20.47%), higher secondary level (12.24%), collegiate level (6.11%) and illiterate (4.24%) respectively. 245 dairy farmers (57.65%) were found to be engaged in agriculture as main occupation, 103 farmers (24.23%) in animal husbandry, 33 farmers (7.77%) as labourer, 23 farmers (5.41%) doing private job, 12 farmers (2.82%) in business and 9 farmers (2.12%) were in government job.

A total of 192 respondents (45.18%) were from medium size family, 146 respondents (34.35%) from small size family and 87 respondents (20.47%) from large size family. A perusal of the data shows that majority (64.71%) of the dairy farmers belong to medium annual income followed by low (27.76%) and high (7.53%) total income. Data analysis reflects that majority (53.65%) of the dairy farmers are having medium land holding followed by small (28%) and large (18.35%) land holding. Majority of the farmers (48%) were small livestock holders followed by marginal (36.47%), medium (11.53%) and large (4%) livestock holders. 256 farmers (60.23%) have medium level of experiences in dairying, 138 farmers (32.47%) have low level and 31 farmers (7.3%) have high level of experiences in dairying.

Majority (84%) of the respondents have not found to be involved in any kind of social participation. It was found that 78.59 per cent of the dairy farmers exhibit low economic participation followed by medium level by 12 per cent farmers and high level by 9.41 per cent farmers. It has been also inferred that a remarkable percentage, i.e. 81.65 per cent of dairy farmers bear low scientific orientation. It has been observed that 326 farmers have low market orientation followed by medium level market orientation by 61 farmers and high market orientation by 38 farmers. Majority of the respondents (56%) were having low level of mass media exposure followed by medium level (36.71%) and high level (7.29%) of mass media exposure. Data analysis exhibits that 85.88 per cent of dairy farmers have low level of extension contact followed by medium level of extension contact by 11.3 per cent farmers and high level of extension contact by 2.82 per cent farmers.

It was found that 381 farmers (89.65%) show low level of risk orientation, 26 farmers (6.12%) show medium and 18 farmers (4.23%) show high level of risk orientation. A majority of the dairy

farmers (91.29%) have not undergone any type of training for dairy farming. Data analysis shows that 50.59 per cent respondents are involved in dairy farming to supplement family income followed by 31.53 per cent respondents for source of income, 16.47 per cent respondents due to family occupation and only 1.41 per cent respondents took this for easy availability of bank loan.

Among two sub-areas of housing practices, respondents needed training mostly for proper design or structure of cattle shed. They have given second preference for training about construction of scientific low-cost cattle shed. According to need hierarchy in breeding practices, the dairy farmers assigned first rank to 'identification of fertility problems' followed by 'knowledge about different breeds', 'selection of breeds', 'knowledge about A.I.', 'time of post-partum insemination', 'time of insemination', 'pregnancy diagnosis' and 'heat detection' respectively.

Dairy farmers perceived the most important area for training in feeding practices was 'balanced feeding' followed by 'compounding balanced feed using locally available ingredients', 'feeding of sick animals', 'feeding of milch animals', 'feeding of pregnant animals', 'feeding of newly born calf', 'feeding of mineral mixture', 'fodder cultivation', 'importance of clean water for drinking' and 'use of kitchen and farm waste in feed' respectively.

Among various sections of management practices, 'care at calving' was the most needed aspect for the training. After this, dairy farmers have prioritised 'care of newborn calves', 'methods of drying off of lactating animal', 'care and management of different age groups', 'castration' and 'proper disposal of animal carcass and waste' respectively.

'Milking hygiene' was perceived as most important training need in clean milk production practices by respondents followed by 'animal hygiene', 'equipment hygiene', 'milking techniques' and 'processing hygiene' in the descending order of importance.

Among the various sections of health care practices, the respondents expressed the 'symptoms of common diseases' as the most important area of training followed by 'contagious diseases and its symptoms', 'identification and isolation of sick animals', 'care of sick animals', 'measures used to reduce disease incidence', 'vaccination', 'deworming', 'control of ectoparasites', 'first aid treatment' and 'knowledge of zoonotic diseases' respectively.

'Marketing of livestock products' was ranked first by the dairy farmers as the most important training need followed by need of the training for 'banking', 'insurance' and 'marketing of livestock' respectively.

Among the feeding constraints, 'low availability and high cost of concentrates' ranked first by the respondents followed by 'lack of availability of green fodder', 'non-availability of land for fodder production' and 'low availability of dry fodder'.

The study revealed that among the breeding constraints, 'repeat breeding in cross-bred cows and buffaloes' was the major problem of dairy farmers followed by 'low productivity of animals', 'poor quality of bulls at village', 'incidence of reproductive disorders in the milch', 'relatively low

conception rate through AI' and 'problem of heat detection'.

The majority of the respondents reported about the problem of 'low price of liquid milk' as main marketing constraints. Other constraints like 'lack of regulated market and milk cooperatives', 'delay in payment by unorganised sector', 'distantly located milk collection centre' and 'lack of transport facilities and all-weather road' ranked second, third, fourth and fifth, respectively, by the dairy farmers.

Majority of the farmers opined that 'unawareness on improving dairy farming practices' is the main constraint among all institutional constraints. Other constraints are 'lack of A.I and veterinary facilities', 'insufficient veterinary doctors or attendants', 'lack of awareness on animal health care', 'inadequate knowledge about balanced feeding' and 'tick/worms infestation' in decreasing order of difficulty level.

Conclusion

The socio-economic characteristics of dairy farmers including their age, sex, educational status, occupation, family size, annual income, livestock holding, experiences in dairying, social participation, economic orientation, scientific orientation, market orientation, mass media exposure, extension contact, risk orientation, number of training undergone and reasons for practicing dairy farming and constraints faced by them should be given due consideration while formulating and implementing suitable extension strategies/policies and training programmes for improving their socio-economic condition and raising the level of satisfaction.

Dairy farmers of Pratapgarh had very low annual income from animal husbandry sector. Production status of their livestock is also very poor. They had low knowledge about different aspects of animal management practices. Thus, there is urgent need to develop a need base, skill-oriented training programme with consideration of all aspects of animal husbandry management. That would be helpful for increasing their interest and knowledge- level and ultimately livestock production level.

An Analysis of Savings and Credit Pattern among the Women Workers in Mahatma Gandhi NREGS – Alappuzha and Kollam Districts

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Introduction

Mahatma Gandhi National Rural Employment Guarantee Act under the ‘Ministry of Rural development’ is a landmark initiative in providing 100 days guaranteed employment on demand to every rural household at the minimum wage whose adult members (both male and female) would like to do unskilled manual work and thereby aims at enhancing livelihood security of the rural poor.

Objectives

- To analyse the credit and saving pattern of Mahatma Gandhi NREGS women workers
- To analyse the factors influencing credit and saving pattern
- To ascertain whether the savings from Mahatma Gandhi NREGS were used to enhance their livelihood opportunities
- To offer suggestions for increasing rural saving and investment pattern so that the livelihood of the rural women may be improved.

Research Methodology

The research design used in this study was descriptive research design, since it describes clearly the characteristics of the sample as expressed by the respondents.

The data was collected from both primary sources as well as secondary sources. The secondary data were collected from the various journals, books, periodicals and web. The primary data has been collected through questionnaire which was canvassed to selected beneficiaries of the scheme through multi-stage sampling technique. Questionnaires were developed based on the review of literatures. The list of factors considered for the analysis are geographical details, personal profile, family details, income and saving profile, income and savings pattern, credit pattern, Mahatma Gandhi NREGS working details. Another questionnaire was formulated to collect data regarding the opinions of mates.

The population of the study comprises of women workers working under Mahatma Gandhi NREGS. Using multi-stage sampling technique 840 respondents were selected. Based on the cumulative number of households provided employment, Alappuzha and Kollam districts were

selected (420 respondents from each strata). Six block Panchayats are selected from each district, three high performing and three low performing considering the number of person days generated for the work. From each block Panchayat two Gram Panchayats are selected, one Gram Panchayat as high performing and other as low performing considering the person days generated for work. The sample size for the mates was 62 and was selected from the 24 Gram Panchayats. They were contacted at the worksite and data collected using structured questionnaire which consists of both open and close ended questions.

A pilot study was conducted in Mavelikkara-Thekekkara Gram Panchayat in Mavelikkara Block Panchayat of Alappuzha District to test whether the instrument has adequate stimulus value to gather authentic responses from respondents. The study was conducted by considering the performance of Mahatma Gandhi NREGS in terms of number of households registered under this scheme and number of person days generated for work in the financial year 2015-16 as a baseline.

Findings, Recommendations and Conclusion

The data collected were analysed using various statistical tools such as frequency distribution, t-test to measure their significant difference of opinion, Pearson correlation technique to analyse the correlation of different variables of savings and credit pattern and finally regression analysis was used to determine the influence of one variable on another variable.

The data collected from mates was analysed using percentage analysis. A majority of them were aware about investment schemes of various financial institutions and recurring deposits in post offices and only very few of them are getting awareness class regarding the saving schemes.

Analysis of Data from Women Workers in Mahatma Gandhi NREGS

Frequency analysis reveals that majority of the women workers belongs to BPL category, in the age group of above 40 years and 90 per cent of the women workers are having education only up to high school. Average monthly consumption expenditure is below Rs. 6,000 and main consumption pattern is on routine house hold expenses. A majority of them had got working days for more than 50 days.

Findings from Z Test

From the Z test the researcher was able to analyse the variables which are having significant difference of opinion among the respondents such as information given by the chairperson about

investment schemes in co-operative bank, post office and private financial institution. The women workers in Alappuzha and Kollam districts have significant difference of opinion regarding satisfaction level. All the respondents strongly agree that working in Mahatma Gandhi NREGS helped to increase their decision-making skills.

Findings on Correlation

The Pearson Correlation was used to analyse the correlation between variables such as savings and credit pattern in Mahatma Gandhi NREGS.

Savings Pattern

In both Alappuzha and Kollam districts, there is no correlation between variables such as 'Chairperson giving information about investment schemes of financial institutions' and 'preference of financial institution for saving.'

Credit Pattern

The analysis indicates that in Kollam district, no correlation exists between variables such as 'raising money during emergency' and 'usage of loan money'. While in Alappuzha district, there is positive correlation between variables of credit pattern.

Savings and Credit

The analysis shows that in both Alappuzha and Kollam districts, there is no correlation between variables such as 'chairperson giving information about investment schemes of financial institutions' and 'facing emergency in situations', 'raising money during emergency', 'intervals of loan taken/borrowed money during last three years'.

Savings and Mahatma Gandhi NREGS

The analysis shows that in both Alappuzha and Kollam districts, there is no correlation between variables such as 'chairperson gives information about investment schemes in different financial institutions' and 'faces any financial crisis when there is time lag in employment provided and delay in payment of wages'.

Credit and Mahatma Gandhi NREGS

The analysis shows that in both Alappuzha and Kollam districts, variables such as 'facing

emergency situations' and 'any time lag', 'facing financial crisis when there is time lag' are not correlated.

Findings from Regression Analysis

Using the regression analysis influence of independent variable on the dependent variable is found. Chairperson give information about investment schemes in financial institutions is not influencing the preference of financial institution for saving in both Alappuzha and Kollam districts.

Actual number of working days in Mahatma Gandhi NREGS is positively influencing the women workers in Alappuzha district to increase their skills while it is not influencing in Kollam district.

Conclusion

From the study among the mates, it is inferred that even though majority of the mates know about investment schemes in financial investment they are not taking initiative to give information to women workers.

The analysis shows that majority of the women workers are having income only from Mahatma Gandhi NREGS while considering workers have income from other sources like cattle rearing, poultry and coolie work and earn below Rs.25,000 per annum from these sources. Average monthly consumption expenditure of women workers is below Rs. 6000 and main consumption pattern is on routine household expense followed by phone, fuel and cloths and during festival season, 73 per cent women workers expenditure of Alappuzha district is between Rs. 4,001 to Rs.12,000 and in Kollam district 87 per cent of the women workers expenditure during festival season is between Rs.2,001 to Rs.8,000 and their main consumption during festival season is on routine house hold expenses and consumer items followed by cloths, phone and fuel.

Access to financial services, insurance and credit facilities are extremely important for poverty alleviation and development. In order to achieve the goal of total financial inclusion, policy makers, financial institutions and regulators have to work together. Basic financial literacy programmes allow rural poor to realise their economic potential and help to achieve better results in poverty alleviation and rural prosperity. To sum up, financial institutions need to redesign their business strategies to incorporate specific plans to promote financial inclusion of low-income groups treating it both a business opportunity as well as a corporate social responsibility.

Recommendations

The following recommendations are spelled out towards making the programme more effective:

- Special IEC efforts should be made to educate mates and women workers regarding various financial institutions and various services provided by them in the respective Gram Panchayats
- In the IEC programmes, the chairpersons and mates should take the initiative to give special attention to the most vulnerable women workers and educate them regarding the savings pattern
- All the ADS/CDS chairpersons should be given training regarding the financial institutions, the services of financial institutions and their importance
- Financial literacy for the average family trying to balance its budget and save for the children's education and to meet other needs in future
- Financial counselling is an important tool in educating women workers in their decision making
- Financial institutions like co-operative banks, scheduled banks, post office should make promotional strategies to attract the low-income people
- As the women workers of Mahatma Gandhi NREGS are in large numbers, the pressure on banks in preparing people for availing financial services will be hectic which is to be suitably overcome
- As majority of the women workers prefer to invest in co-operative banks compared to other financial institutions, such as scheduled banks and post offices should provide training classes
- Financial institutions should design savings product suited to the pattern of cash flows of poor household, small loans for productive, personal and other purposes and must create financial literacy about the merits and uses of the new and innovative products
- The government or the local government should take the initiative to create awareness among the women workers family regarding the various insurance schemes of the government as the premium of these insurance policies are low
- A medical insurance policy can also be formulated by the government or Mahatma Gandhi NREGA mission
- Financial institutions should be client centred not product centred
- Government should design credit programmes so that accessibility to credit could be improved by providing innovative credit schemes that address the problem of women workers who lack collateral security and by minimising the long processing times and other requirements
- The financial institutions should explore the possibility of offering new and more flexible loan products

- Awareness campaigns have to be conducted to educate the people about the provisions of the scheme
- They should be educated regarding the role of financial savings and credit pattern to enable them to progress from hand-to-mouth survival to planning for the future, acquiring physical and financial assets, investing in better nutrition, health and education
- The women workers should be motivated and educated to take small amounts of credit at reasonable interest rates to set up small business or to take up other income generating activities.

Sanitation Behaviour – A Study amongst the Fishermen Community of Alappuzha and Thiruvananthapuram districts of Kerala

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Introduction

Sanitation is the hygienic means of promoting health through prevention of human contact with the hazardous wastes as well as the treatment and proper disposal of sewage or wastewater. Adequate sanitation, together with good hygiene and safe water, are fundamental to good health and to social and economic development. Sanitation is widely recognised as an important part of a successful health transition.

By providing a sanitation barrier the rate of recurrence of the diseases can be controlled to a large extent. Sanitation barrier includes construction of latrines and personal hygiene. Proper sanitation not only improves health but it also provides secondary benefits such as increasing school attendance and in the empowerment of women. Improvement of water and sanitation affect health primarily by interrupting or reducing the transmission of disease agents.

Objectives

- To study the issues related to sanitation in the selected coastal Gram Panchayats of Alappuzha and Thiruvananthapuram districts and to analyse human behaviour as a catalyst behind the conditions prevalent in the area
- To analyse the socio-economic status of the community
- To explore aspects related to sanitation at household level
- To explore aspects related to sanitation at community level
- To find out the attitude and knowledge of the community regarding sanitation
- To analyse the behavioural aspects related to sanitation in these coastal areas
- To suggest possible intervention strategies for policy-making.

Research Methodology

Using purposive sampling method, three Gram Panchayats from each of the two districts of Thiruvananthapuram and Alappuzha have been selected.

S. No.	Thiruvananthapuram	Alappuzha
1.	Anjuthengu	Trikunnapuzha
2.	Karumkulam	Maararikulam North
3.	Poovar	Purakkad

Sampling Strategy and Data Analysis

- Stratified random sampling was used to select 100 respondents from each Gram Panchayat. Hence, a total of 600 respondents were selected and interviewed for the study and of which 50 per cent were women
- The data collected from the respondents was tabulated and analysed using simple statistical tools such as percentages, averages, and co-efficient of correlation. A triangulation mode of study has been attempted. Both qualitative and quantitative analysis of data has been done so as to provide authenticity to the study
- PRA tools such as FGD (Focused Group Discussion) and transect walk were also used to bring given authenticity to the triangulation methodology.

Findings

- The sample consists of 47.7 per cent (n=286) males and 52.3 per cent (n= 314) females. There is an approximately equal distribution of respondents based on sex
- 51.7 per cent of the sample belonged to the APL status and whereas the remaining 48.3 per cent (290) of participants were from BPL status. Mean age of the respondents is 44.82
- A total of 41.67 per cent of the participants were fisher men who earned their daily bread by sea fishing, of which 8 per cent were fishmongers and 37.17 per cent were housewives, 3.17 per cent were unemployed, 2.50 per cent were students and the remaining 7.50 per cent were engaged in other jobs
- A total of 11.7 per cent of the participants did not have any formal education. A majority of 79 per cent had only education up to 10th standard, 6.2 per cent had higher secondary education, whereas 2.3 and 8 percent had undergraduate and postgraduate education, respectively
- The majority of 87 per cent of the sample had toilet facility of their own either inside or attached to their place of living. A total of 13 per cent of the participants do not have any toilet facility of their own and they depend on toilets by the community or go for open defecation. Community toilets are not present in Alappuzha Panchayats. This 13 per cent

are people who belong to the old age category

- A total of 79.7 per cent of the toilet facilities are functional for day to day use whereas 7.3 per cent are not functional or not usable. People who are having dysfunctional toilets struggle to survive this condition by using toilets of common community facilities or go for open defecation
- The non-functionality of the toilets is due to various reasons like, bad smell, no water, blockage, or broken superstructure. 'Broken super structure' and 'blockage' were given as the major reasons for non-functionality of toilets. The bad condition of the toilets may be due to the ignorance of the people with regard to use of toilets
- The participants of the survey were asked to rank the reasons they found important to construct toilet. The highest mean score (4.015) was obtained for 'healthy and sanitary living conditions'. The coastal people considered toilet as part of healthy living. 'Considering Old members of the Family' and 'Pressure from Wife/Daughter' received similar scores, 2.4367 and 2.3267, respectively. Convenience of aged as well as women was given the next priority. 'Influenced by IEC activities of GP' and 'PWD in Family (specially abled persons)' were the least ranked reasons for constructing toilets. This indicates that people make changes in their lifestyle only when they feel it as a necessity
- The cleanliness of latrine is an important aspect of sanitation. A total of 59.5 per cent of the latrines were cleaned daily, 22.2 per cent were cleaned weekly, 5.3 per cent were cleaned occasionally. Among the respondents having toilet, more than half of the respondents clean the toilet daily
- Prior to the construction of toilet, a total of 40.7 per cent of the respondents defecated in the open space. (This is before the ODF declaration). Of the total, 22 per cent of respondents used pit toilets. These indicate the poor sanitation condition prevailing in coastal area. The use of pit toilet pollutes groundwater also. The use of community toilet was not popular, only one per cent of respondents resorted to community toilet facility. A total of, 16.5 per cent respondents shared the toilet of others whereas 4.2 per cent preferred pay and use toilets
- A total of 37.8 per cent have a serious concern about not having tap water facility in latrines. Often, they have to suffer to get water from nearby water sources to use in the latrine. For people who are having weak health and so it becomes a serious problem. This is indicative of the poor condition of the toilets used by coastal people. It is strange that not even 50 per cent have running water in their toilets
- Solid waste materials are often thrown out into the open places (43.8%); or by burning (66.2%) or by burying (46.8%) or by bio digesting (7%) or by vermicomposting (3%) or

through other means (20.3%). A good percentage of respondents threw out their solid waste in to open places causing pollution in coastal belt

- Segregation of household waste is done only by 16.8 per cent of the participants
- 67.3 per cent do not have organic waste management system
- The recyclable wastes are disposed either by burning (46.7%) or by burying (28.5%) or by selling to scrap dealers (49.8%) or through other means (1.5%). A good percentage of coastal people either burn or bury recyclable waste. This is harmful to the environment and the health of the people.

Sanitation at Community Level

- 45.7 per cent of the samples reported about the availability of Community Sanitation Centres
- The CSCs in coastal area are mainly centred on the beach (62%). A small percentage (1.8%) of toilets is located in junctions. A total of 36.1 per cent of toilets are in places other than beach and junctions.
- Among the participants having CSCs, a majority of 63.9 per cent of CSCs are located in plain land and 33.9 per cent CSCs are located near the sea shore. Majority of the CSCs are mainly built in plain land near the beach and 1.8 per cent of the respondents was not aware about the CSC's in their area and 4 per cent chose not to answer
- Among the respondents having CSCs, a good percentage (70.8%) paid user fee for community sanitation facility where as very few (2.9%) used such facilities free of cost
- The cost of the available CSC is met with the help of different agencies. 21.9 per cent of the community sanitation facility is funded by Gram Panchayat, whereas 2.9 per cent received funds from Block Panchayat and 1.5 per cent of CSCs received financial aid from Suchitwa mission. 20.8 per cent used other. 53.6 per cent of the respondents were not aware of the funding agency
- The analysis of frequency of cleaning of CSCs clearly shows that the cleaning is not done at a sufficiently good level. Proper care should be taken, otherwise the purpose of such a facility will not be met.

Sanitation at Individual Level

- A majority of the 95.7 per cent of the participants reported that they wash their hands before and after food. The remaining 4 per cent are those who wash hands only after food. Hand washing prior to food is not a compulsion for this category
- A total of 61.7 per cent respondents use soap and water, 33.7 per cent use water only and 3 per cent use ash for the purpose of hand washing

- The majority of 95.3 per cent wash their hands after using toilet. This is similar to washing hands before and after food. Thus, majority of the coastal people have positive outlook regarding hand washing.
- A majority of 70.8 per cent use soap and water, 24 per cent use water only and 5 per cent make use of other means to wash their hands before and after going to the toilet.
- Only 3.8 per cent of the participants have differently abled person in their house. The method of disposal of faecal waste of differently abled persons is analysed by using data from the respondent household with such persons. Faecal waste of the differentially able people are disposed by flushing it in the household latrine (60.9%), throw it in the open (13%) and throwing it in the water bodies (26.1%). This analysis shows the bad state affairs of waste disposal of differently abled persons, leading to pollution of the area as well as the water bodies
- Women use various sanitary measures during the time of menstruation including sanitary napkin (32%) or cloth (8.8%) or other (5%). Sanitary napkins or other materials used during menstruation are flushed in to the toilets (7.5%), loosely thrown out (8%), burned (19.3%), buried (3.7%) or disposed through other means (2.8%). Loosely throwing out such waste is another challenge to be handled so as to keep the coast clean and tidy
- The common diseases prevalent among the respondents are malaria (1.8%), dengue (5.3%), Common fever (57.8%) and other life style diseases (3.2%). So, the important health issue affecting majority of the community is fever. Fever usually becomes wide spread during rainy season and during change in climate. Sometimes these diseases go untreated and sometimes the person gets cured. Many a times, the person dies in the process. Women mostly ignore their health issues until it reaches a grave stage.
- The level of perception regarding sanitation at personal and community-level is very high, but none of it is visible
- The IEC activities on sanitation in the coastal areas are not good. The issue is multifaceted and intense but that kind of importance is hardly given. It has been seen that almost everyone has a good idea on what proper sanitation is but it is not put into practice
- Poor sanitation is also a cause for financial losses especially with regard to hospitalisation. Poor sanitation causes economic losses associated with the direct costs of treating sanitation -related illnesses and lost income through reduced or lost productivity
- Open defecation is still an issue despite the ODF declaration. The older generation is still used to it and they even admit it. Environmental outlook talks about how people refuse to grow out of their traditional hygiene practices and hence no amount of sensitisation can work on them.

- Lack of proper awareness about the government initiatives is clearly lacking amongst the people of the coastal areas. Their participation is necessary and only then will a collective sense of ownership comes. IEC activities need to be taken seriously
- Behaviour modification is needed in order to realise the dream of total sanitation in the coastal areas. Until and unless each one makes good hygiene a part of their life, this total sanitation cannot proceed beyond its present mythical status.

Conclusion

In the overall analysis of the existing sanitation and environmental conditions of the six coastal Gram Panchayats in Allapuzha and Thiruvananthapuram, it has been observed that sanitation is indeed very closely linked to behaviour. For a community to actualise the concept of total sanitation it is mandatory that the community makes it a part of their daily routine. The approach to improve sanitation conditions in coastal communities is very important and involves participation of both public as well as private sectors.

In any sanitation programme, technological intervention is necessary and to supplement the dissemination of information, training of community members and mobilisation of the community is a must or else the project is doomed. Many sanitation programmes are planned and executed by government bodies, and few are successful as others fail to convince and educate the people of the importance of sanitation and the need for an active cooperation. Another issue about the coastal communities is the need to inform the community members about the health and environmental hazards caused by their traditional practice of defecating on the surface waters and on their solid liquid waste management practices which are so unscientific. It is only when they understand the consequences of the unsanitary conditions they are following will they be changing their habits.

The people are not really open to share their hygiene practices as they fear their community as a whole may be branded as unhygienic. They often say that they have the best awareness about hygiene and sanitation but their practice screams out loud about the actual scene that is prevalent. It is high time that local self-government bodies take the issue of sanitation seriously. As a beginning, the behavioural aspects should be modified. The change has to happen within each individual and only then it will reflect in the society.

Health Risk of Inadequate Sanitation: A Study from Tripura

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Introduction

People's health and economy are greatly impinged by improved sanitation. One reason for the slow progress of achieving health for all is that the people in general have not fully understood the importance of improved sanitation solutions. Poor sanitation and economic losses are directly proportional to each other by being associated with the direct costs of treating sanitation-related illnesses and lost income through reduced or lost productivity. Poor sanitation also leads to loss of time and effort due to distant or inadequate sanitation facilities, lower product quality resulting from poor water quality, reduced income from tourism due to a high risk of contamination and disease, and cleanup costs. This study, therefore tries to understand the economic impacts of poor sanitation especially with respect to the resultant health risks.

Adequate sanitation, together with good hygiene and safe water, are fundamental to good health and to social and economic development. Improvements in one or more of these three components of good health can substantially reduce the rates of morbidity and the severity of various diseases and improve the quality of life of huge number of people, particularly children, in developing countries. Although linked, and often mutually supporting, these three components have different public health characteristics.

Lack of sanitation causes diseases, as was first noted scientifically in 1842 in Chadwick's seminal 'Report on an inquiry into the sanitary condition of the labouring population of Great Britain'. A less scientifically rigorous but nonetheless professionally significant indicator of the impact on health of poor sanitation was provided in 2007, when readers of the BMJ (British Medical Journal) voted sanitation the most important medical milestone since 1840.

The diseases associated with poor sanitation are particularly correlated with poverty and infancy and alone account for about 10 per cent of the global burden of disease. At any given time the half of the urban population of India have a disease associated with poor sanitation, hygiene and water. Poor sanitation is responsible for one of the heaviest existing disease burdens worldwide. The diseases associated with poor sanitation and unsafe water account for about 10 per cent of the global burden of disease. Diseases associated with poor sanitation are diarrhoeal diseases, acute respiratory infections, under nutrition and other tropical diseases such as helminth and schistosomiasis infections. Diarrhoeal diseases are the most common sanitation-related diseases. Globally, about 1.7 million people die every year from diarrhoeal diseases, and 90 per cent are children under 5 years, mostly in developing countries. A majority of 88 percent of cases of diarrhoeal diseases worldwide are attributable to unsafe water, inadequate sanitation and poor hygiene.

One of the reasons for the slow progress in expanding improved sanitation coverage in the

world, in general, and in developing countries like India in particular, is that policy-makers and the general public have not fully understood the importance of the improved sanitation solutions. The governments in developing countries tend not to see improved sanitation as a necessary condition of economic development or source of improved welfare, and cost benefit analysis has not been commonly used to justify increasing spending on sanitation programmes. Until now, both policymakers and the general public have not been presented with comprehensive evidence on the economic impact that sanitation has on the economy, the environment and population welfare. While medical researchers have extensively documented the health impacts of poor sanitation, much less is known about its economic consequences.

This paper, by gathering relevant research findings, aims to report and discuss currently available evidence on the economic aspects of sanitation, including the economic impacts of unimproved sanitation and the costs and economic benefits of some common improved sanitation options in developing countries. The evidence is expected to be used to justify stronger steps in order to reach the third important Global Goal (SDG) of Good Health and Wellbeing.

Objectives

Given the background of the study, the two-prime objective of the study are:

- To identify the health risks arising out of the inadequate sanitation facilities in the rural areas of the state
- To study the economic impacts of inadequate sanitation facilities on rural households with respect to the cost of healthcare and productivity losses.

Methodology

To answer the second research objective, we framed a hypothesis based on the cost of health care and productivity losses due to inadequate sanitation. The purpose is to examine whether the households are pushed towards or back to poverty due to such health expenditures arising out of improper sanitation.

The burden of health payments is defined as out-of-pocket payments as a percentage of household's capacity to pay.

$$\text{oopctp}_h = \text{oop}_h / \text{ctp}_h * 100 \text{ ----- (1)}$$

Catastrophic health expenditure occurs when a household's total out-of-pocket payments equal or exceeds 40 per cent of household capacity to pay.

$$\begin{aligned} \text{Cata} &= 1 \quad \text{if} \quad \text{oop}_h / \text{ctp}_h * 100 \geq 40\% \text{ ----- (2)} \\ \text{Cata} &= 0 \quad \text{if} \quad \text{oop}_h / \text{ctp}_h * 100 < 40\% \text{ ----- (3)} \end{aligned}$$

The present study attempts to use household non-food expenditure as a proxy measure for

household's capacity to pay. We need to understand the occurrence of minor illness (outpatient care), hospitalisation care (inpatient care), chronic illness as health care expenditure burdens on the households. Thus, the share of health care expenditure in non-food expenditure can be written as

$$S_j = h \text{ exp} / nf \text{ exp} * 100$$

Where,

S_j = share of health care expenditure in non-food expenditure.

$h \text{ exp}$ = average household monthly expenditure on health.

$nf \text{ exp}$ = average household monthly non-food expenditure.

Study Area

Tripura is the land of 3,671,032 people (Census 2011). The economy of the state is growing rapidly though it is still predominantly agrarian with more than half of the population depending on agriculture allied activities. The majority of households in Tripura are concentrated in rural areas (82%) and less than two-fifths (18%) are in urban areas. As far as the sanitation sector is concerned, Tripura has high incidence of open defecation, especially in the interior hilly and forest areas. The state has extensively implemented Nirmal Bharat Abhiyaan and currently the Swacch Bharat Abhiyan and convergence with MGNREGS to address this problem. Schools and anganwadi centres are focused to provide with urinals and latrines, separate for boys and girls along with baby friendly toilets in anganwadi centres to inculcate the habit of using sanitary latrines from the young age. However, many toilets lie dysfunctional due to lack of maintenance and damage. Earlier schemes of providing plastic squatting plates, free of cost to people, has not produced results as most of them lie unused as many people cannot afford to construct a toilet. Open-defecation has created problems of diarrhea and vulnerability to malaria. Under this background and objectives laid, the study demands a holistic coverage of sample and the study area in order to capture each and every issue pertaining to study's intentions:

In order to settle down the study area the following approach has been adopted:

- The study will consider the sanitation scenario in both the rural and urban areas in the state. For this purpose, 1,000 households each from the rural and urban areas will be selected
- Urban areas will constitute the Agartala Municipal Council as well as Nagar Panchayats in the state. 500 households from AMC areas and rest 500 households from Nagar Panchayat will be selected for the study
- Rural Areas will cover all the eight districts in the state.

Block Selection Criteria: Two blocks from each district that is 16 nos. blocks will be taken for the study. The criteria for selection would be the distance from the district head quarter that is the nearest block and the farthest block will be selected for the study.

Village & Household Selection Criteria: The households will be selected on the basis of a two-stage systematic random sampling method. At the first stage, from each of the selected blocks, 32 primary sampling units, (PSU), i.e. the villages will be selected through PPS (probability proportion to size) method, and then 31 households will be selected from each PSU through systematic random sampling procedure. The primary data will be collected from households by the means of structured questionnaire. A total of 1,000 households will be covered during the survey.

Findings

The Monetary Impacts

The study reveals that out of 2,000 households considered in the study 1,589 households reported to make health payments that are catastrophic in nature and rest 411 are found non-catastrophic. That is 1,589 households' total out-of-pocket payments in health equals or exceeds 40 per cent of household capacity to pay.

The average household size and the proportion of women and children in catastrophic households were higher than that of the non-catastrophic households. Amongst the catastrophic families, 1,114 families were from the rural areas and 475 from the urban areas which reveals a proportionate spread of catastrophe between the two areas.

Household Characteristics: The survey data reveals that 82.44 per cent of the households with catastrophe belong to the family size 1-6 and 70.10 per cent were from the rural areas (Table 1). As far as the education level is concerned as shown in Table 1, catastrophe is more prevalent among households with maximum education qualification up to primary standard (24.54%) followed households up to matriculation (22.65%) and then by above higher secondary (22.78%). This indicates that with increase in the level of education chances of catastrophe decrease. In other words, as higher the literacy rate, less is the probability of households slipping into poverty.

Occupational Pattern: The study shows that 33.48 per cent of the affected households were cultivators, followed day labour or casual labour accounting for 23.53 per cent, 21.01 per cent were involved in business or trade (mainly involved in shop keeping). Rest of them were from service and others households whose sole earning member was the housewife of the family earning subsistence as beneficiary to certain central sponsored wage employment schemes like MGNREGA.

Financial Inclusion and Social Identities: Financial inclusion is an opportunity or service that the financial institutions (for example bank) deliver to all sections of society at an affordable cost. These services include savings, payment, transfer, credit and insurance. According to census 2011, 59 per

cent households availed bank services in India (Bhaskar 2014). Generally, some identity documents are required to avail such services, which the catastrophic household possess. The trend is similar among the non-catastrophic households also. Presently, government of India has simplified the procedure of opening account in a bank. An introduction from existing account holder who satisfies all the norms will serve the purpose of opening an account for a person who has no identity documents (Jagannathan 2015). These simplifications have abled households to get financially included.

Access to Healthcare Facilities: Healthcare facilities are more or less equidistant from the residences of both the catastrophic and non-catastrophic households. They have equal access to primary health centre, sub-divisional hospitals and local quacks (Table 5). The survey reported that catastrophic households were more exposed to qualified private practitioner, when they are suffering from illness. This trend was reported mostly by the households belonging to the middle-income group (i.e. 10,000-25,000) considered in the study. All children in both the categories were given full immunisation and pregnant women were given ante natal check-up.

The study attempts to use non-food expenditure as a proxy measure for households' capacity to pay or in other words non-food expenditure has been used as the denominator for defining catastrophe. The reason for doing this is that income was not found directly responsive to medical spending or financing healthcare. It was found during the survey that two households with same income category and nearly similar health payments, but one household was found financing healthcare from savings and the other with no savings had to cut back on current consumption to pay for healthcare. This difference was not reflected in ratio of health payments to income which was same for both households but the ratio of health payments to household's expenditure was found higher for household without savings. Therefore, expenditure not income has been used as denominator for catastrophe.

The present paper classifies the out of pocket payment for healthcare as catastrophic if it exceeds 40 per cent of annual household non-food expenditure, considered as the cut-off- level (Kawabata and Carrin 2002, Xu et al. 2003, Karami et al. 2009) and finds that 1,589 households face health burdens as their total health payments exceeds 40 per cent of their capacity to pay.

In order to find out the major determining factors of catastrophic payments in healthcare arising out of inadequate sanitation facilities (viz. shared toilet or public toilets) as well as unhygienic sanitation behaviour (viz. unsafe drinking water related impacts such as diarrhea, intestinal worms, malaria, measles and lower respiratory infection) the survey collected healthcare expenditure data for various categories of treatment like:

- Inpatient care –recall period: 1 year
- outpatient care – recall period: 3 months

- chronic illness – recall period: 1 month
- birth delivery – recall period: 1 year

The information was collected on last episode of illnesses (reported morbidity). Household healthcare expenditure is defined as the out-of-pocket expenditures on drug and medicines, consultation fees, hospital bed charges, transport charges to the treatment site and daily living cost, including food and lodging for the escorts of the ailing household member.

The study shows the annual out of pocket expenditure on health stands to 65.58 per cent of households' capacity to pay which depicts the probability of catastrophe.

We find that the out-of-pocket expenditure in outpatient care is the highest contributor to the catastrophic health expenditure in the state. The finding also supports the fact that the outpatient OOPE in health is out of the coverage of the public insurance scheme ongoing in the state commonly known as Rastriya Swasthya Bima Yojana (RSBY).

The study reports that diarrheal diseases resulting from poor sanitation and hygiene affects more than 50 per cent population in the sample. Contact with human excreta is the source of many severe diseases with symptoms of diarrhea. The study reports that the category of diseases which require hospitalisation/inpatient care (68.67%) are mostly acute diarrhea and dysentery whereas dehydration, malnutrition resulting from diarrhea has enhanced the vulnerability to diseases like malaria, measles, respiratory infections and intestinal worms especially in children has accounted for more health spending in outpatient care (70.48%).

Thus, the study finds that the health risks arising out of inadequate sanitation is slipping the households towards poverty are malaria, measles, respiratory infections and intestinal worms. These diseases are unceasing and require continuous cost thus act as slow poison on their economic condition.

The Non-monetary Impacts

This study uses a societal perspective and examines the present generation to assess health risks that has significant economic impacts. Monetary impacts are those that have a direct associated monetary expense to someone, and one that is paid for in monetary terms by someone. The payer of the expense might not be the same person bearing the physical impact.

The monetary impact of inadequate sanitation has already been estimated and inferred. Economic impact is a more generalised concept than monetary impacts and includes imputed monetary values for non-monetary impacts. Some imputed non-monetary impacts that have direct implication in terms of market value reported in this study are firstly, time lost to work or school due to illness, time lost to seek cleaner sources of water, restricted mobility especially for women and girls.

Secondly, the important productive loss arising due to inadequate sanitation is the use of various

methods adopted by households like filters, boiling and purchase of bottled water to avoid using unsafe and polluted water, which increases the cost of money for households.

Thirdly, the state has a great potential in tourism sector which is still striving to place its existence and one of the important reasons being poor and unimproved toilet facilities. The state is unable to generate sufficient revenue it has targeted from tourism sector and this is a revenue loss.

Conclusion

We evaluated the effects of inadequate sanitation on out-of-pocket payments in health payments up to June 2017. Our analysis shows that the type of medical care, the number of illness episodes as well as the presence of a household member with inpatient, outpatient and child delivery were important factors leading to catastrophic expenditure. A household having a member with frequent illness which requires OPD care has higher chance of catastrophic payment followed by the hospitalisation care. Household across their economic status have demonstrated the risk of such catastrophe.

It is commonly believed that hospitalisation care is the most susceptible domain that has a greatest impact on household economic status. But this result shows that the medical expenditure for outpatient care which are continual illnesses is the most important determinant for catastrophic expenditure followed by the hospitalisation care.

Generally, the medical expenditure for the treatment of diseases requiring non-hospitalisation care is lower than the hospitalisation care, but its treatment continued for long times. We found that health expenditure in outpatient care is the basic contributor to high health spending. The finding also supports the fact that outpatient out of pocket payment (OOPE) in health is out of the coverage of Rastriya Swasthya Bima Yojana (RSBY).

Moreover, the study finds that the health risks arising out of inadequate sanitation that is slipping the households towards poverty are malaria, measles, respiratory infections and intestinal worms. These diseases are unceasing and require continuous cost thus acts as slow poison on their economic condition. Such diseases in most rural and urban areas are treated through outpatient care for different members of families at different points of time which imposes a huge burden on the household as a whole.

Apart from the health impacts of inadequate sanitation, the study also identifies certain productive losses which the State is facing due to unimproved sanitation they are time loss to work/school, restricted mobility for women and girls, revenue losses to tourism.

The study has also captured a fact that is the demand for using the public health facility is gradually moving down, one of the main reasons for not doing so is long waiting time. This has provided an opportunity to the private sector to move in and exploit the market.

Definitions

1. Out-of-pocket health expenditure – Out-of-pocket payments refer to the payments made by the households at the point they receive health services. Typically, these include doctor's consultation fees, purchases of medication and hospital bills. Spending on alternative or traditional medicine is included in out-of-pocket payments, but expenditure on health-related transportation and special nutrition are excluded. It is important to note that out-of-pocket are net of any insurance reimbursement.

2. Household Capacity to Pay (CTP) – The household capacity to pay is defined as a household's non-subsistence spending. It is also defined as the non-subsistence effective income of household.

3. Out-of-pocket health payments share of household capacity to pay (OOPCTP)–The burden of health payments is defined as the out-of-pocket payments as a percentage of household capacity to pay.

$$\text{oopctph} = \text{ooph} / \text{ctph}$$

4. Catastrophic health expenditure (cata) – Catastrophic health expenditure occurs when a household's total capacity to pay equals or exceeds 40 per cent of household's capacity to pay or non – subsistence spending. The threshold of 40 per cent can be changed according to country specific situations.

Abbreviations

1. OOPE =Out-of-Pocket Payments Expenditure
2. CTP =Capacity to Pay
3. TSC =Total Sanitation Campaign
4. NGP =Nirmal Gram Purashkar
5. IEC= Information Education Communication
6. CRSP =Central Rural Sanitation Programme
7. RSBY =Rashtriya Swasthya Bima Yojana



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