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## SMALL AND MEDIUM ENTERPRISES IN THE ERA OF GLOBALISATION

D. Nagayya\* and  
P. Tirumala Rao\*\*

### ABSTRACT

*Micro, Small and Medium Enterprise (MSME) sector has been undergoing a metamorphosis in the era of globalisation for over a decade and a half. Many developments of relevance to SMEs (Small and Medium Enterprises) have taken place within the country and internationally. Globalisation resulting in fierce competition in various product lines has forced the SME sector to adopt strategies in tune with the global trends. A number of programmes of cluster-specific and firm-specific approaches are being pursued by all India organisations with a wide network of institutions associated with various functions supporting the SME sector at different levels. The present paper discusses a few key approaches, such as the MSMED Act, 2006, Policy of de-reservation, Greater equity participation, Cluster Development Approach (CDA), and National Manufacturing Competitiveness Programme (NMCP) which help the SME sector to reorient itself to face the challenges posed by increased competition as a result of globalisation. In an increasingly globalised competitive scenario, SMEs have to upgrade their capabilities by innovation, and adoption of advanced technologies and modern management practices.*

### Introduction

Micro, Small and Medium Enterprise (MSME) sector, also known as Small and Medium Enterprise (SME) sector has a prominent role to play in ensuring that growth is inclusive and regionally balanced. In the context of liberalisation from 1991, the sector has been integrating itself with globalisation and global trends in a phased manner as part of the overall strategies adopted for industry

and trade at the national level. It has been steadily reorienting itself to face the challenges posed by increased competition, domestically and internationally. SMEs with their dynamism, flexibility and innovative spirit will have to adapt themselves to the fast changing needs of the market – driven economy, where the Government acts as a facilitator and promoter, no longer as a regulator. The strategies evolved in recent years, from 2000 in particular, are to help the

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sector to become globally competitive, and graduate from micro to small, small to medium, and from medium to large. Advanced manufacturing techniques and management practices can be sourced and adopted with greater ease. As participants in the global value chain, the SMEs can gain entry into larger avenues, expand their markets, find new niche markets for their products, and become prominent in the global arena with "Made in India" brand. Gainful participation in the global value chain can be used as a strategic measure for SME development. Despite competition from large enterprises, SMEs certainly have the potential to enter global value chains provided they adapt to the market shifts globally.

The MSME sector contributes 8.7 per cent of the country's Gross Domestic Product (GDP), 45 per cent of the manufactured output, and 40 per cent of the country's merchandise exports. MSMEs provide employment to about 60 million persons through 26 million enterprises, as revealed by the Fourth All India Census on MSMEs covering registered and unregistered segments for the reference year 2006-07. As per the quick results of the Census released by Development Commissioner (MSME), registered MSMEs account for 1.56 million (6 per cent), and unregistered 24.55 million (94 per cent), totalling 26.11 million enterprises, as against the earlier projected figure of 13 million enterprises for 2006-07 based on the Third Census of Small Scale Industries (Union Ministry of MSME, *Annual Report 2011-12*).

For the first time, the present Survey includes service enterprises, apart from manufacturing and medium enterprises. The Survey covers MSMEs, Khadi and Village Industries, and Coir Enterprises, as these groups fall administratively under the Union Ministry of MSME. In these categories, registered enterprises have been covered on Census basis, and unregistered enterprises on Sample basis. Unregistered enterprises are

generally much smaller in size compared to registered enterprises; these are also referred to as informal sector enterprises; and nearly three-fourths of them are in the service sector. Out of 26.11 million total MSMEs in 2006-07, manufacturing accounts for 28.6 per cent, and the remaining 71.4 per cent are service enterprises. In the registered enterprises category, the corresponding percentages are 67.1 and 32.9; and in the unregistered enterprises, manufacturing accounts for 26 per cent, and services for 74 per cent. Manufacturing enterprises are 7.47 million [1.05 million registered (14 per cent), and 6.42 million unregistered (86 per cent)], and service enterprises are 18.65 million [0.52 million registered (2.8 per cent), and 18.13 million unregistered (97.2 per cent)]. Out of 1.05 million registered manufacturing enterprises, 94.2 per cent are micro, 5.6 per cent small, and 0.3 per cent medium enterprises. Among 0.52 million registered service enterprises, 96.9 per cent are micro, 3.1 per cent small, and 0.1 per cent medium enterprises. In respect of employment, unregistered units account for 50.3 million (84.4 per cent) compared to 9.3 million for registered units (15.6 per cent). Registered units, thus, account for nearly 6 per cent of enterprises, and 15.6 per cent of employment in the MSME sector. Out of 1.56 million MSMEs registered, 94.9 per cent are micro-enterprises (1.48 million), followed by 4.9 per cent small enterprises (76,000), and 0.2 per cent medium enterprises (3,230) as per the current definition. The corresponding percentage share of employment of the three segments out of the total registered enterprises employment is 70.2, 25.2, and 4.6, respectively. Women-promoted enterprises are 1.92 million – 0.22 million registered, and 1.70 million unregistered (13.8 per cent of registered MSMEs, 7 per cent of unregistered MSMEs, and 7.4 per cent of all MSMEs).

In 2006-07, production of MSMEs is estimated at ₹ 7,094 billion at current prices,

fixed investment ₹ 5,008 billion, employment 59.5 million, and exports ₹ 1,825 billion (US \$40.36 billion) at current prices. In relation to all India export figure of US \$126.4 billion for 2006-07, MSME sector's contribution is 32 per cent, and has grown at 18.9 per cent over the previous year, compared to 22.6 per cent for overall exports. The estimates for 2010-11 are 31.15 million total MSMEs, ₹ 7,735 billion fixed investment, ₹ 10,958 billion production at current prices, and 73.22 million employment. Data relating to MSME exports is available only up to 2007-08. During 2007-08, MSME exports accounted for ₹ 2,020.2 billion at current prices (US \$50.25 billion), which works out to 30.8 per cent of the country's total exports of US \$163.13 billion; and has grown at 24.5 per cent over the previous year compared to 29 per cent for overall exports. From 2006-07, data relating to the newly registered medium enterprises are included in the revised estimates. For earlier years, data cover only micro and small enterprises (Union Ministry of MSME, *Annual Report 2011-12*).

In the context of enhancing competitiveness of MSME sector, it is important to recall a few landmarks / recent developments which have resulted in increased fierce competition globally, and even in the domestic market.

July 1991	Announcement of liberalisation policy in industry and trade sectors
April 2001	Virtual dismantling of all the quantitative restrictions (QRs) by India permitting liberal import of goods from other countries

January 2010 Prime Minister's Task Force on MSMEs submits its report to the Prime Minister. Vigorous action steps are being taken thereafter on various areas for overcoming the problems faced by the MSME sector. Apart from the general decline in industrial production during the period of global recession from September 2008 in the country, labour intensive export oriented small enterprises have been adversely affected to a greater degree. These include industries such as textiles, readymade garments, gems and jewellery, leather, handicrafts, handlooms, silk carpets, marine products, toys, and sports goods. Export oriented industrial enterprises have been hit hard in a number of directions such as fierce global competition because of relatively low competitiveness of some of the Indian products, and rupee appreciation apart from recession in developed countries.

#### **MSMED Act, 2006**

The Micro, Small and Medium Enterprises Development (MSMED) Act has become operational from October 2006. Being a comprehensive legislation for the promotion, development, and enhancement of competitiveness of the MSME sector, a number of measures were provided for in the Act for enhancing competitiveness of SMEs, and for enabling the enterprises to avail of the benefits of global markets.

Under the Act, the enterprises have been categorised into those engaged in (a) Manufacturing, and (b) Providing / Rendering of Services. Both categories have been further divided into micro, small and medium enterprises, based on their investment in plant

and machinery (for manufacturing) or in equipment (in case of service enterprises) as shown in Table 1.

**Table 1 : Classification of MSMEs by Investment Limit**

Category of Enterprise	(in ₹ million)	
	Manufacturing (in plant & machinery)	Service (in equipment)
Micro	up to 2.5	up to 1.0
Small	2.5 to 50	1 to 20
Medium	50 to 100	20 to 50

The Act provides for a statutory consultative mechanism at the national level with wide representation of all stakeholders, and an advisory committee to assist the National Board and the central and state governments. The other features include: (a) Establishment of specific funds for the promotion, development and enhancement of competitiveness of these enterprises; (b) Notifications of schemes / programmes for this purpose; (c) Progressive credit policies and practices; (d) Preference for government procurement of products and services of MSEs; (e) Problem of delayed payments to MSEs; and (f) Simplification of the process of closure of business by all the three categories of enterprises.

#### **De-reservation of Products for Manufacture in the MSE Sector, and Facilitating Greater Equity Participation Including FDI**

The policy of reservation of products for exclusive manufacture in the micro and small enterprise (MSE) (earlier SSI) sector was started in 1967. The objective of reservation was to protect the interest of the SSI sector. However, with the gradual opening up of the economy, and policy of de-reservation, there has been progressive de-reservation of a number of

items reserved for exclusive manufacture by the MSE sector. The objective of progressive de-reservation was to provide for opportunities for technological upgradation, promotion of exports, and economies of scale, in order to encourage modernisation, and enhance the competitiveness of MSEs in view of the liberalisation and globalisation of the economy. After due consultation with the stakeholders, the Advisory Committee of the Ministry of MSME de-reserved a number of items from the reserved list. The recent ones are 125 items in March 2007, 79 in February 2008, and 14 in October 2008. The total number of items continuing in the reserved list by March 2009 stood at 21. In September 2009, the remaining 21 items were also notified as de-reserved, with the condition that medium and large units entering these items with or without foreign direct investment (FDI) should commit for exporting 50 per cent of their production within a maximum period of three years. They should obtain an industrial licence. If the FDI is more than 24 per cent, big players had to obtain prior approval of Foreign Investment Promotion Board. The September 2009 Press Release removed this process of obtaining permission if the FDI in equity is above 24 per cent, and permitted FDI or participation by other businesses in MSMEs without a ceiling. This enabled MSMEs to attract FDI or investment from other companies to a greater extent. Other developments which enabled MSMEs to attract FDI or investment from other companies to a greater equity are passing of two acts, Limited Liability Partnership Act, and single person promoted companies under the Companies Act. De-reservation has, thus, led to availing the benefits of economies of scale by bigger units by using advanced technologies.

#### **Cluster Development Approach**

For over a decade, the cluster approach is being implemented as a potent tool for

achieving the overall development of clusters or groups of SMEs, covering artisan and micro-enterprises as well. Various ministries and departments of the Centre are adopting the cluster approach as a pivotal strategy for enhancing productivity and competitiveness as well as capacity building of SMEs in the country. The primary characteristic of the cluster-based approach consists in nurturing the value-chain through a range of carefully crafted demand-side and supply-side policy interventions. Key benefits of a cluster-based approach to developing the SMEs are : (a) Networking among enterprises, (b) Strengthening of the human capital, (c) Technology and skill upgradation, (d) Lowered costs, (e) Improved bargaining power, (f) Global visibility, (g) Easier access to finance, (h) Greater government support, and (i) External players within the value chain.

Under the scheme of cluster development, the benefit of a whole variety of interventions, ranging from exposure to skill development, from credit to marketing, and from technological improvements to better designs and products is given to concentrations of enterprises in a contiguous belt. With the government funding and participation of cluster actors, developmental interventions are carried out for a period of 3-5 years to enhance the competitiveness and collective efficiency of the clusters, and to integrate them with the global economy, and global supply chain in addition to addressing the need for enhancing domestic marketing.

The Micro and Small Enterprises Cluster Development Programme (MSE-CDP) was reviewed in 2006-07 to accelerate holistic development of clusters, including provision of common facility centres, developed sites for new enterprises, upgradation of the existing industrial infrastructure, and provision of exhibition grounds / halls, and also for the creation and management of infrastructure-

related assets in public-private partnership mode. The ceiling on project outlay for infrastructure development has been raised to ₹ 10 crore per cluster. From October 2007, the scope of the scheme has been enlarged to include provisions for development / upgradation of physical infrastructure also. Modifications made to the scheme are : (a) The scheme of 'Integrated Infrastructure Development Centres' has been subsumed under the cluster development programme, with all its existing features and funding pattern. Assistance under the scheme will also be available for the following purposes : (b) for setting up new clusters / industrial estates, and for improving infrastructure in the existing industrial estates; (c) for clusters developed exclusively for MSEs operated, and / or owned by women; and (d) to associations of women entrepreneurs for establishing exhibition centres at central places for display and sale of products of women-owned MSEs. The guidelines of the MSE-CDP were revised in February 2010 with enhanced funding and simplification of procedures. In the recent years, the cluster approach has been made an integral part of most of the schemes being implemented by the Ministry of MSME, covering all components of the National Manufacturing Competitiveness Programme (NMCP). Other Union ministries such as Textiles, Food Processing Industries, etc. have also implemented the cluster approach in respect of the product lines covered by them. Provisions under different phases of MSE-CDP of the Ministry of MSME are briefly recalled here.

Under MSE-CDP, financial assistance is provided as grant-in-aid by the Government of India (GoI), Ministry of MSME, and administered by the Office of Development Commissioner (MSME), and its field offices for five identified phases of the cluster development programme.

1. For preparing a Diagnostic Study Report (DSR) for a cluster of MSEs, Gol grant per cluster is a maximum of ₹ 2.5 lakh;
2. For soft interventions like awareness generation, capacity building, exposure visits, technology upgradation, market development, brand equity, trust building, business development, etc., Gol grant is 75 per cent of the sanctioned amount of the maximum project cost of ₹ 25 lakh per cluster [90 per cent for North Eastern & Hill States, and clusters with more than 50 per cent (a) micro/village, (b) women owned, and (c) SC/ST enterprises];
3. For the preparation of a Detailed Project Report (DPR), Gol grant is up to ₹ 5 lakh per cluster;
4. For hard interventions such as setting up of a Common Facility Centre (CFC), Gol grant is 70 per cent of the cost of the project, i.e., a maximum of ₹15 crore [90 per cent for NE & Hill states, and clusters with more than 50 per cent (a) micro/village, (b) women owned, & (c) SC/ST enterprises]. Hard interventions include creation of tangible assets like testing facility, design centre, production centre, effluent treatment plant, training centre, R&D centre, raw material bank / sales depot, product display centre, information centre, and any other need based facility; and
5. For infrastructure development in a cluster, Gol grant is 60 per cent of the cost of the project, i.e., a maximum of ₹ 10 crore, excluding the cost of land [80 per cent for NE & Hill States, and industrial estates / areas with more than 50 per cent (a) micro, (b) women owned, & (c) SC/ST enterprises]. For existing clusters, upgradation proposals will be

based on the actual requirement. The state / UT governments will provide suitable land for the projects. In the estimated cost to set up an infrastructure development project (excluding cost of land), Gol provides grant-in-aid. The remaining amount may be obtained as loan from SIDBI/ banks / financial institutions or equity from state / UT government. The state / UT government will meet the cost in excess of ₹10 crore or any escalation in cost. Office of the Development Commissioner (MSME) with the approval of the Steering Committee, may appoint Competent Programme Management Service Providers (PMSPs) for facilitating formation of various proposals and their implementation.

In the present scenario of knowledge-based economy, formation of consortia, self-help groups, dynamic associations may yield benefits for pursuing issue-based strategic interventions in industrial clusters. A critical mass of MSEs can join hands under the umbrella of a formal entity called cluster led by a group of beneficiaries (Special Purpose Vehicle – SPV). Confidence building and trust building are the two main pillars of building up cluster development initiatives. Guidelines under MSE-CDP have been published in *Laghu Udyog Samachar* (LUS), November 2010, pp. 3-22.

### **Dimensions of Manufacturing Competitiveness**

The MSE-CDP was the major initiative geared to enhancement of collective efficiency of firms and for promoting collaborative efforts among firms located in the vicinity. The rationale is that the thinning of promotional initiatives among a large number of individual firms would imply a significant erosion of the intended benefits. A decade of experimentation in the collective



efficiency models indicates this. While these models have contributed to enhancement of overall productivity of firms under clusters, manufacturing capabilities of the country have suffered. It was in this context that the National Manufacturing Competitiveness Programme (NMCP) was launched in 2005. The NMCP mainly deals with firm level competitiveness. The broad elements of manufacturing competitiveness policy are: (a) Technology and innovation enhancement, (b) Protection of intellectual property rights (IPRs), and (c) Entrepreneurship policy.

The National Manufacturing Competitiveness Council (NMCC) was set up in 2004, as an inter-disciplinary and autonomous body to energise and sustain the growth of the manufacturing industry. Broadly, the objectives of the Council are: identification of manufacturing sectors having globally competitive potential, as also their problems and constraints with respect to structure and size, technology gaps, modernisation needs, etc., and evolving sector-specific strategies for enhancing the competitiveness of manufacturing sectors. Its functions would, *inter alia* include: sectoral and enterprise level initiatives, innovation and technology development (R&D), entrepreneurship promotion, infrastructure and enabling facilities, trade and fiscal policies, and employment generation. The NMCC has helped a number of enterprises in sunrise sectors such as food processing, textiles and garments, pharmaceuticals, leather, and information technology (IT) in increasing their capabilities for global competitiveness, minimising technological gaps, providing infrastructure and enabling facilities, and supporting with trade and fiscal policies.

Globalisation of businesses has increasingly drawn SMEs into global value chains through different types of activities. The networking of globalisation has been developed in recent years through joint efforts

in selling, buying, technological development, quality standards, learning networks, and market research. Many SMEs are trained to establish collaborative linkages with global suppliers in which the role of the government is important in promoting the network. The MSMEs Development Act, 2006 has been designed to solve the constraints and problems faced by SMEs, and enable the enterprises to avail of greater market opportunities arising from globalisation in the World Trade Organisation (WTO) - administered foreign trade.

The NMCP that started in 2005 covers 10 components of the SME sector. The coverage and main aspects of these components are explained here. Guidelines for implementing each of the components of NMCP are periodically published in *Laghu Udyog Samachar* (LUS) by Development Commissioner (MSME). The relevant issues of LUS in which guidelines for each of the schemes have been published are indicated at appropriate places in subsequent paragraphs. Some of them have also been released as booklets. Website [www.dcmsme.gov.in/schemes](http://www.dcmsme.gov.in/schemes) of Development Commissioner (MSME) furnishes provisions of various schemes of the Ministry of MSME.

*Marketing Support and Assistance to MSMEs through Bar Coding (Bar Coding)* : Bar code is a series of parallel vertical lines (bars and spaces), that can be read by Bar Code scanners. It is used worldwide on the product packages, as price tags, carton labels, and even on credit card bills. When it is read by scanners, the restored information on product profile and its other attributes is made available to the consumer, and this facilitates better marketing of products. The Bar Coding is a unique, universal, and international concept which can be recognised anywhere in the world. Bar Coding is essential in many ways, *inter alia*, to eliminate delays and inaccuracies

inherent in manual checking / identification of each category of goods indicating price and other essential details, maintaining simultaneous inventory entries, management and control, ordering timely replacements, rapid issuing of printed memos, and receipts after accounting, etc. Bar Coding has become a pre-requisite for all suppliers and buyers in today's digitalised market, and Indian MSEs will have opportunities to grow by adopting it. Bar Coding enables higher price realisation at the exporter's end, instead of at the buyer's end; and helps promote Indian value added products globally. Using international digitalised numbering standards represents a small but significant step in accessing global and ever growing domestic markets (LUS, February 2010, pp. 12-13).

Bar Coding is an important marketing tool having wide global acceptability. In order to encourage units in the sector to adopt bar coding, a provision for reimbursement of 75 per cent of one-time registration fee from January 2002, and annual fees for the first three years from June 2007 paid to Global Standard One (GS1) India (formerly EAN India) (an autonomous body under the Ministry of Commerce and Industry) by MSEs for adoption of Bar Coding has been made under SSI-MDA (Market Development Assistance) Scheme. Besides, there is a provision for organising a one-day sensitisation awareness programmes, and preparation of publicity material for MSEs and other stakeholders concerned.

*Support for Entrepreneurial and Managerial Development of MSMEs through Incubators (Business Incubator)* : The concept of business incubation is relatively new for MSMEs. The Incubator scheme makes available a new window for supporting and nurturing business based on new ideas. The idea is to promote development of knowledge-based technological innovative ventures, and to improve the competitiveness and survival strategies of MSMEs. Incubation of ideas under

the guidance of an incubator will facilitate sustainable development. Under the scheme, knowledge institutions like engineering colleges, research laboratories, and university science and technology departments are provided financial assistance up to ₹ 6.25 lakh for incubating each of the new ideas. The incubator institution provides technology guidance, workshop and laboratory support, and linkages with other agencies for the successful launching of the business, and guides the entrepreneurs in running the business for about three years. During the 11th Plan period up to March 2012, provision of ₹ 135 crore has been made by Gol for incubating 2000 ideas (LUS, January 2011, pp. 23-27).

Under the scheme, 100 'Business Incubators (BIs)' are to be set up under technology (host) institutions over a 4-year period at 25 per year; and each BI is expected to help the incubation of about 10 new ideas or units. For this service, which includes the provision of laboratory / workshop facilities and other assistance / guidance to young innovators, each BI will be given between ₹ 4-8 lakh per idea / enterprise nurtured by them, limited to a total of ₹ 62.5 lakh for 10 units. In addition, ₹ 4 lakh will be provided for the upgradation of infrastructure, orientation / training, and administrative expenses, resulting in a total of ₹ 66.5 lakh for promoting 10 enterprises.

*Setting up of Mini Tool Room and Training Centres (Mini Tool Room)* : Mini Tool Room and Training Centres will be promoted on Public-Private Partnership (PPP) Model for providing technological support to MSMEs by creating capacities in the private sector, for designing and manufacturing quality tools, and for providing training facilities in related areas. Total project cost for the scheme for the 11th Plan period is ₹ 210 crore including Gol's contribution of ₹ 135 crore. Implementation is planned in three ways: (a) Private Partner

(Centre PPP Model); (b) SPV set up by the states in partnership with private partners (State PPP Model); and (c) State or state agency other than NGOs (Centre-State Model). The objectives of Mini Tool Rooms are as follows (LUS, December 2010, pp. 9-16).

- \* to improve the competitiveness of the MSMEs engaged in manufacturing activity by creating capacities in the private sector for designing and manufacturing quality tools;
- \* to bridge the gap between demand and supply of trained manpower in the industry; &
- \* to encourage Research and Development, and optimisation of cost and quality of delivery, leading to enhanced competitiveness of the manufacturing sector.

In Model I (Centre PPP Model), the project is to be set up and operated by a private partner. Financial assistance will be given by Gol to meet the viability gap on a case-to-case basis, and it will be restricted to 40 per cent of the project cost (not exceeding ₹ 9 crore). In Model II (State PPP Model), the project is to be set up by the state government in cooperation with NGOs (SPVs), who will run the project on mutually agreed terms. Financial assistance will be equal to 90 per cent of the cost of machinery, restricted to ₹ 9 crore. However, in order to retain a say in the management, at least 26 per cent of the share should be with the state government. This Model can be considered if Model I is not found to be feasible. In Model III (Centre-State Model), project is to be set up and managed by the state government / state government agency. Financial assistance will be equal to 90 per cent of the cost of machinery, restricted to ₹ 9 crore. Financial assistance equal to 75 per cent of the cost of machinery, restricted to ₹ 7.5 crore can also be sanctioned for

upgradation of an existing state tool room. This Model could be resorted to only where both Model I and Model II are not found to be practicable. First preference will be to adopt Model I. Others can be considered in the sequence stated above. Project sponsor's contribution should be at least 15 per cent of the overall project cost.

*Building Awareness on Intellectual Property Rights (IPRs)* : The objective is to create and enhance awareness about IPRs among units in the sector so as to enable them to take appropriate measures for protecting their ideas and business strategies, and also avoiding infringement of the intellectual property belonging to others. IP refers to legal rights that result from intellectual activity in the industrial, scientific, literary, and artistic fields to preserve the innovations and R&D efforts of individuals and companies. It could be in the form of patents, trademarks, geographical indications, industrial designs, layout designs of integrated circuits, plant variety protection, and copyright. Utilisation of IPR tools will enhance the competitiveness of MSMEs through technology upgradation. These initiatives are proposed to be developed through PPP mode to encourage economically sustainable models for the overall development of MSMEs. The scheme provides for financial assistance for taking up the following identified initiatives on a cluster basis: (a) Awareness / sensitisation programmes on IPRs; (b) Pilot studies in selected clusters / groups of industries; (c) Interactive seminars / workshops; (d) Specialised training; (e) Assistance for grant of patent / GI registration; (f) Setting up of IP Facilitation Centre; and (g) Interaction with international agencies (LUS, February 2011, pp.11-20).

*Application of Lean Manufacturing Techniques (LEAN)* : The focus is on helping MSMEs adopt Lean Manufacturing (LM)



techniques so as to enhance their productivity, efficiency and competitiveness by reducing or eliminating manufacturing waste, and streamlining the system through application of various LM techniques, e.g., 5S System, Visual Control, Standard Operating Procedures (SOPs), Just in Time (JIT), KANBAN System Cellular Layout, Value Stream Mapping, Poka Yoke or Mistake Proofing, Total Productive Maintenance (TPM), etc. Worker empowerment is also emphasised. Initially the scheme will be implemented in 100 mini clusters (each of a group of 10 enterprises) for one year at a total cost of ₹ 30 crore. The scheme is in operation from July 2009. Later it will be extended to 300-500 clusters in a few years. Results will be in the form of improved process flows, reduced engineering time, proper personnel management, better space utilisation, scientific inventory management, etc. These will improve the quality of products and reduce costs. LM counsellors appointed for a few clusters will identify and implement appropriate LM techniques. The effort will bring about improvement in the quality of products at lower costs, which will enhance the competitive ability of enterprises. National Productivity Council, New Delhi has been appointed the National Monitoring and Implementation Unit for the pilot project. The MSME-Development Institute at the state level has nominated the nodal officer for coordination with NPC at the local / field level. Awareness programmes will be conducted in the clusters. Consultant's fee for each cluster up to 80 per cent will be borne by Gol, and 20 per cent by the beneficiary enterprises (LUS, November 2009, pp.6-8).

*Quality Management Standards (QMS) and Quality Technology Tools (QTT)* : This was launched during 2008-09, with a budget provision of ₹ 40 crore for four years. The scheme aims at improving the quality of products in the MSME sector, and inculcating quality consciousness among units of the

sector. The major activities envisaged under the scheme are: (a) Introduction of appropriate modules for technical institutions with a target coverage of 2000 technical institutions; (b) Organising awareness campaigns every year for MSMEs; (c) Organising competition-watch (c-watch) every year in the two sectors; (d) Implementation of QMS and QTT in 100 selected MSEs every year; and (e) Monitoring at least two international study missions per year. The focus is on sensitising and encouraging MSMEs to adopt the latest QMS and QTT techniques so as to strengthen their operations, and to keep a watch on the sectoral developments in the country by undertaking defined activities (LUS, October 2009, pp. 16-19).

*Energy Efficiency and Quality Certification Support (Energy)* : The focus is on sensitising enterprises and spreading an awareness about the need and benefits of adopting energy efficient technologies and using different quality certification measures for reducing emission of green house gases (GHGs), and improving the quality of products at reduced costs so as to improve the competitiveness of the enterprises in the global arena. The following initiatives are being pursued under this scheme: (a) Conducting awareness programmes on energy efficient technologies, availability of energy efficient equipments, and benefits from energy efficient techniques and clean development mechanism (CDM); (b) Supporting energy audits in sample units in clusters; (c) Promoting replication of model energy efficient technologies (EET) after preparing detailed project reports in the clusters, and implementation of the cluster plan; (d) An innovative concept of cluster-based carbon credit aggregation centres (CCACs) has been planned under the scheme to initiate MSMEs to CDM benefits; and (e) MSMEs are encouraged to acquire product certification / licences from national / international bodies, and adopt other

technologies mandated as per global standards (LUS, March 2011, pp. 16-25).

The activity will be implemented through SIDBI which will function as the implementing agency. Both technical and overall project appraisal by SIDBI / other Bank will be taken into consideration prior to the sanction of assistance in the form of grants by the Ministry of MSME. About 390 units will be supported for implementing EETs in MSMEs in potential clusters under this activity. While 25 per cent of the project cost will be provided as subsidy by Gol, the balance amount is to be funded through loan from SIDBI / other banks / financial institutions. The minimum contribution as required by the funding agency will have to be made by the MSME. Besides reducing energy cost, the activity will also enable the implementing enterprises in obtaining credits, which are tradable in the National and International Commodity Exchanges. Clusters for setting up the Carbon Credit Aggregation Centres (CCACs) for introducing and popularising Clean Development Mechanism (CDM) will be identified on the basis of the CDM implementation potential in the cluster or applications received from the stakeholders.

*Marketing Assistance and Technology Upgradation (Modern Marketing Techniques) :* Competitiveness in marketing is sought to be improved through Marketing Assistance and Technology Upgradation Scheme, by using the latest techniques and technologies suitable for specific product groups on a cluster basis. The broad activities under the scheme include technology upgradation in packaging, development of modern marketing techniques, competition studies, state / district exhibition, corporate governance practices, marketing hubs, etc. Under the scheme introduced in 2010, ten product groups have been identified for studies on packaging.

Further, 140 units have been identified for participation in industry fairs and exhibitions (LUS, February 2011, pp. 7-10).

*Promotion of Information and Communication Technology Tools (ICT Tools) :* The scheme envisages that SME clusters, which have quality production and export potential, shall be identified, encouraged and assisted in adopting ICT applications to achieve competitiveness in the national and international markets. The activities planned under the scheme include: identifying target clusters for ICT intervention, setting up of E-readiness infrastructure, developing web portals for clusters, skill development of MSME staff in ICT application, preparation of local software solution for MSMEs, construction of e-catalogue, e-commerce, etc. and networking MSME cluster portal on the national level portals in order to outreach MSMEs into global markets. The scheme launched in 2010 will initially be implemented in 100 clusters (LUS, February 2011, pp. 7-10).

*To Bring Design Expertise through Design Clinics (Design Clinic) :* The scheme brings design experts on a common platform to enable MSMEs to access expert advice and solutions for their real time design problems, resulting in continuous improvement and value addition to the existing products. It also aims at developing value added cost-effective solutions. The scheme introduced in 2010 comprises two major parts – design awareness, and design project funding. The design awareness stage comprises activities like seminars, workshops, diagnostic studies of clusters. In design project funding, projects of students, consultants / designers, and consulting organisations are assisted by Gol by providing 60 per cent of the project cost by way of grant. The scheme will initially be implemented in 200 MSME clusters (LUS, February 2011, pp. 7-10).

## Conclusion and Suggestions

SMEs in the competitive environment need to plan for globalisation as part of their strategy to enhance competitiveness, and not as a reaction to venture into new markets. Based on the experiences of recent years in the country and the recommendations of various studies, including the Prime Minister's Task Force on MSMEs, whose recommendations are currently being implemented, a few suggestions are made for improving the environment for SMEs in the globalisation context. Institutional framework and policy specifications are important factors in helping the evolution and success of SMEs.

*Promoting Entrepreneurship and Skill Development:* Private sector organisations and non-governmental organisations (NGOs) need to be involved to a greater degree with appropriate trainers' training programmes to equip them to shoulder the responsibility on PPP mode. The corporate sector may take the lead role in infusing enterprise education, skill upgradation, and management induction programmes. Promoting synergy is necessary to achieve integration in order to attain the desired goals by involving public sector and private sector organisations. Encouragement should be given for private corporate sector to establish business incubation support network, as also institutional framework and policy framework for business-turn around, for the benefit of SMEs.

*Upgradation of Clusters and Creation of Value Chain:* SMEs can achieve high level of competitiveness if they work in a cluster environment ensuring complementarities, common activities, and institutional stability. Collective innovations should flow from these efforts. Through strengthening of linkages and creation of value chain, clusters can be upgraded. These can include linkages among firms, strengthening the local position within the value chains, building cluster-specific skill

centres to develop cluster-specific labour force, strengthening the linkages with the local suppliers, and facilitating greater level of interactions among the stakeholders of clusters.

*Strengthening Sub-contracting Relationships within the Region / Other Parts of the Country / Other Countries:* Sustainability and growth of SMEs would largely depend on their capacity to become part of the strategies of larger firms in the national and global arena. This is particularly important for technology oriented and export-oriented SMEs, which serve as sub-contractors for large enterprises in sectors such as IT, biotech, pharmaceuticals, light engineering, electronics, and automobile components. SMEs should be equipped to meet the global standards and delivery mechanisms.

*Focussed R&D Institutions for SMEs:* There is need for focussed institutions encouraging R&D activities in the SME sector in a coordinated manner. They may identify thrust areas for research, new areas for technology application, opportunities for commercialisation of R&D, and hand-holding of SMEs in their R&D intensification. This can lead to higher level of technology intensive firms coming up in various product lines in thrust areas.

*Linking SME Strategy with Regional Trading Arrangements:* Linking the SME development strategy with regional trading arrangements would encourage learnings from regional and cross-continental peer groups. Multi-national corporations (MNCs) may be encouraged to assist SMEs to upgrade them to meet quality standards that may be required by them. They should become SME-friendly by developing suitable tendering policies.

*Increasing SMEs' Access to Finance:* The screening methodology of financing

institutions needs to consider non-financial parameters and management competencies, while evaluating loan proposals of SME units. Export-Import Bank of India, Mumbai in collaboration with International Trade Centre, Geneva has implemented an unique enterprise management development services programme, which is an IT-based tool, loan.com to enable SMEs to prepare business plans with international market in focus. This is implemented as a pilot project for SMEs at present, and needs to be extended to more regions. The working group on credit flow to SMEs under the chairmanship of K.C. Chakrabarty and the Prime Minister's Task Force on SMEs have suggested a number of measures for sustained development of the SME sector. These included establishment of a

few funds in the SME sector for specific purposes. Action is to be initiated on a priority basis to implement these recommendations.

*Pro-active Role of Industry Associations / Cluster Associations :* It is suggested that the key associations at the state level / cluster associations at the cluster level should take the lead in implementing various programmes in the interest of their members. Pro-activeness from their side will enable the institutions concerned to perform in an appropriate manner, review the performance of a programme in various locations periodically, and bring out lessons for the future. Periodic monitoring and review of implementation of programmes is to be pursued regularly. Interaction across states is also necessary.

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## APPENDIX I

### Select Websites of National Organisations and others of relevance to MSME Organisations and MSMEs

1. Ministry of MSME, New Delhi – [www.msme.gov.in](http://www.msme.gov.in)
2. Development Commissioner (MSME), New Delhi – [www.dcmsme.gov.in](http://www.dcmsme.gov.in); and [www.smallindustryindia.com](http://www.smallindustryindia.com)
3. State level MSME Development Institute, e.g., for Hyderabad – [www.msmehyd.ap.nic.in](http://www.msmehyd.ap.nic.in)
4. National Small Industries Corporation (NSIC), New Delhi – [www.nsic.co.in](http://www.nsic.co.in); web portal for MSMEs – [www.nsicindia.com](http://www.nsicindia.com); and International portal of NSIC – [www.nsicpartners.com](http://www.nsicpartners.com)
5. Small Industries Development Bank of India (SIDBI) – [www.sidbi.com](http://www.sidbi.com); and Web portal on information on technologies – [www.techsmall.com](http://www.techsmall.com).
6. National Bank for Agriculture and Rural Development (NABARD), Mumbai – [www.nabard.org](http://www.nabard.org)
7. Export-Import Bank of India, Mumbai – [www.eximbankindia.in](http://www.eximbankindia.in)
8. Reserve Bank of India, Mumbai – [www.rbi.org.in](http://www.rbi.org.in)
9. Industrial Development Bank of India, Mumbai – [www.idbi.com](http://www.idbi.com)
10. Department of Commerce, Ministry of Commerce and Industry, New Delhi – [www.commerce.nic.in](http://www.commerce.nic.in); and Special Economic Zones (SEZ): all India – [www.sezindia.nic.in](http://www.sezindia.nic.in)
11. Ministry of Textiles, New Delhi – [www.texmin.gov.in](http://www.texmin.gov.in)
12. Ministry of Food Processing Industries, New Delhi – [www.mofpi.nic.in](http://www.mofpi.nic.in)
13. Commissioner of Industries, Andhra Pradesh, Hyderabad – [www.apind.gov.in](http://www.apind.gov.in); and SEZs of Andhra Pradesh – [www.apsez.com](http://www.apsez.com)
14. Khadi and Village Industries Commission (KVIC), Mumbai – [www.kvic.gov.in](http://www.kvic.gov.in)
15. National Institute for Micro, Small and Medium Enterprises (ni-msme), Hyderabad – [www.nimsme.org](http://www.nimsme.org)
16. Entrepreneurship Development Institute of India (EDI), Gandhi Nagar (Gujarat) – [www.ediindia.org](http://www.ediindia.org)
17. National Institute for Entrepreneurship and Small Business Development (NIESBUD), Noida (Uttar Pradesh) – [www.niesbud.nic.in](http://www.niesbud.nic.in)
18. Indian Institute for Entrepreneurship (IIE), Guwahati (Assam) – [www.iie.gov.in](http://www.iie.gov.in)
19. World Trade Organisation (WTO), Geneva – [www.wto.org](http://www.wto.org)
20. Global Information Network for SMEs covers information on SMEs in various countries – [www.gin.ne.ip](http://www.gin.ne.ip)

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**APPENDIX II****Web Portal of NSIC to enhance the reach of MSMEs in the Global Market**

Website [www.nsicindia.com](http://www.nsicindia.com) has been developed by National Small Industries Corporation (NSIC) at its headquarters in New Delhi as a B2B web portal for the benefit of MSMEs in India and abroad. It provides an excellent opportunity for the MSME fraternity to not only promote information exchange Pan-India but also enhance its reach to a large number of clients abroad, besides improving its service delivery. The Portal will also help MSMEs to enhance their inland and global trade through promotion of their products and services. The portal provides a number of helpful features such as product specific database searches, sector specific domestic and international tender notices with alert facility, business trade leads (buy / sell) from more than 200 countries, and opportunities to MSMEs to develop their products, and showcase them through the portal, and reach out to the global markets. The portal helps MSMEs in expanding their trade opportunities Pan-India and in other countries. E-commerce is becoming a global trend, the advantages of which should be accessible to the smaller entities. The comprehensive portal comprises more than 2.5 lakh MSME contacts, and helps the enterprises in reaching out to the buyers in the world from their work place by using information and communication technology (ICT) tools.

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**APPENDIX III****NSIC sets up MSME Info-call Centre at New Delhi**

The call centre can be contacted on toll free number 1800-11-1955 which works from 8.00 - 22:00 hrs. every day. This centre helps in providing the required information about the vendors and technology suppliers to the potential first generation entrepreneurs and existing small enterprises as and when required by them. Salient features of the information centre are: Customer care services and solutions including tele and internet marketing, and infomediary services. The centre has the state of the art technology computers and dedicated call centre equipment which are managed by NSIC trained staff conversant with call centre operations and telemarketing applications. Some of the activities covered by the centre are as follows:

- \* Tracking of all incoming and outgoing calls with date and time
- \* Recording the entire conversation
- \* Tele conferencing
- \* Responding to the queries through Interactive Voice Response System (IVRS)
- \* E-newsletters
- \* E-mail notifications for unattended calls
- \* Voice mails which can be forwarded to mail boxes
- \* Report generation on the basis of different criteria such as pending queries, queries concerning relevant schemes, suggestions and complaints
- \* Remote monitoring
- \* Database integration

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**APPENDIX IV****Ministry of MSME sets up Udyami Helpline at New Delhi**

The call centre can be contacted on toll free number 1800-180-6763 which works from 6:00 - 22:00 hrs., and responds in English and Hindi on all days of the year. The centre guides MSMEs in providing the requisite information for existing and prospective entrepreneurs about opportunities and facilities available under various schemes of Government of India. The relevant websites are: [www.msme.gov.in](http://www.msme.gov.in) of the Ministry of MSME, and [www.dcmsme.gov.in](http://www.dcmsme.gov.in) of Development Commissioner (MSME), New Delhi. Udyami Helpline provides assistance and guidance to entrepreneurs regarding marketing assistance, export promotion, credit support, cluster development, technology upgradation, skill development, process of setting up an enterprise, and details of various schemes of the Ministry of MSME.





## **WAGE EMPLOYMENT : IMPACT OF MGNREGS IN BARDHAMAN, WEST BENGAL**

*Biju Paul Abraham, Bhaskar Chakrabarti,  
Raghabendra Chattopadhyay\*, Suman Nath\*\**

### **ABSTRACT**

*In this paper, we study the impact of MGNREGS on the beneficiaries and analyse potential management problems of the implementing agencies in Bardhaman, a relatively prosperous district of West Bengal. Analysis of official documents and primary data collection in all blocks over a period of three years indicates that Bardhaman has been successful in addressing the challenges of running the scheme. However, because of available alternative employment opportunities, conducting MGNREGS matching the Annual Action Plan is a serious challenge to the GPs. The local people look for less labour intensive schemes, and political parties pressurise Gram Panchayats to initiate popular errands which makes it difficult to match village needs with demands.*

### **Introduction**

The National Rural Employment Guarantee Act, installed by the Congress led United Progressive Alliance-I in 2005 ensures a minimum of 100 days of employment to every household of India, and has the potential to become the strongest public employment programme in history (Ambasta, Shankar & Shah, 2008; Bhargava, 2006; Jaffer, 2009). At operational level, Mahatma Gandhi National Rural Employment Generation Scheme (MGNREGS) is a positive response to the a) grievances of increasing rural unemployment (Mukhopadhyay and Rajaraman, 2007), b) 80 per cent people's life under international poverty line of \$2 per day (World Bank, 2005),

c) increasing poverty (Chen and Ravallion, 2000) and marked rural urban inequality (Datt and Ravallion 2002), d) collapse of agriculture (Shah, 2007) and e) a decline in the rate of agriculture extension. Even if agriculture production increases, there are problems of marketing and storage in states like West Bengal (Harris-White, 2008; Nath & Chakrabarti, 2011). Prevailing social inequality and unintended politicisation forming fragments, and skewed resource allocation add to the existing problems (Chattopadhyay, Chakrabarti & Nath, 2010; Mukhopadhyay and Rajaraman 2007; Sundaram and Tendulkar, 2003). These shortcomings often compel farmers to commit suicide (Shah, 2007).

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The National Sample Survey Data indicate that West Bengal is low in ranking in terms of education, poverty and health and nutrition. The State has high levels of nutritional deprivation, alarming poverty head count, stagnation in human development ranking and low female participation in decision-making processes (Sengupta and Gazder, 1997; Sen, 2002; Ghosh, 2002; Macroscan, 2003). The Human Development Report shows one of the highest differences in rural and urban consumption rate in West Bengal. People's participation is alarmingly low in village development meetings (Chattopadhyay, Chakrabarti & Nath, 2010).

MGNREGS, with its triple underlying obligations of a) creation of durable assets, b) strengthening the livelihood resource base of the rural poor, and c) providing training for upgradation of the skills of unskilled labourers (Chakraborty, 2007) is an unique opportunity to heal the existing maladies. With mammoth fund devolution, MGNREGS is also expected to rejuvenate local governance institutions (MoRD, 2008).

In this paper, we explore MGNREGS at operational level in the Bardhaman district of West Bengal. Bardhaman (literally means 'developing') with a population of 6.9 million in 2001 census, is an important hub for agricultural production (GoWB, n.d). The district has 50 per cent higher rate of agriculture growth than West Bengal as a State, as a result of its inclusion in 1961's Intensive Agricultural District Programme, 1975's High Yielding Variety Programme aided by Damodar and Ajay river networks of irrigation, substantiated by groundwater exploitation in the 1980's (Harris White, 2008; Moitra and Das, 2004). Industrial growth in adjacent Durgapur, coalmines in nearby Raniganj add to alternative employment opportunity of the district. In consequence, less demand for MGNREGS work is evident in some areas. In spite of this, our study shows that maximum

number of days of employment provided range between 91 to 100 days for forward villages, and 61-70 days for backward villages. In MGNREGS, Bardhaman is ranked first in expenditure per Gram Panchayat, second on basis of percentage of person-days achieved, third in percentage of BPL Households who have been provided employment (<http://nregsburdwan.com>).

Bardhaman being one of the prosperous districts should ideally require less MGNREGS support and therefore, success of continuing such a programme depends on 'successful management' of the programme. Consequently, our research attempts to understand the impact of MGNREGS over its participants, as well as explores the challenges to MGNREGS and management responses to address such challenges.

### **MGNREGS : Reflections from Literature**

MGNREGS's potential to effectively address poverty-related issues is well recognised (Dreze and Sen, 1989; Ravallion, 1991; Besley and Coate, 1992; Sen, 1995). The existing literature indicates that MGNREGS from its commencement faced problems of implementation because of imperfect design. Associated is the problem of determining wages high enough to meet daily needs, but not higher than the prevailing rate (Papola, 2005). Other issues of concern include non-payment, gender and caste biased underpayment (Chakrabarti, 2007; Khera and Nayak, 2009; Khosla, 2011).

A substantive understanding of the issues creating bottlenecks for implementing MGNREGS at the operational level is imperative. Studies indicate two broad difficulties in implementation of MGNREGS. First, the fiscal challenges. These primarily include wage determination and cash transfer. Second, management problems with the implementing agencies. These include

instances of fund misappropriation that has lead to payment through Banks and Post Offices (Dey, Drèze and Khera, 2006; Drèze and Khera, 2009; Siddhartha, 2008). However, a recent study by Adhikari and Bhatia (2010) indicates that our banking system largely fails to protect fund misuse as a result of haphazard account handling, presence of power groups during withdrawal, negligence of muster rolls and other record keeping mechanism. A further problem is the misunderstanding regarding the nature of work resulting in underutilisation of MGNREGS's full potential for which effective publicisation is needed (Bhatia and Drèze, 2006; Jacob and Varghese, 2006; Louis, 2008). Ambasta, Shankar and Shah (2008) argue that MGNREGS can never recognise its full potential until the existing governance mechanism is transformed.

Chakrabarti (2007) argues that MGNREGS has a tendency to become supply driven instead of demand driven if an agency fails to generate work after demand is placed, since unemployment allowance is to be paid by the state government. Several scholars indicate that such a large scale of work requires infrastructure in the form of strong local governance institutions and linkages with line departments, which are frequently unavailable

in different parts of India (Chakrabarti, Chattopadhyay and Nath, 2011; Chathukulam and Gireesan, 2006; Chakrabarti, 2007; Bhatia and Drèze, 2006).

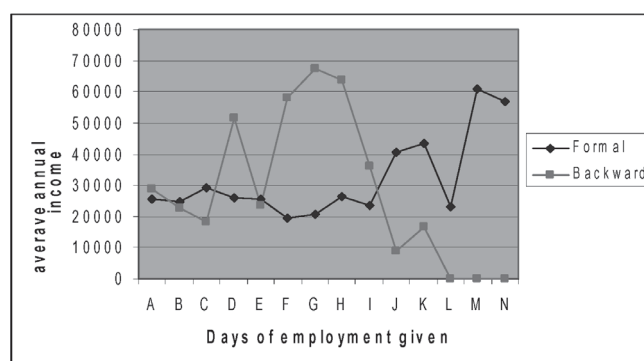
### Methodology

In this paper, we use a) MGNREGS performance reports available from the Bardhaman District Magistrate's office and b) analyse primary data collected from each of the 31 blocks of Bardhaman during 2009-10. We focus on two aspects of MGNREGS: first, the impact of MGNREGS over its beneficiaries. Second, the nature of institutional challenges and reaction of the implementing agencies to them.

Our fieldwork covers two randomly selected villages in two randomly selected Gram Panchayats (GP) in each block of the district. In each village, ten households are randomly selected for study. The study covers 40 households in each block. A total of 1240 households from 124 villages (of which 10 are backward villages) are covered in the district. A structured questionnaire is used to interview 2699 males and 2345 females from the villages to have a direct exposure of the coverage and actual benefits of MGNREGS in the district. An

**Figure 1 : Average Annual Income and Number of Days Employment Given**

**Code :** 1-5 = A, 6-10 = B, 11-20 = C, 21-30 = D, 31-40 = E, 41-50 = F, 51-60 = G, 61-70 = H, 71-80 = I, 81-90 = J, 91-100 = K, 101-110 = L, 111-120 = M above 121 = N



understanding of the nature of management crisis that the implementing agencies face required open ended interviews with the officials from the three-tier Panchayat system, which was done by members of the study team.

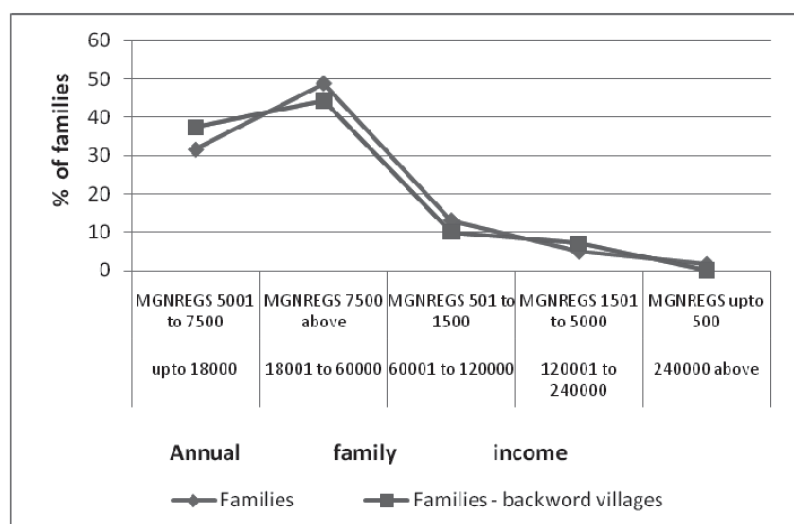
### Impact, Distribution and Conflicting Demands

The relationship between the days of employment provided and average annual income in Bardhaman shows a diverse pattern (Figure 1).

Therefore, in order to assess the impact of MGNREGS on intended beneficiaries, we focus on the distribution of work and the relative contribution of MGNREGS to the income of beneficiaries.

Figure 2 shows a comparative appraisal of the family income and MGNREGS-income. Our primary data show that supplementary income from MGNREGS is high among families which have comparatively lesser annual income from other sources. The backward villages are equally benefited from the scheme.

**Figure 2 : A Comparative Analysis of Family Income and MGNREGS Income**



The average annual family income of backward villages from the scheme is ₹ 3199.46, higher than ₹ 2795.23 in other villages (Source : Survey Data, 2009-10). Evidently, work allocation follows the degree of backwardness.

As we studied the distribution of work in 31 blocks, we realised that a significant cutback in the number of days of work-generation is found in blocks Andal, Bhatar, Galsi, Kalna I, Katwa I, Mongolkot, and Purbasthali I. Among these underperforming

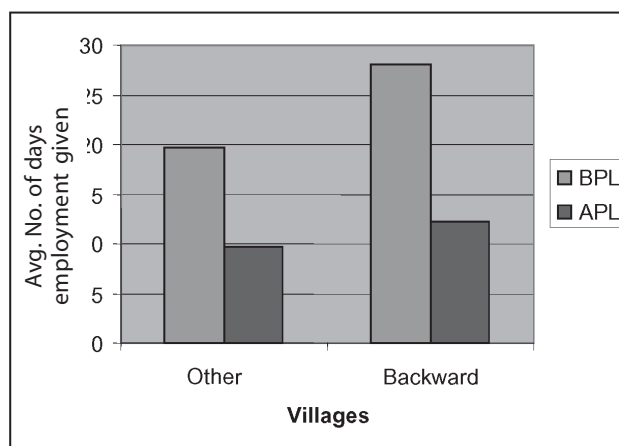
blocks, Purbasthali I, Bhatar, Kalna I, Katwa I, and Mongolkot show a constant fall in the rate of employment generation. In Bardhaman I, Purbasthali I, Bhatar, Kalna I and Katwa I, alternative employment opportunity is significantly high. As a result, demand for MGNREGS work is not always generated. In Mongolkot, however, political turmoil in the recent past, which resulted from conflicts between the CPM and the Trinamul Congress, has significantly limited the scope of undertaking MGNREGS (Source : Survey Data 2009-2010).

Post-Panchayat election 2008 witnessed a political changeover in several blocks. The Left Front, headed by Communist Party of India Marxist (CPM) now controls the Zilla Parishad, the district level office of the three-tier panchayat system. The intermediate Panchayat Samities (PS) and lowest of the three-tiers, i.e., Gram Panchayats (GP) in most places are controlled by the new ruling party of the State, Trinamul Congress (TMC). In many places, political difference between the GP and the PS results in problems of release of fund of

the scheme. In Jamalpur, Jamuria and Ketugram, political difference is identified as one of the major factors that sway the performance of MGNREGS between 2008–09 and 2009 – 10 (Source : Survey Data 2009-10).

In spite of these, Bardhaman is largely successful in providing supplementary income to the needful through MGNREGS. Families living Below Poverty Line (BPL) get more employment as part of the scheme than families with Above Poverty Line (APL) status (Figure 3).

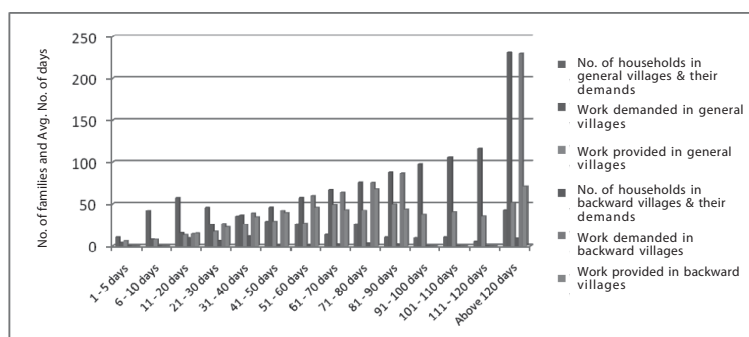
**Figure 3 : BPL and APL Families Getting Number of Days Employment**



Additionally, an increase in the employment generated is reflected in Figure 4. To have a better understanding of people's

needs, we did an analysis of the demand of work and supply.

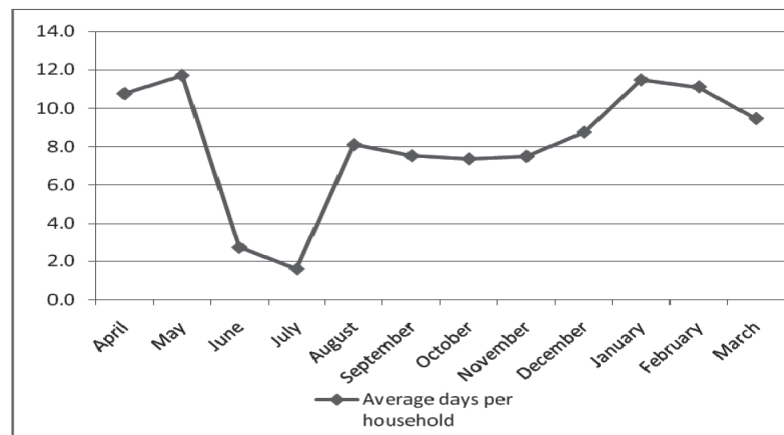
**Figure 4 : Work Demand and Supply in Bardhaman District**



Our analysis shows that a gap between the demand and supply of MGNREGS work does exist. The official record shows that no employment allowance is distributed by the district. Figure 4 shows that higher demand results in the high demand–supply gap. The officials interviewed by the study team point to three reasons that give rise to this gap. First, the seasonal factor plays an important role in determining the success of MGNREGS. The

nature of work under this scheme is labour intensive. It primarily includes earth works. Therefore, if a demand of work is generated during monsoon, it is often difficult to meet the demand. The seasonal distribution of MGNREGS work shows that least amount of work is carried out during June and July when maximum summer temperature is followed by maximum rainfall (Figure 5, source: survey data 2009-10).

**Figure 5 : Seasonal Distribution of MGNREGS Work in Bardhaman**



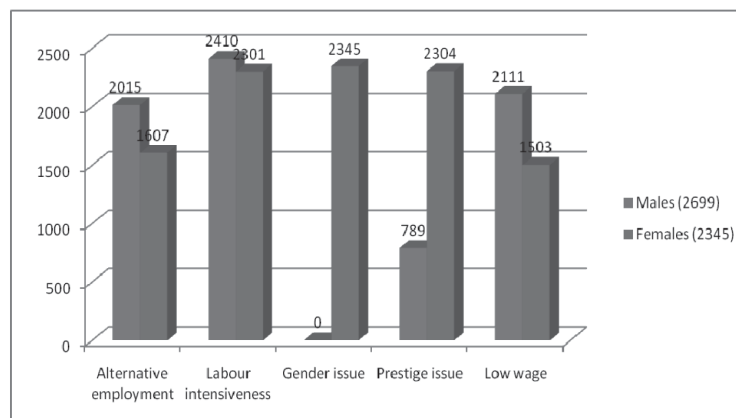
Interestingly, during August even if rainfall occurs, average number of days of employment generated increases rapidly. The nature of work includes repairing of flood protection barrage. Despite being a labour intensive task, villagers wilfully involve in those jobs because of the potential threat of being flooded (interview with Panchayat officials, October 2010).

A second factor contributing to the demand supply gap is labour crunch. Those who place demands earlier become unavailable in a suitable season when the GPs create the works (interview with Panchayat officials, October 2010).

Third, there is sometimes a problem with the nature of the work. People are interested in less labour intensive occupations like tree

plantation. It is not unusual to demand a type of work and then declining to undertake labour intensive assignments (interview with Panchayat officials, October 2010).

Figure 6 substantiates that alternative employment opportunity is high in the district. A considerable number of villagers find the MGNREGS wage low. Bardhaman's agricultural production requires the labour of males and females equally. A sizeable amount of female labour is required for the preparation of seedbed, harvesting and winnowing. Apart from their daily wage, they are incentivised in terms of crop share. The absentee landowner creates a high-up system of share crop. In consequence, several villagers cultivate large pieces of land (interview with Panchayat officials, September-October 2010).

**Figure 6 : Reasons for not Participating in the MGNREGS Work (Multiple Responses)**

Apart from the strictly economic factors, where people are free to make rational choices between MGNREGS and alternatives, there are cultural factors which make some not to participate in the scheme. Each female participant in our interviews indicates their reservation to work with males in the field. They point to three reasons for this. First, they are hesitant to work in the field as it 'exposes' them to the village males. Second, they are often teased as being soft and unable to perform heavy-duty. Third, the family members sometimes stop the females from entering into MGNREGS scheme. 'Family prestige' stops many job cardholders from participating in the scheme. However, this results in an apparent contradiction as they work together in MGNREGS, but not otherwise. This shows the potential of MGNREGS to break cultural barriers.

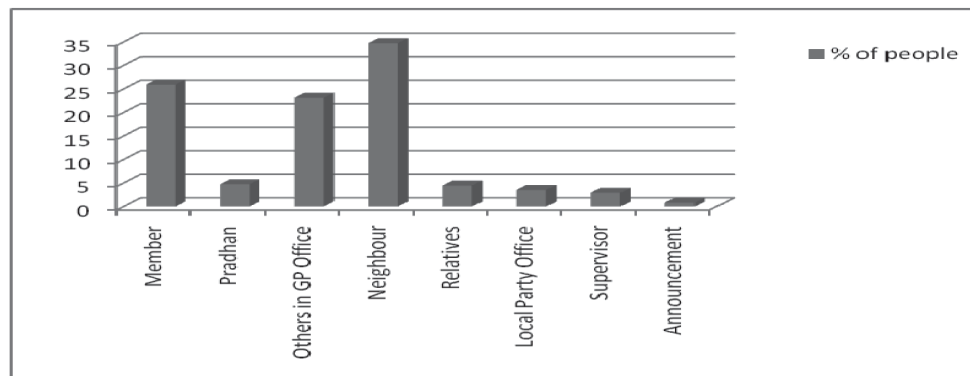
As labour intensiveness is a matter of concern (Figure 6), it reflects our participants' reluctance to engage in particular types of work. To understand their preference, we did an analysis of the nature of work, and their demands and supply. It shows that forestation (10 per cent of the total work demanded and 17 per cent of the total work provided) and road repairing work (13.19 per cent of demand

and 21.52 per cent of the work generated) are valued in Bardhaman. The construction of flood protection barrage, being labour intensive, is less demanded (3.56 per cent), but it is given importance (5.81 per cent) as Bardhaman has several rivers running across the district. The same is true for irrigation canal renovation (3.59 per cent of demand and 5.86 per cent of the work generated).

Since many job card holders are unwilling to engage themselves in certain categories of work, it indicates a lag in publicisation of MGNREGS (Figure 7).

Panchayat members, officers and pradhans act as information hub for the implementation of the MGNREGS scheme. However, a significant number of people get the information from neighbours. Formal announcement for MGNREGS is barely done. A number of Pradhans indicate that most of the job cardholders do not know about the nature of work. It indicates a possibility of having misunderstood the work. Jacob and Varghese (2006) find in Kerala a number of educated youth applying for job cards because of lack of understanding of the scheme, and a similar problem could have been the reason in Bardhaman.



**Figure 7 : Publicisation of MGNREGS Work in Bardhaman**

GP members and Pradhans from all GPs argue that it is difficult to strike a balance between the nature of work demanded and the nature of work needed for creation of village assets. Conflicting interests of different stakeholders lead to regular tension between beneficiaries, political parties and GP members. Beneficiaries look for less labour intensive works. Political parties ask to initiate works that help them gain or retain electoral support. These demands often mismatch with the local needs and those prioritised in the Annual Action Plans. In consequence, the GPs try to initiate a balancing system. In several GPs, members 'ask' beneficiaries to execute certain days of labour intensive works to 'gain' some days of work in less labour intensive tasks. This system, however, is not helpful in Bardhaman where alternative employment opportunity is high and people are well paid through them.

### Challenges and Institutional Responses

MGNREGS makes the workload of the GPs considerably high. Consequent work allocation, execution and payment procedure become difficult tasks to perform (Bhatia and Dréze 2006). A task involving job card distribution, work plan, allocation, record keeping through different muster rolls, and bulk cash handling for a huge number of

beneficiaries: all bring forth a challenge to the GPs. We find three specific institutional challenges in implementing MGNREGS schemes: 1) understaffing and lack of professional personnel, 2) problems associated with huge cash handling, and 3) problems of data management. We find that Bardhaman has somehow coped with these situations to run the programme across the district.

In early 2009 we noted that a significant number of local people, usually party workers from all different political parties, actively participated in the management of MGNREGS. In 2010, we found that recruitment of Assistant Programme Officer, Technical and Computer Assistants expedited the work. At the GP level, the requirement of an additional post is felt from the inception of the programme. The post of Gram Rojgar Sahayak, recruited directly by the GP, helps in the process of implementation of schemes. The Nirman Sahayak, a diploma civil engineer, manages the technical aspects. They are responsible for codification, budgeting and field level monitoring of the scheme. Their technical knowledge is expected to ensure better quality of created asset. The Block Development Officer (BDO) - approved Gram Rojgar Sahayak is appointed to assist Nirman Sahayak since 2007. They are at least higher secondary qualified to be

appointed. This post is filled with the BDO's sanction and Pradhan's recommendation. The field supervisors, a class-ten qualified person, are chosen by the Gram Sabha. For every fifty labourers, one field supervisor is appointed. They maintain muster rolls, and coordinate between the office and the stakeholders. Our field visits in different seasons during 2010 show that Gram Panchayats have effectively coped with the extra workload because of the scheme after these recruitments.

The actual work is managed by the supervisors. They inform the stakeholders about the scheduled schemes by mass announcement and distribute the job among them. They upgrade job cards, notify the payment date, and provide supporting accessories to the workers. If and whenever necessary, they coordinate with post offices and banks for fund disbursement.

However, payment through banks and post offices is still a source of problem. There are three interrelated issues with payment through banks and post offices. First, there is a want of banks and post offices near the villages. Second, payment delay (3 to 5 days for banks, and 7 to 10 days for post offices) is usual. Third, lack of banking habits of the beneficiaries is still a problem. Additionally, every GP member in our study report that banks are not interested in opening MGNREGS account as they a) do not find it profitable to bank with MGNREGS beneficiaries where per capita exchange is considerably low but b) number of recipients are high. Understaffing in banks and post offices is also a serious matter of concern. Infrastructure problems like lack of vault in post offices and cash transfer problems often contribute to payment delay.

A change currently being proposed by the Ministry of Rural Development, Government of India could address this issue of delays. This is to pay advance wages, for

work yet to be undertaken, to those who have applied for work under the scheme. These advance payments are to be adjusted against work actually done (Economic Times, December 5, 2011). It is expected that this would reduce problems faced by workers who are not paid despite completion of work because of delays in measurement and evaluation of work undertaken. Advance payments could also reduce pressure on GPs to speed-up the process of evaluating and certifying work undertaken to ensure that payments are made quickly. However, the experience of states which have made such advance payments indicates that poor record-keeping of advance payments leads to increased corruption in the programme. (Upamanyu, 2008). Proper record-keeping to identify recipients of advance payments and oversight to ensure that they undertake work when it is allocated would be critical to ensuring that such changes improve the implementation of the programme.

## Discussion

As we speak up for MGNREGS's potential to mitigate poverty and allied issues, Bardhaman's MGNREGS provides good example supporting such contention. It caters effectively to the needful from backward villages and BPL families. However, our study supports Chathukulam and Gireesan (2006), Chakrabarti (2007), and Bhatia and Dréze (2006) that MGNREGS poses a serious challenge to the local self-government. We emphasise on the institutional issues related to fund and data management of MGNREGS. Bardhaman seems to cope with such troubles at initial stage by using the political-party network in most places irrespective of the colour of the party. Later, creation of additional posts accelerated the process of implementation. Payment through banking system, however, is a persistent problem in most places.

Our study shows a dimension of conflicting demand that may be typical of comparatively prosperous districts. The village Annual Action Plan as prepared by the Panchayat focuses on village needs. A sizable amount of such work is possible under the MGNREGS scheme. In execution, however, villagers demand less labour intensive tasks like forestation. Political parties push GPs to generate more such popular works. The balancing act adopted by some GPs that gives less labour intensive tasks to a person if s/he performs certain days of more labour intensive tasks might be ineffective in the long run, as many villagers often refuse to take such employment. The seasonal factor adds to this problem. During extreme summer and monsoon, conducting MGNREGS work becomes technically difficult. Two consequences are notable. A gap between work demand and supply in the record persists. And more importantly, creation of durable village assets remains undone. As an immediate effect, it poses a threat to the delivery of development related public services.

In response to the problem of the gap between job demand and supply, GPs can strengthen the publicisation of the scheme. As Figure 7 indicates, the formal announcement of MGNREGS is barely done, and it can create misunderstanding regarding the nature of work. GPs should inform at the beginning to the applicants about the work they expect to undertake. This would help them avoid any misunderstanding which leads to the gap. However, publicisation alone cannot ensure sufficient participation in the scheme. The authors also agree with Papola's (2005) findings that MGNREGS should consider the local factor in determining the wage.

Presently many regions of Bardhaman indicate the possibility of MGNREGS to become

supply driven instead of being demand driven. This problem demands policy attention. As people's reluctance is noted, GPs often use political parties to mobilise people. This could make MGNREGS unintentionally politicised in the future.

Kornhouser (1997) and McAdam (1997) argue that social movements require careful mobilisation of resources. MGNREGS as a development initiative should be seen as a social movement where cautious resource mobilisation is possible. GPs should encourage people's participation in village development related decisions by strengthening of Gram Sabhas and Gram Samsads where people are expected to discuss, debate, include or exclude development initiatives (Planning Commission of India, n.d). Chattopadhyay, Chakarabarti, Nath (2010) show depressingly low level of people's participation, and unintended politicisation in development related meetings in West Bengal. People's unwillingness to play crucial role in MGNREGS for the creation of village level assets may be a by-product of the same reluctance. GPs therefore, should involve more people in development related decisions so that a participatory environment with strong community sentiment can be generated. Creation and careful use of social capital (as advocated by Putnam, 1995, 2000) could be useful to augment people's participation in MGNREGS.

Our study indicates that even when a prosperous district like Bardhaman takes management initiatives, successful execution depends to a great extent on the stakeholders. When requirement is less, MGNREGS can slow down development activities, which will require serious policy attention.

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## **SOCIO-ECONOMIC IMPOVERISHMENT RISKS IN DISPLACEMENT OF TRIBES UNDER POLAVARAM IRRIGATION PROJECT**

K.P. Kumaran\*

### **ABSTRACT**

*Development through displacement is part and parcel of the ongoing process of planned development. Annually, on an average 10 million people across the globe are getting affected by forced displacement to accommodate different types of development projects. Among them, majority of the displaced belong to poor and marginalised sections of the society. The number of people so far displaced in India by different such projects range from 7.5 to 20 million. The involuntary displacement and resettlement often causes certain problems which have socio-economic and cultural implications. The objective of the paper is to understand and appreciate the nature and magnitude of social and economic risks of impoverishment being undergone by the project-affected tribal families in the event of their displacement. Impoverishment risk is examined with special reference to customary rights and privileges, land alienation and livelihood security. In the study area, it was found that many of the respondents were living in inaccessible areas that even lack minimum basic services and facilities. However, the newly constructed resettlement colonies with most of these facilities did not necessarily attract as a pull factor for them to leave their original habitat. Similarly, some of the study areas are often affected by floods and the respondents incur huge loss in physical property like houses, crops, plantations, trees etc. Even such situation leading to heavy losses do not voluntarily push them to move to safer places. Leaving apart some of the tribals who are landless and marginalised, others by and large expressed their emotional attachment to forest and land and want to stay back in their old habitat where they survived and thrived for several generations. But they are not left with any option.*

### **Introduction**

Development through displacement is part and parcel of the ongoing process of planned development. The life of people living across the globe is increasingly getting

affected by forced displacement to accommodate infrastructure projects such as industries, power plants, roads and irrigation, defense, coal and mines including sanctuaries and parks. Annually, on an average 10 million people are being affected by such

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projects and majority of them belong to poor and marginalised section of society. In India, among all the infrastructure projects, dams are considered as the single largest cause of displacement. Though estimates vary, there is an agreement that dams were responsible for displacement of nearly three-fourths of the displaced. As per the latest information available, a population of 21.3 million have been displaced between 1951 and 1990 in the States of Andhra Pradesh, Bihar, Gujarat, Maharashtra, Madhya Pradesh, Rajasthan and Odisha. Of them, 8.54 million (40 per cent) are tribals and of those only 2.12 million (24.8 per cent) tribes have been resettled so far. The incomplete rehabilitation of the displaced tribals has further compounded their woes as they are pushed into a vortex of increasing uselessness, unemployment, debt bondage and destitution (Planning Commission: 2002-2007).

### **Displacement and Impoverishment**

Involuntary displacement and resettlement causes certain problems and risks, which have economic, social and cultural implications. According to Cernea (1997), the following are the recurrent characteristics or risks that contribute to impoverishment of displaced people. They are (1) landlessness, (2) joblessness, (3) homelessness, (4) marginalisation, (5) increased morbidity, (6) food insecurity, (7) loss of access to common property assets, and (8) community disarticulation. Further, he clarified that the eight fundamental impoverishment risks discussed above, affect various categories of people differently and tribal populations are more vulnerable to those risks discussed above. The report of World Commission on Dams (UNDP: 2000) also reveals that a sudden increase in impoverishment is the most common visible impact on the lives of people affected by development projects. The commission found that all over the world, dams have physically displaced an estimated 40-80

million people. Many of the displaced were not recognised (or enumerated) as such, and therefore, were not resettled or compensated. Where compensation was provided it was often inadequate, and where the physically displaced were enumerated, many were not included in resettlement programmes. Those who were resettled rarely had their livelihoods restored, as resettlement programmes have focused on physical allocation rather than the economic and social development of the displaced. Indigenous and tribal people have suffered disproportionate levels of displacement and negative impacts on livelihood and culture. According to McCully (1996), the impact of displacement on tribal people affected by large dams has been overwhelmingly negative in India. In a review of studies made on the resettlement areas, he found that majority of the oustees have ended with lower income, less work opportunities, inferior housing, less access to resources of the commons such as fuel, wood and fodder. Studies have further shown that the generic risk of displacement of tribal people gets aggravated everywhere because of different economy and culture of tribal groups (Fernandez 1981, 1993; L.K. Mahapatra 1994).

### **Tribals and Displacement in India**

According to 2001 census, the scheduled tribes constitute 8.2 per cent of the total population. Scheduled tribes distinguish themselves from other communities with their distinctive culture and isolated habitations and lay behind the rest of the society due to their socio-economic backwardness. A significant number of tribals have historically been dependent on natural and common property resources for their subsistence. Due to development projects they were forced to move out of the place where they lived for generations. Apart from depriving of their lands and livelihoods, displacement also attracts other traumatic psychological and socio-cultural disturbances as well. In this

process tribals were also victimised by scattering of kinship groups, family system etc. (Biswaranjan Mohanty: 2005). The working group on development of scheduled tribes set up during the Seventh Five Year Plan cautioned that displacement of tribals faces more risks than that of non-tribal population due to the following reasons. The first and foremost is the cultural aspects of tribal life. The kinship of the tribal groups is confined to their habitation which is limited to certain specific areas. Therefore, any displacement leads to a crushing blow to their socio-economic life. The other factor is attributed to their low level of education, and a tradition of a life of comparative exclusiveness and isolation and their difficulty in adjusting in an alien environment. The third and equally important is their dependency for living on including trade, profession and calling, roots and fruits, minor forest produce, forest raw materials, game and birds and the natural surrounding and endowment. And finally, scheduled tribes being economically the weakest of all communities, find it harder than the others to settle on new avocations on a different site settlement (Ministry of Home Affairs : 1984).

### **Arguments Relating to Displacement and Rehabilitation of Tribals**

The different views that have been put forward regarding the displacement and rehabilitation of tribals can be broadly classified into two schools of thought. The first school stressed the need for integrating the hitherto isolated tribal communities into the mainstream society. Those who advocate such relocation argue that with this there will be improvement in rural livelihoods of the tribals at the same time help preserving the forest and its resources. The protagonists of anti-displacement school feel that the life styles of tribals are closely linked to the surrounding landscape and have over time developed a

fine balance with nature. Any disruption of this equilibrium results in irreparable damages to not only the livelihood of these communities but also the natural system of the area.

In a study aimed at coming out with a comprehensive rehabilitation plan for the tribes in nine villages of Similipal Tiger Reserve in Madhya Pradesh, Alexander et al. (1991) examined the various benefits and advantages that they can avail of by shifting to good sites. The main argument in this study was that tribal area is characterised by lack of basic amenities and facilities. Still there exists complacency in the community but such attitude is limiting the scope for material prosperity and improved standard of living. However, for a community living in such a condition, the necessity for dislocation and any programme for rehabilitation can be made into an opportunity for development. Although development or change involves disequilibrium, nevertheless it provides the impetus for eventual betterment of oustees. Conversely, in one of the contributing papers to the World Commission on dams based on the review of studies made in Independent India, A. Patwardhan (2000) maintained that many tribal communities live in relatively isolated areas, which are remote, hilly and in the vicinity of the forest, characterised by poor infrastructure and lack of basic civic amenities. Because of this, there are attempts to portray displacement as "development opportunity" for tribal people. Some of the evaluation studies have shown that in the relocated areas access to basic infrastructure like health care, education, sanitation, drinking water has improved. But according to her, improvements in amenities do not necessarily lead to improvement in the standard of living of tribals. Therefore, displacement cannot be a precondition for the tribal people to get access to basic public facilities like health care, education or transport. It is their right.

### The Polavaram Project

The construction of Polavaram multipurpose dam across the Godavari River was first conceived by the British administration in 1941. But it received major thrust after Independence by various Governments formed in the linguistic State of Andhra Pradesh. The Polavaram project is located in Andhra Pradesh on the river Godavari, near Polavaram village, where the river emerges out of last range of the Eastern Ghats and enters the plains. The submergence will stretch along the Sabari River, a tributary to Godavari, up to the borders of Odisha and Chhattisgarh. Multi-purpose in nature the project envisages irrigation benefits to an extent of 7.20 lakh acres of the upland areas of East Godavari, Visakhapatnam districts under left canal and generation of 960 MW hydro electric power. In addition, this project under its left canal envisages 23.44 TMC of water supply for industries in Visakhapatnam Township and steel plant, besides domestic water supply to villages and towns enroute diversion of 80 TMC cft. of water through the right canal to Krishna river to augment the supplies of Krishna basin. The project submerges 37,782 ha (93,359 acre) of land of at FRL (+150 ft). This includes Government lands, private lands and forest land (Project Report: 1995).

### Proportion of the Displaced

Different figures have been quoted by various authors and agencies in respect of number of people and villages going to be affected by the project apart from the extent of loss or damage that may occur to physical properties. The Centre for Economic and Social Studies (Subba Reddy: 1996) has conducted a more systematic and reliable study to assess the number of households and the number of project-affected people and nature and extent of damage caused to immovable property in the project-affected areas. The data brought

out by this survey helped the Government while preparing for the rehabilitation and resettlement package. According to the survey, the number of families likely to be affected is 27,798 with a population of 1, 17,034 spread over 276 villages. About 75,000 acres of cultivated land will be submerged, besides an extent of about 20,000 acres of fallow land and some thousand acres of forest land. Among the households, 13401 (48 per cent) represented tribal, followed by 6077 (22 per cent) BC, 4246 (15 per cent) SC and 4074 (15 per cent) FCs. Although the affected population are spread over three districts, the major displacement will take place in Khammam district. Out of the 276 settlements coming under submergence, 205 (74 per cent) settlements belong to Khammam district. East Godavari and West Godavari respectively account for 11 and 15 per cent of the settlements. About 42 per cent of the displaced persons will be tribals and 15.27 per cent will be scheduled castes, Thus, weaker sections account for 63.4 per cent of the displaced (Sarma : 2006 , Trinada Rao : 2006). The main objective of the paper is to understand and appreciate the nature and magnitude of socio-economic impoverishment risks being undergone by the project- affected tribal families in the event of displacement and rehabilitation. Impoverishment risk is examined with special reference to customary rights and privileges, land alienation and livelihood security.

### Methodology

The study is mainly based on primary data collected from selected respondents in all the three affected districts following a multi-stage random sampling procedure. To begin with, from each district one or more mandals were selected depending on the number and size of people affected. Thus, Devipatnam from East Godavari, Polavaram from West Godavari, and three mandals viz, V.R. Puram, Kunavaram and Kukkunur from

Khammam were selected where the number of people displaced is on the higher side. The villages / settlements selected from East Godavari were (1) Paragasanipadu (2) Kondamondalu (3) Agraharam (4) Bodigudem and (5) Talluru. The district of West Godavari was represented by (1) Thotagondi (2) Thutigunta (3) Kotha Mamidigondi (4) Singannapalli and (5) Mamidigondi. From the district of Khammam the following settlements, viz., (1) Sriramagiri (2) Venkatayapalem (3) Amaravaram and (4) Uppair were studied. From the selected villages of each district, names of the affected households were listed down and from the list 100 households were selected on a random basis aggregating a total sample of 300. The selected sample respondents were contacted in their respective residence and required primary information was collected with the help of a semi-structured interview schedule by trained local investigators. Some of the important variables covered in the study in respect of impoverishment risks include customary rights and privileges, land alienation and livelihood security. Further, with the help of Focused Group Discussion, additional data were procured regarding magnitude of displacement, extent of loss, suggestions to combat displacement and proper resettlement.

#### **Tribal Respondents Selected for the Study**

The tribals affected by the project in the study areas predominantly constitute Koyas and Konda Reddys. The rest include Koya Dora, Kola Dora and Konda Kammari. Koyas are one of the major peasant tribes of AP and some of them still continue to practise slash and burn cultivation. They also depend on forest resources to supplement their food and meagre agricultural returns. Currently, the Koyas are in a stage of transition. Some of them have lost their best land, which they used to cultivate and are getting reduced to the role of tenants and agricultural labourers.

Konda Reddis (Rulers of Hill) are recognised as Primitive Tribal Group of AP. They usually live in isolated hilly tracts, valleys, adjacent plains and cleared forest areas. They are primarily shifting cultivators and largely depend on flora and fauna of forest for their livelihood. Of late they take up settled cultivation as well. They also depend on forest to sustain their livelihood. The Koya Doras form another tribal community of Andhra Pradesh, inhabiting the forests as well as the plain areas of East and West Godavari, Adilabad, Warangal, Khammam and Karimnagar districts that depend on agriculture for their living. The Konda Kammaras are mostly seen in the East Godavari district of Andhra Pradesh and traditionally they subsisted mainly by making agriculture implements to the neighbouring agricultural tribal populations. Now majority of them have shifted to agriculture. Konda Reddies who are economically better placed come first in the social hierarchy followed by Koya Dora and Konda Kammara. Tribe-wise distribution of the respondents selected for the study is given in Table 1.

In general the sample studied showed that Koyas constituted more than half (57 per cent) of the respondents studied while Konda Reddys constituted one-fourth of the total population and the rest constituted Konda Kammari, Koya Dora and Kola Dora.

#### **Resettlement and Rehabilitation Package**

To address the woes and grievances of project-affected people, the Government of India came out with the national Resettlement and Rehabilitation (R&R) Policy in 2005. The main objective of the policy is to minimise displacement and to identify non-displacing or least displacing alternatives and to plan the resettlement and rehabilitation of project affected families, including special needs of tribals as well as vulnerable sections. The Government of Andhra Pradesh also came out with a Policy on Resettlement and

**Table 1 : District-wise Distribution of Tribal Respondents**

Name of tribe	East Godavari	West Godavari	Khammam	Total
Konda Reddy	40	17	17	74(25)
Koya Dora	35	1		36(12)
Konda Kammani	20			20(7)
Kole Dora	4			4(1)
Koya	1	82	83	166(55)
Total	100	100	100	300(100)

(Figures in parentheses indicate percentage)

Rehabilitation (R&R) for the project affected families of the State in 2005 (For details see R & R Benefits for project affected families, Government of AP). In line with the Government of India's guidelines, the State policy also emphasised minimising displacement by exploring non-displacing or least displacing alternatives to the project designs. The State policy suffers from various deficiencies as it assessed the loss mostly in monetary terms without considering their constitutional rights and privileges including their socio-political and cultural fabric. Moreover, no special provision has been made to provide any special welfare measure including employment. However, the recent amendments made in the R&R policy vide G.O.Ms.No. 119, dated June 26, 2006 made it mandatory to provide land for land to the project-affected tribal families which is a welcome step.

According to P.Trinadha Rao (2006), the major deficiencies in the R&R package announced by the Government of AP for the Project Affected People (PAP) are the following : To begin with, the R&R package is defined in a narrow sense with major emphasis on monetary terms of compensation without adequately considering the non-monetised

and self-sufficient economy of tribes in the region. In addition, the package also does not mention anywhere that the rehabilitation and resettlement work will take place only in the Scheduled Areas. In all the three districts, villages have been identified to provide compensatory land to the affected people and the process of acquiring land from the affected tribal families also initiated. Simultaneously, construction of model colonies is also taken up to rehabilitate the PAP. In East Godavari, one such model housing colony was built in Pedda Bhimpally area. Here 194 houses were constructed for rehabilitation of PAP.

### **Socio-economic Background of the Respondents**

In the sample studied, 83 per cent of the respondents were men and 17 per cent women. Most of the respondents fall in the age group of 30-40 years. Further, it was noted that those who were above 60 years constituted only 3 per cent of the population. This indicated shorter life span of the population due to poverty, malnutrition and lack of adequate health facilities prevailing in the study area. Marital status showed that most of them were married. Examination of family system followed by the respondents indicated that most of them followed nuclear



family and the rest either joint or extended family. Leaving around one-third of those who professed Christianity in the district of West Godavari, rest of them professed Hindu religion. Educational status of the respondents showed that the highest number of illiterates (62 per cent) was reported in Khammam, followed by East Godavari (52 per cent) and West Godavari (49 per cent). Among the sample studied, illiterates constituted 54 per cent leaving a few who studied up to post-metric and rest of them completed their studies mostly either at primary or secondary level.

Information about ownership of the houses showed that except for a handful of those who stayed in leased houses, most of the respondents had their own houses. The housing scenario in the study area showed that in Khammam three-fourths of the respondents and in East Godavari more than half lived in kutcha houses and in West Godavari more than half of the households lived in pucca houses. In terms of number of rooms more than half of the households in West Godavari lived in single room, while in East Godavari more than three-fourths stayed in houses with two rooms. But in Khammam, nearly half of them lived in houses with two rooms. Most of the villages studied were located in very interior areas and adjoining forests without proper basic services and facilities. A few of the study villages were totally cut-off from the main land and the only way to reach out is through waterways.

Cultivation is the main occupation followed by nearly half of the respondents. In East Godavari most of the respondents eke out their living by working as wage labour. Similarly, in West Godavari also nearly two-thirds of the respondents derived their daily living by working as wage labourer, while in the case of Khammam most of the respondents pursued cultivation as their main occupation. Due to very small holding and very

low productivity of the land, the tribal households eke out a living by engaging in diversified economic activities. In East Godavari, the major source of income was from Minor Forest Produce (MFP), followed by wage labour and agriculture. While in West Godavari, the most important source of household income was earned from wage labour, followed by MFP and agriculture. The other sources include livestock and trees. While in Khammam, the main source of income was from agriculture followed by wage labour and MFP. The other major activities include livestock and toddy tapping. Distribution of income earned in a year at the household level showed that in all the study areas, nearly three-fourths of them had income below ₹ 20, 000, indicating that most of the respondents live below poverty line.

#### **Ownership and Possession of Land**

In general, land possessed or owned by respondents was classified into those used for homestead and agriculture based activities. In the study districts, the area under homestead held by the respondents ranged from one cent to 40 cents. In Khammam, the plots in which the houses constructed were relatively bigger in size as compared to the other two. Most of the homestead land occupied by the respondents either belonged to the community or inherited from forefathers except for a few who purchased or received through gift. Data showed that in the study area, among the sample respondents, 32 per cent of them did not own any cultivable land and the rest 68 per cent owned cultivable land and pursued agricultural activities. Distribution at the district level showed that the highest number of landless (42 per cent) was reported in the district of East Godavari followed by West Godavari (41 per cent). Landless respondents were less in number in Khammam where they constituted only 10 per cent of the respondents. Further, sample showed that 42 per cent of the respondents

possessed private land. Out of this, 80 per cent of them had valid patta and the rest do not have any relevant land document. Most of the transfer of private land among them was made possible through family inheritance. More number of respondents possessed irrigated land in Khammam, followed by East Godavari and West Godavari. Among those who possessed irrigated land, nearly half of them did not have valid land titles. The common crops cultivated in the non-irrigated area constitute paddy, maize and chillies and in the irrigated area paddy, maize, jowar, bajra, tobacco and chillies. Examination of the possession of *poramboku* land showed that in East Godavari only one per cent of the respondents occupied an area of less than one acre, and the same distribution in Khammam is 2 per cent who held less than two acres. Those who encroached forestland were more in Khammam as compared to the other two districts. The above analysis showed that though nearly two-thirds of the respondents owned cultivable land pursued agricultural activities, many of them do not have valid title of the land possessed by them.

#### **Dependency on Forest Resources**

In the study area, many marginal and small farmers, including landless tribals are unable to sustain their livelihoods for more than six months particularly after rain as they rely mostly on rainfed agriculture. During lean season forest resources are serving as a source of subsistence. Therefore, after the rainy season they depend heavily on fruits, vegetables, roots, tubers, flowers, fish, birds etc. Similarly, other forest items like forest wood is collected for firewood and for making shelter and other essential household items like furniture, agricultural and hunting implements. Dependency on MFP, fruits, medical plants and herbs is very high particularly in West Godavari followed by East Godavari and Khammam. More than three-fourths of the respondents in Khammam and one-third of the respondents

in East Godavari depend on forest for grazing and the proportion of those in West Godavari was very small. Most of the respondents in East Godavari and West Godavari reported that they do not hunt animals or birds in the forest while the practice of hunting of animals and birds is still prevalent among some of the respondents in Khammam. Dependency on fish in the streams available in the forest was reported by some of the respondents in East Godavari and Khammam. The above description showed that dependency of tribal respondents on forest resources for their sustainable livelihood is very high in all the study areas.

#### **Problems Encountered in the Villages**

Apart from lack of basic services and facilities, these villages are affected by natural calamities like flood, cyclone etc. invariably every year. Respondents informed about huge loss that they incurred in floods almost every year. On certain occasions, flood washed away their dwellings, damaged their standing crops, trees, plantations, cattle, etc. Therefore, information was collected from the respondents about the loss they incurred to their physical properties during the last three years (2003- 2006). Those respondents who were victims of flood constituted 81 per cent in East Godavari, 97 per cent in West Godavari and 89 per cent in Khammam. In East Godavari, altogether 34 per cent of the respondents reported loss of property in the floods during the period under reference with a total loss of ₹ 2,40,000 indicating average loss of ₹ 7,059 per head. In the case of West Godavari, 80 per cent of the respondents reported loss due to damage of their houses in the flood during the period. The cumulative and average loss stood at ₹ 5,90,000, and ₹ 7,375, respectively. In Khammam, data showed that floods damaged houses of 67 per cent of the respondents and the cumulative loss incurred by them amounted to ₹ 3,30,000 indicating an average of ₹ 4,925 per head. Of the total sample respondents, 60 per cent of the



respondents' shelter was affected and the cumulative loss incurred by them during the period amounted to of ₹ 11,60,000, which comes to ₹ 6,409 per head.

Those who were affected by crop loss constituted 65 per cent of the respondents in the study areas and the cumulative loss incurred amounted to ₹ 22,02,000 indicating an average loss of ₹ 13,190 per head. The extent of loss of crop was reported more in Khammam where 78 per cent got affected by flood, while the same distribution was 37 per cent in East Godavari and 52 per cent in West Godavari. The total loss incurred in East Godavari and West Godavari stood, respectively at ₹ 6,08,700 and ₹ 8,55,000 with an average of ₹ 18,451 and ₹ 16,442, while in Khammam, the same amounted to ₹ 7,39,100 and the average loss was ₹ 9,476 per head. Information in respect of value of cattle lost in the flood showed that at the aggregate sample only 24 per cent of them reported to the tune of ₹ 1,74,000 indicating an average value of ₹ 7,250 per head. More loss was reported in East Godavari due to the death of cattle. At the sametime less number of respondents reported loss of trees and plantations in the study area. The above information showed that the respondents were threatened by natural calamities, like flood and cyclone leading to huge loss of their physical assets.

#### **Measures Taken for Rehabilitation of Project Affected People**

Though acquisition of land is a slow process, efforts to acquire land from the project-affected families (PAF) are going on. In East Godavari an area of 645 acres is to be acquired out of which all the area have been acquired from the tribals. While in West Godavari the area of land to be acquired from the tribals amounted to 667.85 acres. Out of this, an area of 253.16 acres have already been acquired, whereas in the case of Khammam land acquisition is yet to take off due to the

resistance exerted by the project-affected families. As a result of this, although an area of 5370 acres have been earmarked for acquisition, so far no land was acquired from them. In West Godavari, land in three villages has been acquired, but compensation has not been paid yet. In the district of Khammam three locations in three different mandals were selected for rehabilitation of PAF in model colonies. But so far not a single family occupied the houses constructed at the new settlement. Similarly, the compensatory land for distribution among the outstees has been identified. In the course of interaction with some of the respondents who have seen the land identified for distribution among the outstees informed that they were not happy with the location and quality of land. They commented that the land is located very far from their original habitat and not at all fertile, as such not suitable for cultivation. To make it suitable for cultivation, the land need to be developed which require heavy investment.

Model colonies were under construction to rehabilitate the project-affected families. Pedda Bhimpally colony is one such housing complex constructed to rehabilitate them. In this complex 194 houses were constructed. A public function was organised on 2 October, 2006, and keys of the houses were distributed to the affected families. In this colony, there are two types of houses, the first category is for a single occupant with single room with one door costing ₹ 40,000 and the other consists of two rooms with two doors and two windows which costs ₹ 80,000. Each house is provided with a toilet cum bathroom. The following facilities are also made available to the residents within the complex which include primary school, anganwadi, and water supply with common taps, handpumps, overhead tank with a capacity of 40,000 liters, open drainage system, a community hall, and playground and a shopping complex and temple under construction. When the study

was conducted, 50 families were partially shifted retaining their old houses in the village to cultivate their fields. Interaction with some of the oustees showed that they are not happy with the newly constructed houses in terms of its design and facilities. However, youth showed satisfaction with the new facilities and surroundings.

### **Impoverishment Risks in Displacement and Rehabilitation**

The tribes covered in this study are a well knit cohesive group. All of them live in Scheduled Areas where they enjoy several rights and privileges. Due to the persuasion and assurance given by the project officials, some of them partially shifted to the new colonies constructed for the rehabilitation of the affected people. Others are undecided or not ready to shift to the new settlement. For those who are reluctant to move out and at the same time making the proposed shifting inevitable are likely to face lots of mental worries like tension, anxiety and insecurity. In the event of involuntary or forced resettlement they will face a variety of socio-economic problems leading to their impoverishment. In the light of the data presented in the earlier part of this paper, let us highlight some of them in brief.

### **Customary Rights and Privileges**

All the tribes affected by the project reside in the Scheduled Areas. Scheduled Areas are created based on provision made under the Article 244 and the Fifth Schedule of the Constitution. Such areas have special rights and the governor of the respective states have powers to make regulations for better governance and for protecting the traditional rights of tribal communities. The introduction of Panchayat Extension of Scheduled Areas Act (PESA) in the Scheduled Areas further strengthens the benefits extended to the tribes residing in these areas. It provides in

principle control over natural resources and recognises the traditional rights of tribal communities over the natural resources. Further, according to PESA directives, gram sabha should be consulted before making the acquisition of land in the scheduled areas for development projects and before resettling persons affected by such projects in the Scheduled Area. Thus, the power of tribal community in the Fifth Schedule Areas has implication not only for livelihood but it is equally relevant to the socio-cultural life of the inhabitants. But in the R&R package there is no guarantee that they will be rehabilitated in the Scheduled Areas. If this does not happen, then with the moving out of the Scheduled Areas they will be deprived of special rights, like land transfer regulation, including certain protective measures.

### **Land Alienation**

The tribal groups covered in this study are basically peasants sustaining their livelihood by undertaking cultivation. Traditionally most of them resorted to shifting cultivation but now take up settled cultivation as well. Landholding data showed the extent of land alienation as so severe both in East Godavari and West Godavari districts that nearly half of the respondents are landless and eke out a living by engaging in wage labour and other means. However, the situation of landholding among the respondents in Khammam is relatively better where three-fourths of them still hold agricultural land.

The land cultivated by the respondents belongs to private land and Government land. Data showed that some of those who cultivated private land do not have any valid pattas. Though the number of respondents cultivating irrigated land is small, among them, nearly half of them do not have valid land titles. Those who have encroached forestland for cultivation was reported in Khammam, and in the same district few cases of those who

occupied *poramboku* land for cultivation also was reported. In the event of shifting, those who do not have valid land title particularly in respect of private land may be deprived of compensatory land. Similarly, those tribals who have been cultivating forest and *poramboku* land for quite some time may also be deprived of their compensation under the R&R package, as the Government had not given them any valid patta to their land that they have been cultivating for generations. Such a situation may lead to further marginalisation of the tribes.

In the RR package there is a provision for providing land to land compensation to the affected tribal households. But the land identified for distribution is very far from the present settlements. Moreover, the quality of land is also very poor. To make it fertile and suitable for cultivation requires additional investment of money which is not earmarked in the R&R package. If they are resettled in the new area and make them cultivate in the land given to them using the traditional method without either developing the land or by using any modern technology may end them up in further pauperisation. Therefore, the above aspects need to be taken into consideration and the displaced should be rehabilitated in the command area ensuring that they get benefits from the project by availing of irrigation facilities.

### **Livelihood Security**

Although cultivation and wage labour are the main vocations of the people, the main source of income is derived from forest. Forest resources serve as a major source of livelihood and employment for them. Dependency on forest resources for making agriculture on forest wood for making shelter, agricultural implements, household furniture and firewood is very common in all the study areas. A variety of MFP is gathered from the forest and

marketed that provide financial support to them during lean season. Similarly, they collect a variety of food items like fruits, roots, tubers vegetables etc. that support their daily life. Once evicted from the present locality they will be deprived of forest resources that they depend on heavily for their very existence and survival. Any amount of money will not compensate for the loss that they may incur if they are shifted from their original settlement. In the event of shifting, majority of the respondents in Khammam wanted to continue the same old occupation, while those who are landless agreed to take up new vocation. For such people there is a need to identify appropriate income generating programme by providing adequate training

### **Conclusion and Suggestions**

The paper examines the nature and magnitude of socio-economic impoverishment risks of project-affected people due to loss and deprivations undergone by them in the event of their displacement and rehabilitation from their original habitat under the multi-purpose Polavaram project in Andhra Pradesh. Most of the project-affected families belong to tribals and for them land and forest are very essential for their bare minimum sustenance. Although cultivation and wage labour are the major vocations of the respondents, the major source of income in all the study areas is derived from the forest resources. In Khammam, nearly three-fourths of cultivated land in the affected area is owned by the tribals. Similarly, most of the encroached forestland and *poramboku* land are held by tribals in Khammam where they take up cultivation. As a result of this, resistance against the project in Khammam is very strong as compared to East Godavari and West Godavari. Due to these reasons acquisition of land for the project and implementation of R&R package is slow in Khammam as compared to the other districts.

The tribes affected by the project are very vulnerable and reside mostly near the forest and adjoining hilly tracks. Their life and culture and day-to-day activities are closely linked to forests. Historically, they enjoy certain traditional rights over the forest resources. They also enjoy special privileges and rights as they live in the Scheduled Areas. But they may lose all these privileges with their displacement from the original settlement. There is also no guarantee that they will be shifted to Scheduled Areas so that they can continue to enjoy the same rights and privileges. Since the kith and kin of the tribal families are confined to certain geographic areas and as such their displacement to a new and alien environment negatively affects their social life. For these tribes any amount of money as compensation will not bring back their traditional environment where they enjoy their traditional moorings and culture. Uprooting from their original habitat without ensuring and creating similar environment leads to their socio-economic impoverishment. In addition, involuntary resettlement is also giving them psychological problems like mental worries, trauma, anxiety, tension and insecurity.

In the study area, it was found that most of the affected people are living in inaccessible villages located in remote areas. Some of the villages even lack minimum basic services and facilities. However, the newly constructed colonies with most of the basic services and facilities are not necessarily acting as a pull factor for the people to come and occupy. In the original settlement although they lack most of these facilities they lead a contented life with whatever resources they have. Similarly, it was reported that most of the villages are affected by floods and they incur huge loss in physical property like houses, crops, plantations and trees invariably every year. The recurring floods and the huge loss that followed do not compel them to move

to safer places. Particularly, those who possessed land and not ready to shift from their original settlements were ready to face the nature's fury and associated huge financial loss. Therefore, either lack of basic services and facilities in the village or the huge loss that they incur in the flood is not necessarily acting as a push factor for them to leave their original habitat. Leaving aside the tribals who agreed to shift due to deprivation of their land and poor economic condition, others, by and large, expressed their emotional attachment to forest and land and want to stay back in their old habitat where they thrived and survived for several generations. The following are some of the important recommendations that emerged from the study.

- \* The benefits of Polavaram project should first go to the project-affected families. Those who preferred to resettle near the command area should be given preference and provided with adequate quantity of water for irrigation.
- \* Although some of the legislations have imposed certain restrictions to the tribals in respect of their free access to forest resources, the study showed that their dependency on forest for their very survival is largely intact. Therefore, caution may be taken to ensure that they were resettled in villages located very near to the forest and ensure its benefits to them.
- \* Tribal villagers in the submergence area fall under Scheduled Areas notified in the V Schedule of the Constitution. Under the 73<sup>rd</sup> CAA, land can be acquired for the project in such areas with the consent of local bodies by passing resolutions to that effect. Forceful takeover of the land from the tribals amounts to violation of the V Schedule of the Constitution as it deprives them of control and ownership of natural

- resources and land essential for their way of life.
- \* In the study area most of the homestead land is in the name of the community. Respondents have occupied forestland, private land and some of them are cultivating the forestland. They also possessed fallow land and Government land without proper patta. If they get displaced they will get deprived of the ownership right that they enjoy now. Appropriate measures should be taken to ensure their right over land.
  - \* In all the three districts model colonies have come up. The older generation are particularly not happy with the house constructed for them. According to them the room is too small, no backyard space for vegetable cultivation, the plinth area provided in the toilet cum bathroom is too small and no provision has been made to construct shed for the bovine animals owned by them. While planning of houses for the PAP, active participation of beneficiaries and their customs and cultural practices need to be taken into consideration.
  - \* Under the package, those who are eighteen years are eligible for an independent house. Therefore, there is a need to fix a cut-off age while deciding allotment of houses to the oustees. This is because a man who is 17 years old and being shifted and got married at an age of 18 years is not eligible for an independent house. In the tribal area they can occupy any community land and construct their own house. But in the new settlement area this is not possible. Therefore, the cut-off age for allotting independent house should be brought down from the existing 18 years.

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## **EMPOWERMENT FROM THE ABOVE – RESPONSES AND IMPACTS OF SOCIAL SECURITY SCHEMES IN UP**

Shyam Singh\*

### **ABSTRACT**

*The issue of empowerment of the marginalised groups in India is very much related to the question of social change. People are not empowered because they are socially discriminated. Since social hierarchy in India is not separate from the economic hierarchy, people, who are enjoying higher social status also belong to economically well-off section of the society. Therefore, unless social discrimination is addressed in the country, economic discrimination is also not supposed to be eliminated, and hence, the very agenda of empowering the marginalised people remains unfulfilled. Empowerment of the marginalised groups is an important and prioritised agenda of the democratic government in India. The policy responses from the government to address the issue have mainly been evolved around the 'economic empowerment'. It is being assumed that if socially and economically marginalised groups receive economic benefits from the government that would enhance their economic status and they would also feel their social status improved. The question this paper addresses is whether policies that are targeting the economic empowerment alter the social empowerment of the marginalised groups which reflects upon the changes in traditional social structure to remove social discrimination.*

### **Introduction**

India is comparatively rare among developing countries in having maintained a long tradition of liberal political democracy, with only brief interruption, since Independence (Currie: 1996, p. 790). Despite having social and economic diversities, the country has maintained the competitive democratic political system based on the principle of popular representation. The formation of the Constitution had set the tone of a welfare oriented state to which equity

and equality are streamline issues that are to be reflected in social policies. The policy responses from the Indian state have been received in same line. Being a poor country, India had to perform as a prompted welfare state. One of the reasons that maintained the identity of India as welfare state for long is the failure of the welfare policies in eliminating poverty. It has been observed that "democracies have been slow and steady in attacking poverty" (Varshney : 2000, p. 718). In principle, since poverty does not figure in the theory of democracy because it encourages

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inequality, there have been continuous efforts to eliminate inequalities, both social and economic.

Welfare state in India is well guided by the empowerment of the marginalised groups which became an important and prioritised agenda of various governments in India. The Indian Constitution reflects the commitment and the priority of India to establish necessary provisions for the upliftment of socially and economically deprived sections of the society.

The nature of welfare state in India is not validated only because the country has a huge chunk of poor population but it involves major question of social inequalities which are inherited in Indian culture. People are not empowered because they are socially discriminated. Since social hierarchy in India is not separate from the economic hierarchy, people, who are enjoying higher social status also belong to economically well-off section of the society.

Therefore, unless social discrimination is addressed in the country, economic discrimination cannot be eliminated; and hence, the very agenda of empowering the marginalised people remains unfulfilled. India, as being secular state, cannot disrupt the religious traditions which determine substantial part of existing social relations in India. Therefore, only option that is left before the Indian state is to address the issue of empowerment of marginalised groups through adopting policies and programmes that deliver economic benefits to these groups. But, the major question arises that whether Indian state has been able to achieve the goal of social equality while delivering economic benefits.

The assumption that this paper adopts in the view of above given argument is that policies that are targeting the economic empowerment alter into the social

empowerment of the marginalised groups which should necessarily reflect upon the changes in traditional social structure and practices. This paper analyses implementation of these policies and programmes in six villages in Uttar Pradesh. Methodologically, the paper is based on the primary survey and observation. Information is collected through structured and unstructured interviews with the beneficiaries of the policies and programmes related to social welfare and security.

Data and Information are also collected through non-participatory observation of the author while staying in the villages during the fieldwork. First section discusses the nature of policies and programmes that are being implemented at the ground in response to improve economic and social conditions of the socially and economically deprived sections of the society. This section reflects how these policies are targeting at social and economic inequalities in UP. Second section looks into the responses from targeted sections analysing whether these policies and programmes are delivering what they are expected to deliver. Third section analyses whether these policies and programmes have been able to bring economic and social empowerment to the targeted sections.

### **Policy Responses to the Empowerment of Marginalised Groups**

The policy responses from the national and state governments to address the issue of marginalisation have mainly been evolved around the 'economic empowerment'. Even though, there are certain schemes and programmes that aim to promote human development status, these schemes offer contingencies rather than focusing on building sustainable human development. Since, In India, number of casual labour force is high, first priority of the government has been to feed these people through immediate

consumerable contingencies. In this case, less attention is given to sustainability of human development of marginalised sections because considerable efforts and resources of the government go into casual assistance. Therefore, Indian policies, right after Independence, could develop policies of 'help on the spot'. Public Distribution System can be an appropriate example which provides gains and other daily needed things to the poor.

Table 1 gives an account of few major human development schemes and programmes which are being implemented by both Central and state governments. Now we should look at each of the components of human development that aim to empower marginalised and poor sections of the society. The main point of this analysis is to see whether the nature of the benefit is sustainable or not, and how far existing policies respond to existing problems. The argument behind this enquiry is that if benefits which are being provided through different schemes mentioned in Table 1 do not provide sustainability to the beneficiary, then after consuming benefits beneficiary will be at same position as he/she was before getting the benefit. The benefits should enable them to match themselves with those who have ability to grab major economic benefits through streamline businesses and public services.

In education sector, India does not enjoy higher literacy rates (64 per cent). In UP, literacy rate is 56.3 per cent. Female literacy rate of UP is 42.2 per cent which is lower than all India average of female literacy (53.7 per cent). About 36 per cent of rural males and 70 per cent of rural females in UP are illiterate. Only 15 per cent of rural persons and 37 per cent of urban persons are reported to have received education up to secondary level or above and only about 14 per cent of the urban

people and 2.8 per cent of the rural people had received education up to graduate level or above. Aggregate dropout rate in class I-X in UP for 2005-06 is 42.26 per cent. Dropout rate of boys and girls are 39.5 and 47.36 per cent, respectively. In this respect, UP is in better position than average of all India which claims 60.41 per cent for boys and 63.44 per cent for girls. Dropout rate in lower social groups in UP is very high. For SC community, it is 72.56 per cent which is more than the all India average 70.57 per cent.

Let us see how existing schemes and programmes respond to the educational needs of marginalised groups of the country in general and UP in particular. To address the issues of low enrolment and higher dropout rate, two main major schemes- Mid Day Meal (MDM) and Kasturba Gandhi Balika Vidyalay (KGBV) - are being implemented. MDM provides nutritious day meal to school children of primary and upper primary level during school hours. The main objective of MDM is to attract children from poor sections of society to enroll and keep them coming to schools. Since poor families prefer their children to be engaged in labour activities rather than sending them to school; this scheme also tends to prevent the practice of child labour. Similarly, KGBV provides elementary education with boarding facilities to girls from poor families. The objective of KGBV is to check the dropout among girls. This scheme is being implemented in pre-identified backward blocks. There is another scheme which was started by the UP Government i.e. Savitribai Phule Balika Shiksha Madad Yojana (SBSMY) which targets to attract girls at the secondary level by providing a bicycle and ₹ 25,000 in two instalments in two years. Scholarship is an old scheme which offers an amount of financial help to students of pre- and post-metric classes to carry on their studies.

**Table 1: Major Social Security Programmes for the Marginalised Groups in UP**

Sector	Scheme	Benefits	Beneficiaries
Education	Mid Day Meal (MDM)	Day food for school children	Students of primary and upper primary classes
	Kasturba Gandhi Balika Vidyalay (KGBV)	Boarding facilities at elementary level for the girls	75 per cent girls from SC, ST, OBC and minorities and 25 per cent from poor families of backward rural areas
	Savitribai Phule Balika Shiksha Madad Yojana (SBSMY)	A bicycle and ₹ 25,000 in two instalments	Girl students from 11 <sup>th</sup> and 12 <sup>th</sup> Class
	Scholarships	Vary from ₹ 25 to ₹ 740 depending upon the class and social affiliation	Pre- and post-metric students from all sections of society
Health	Janani Suraksha Yojana (JSY)	Maternal benefits: medical help and care during delivery and ₹ 1400 for rural areas and ₹ 1000 for urban areas	Pregnant women from BPL families
	School Health Programme	Medical check-up and medicine	Students of primary and upper primary schools
	National Health Insurance Scheme	Hospitalisation coverage up to ₹ 30,000	Poor families
Employment	Mahatma Gandhi National Rural Employment Guarantee Scheme	100 days employment for a person in a household	Poor families

Educational schemes and programmes respond to few important problems, but at the same time ignore other vital problems. The quality of education at the primary and secondary levels is one of the important issues. Annual Survey of Education Report (ASER) 2009<sup>1</sup> shows that only 24.2 per cent students

from 1<sup>st</sup> to 8<sup>th</sup> std. of government schools can read capital letters of English. Similarly, the Survey shows that only 18.7 and 17.6 per cent students from 1<sup>st</sup> to 8<sup>th</sup> std. of government schools can subtract and divide, while 14.1 per cent students cannot do Arithmetic. The bad quality education has been a prominent reason

for growing reluctance among people to send their children to government schools. Table 2 shows the perception of the people about the quality of the education in the selected villages. People are satisfied with the infrastructural facilities in government schools but are extremely dissatisfied with the quality of

teaching. Remarkably, all the respondents (100 per cent) express their dissatisfaction with the quality of education being provided in government schools. In case of attendance of appointed teachers in schools, villagers are very clear that teachers are not very honest to their duties.

**Table 2: Quality of Education**

Issues	Good	%	Bad	%	Don't Know	%	Total
Condition of the school building	77	85.6	13	14.4	0	0	90
Quality of education	0	0	90	100	0	0	90
	Yes	%	No	%	Don't Know	%	Total
Do the numbers of teachers in the school/college meet local requirement?	24	26.6	26	28.9	40	44.4	90
Do teachers come properly?	4	4.4	64	71.1	22	24.4	90

Source : Primary Survey.

Table 3 presents perception of the villagers about the MDM. More than 90 per cent respondents opine that this scheme is badly managed. More than 80 per cent respondents say that this scheme is under severe corruption. When respondents use the term 'badly', they do not mean only corruption but many other issues are also involved such as: the schedule of cooking food, carelessness of the cook while preparing food, quality of

food material, vegetables and sanitation. Many respondents complain that responsible teachers and other authorities like village pradhan purchase low quality food materials. Respondents also point out that the quantity of food that is served to children is not enough to meet the needs of the children and remaining uncooked food material is sold out by responsible functionaries.

**Table 3: Functioning of the Mid-Day Meal**

Issues/Responses	Going on well	%	Badly managed	%	Don't Know	%	Total
How the MDM is being implemented	2	2.22	83	90.22	5	5.55	90
Is corruption involved in the functioning of this scheme	Yes	%	No	%	Don't Know	%	Total
	73	80.11	5	5.55	12	13.33	90

Source: Primary Survey.

Scholarship is another educational security scheme aiming to attract children for education and to provide them monetary support to meet their educational expenses.

Table 4 gives a picture of how scholarship schemes are being implemented in the villages.

**Table 4 : Functioning of Scholarship**

Issues/Responses	Yes	%	No	%	Don't Know	%	Total
Is scholarship being provided timely to the students?	18	20	39	43.33	33	36.67	90
Do children get full amount of scholarship?	14	15.56	40	44.44	36	40	90
If no, is corruption going on in this scheme?	40	44.44	0	0	0	0	40

Source : Primary Survey.

Corruption is a major issue involved with the implementation of scholarship schemes. Considerable number of people (43.33 per cent) complain that their children do not get scholarship in time. Responsible authorities always delay in disbursing the scholarship. Similarly, 44.44 per cent people mention that their children do not get full amount of scholarship because of the corruption going on in the implementation of this scheme. School authorities pretend that they had spent their own money to get the clearance of these scholarships from higher government offices. Therefore, they deduct that amount from the amount of the scholarship which is to be given to the children.

Now, let us see how health related schemes and programmes are responding to the needs of the people. UP is one of the states which scores lowest in health related indicators. UP registered 60 per cent life expectancy rate at birth between 2002 and 2006, while the life expectancy rate of India for the same period was 63.5 per cent. Infant mortality rate (IMR) in UP in 2007 was 80 (16th among all Indian states), much higher than the

average IMR of all-India (63). In 2008, the IMR in UP came down to 67, but it is still higher than the all-India level (53). Only Odisha (71) and MP (72) are behind UP. In 2005-06, 47.3 per cent children below the age of three years in UP were underweight and 85.1 per cent were suffering from anaemia, while the all-India averages for the same indicators were 45.9 and 79.2 per cent, respectively (Singh: 2010, p. 77).

Existing schemes and programmes are not enough to deal with health related challenges in the State. Though Central Government is implementing National Rural Health Mission (NRHM), a programme which provides health infrastructure facilities along with the child and women health development programmes, this programme has not delivered expected outcomes. JSY has been an exception. JSY has increased the number of institutional deliveries. But it is doubtful whether JSY has any impact on reducing Infant Mortality Rate (Jain : 2010, p. 15). One of the crucial parts of health services is proper training and skill development in health facilitators. NRHM Review Mission notes that

none of skill development trainings has reached the ground (Mehrotra : 2008, p. 53). The only scheme that seems to provide a sustainable health security is National Health Insurance Scheme. It offers health insurance to poor which provides emergency health expenditure of ₹ 30,000 which the poor cannot afford by themselves.

Despite major attention being paid on infrastructure development, field realities do not reflect any impressive picture. Only one village has Allopathic sub-centre for health services. One sub-centre has been constructed in another village very recently and it is yet to be inaugurated. Rest five villages do not have any Primary Health Centre (PHC) or sub-centre. The habitants of these villages are dependent on the PHCs at their nearest town. Distance of these towns from villages varies from minimum two km to maximum seven km. Availability of doctors, other medical staff and facilities of medicines and proper care are lacking in PHCs where villagers generally go for first medical care. For example, 76 per cent respondents note that doctors appointed in the PHC do not come regularly. Frequency of attendance of the appointed doctors at their duty place is very low. Responses on the frequency of doctors' availability in PHC vary, as 25 per cent say that doctors come twice in a week and 16 per cent say thrice in a week. Though 32 per cent respondents say that they cannot give exact figure about the presence of the doctors and supporting staff at the duty place, they are quite sure that non-availability of doctors in PHCs is a major problem that they often face.

None of respondents from all six villages feel that the facilities provided in the PHCs around their locality are at the level of their satisfaction. It pushes people to rely on private health services, even though private services are very expensive and do not suit to the budget of villagers and poor. PHCs have also

been given very important responsibilities for disseminating health related information including information about vulnerable diseases, sanitation, health care and existing schemes and programmes. But, the field survey indicates that PHCs are not doing this work as part of their responsibilities. About 98 per cent respondents say that PHC at their village, or nearest village, do not provide any information about health related schemes and programmes available for the common people in rural areas. Similarly, PHCs also have very important responsibility to organise training camps and workshops to make people aware about health issues. But PHCs are failing in doing that. Reflections from the beneficiaries interviewed for the study are as follows:

- \* 98 per cent respondents say that no training camp or workshop has been organised in their villages in the duration of last three years. Poor facilities and infrastructure at the PHCs affect choice of the common people to rely on the public health centres for their health care.
- \* 94 per cent respondents say that medicines and other medical facilities are bad.
- \* 71 per cent respondents say that they do not prefer to go to nearest PHC in case their relatives are ill owing to poor facilities and non-availability of medical staff on emergency call.
- \* Remaining 29 per cent respondents who prefer to go to PHCs do so not because PHCs are good in taking care of their problems but since they do not have enough money to afford expenses of private nursing homes and doctors.
- \* Out of 29 per cent respondents, only 10 per cent say that PHCs are good while, in contrast, remaining 90 per cent say



that they go to public health centres because they do not have enough money to pay for private hospitals.

Let us move to another important human development aspect – employment. Employment situation in UP has been very unsatisfactory. In UP, only 10.9 per cent of the working population has regular employment, while 62.9 per cent are self-employed. Among the self-employed, 65.9 per cent of people are engaged in agriculture, and out of them 53.1 per cent people are casual labourers. A total of 21.69 per cent people are casual labourers<sup>2</sup>. Presently, the government does not have any substantive employment generation scheme, except the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) which aims to provide 100 days employment to a household in rural areas. But, this benefit is not sufficient to feed a house where normally 5-6 members live and lacks in providing sustainable employment benefits to poor families. Implementation of NREGS has been faulty and unproductive. On the functioning of NREGS, 90 per cent respondents label it as mal-functioned scheme. While stating reasons for the malfunctioning of NREGS, 39 per cent respondents say that corruption is responsible for bad implementation of the scheme; 22.5 per cent say that distribution of benefits under this scheme is discriminatory.

### **People's Responses : Have Policies of Empowerment of Marginalised Groups Delivered?**

It is very important to see how people from marginalised groups feel after realising the implementation of such policies which, principally, aim to empower socially and economically disadvantaged groups in the country. This analysis contains three specific issues to be examined. One, whether benefits offered by such policies and programmes are reaching real beneficiaries. Second, whether

these benefits are adequate to meet the basic needs of the marginalised people. And third, whether the delivered benefits have translated into the real empowerment of marginalised groups. It is found that local politics plays an important role in determining as to who will take what benefit. About 50 per cent respondents accepted that they have taken help from different political leaders in ensuring benefits of ongoing social security schemes (Table 5). The intensity of the political intervention can be understood from the fact that 91 per cent respondents feel that without taking political help it is difficult to get benefits of ongoing welfare and human development schemes. Beneficiaries' intention to seek help from political leaders at the local level shows two patterns. First, most of the beneficiaries approached the leader of their own caste. Second, majority of beneficiaries took help from the leaders of those parties which represent the same caste respondents belong to. This fact shows that patron-client relationship is well integrated in the distribution of social welfare and security benefits.

Political intervention in the process of implementation of social security schemes is limited to only selection of beneficiaries. Politics do not help beneficiaries in avoiding administrative mal-practices like red-tapism and corruption. For instance, all respondents who have taken help from political leaders confirm that they paid bribe to government officials to secure benefits (Table 5). Therefore, results suggest that political intervention is becoming necessary to get benefits, no matter a person is eligible to get it; and administrative mal-practices have made their own reign irrespective of the political power and intervention.

Further, the greater question that comes on the way is whether the benefits that are being delivered to the marginalised sections of the society are sufficient to meet the needs.



**Table 5 : Political Intervention in the Implementation of Schemes**

	Yes	%	No	%	Asked but leader denied/don't know	%	Total	%
Have you taken help from any political leader/s?	44	48.8	40	44.4	6	6.6	90	100
If yes, do you feel that without taking help from political leader, you could not have received the benefit?	40	90.9	2	4.5	2	4.5	44	100
Have you paid bribe?	44	100	-	-	-	-	44	100

Source : Primary Survey.

Field experiences reveal that the quantity of the benefits is insufficient. Majority of beneficiaries do not find benefits adequate to meet their needs. For more than 86 per cent respondents said that provided benefits are not sufficient to meet their needs. Out of those who could find benefits insufficient, 57 per cent beneficiaries said that they had to invest more than what government provided. Rest have spent either less than or equal to the resources that they got from the government support. Interestingly, out of those who sought more resources to meet their needs, 29 per cent have borrowed from others and rest have invested self-earned resources. From these results it is clear that the benefits aiming at empowerment of marginalised sections are not adequate. And, since support from the policies and programmes are not adequate, it compels poor people to borrow from others which adds further misery into their lives.

Now, let us see whether policies and programmes that aim to empower marginalised groups are really empowering them. Though empowerment is an outcome

which can never be felt overnight, no better than them (marginalised group) can tell whether they feel empowered or not. In this regard, it is worth to mention that in UP, *Bahujan Samaj Party* (BSP), a political party which claims that it represents Scheduled Castes (SCs), most marginalised section of Indian society, is in power. BSP has adopted the *Sarvajan* policy that aims to deliver social welfare and human development benefits to all sections of society with more focus on socially deprived sections. The philosophy behind this policy is to bring social coherence. Policy envisions that upper caste people would mingle with lower caste people and would prevail social harmony among them which would end social discrimination. Since implementation of policies and programmes in UP are being carried away under the slogan of *Sarvajan*, it is interesting to see whether the policy has brought any change in their social status. If social status of marginalised groups changes, economic inequalities would automatically go down. In India, economic inequalities are predominantly driven by social relations.

Table 6 reflects the responses from the SC community as well as all the respondents. One important point to be observed here is that people from marginalised groups realise that certain policies are being implemented for them. In this study, out of 90 respondents 49 belong to SC community. All SC respondents feel that they are getting benefits because they belong to SC community. Implication of this result is that there is a sense of realisation among the marginalised sections that they get space in the policy domains and there is an exclusive attention being paid by the government for their upliftment. But, on the issue whether these policies have really delivered the changes that would lead

marginalised groups to the empowerment, responses from marginalised people put a question on the feasibility of these policies and programmes. While responding to the question whether people from marginalised sections who have taken benefits of various social welfare schemes feel that *Sarvajan* policy has resulted in any positive changes in the relations between SCs and upper castes, 92 per cent respondents answered negatively. It shows that these policies have not delivered social change. It means that marginalised sections, even though they are receiving various benefits, are discriminated socially, and therefore, economic inequalities are likely to exist.

**Table 6 : People's Response Over Impact of Policies and Programmes**

	Yes	%	No	%	Don't know	%	Total	%
Do you think that you are getting benefits because you belong to the SC community?	48	97.9	-	-	1	2.0	49	100
Do you feel that Sarvajan policy has resulted in any positive change in relations between SCs and upper castes?	1	1.1	83	92.2	6	6.6	90	100

Source: Primary Survey.

### Discussion and Conclusion

Results presented in previous section show that policies and programmes that aim to empower marginalised sections have not been successful in achieving their goals. Problems that come on the way to achieve this goal are occurring at three levels. One, policies do not address human development problems fully. Many human development aspects are untouched by the existing policy initiatives. Second, the implementation of such policies is affected by administrative malpractices and attracts involvement of local

politics which has a cost for real beneficiaries. Third, benefits that are being delivered lack sufficiency and sustainability. Let us discuss one by one.

As discussed in the first section, schemes and programmes aiming at human development do not reflect upon the real situations. Both Central and State governments are implementing various policies and missions which are inadequate to address human development challenges that exist on the ground. An appropriate question emerges as to why it is happening. There are two issues

to look into in this regard. One, whether Indian state has narrowed its scope as a welfare state and is not allowing its treasury to be opened beyond a limit. In this context, Jayal's (1994) argument stands valid that India is not a complete welfare state, but is an interventionist state with a limited welfarist orientation. Jayal argues that the morale critic of the welfare state launched by neo-liberalism has been absent in Indian context. According to these critics, distributive measures under the umbrella of the welfare state go against the individual freedom and rights. Rights have never been central to the philosophy of welfare that underpin the welfarist initiatives of the Indian state. Since welfare is not expressed in the language of rights, its abandonment could arguably be a relatively simple matter, as there are neither legal/constitutional nor moral or political criteria defining the claimants of welfare rights (Jayal: 1994, p. 19-20).

Second issue is the politics of affirmative action and welfare. Indian Constitution allows Indian state to provide special measure to those who are socially and economically marginalised, and that has created the policy of affirmative actions. But this policy has become a political instrument than a welfare contingency. Since Indian polity is very diverse and fragmented, each State has its own political realm which is necessarily different from others. This diversity has prevented national policies to be implemented in uniform shape. Since any policy has to be adjusted into the political dynamics of the particular state and must bring incentives to the politics; aims and objective of the policy get distant shape while travelling from one state to another. This is one of the reasons which clarifies as to why some Indian States are doing well in certain areas of human development and social welfare, but at the same time, few States have failed. Therefore, it is the politics which shapes social welfare policies, not needs of marginalised groups.

At the implementation level, policies and programmes have to face local political dynamics too, irrespective of administrative malpractices, which make execution of policy initiatives difficult. The local politics may intervene in the process of distribution of public goods in two ways. First, it may work negatively, and may divert the flow of public goods towards those people who are not entitled to receive those goods. This kind of practice takes place either because of strong patron-client relationship or due to the prevalence of corrupt practices among politicians. Secondly, the local politics may work positively in terms of either providing information about existing schemes and programmes or facilitating eligible people to access those services. In this study, the first trend of political intervention is all-encompassing, while latter one is nearly absent. Local political dynamics change according to changes in the government at the State level. If a particular party is in power in the State, local leaders of that party influence the distribution of benefits of different schemes.

In addition to the political construction of policies of empowerment and influence of local politics, policies themselves attract criticism of not being adequate and sustainable to meet the basic needs of the people. This fact questions the eligibility of policies of empowerment. Empowerment means that a person should be able to live a dignified life in a society without lacking any basic needs that are necessary to fulfill the conditions of a dignified life. A person cannot be empowered by providing contingencies, but it should be made sure that these contingencies should enable a person to stand on his/her feet to avoid further contingencies. Most of the policies that are being implemented to empower marginalised provide short-term benefits which are consumable at one time. These policies lack sustainability.

### Box 1: Suran Village- Local Politics and Distribution of Benefits

*Suran is numerically dominated by the upper castes with sizeable part of SCs. Village Pradhan (chairperson) belongs to Brahmin (a high caste) community. Pradhan's family, and many other Brahmins of the village, were associated with the ruling party (BSP) at the time of last State assembly elections 2007. SCs who are integral constituency of the ruling party are unhappy with the functioning of panchayat and distribution of benefits as Brahmin Pradhan cares for his own people. Because, Brahmins are having political link with the BSP, SCs get stuck in going opposite to them but they are not happy with the way Brahmins treat them. One youth from SC community who is very active within the local party organisation said, "We are bonded with the party, we can not resist since local MLA is their people and on other hand it is the party which keep us together, but they do not bother us, they do what is suited for their interest". This kind of expression is the reflection of the way power has centralised in local dominant caste i.e. Brahmins and the way power is exercised. Since now upper castes are part of party they get benefit of hesitation from the side of oppressed castes who are politically associated with the upper caste under the banner of same party.*

*As one villager pointed out, "Pradhan gives benefits to those who are very close to him or his family or people from his caste". One villager further complained that the work scheduled under NREGS, is being provided to Pradhan's own people, and those who are not very well acquainted with them get very less work. Since, Pradhan is himself from the ruling party, common people or people from the BSP do not get scope to go against him. The domination of Brahmins in the village gets strengthened because of splits within the SC community itself. Nat (A sub-caste of SC which traditionally plays shows in the village for the amusement of the people) and Dohres (another sub-caste of SC) are two different groups which are against each other. Nat usually support Brahmins, therefore, they are away from Dohres. Being with the Brahmins, Nat gets more benefits of different schemes and programmes than Dohres.*

While summing up the discussion it can be noted that policies of empowerment of marginalised groups have not delivered economic empowerment, therefore, marginalised groups are also not socially empowered. These policies have potential to provide benefits to the needy which can solve the problem at one time but lacks sustainability. Similarly, evidences show that

these policies do not have ability to negotiate with the social traditions and practices which are major causes for the discrimination of huge chunk of population. Unless social discrimination is addressed, there is very little hope to empower those people who are at the margin of society and deprived of economic benefits.

### Notes

- 1 Annual Survey of Education Report for Rural UP 2009, Assessment Survey Evaluation Research (ASER), available in [www.asercentre.org](http://www.asercentre.org), viewed on May 15th, 2010.
- 2 NSSO, 62nd round, Employment and Unemployment Situation in India, Report No. 522, 2005-06 and India Labour Report 2008.

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## **DRINKING WATER AND SANITATION IN UTTAR PRADESH : A REGIONAL ANALYSIS**

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### **ABSTRACT**

*This paper highlights the inter-regional disparity in coverage of drinking water and sanitation services in Uttar Pradesh and measures the impact of literacy rate, female literacy rate and per capita income on sanitation. The secondary level data are collected from the National Family Health Survey, District Level Health Survey, Uttar Pradesh HDR Report, Census and NSSO to assess the above objective.*

*The analysis of access to drinking water and sanitation shows that the provision of piped water supply still remains an unachieved goal in Uttar Pradesh. Moreover, it shows that a large part of the Uttar Pradesh households depend on their own private tubewells and pumps for their daily water needs. Uttar Pradesh has low coverage for both household sanitation and drainage service compared to all India level. As per the Census 2001, there are about 2.58 crores of households in the State and only 28 per cent households have individual household toilets. The paper reveals inter-regional disparity in Uttar Pradesh in the availability of drinking water and sanitation.*

*A multiple linear regression model is used to estimate the impact of various determining factors, i.e. literacy rate, female literacy rate and per capita income on sanitation facilities. The results reveal that female literacy rate plays a significant role for improving access to sanitation facilities. So, the highest priority to female literacy and schooling should be given in the development programmes for improving the conditions.*

### **Introduction**

Access to basic amenities such as safe drinking water<sup>1</sup> and sanitation<sup>2</sup> is not only an important measure of socio-economic status of the household, but also a fundamental element to the health of the people. Inadequate and poor quality of drinking water not only resulted in more sickness and deaths, but also augments health costs, low worker

productivity and school enrolment (Haq, M., et. al, 2007).

Definitions of improved drinking water sources and sanitation facilities are different within and among countries and regions; Joint Monitoring Programme (JMP)<sup>3</sup> has defined a set of categories for them. An improved source of drinking water includes, in addition to water piped (into the dwelling, yard or plot), water

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available from a public tap or standpipe, a tubewell or borehole, a protected dug well, a protected spring, and rainwater. An improved sanitation facility includes flush to piped sewer system, septic tank, pit latrine, pit latrine with slab and composting toilet (WHO Report, 2010). The major limitation of the method is the assumption of households getting enough water for their consumption needs from such sources.

Disparity is a relative concept and determined by history and social conditioning and permits no universally acceptable definition. Disparities are natural, but extreme disparities are a sign of processes that do not work and can cause problems (Moe & Rheingans, 2006). Inequitable access to water and sanitation is the product of disparities in fresh water resources, income, power and institutional capacity between and within countries. Disparity in access to and use of water, and share in beneficial public expenditure in water sector, can be understood in at least four overlapping connotations (Phansalkar, S.J., 2007).

Spatial disparity refers to disparity between people living in different regions (rural-urban, less developed and more developed regions, within and between regions etc.). Generally drinking water is liberally supplied to urban areas and within them to higher income groups. Kanmony (2003) found the urban-rural disparity in the provision of drinking water. Rural people are discriminated against and deprived of their rights to enjoy basic services. There has been a positive relationship between the level of economic development and access to drinking water (Kundu and Thakur, 2006; Zerah, 2006). There are considerable variations between large urban centres, small towns and cities in piped water supply and sanitation services in India (Zerah, 2006; Shaban A. & R. N. Sharma, 2007).

Social disparity refers to disparity between different groups of people living broadly in the same locality (minority and majority communities, poor and rich people, intra and inter-caste groups). The inequality in consumption of water is not only confined to the domestic sector but also in agriculture, industrial and other sectors. It is observed that disadvantaged groups are discriminated against in the provision of safe drinking water (Kanmony, 2003; A. Shaban, R. N. Sharma, 2007 & Darshan Singh, 2009). A study on review of development of scheduled castes in India also shows clear disparity between scheduled castes and other castes in access to drinking water source, distance and improved sanitation facility (Singh, D., 2009). A recent study shows that there is a clear disparity between the public services received by the inhabitants, depending on their economic strata (Mohan, P., 2005, Kamyotra & Bhardwaj, 2011).

Gender disparity refers to disparity between genders (male-female, within and between female and male population groups) in regard to share of labour costs, efforts in access to and use of water and share in its beneficial uses and products. Women and girls are disproportionately burdened by water scarcity and this increases inequalities: they sacrifice their time and education to collect water (Moe & Rheingans, 2006).

Inter-generational disparity refers to equity in enjoyment of natural resources, including water, across generations. In fact, in another twenty years, half of our demand for water could remain unmet if the present pattern of demand and supply continues (Tiwari & Pandey, 2011). Inefficiency in water use and irresponsibility in the management of water resources pose a serious threat to our water security and sustainability.

### Methodology

Based on the above background of drinking water and sanitation, the paper studies the following aspects :

1. To assess the inter-regional disparity in coverage of drinking water and sanitation services in Uttar Pradesh.
2. To identify the determinants of sanitation and subsequent policy implications for the State.

The study is based on the analysis of secondary data. The data from Surveys conducted by the National Family & Health Survey (NFHS-3), District Level Health Survey, Uttar Pradesh HDR Report (2003&06), NSS Report No. 435: (2008-2009) and Census (2011) are used for analysis.

Multiple Linear Regression Model (normal and double log model) are used to study the impact of various determinants on sanitation. Various explanatory variables, viz., literacy rate, female literacy rate and per capita income are considered to be significant factors on sanitation. Moreover, regional disparity is observed by using various rounds of NFHS - 2&3, DLHS, Uttar Pradesh HDR and NSSO data.

### Access to Drinking Water and Sanitation in Uttar Pradesh

Water supply is a state subject, where Union Government is only responsible for setting water quality standards, but State Government has to establish departments or special agencies for supply of domestic water to urban and rural areas. These State government agencies are also responsible for monitoring the quality of water supplied (Srikanth, R., 2009). Uttar Pradesh is the most populous State having the largest urban system in the country with 628 municipalities. However, it ranks 18<sup>th</sup> in the level of

urbanisation. The process of urbanisation in the State has been favourable towards larger cities. The emerging trends of urbanisation in the State necessitate two-pronged strategy for balanced regional urban development, i.e., better management of large cities and inducing planned growth of small and medium towns (Uttar Pradesh Annual Plan, 2010-11).

*Extent and Composition of Drinking Water:* Uttar Pradesh State Water Policy, 1999 says, "Water for drinking and domestic use has the highest priority while allocating the water resource of the state. The state has to provide adequate drinking water facilities (both for people and livestock) to the entire population in both urban and rural areas up to the year 2025. Sanitation facilities for entire population in urban areas and most of the rural areas should also be provided."

There are significant disparities between Uttar Pradesh and India in regard to use of sources for drinking water (Table 1). The bulk of the households in urban India depend on the municipal water supply for their daily needs, i.e., more than 70 per cent depend on tap water. It may be noted that about 63.4 per cent of urban households in Uttar Pradesh use tubewell/handpump as their major source. This means that the main source of drinking water in urban Uttar Pradesh is tubewell/handpump. One noticeable feature of urban households during 1998-99 to 2005-06 can be observed from NFHS (2&3) that there has been a gradual decrease in the share of "pipied water". On the other hand, there has been a gradual increase in the share of "tubewell/ handpump" for both Uttar Pradesh and India. The penetration of municipal water supply is not only low, but also quite poor in terms of access. Most households depend on tap water either from neighbours, or on basis of group sharing, or both (Bajpai & Bhandari, 2001).

**Table 1: Per cent Distribution of Urban Households by Source of Drinking Water in Uttar Pradesh and India**

Major Source of Drinking Water	NFHS-2 (1998-99)		NFHS-3 (2005-06)	
	Uttar Pradesh	India	Uttar Pradesh	India
Piped Water	42.9	74.5	34.9	71.0
Tubewell/Handpump	55.2	18.1	63.2	21.3
Well Water	1.7	6.0	0.5	4.8
Surface Water	0.1	0.4	0.1	0.3
Others	0.1	1.0	1.4	1.8

Source : Computed from the data provided by NFHS-2(1998-99) & NFHS-3(2005-06).

In 1998-99, nearly 42 per cent in Uttar Pradesh and 74 per cent in India used tap as source of drinking water which decreased to nearly 40 per cent in Uttar Pradesh and 71 per cent in all over India level. While in case of

tubewell/handpump as major source nearly 55 per cent in Uttar Pradesh and 18 per cent in India used it in 1998-99, which increased to 63 per cent in Uttar Pradesh and 21 per cent in all over India level.

**Table 2: Per cent Distribution of Rural Households by Source of Drinking Water in Uttar Pradesh and India**

Major Source of Drinking Water	NFHS-2 (1998-99)		NFHS-3 (2005-06)	
	Uttar Pradesh	India	Uttar Pradesh	India
Piped Water	5.5	25	2.0	28.9
Tubewell/Handpump	76.7	47.3	89.8	53.2
Well Water	15.7	23.5	7.8	15.4
Surface Water	2.0	3.5	0.3	2.2
Others	0.2	0.7	0.1	0.6

Source : Computed from the data provided by NFHS-2(1998-99) & NFHS-3(2005-06).

The pattern of drinking water from various sources in urban sector is quite different from rural areas in Uttar Pradesh as well as India. In all over India, there has been a gradual increase in the share of both the sources 'tap' and 'tubewell/handpump', and a

corresponding decrease in the share of 'well'. The situation in Uttar Pradesh shows distinct pattern, with that share of 'tap' as major source of drinking water has declined from 5.5 per cent in 1998-99 to 2 per cent in 2005-06. A large part of the rural households depend on

their own private tubewells and handpumps for their drinking water in Uttar Pradesh. It is observed that the provision of basic necessities has an urban bias. Drinking water is not an exception. A simple measure of the bias, the urban-rural difference is examined in Tables 1 & 2. It may be noted that considerable variation (urban and rural) exists within Uttar Pradesh and India.

Piped water and tubewell/handpump, both are the major sources of drinking water at all India level (Table 3). Many households do not have access to water on tap in almost all cities and towns in Uttar Pradesh. About 83 per cent households depend on their own private tubewells and pumps for drinking water.

**Table 3 : Per cent Distribution of (Urban + Rural) Households by Source of Drinking Water in Uttar Pradesh and India**

Major Source of Drinking Water	NFHS-2 (1998-99)		NFHS-3 (2005-06)	
	Uttar Pradesh	India	Uttar Pradesh	India
Piped Water	13.5	38.7	10.3	42
Tubewell/Handpump	72.1	39.2	83.1	42.8
Well Water	12.7	18.7	6.2	11.9
Surface Water	1.6	2.6	0.4	2
Others	0.1	0.8	0.1	0.8

Source : Computed from the data provided by NFHS-2(1998-99) & NFHS-3(2005-06).

At the all India level, there has been gradual increase in the share of both the sources 'tap' and 'tubewell/handpump', but the pattern is different in Uttar Pradesh. The share of 'tubewell/handpump' has been increased from nearly 72 to 83 per cent and the share of 'tap' has been decreased from about 13 to 10 per cent in Uttar Pradesh. Population pressure, resource endowment, lack of infrastructure and low expenditure of Uttar Pradesh government on water supply and sanitation (WSS) sector lie behind it (Uttar Pradesh HDR Report, 2006). It is clearly revealed that the allocation of revenues towards WSS has been decelerated during first decade of this century in Uttar Pradesh. Uttar Pradesh spends around 1.2 to 5.8 per cent of its social sector expenditure on WSS. The share of WSS in social sector expenditure was 4.36 per cent in 1990-

91, and reduced to 1.23 per cent in 2009-10. Uttar Pradesh spends between 0.66 to 1.5 per cent of the total expenditure on WSS. In terms of percentage of aggregate expenditure, it was 1.67 in 1990-91 and reached a higher level of 1.99 in 1997-98, then declined to 0.46 in 2009-10 (Reserve Bank of India, 2010, Handbook of State Finances). Poor and intermittent supply may be one reason for low coverage of piped water for both urban and rural households compared to all India level.

*Extent and Dimension of Sanitation :* Sanitation was defined to include connection to a sewer or septic tank system, pour-flush latrine, simple pit or ventilated improved pit latrine, with allowance for acceptable local technologies. The excreta disposal system was considered adequate if it was private or shared

**Table 4 : Per cent Distribution of Urban, Rural and Total Households by Types of Latrine for U.P. and India in 2008-09**

Type of Latrine	Urban		Rural		Total	
	Uttar Pradesh	India	Uttar Pradesh	India	Uttar Pradesh	India
No Latrine	14.2	11.3	79.2	65.2	65	49.2
Service Latrine	4.4	1.6	1.5	1.2	2.1	1.4
Septic Tank/Flush	72.8	77.3	12.6	17.9	25.7	35.4
Pit Latrine	6.5	8	5.9	14	6.1	12.2
Others	1.6	1	0.5	1.2	0.7	1.2

Source : Computed from the data provided by NSS Report No. 535, 2010.

(but not public) and if it hygienically separated human excreta from human contact (NSS Report No. 535, 2010, p.26). Definition of sanitation<sup>4</sup> facilities are provided in detail in Notes. Based on these definitions, the structure and extent of sanitation facility has been assessed as follows.

Table 4 reveals that the toilet coverage both in rural and urban areas of Uttar Pradesh is much lower compared to all India level. About 50 per cent of households in India have toilet facility, while only about 35 per cent households in Uttar Pradesh have toilet facility (NSS Report, 2010). In Uttar Pradesh, there are large disparities between urban and rural areas in access to toilet facility. About 85 per cent of households in urban areas have toilet facility; on the other hand, only 20 per cent of households have toilet facility in rural areas. The general rural population is of the opinion that owning and using a toilet is not a household priority but a luxury. Open defecation continues to be the norm in large parts of the State especially in the rural areas (Arya, Y.B., 2009).

According to census 2011 data, only 46.9 per cent of Indian households and 35.6 per

cent of households in Uttar Pradesh have latrine facility. Open defecation continues to be a big concern. Sanitation facility in urban areas is better than rural areas (Table 5). Various studies find urban-rural disparity in provision of drinking water and sanitation facility (Kanmony, 2003; Moe & Rheingans, 2006).

It may be noted that sanitation facility is not as much improved in Uttar Pradesh as compared to India. Census data show that the percentage of Indian households having no latrine declined from 78.1 to 69.3 in rural areas and from 26.3 to 18.6 in urban areas. In other words, there is 8.8 per cent improvement in rural areas and 7.7 per cent improvement in urban areas at all India level. While a mere 2.6 per cent improvement in rural areas and 3.1 per cent improvement in urban areas took place in Uttar Pradesh during last 10 years. There are many reasons for the failure to achieve sanitation coverage-

- \* Sanitation and drinking water are grossly underfunded. There are inadequate investments for improving WSS infrastructure.
- \* Investments made in sanitation and water do not yield proportionate results

**Table 5 : Per cent Distribution of Urban, Rural and Total Households by Types of Latrine for Uttar Pradesh and India**

Type of Latrine	Urban		Rural		Total	
	2011	2001	2011	2001	2011	2001
<b>Uttar Pradesh</b>						
Water Closet	77.2	32	15.9	1.9	29.8	8
Pit Latrine	2.9	18.1	4.5	8.3	4.2	10.3
Other Latrine	3	30	1.3	8.9	1.7	15.2
No Latrine	16.9	20	78.2	80.8	64.4	68.6
<b>India</b>						
Water Closet	72.6	46.1	19.4	7.1	36.4	18
Pit Latrine	7.1	14.6	10.5	10.3	9.4	11.5
Other Latrine	1.7	13	0.8	1.5	1.1	6.9
No Latrine	18.6	26.3	69.3	78.1	53.1	63.6

Source : Computed from the data provided by Census 2011.

because of poor planning and implementation.

O & M expenditures or cost are taken into account.

\* Politically, sanitation and drinking water are not a great priority.

#### **Region-wise Access to Drinking Water and Sanitation**

\* The benefits of sanitation and water supply are social and shared in nature, while the costs are private and governmental.

Uttar Pradesh occupies the central position in the northern India. It is one of the largest and most backward states in India with a diverse composition. Uttar Pradesh has suffered from different types of inequality, i.e. regional disparity is one among them. There are four regions<sup>5</sup> in the State, viz., (1) Eastern region, (2) Western region, (3) Central region, and (4) Bundelkhand region (Diwakar, 2009).

\* Poor cost recovery is also one of the main reasons for poor condition of WSS sector. The tariff rates being charged from the consumers are very low. The water and sewer tax is set at 12.5 per cent of the annual rental value of the property for unmetered consumers, which is assumed to depend on the size and other characteristics of property. No considerations of coverage of capital or

Economically, the Western region is the most developed with higher levels of urbanisation, i.e., better infrastructure, higher agricultural productivity, higher per capita income levels, i.e., ₹ 18,959 in 2006-07 at

current price, and lower poverty levels (Govt. of Uttar Pradesh, 2010-11). Eastern region suffers from high population pressure and low degree of diversification of the economy, while Bundelkhand region falls in the drought-prone dry region. The Central region scores relatively better in terms of economic indicators as compared to the two backward regions (Government of Uttar Pradesh, 2010-11).

The Government of India considers only tap, tubewell, and handpump (TWHP) as

potable sources. According to the definition of Census of India, if a household has access to drinking water from a tap, tubewell or handpump situated within or outside the premises, it is considered as having access to safe/improved drinking water (Lohia, Shital, 2006). Based on the above definition, the structure and extent of drinking water facility has been assessed as follows.

As per the District Level Household Survey (DLHS-2&3), the coverage with

**Table 6 : Access to Improved Drinking Water in U. P. in Different Regions**

(in per cent)

Region	DLHS -2 (2002-04)	DLHS -3 (2007-08)	Difference of DLHS -2 & 3
Eastern region	90.31	93.27	2.96
Western region	93.75	97.99	4.24
Central region	87.2	93.44	6.24
Bundelkhand region	79.21	90.51	11.3
Uttar Pradesh	90.8	94.8	4.0

Source : Computed from the data provided by DLHS-2 and DLHS-3, Uttar Pradesh, IIPS, Mumbai.

improved drinking water is 94.8 per cent in Uttar Pradesh. This coverage only indicates the percentage of households using potable sources for their drinking water needs. But this does not mean that 94.8 per cent of households have adequate drinking water facilities. Various studies also confirm that the coverage figures do not reflect actual availability of water supply, which is better reflected by service quality indicators such as hours of supply, water quality and quantity (Mavalankar, F. & M. Shankar, 2004; Pandey, et al, 2006; Pushpangadan, 2006 and Mingxuan, F. & Bhano ji Rao, 2011).

There are considerable inter-regional disparities so far as access to drinking water

with improved source are concerned (Table 6). Western region is the only region that has reached above 95 per cent coverage with improved drinking water. As various studies confirm, there is a positive relationship between the level of economic development and access to drinking water. Developed states report a high percentage of households having access to safe drinking water (Kundu & Thakur, 2006 and Zerah, 2006).

Bundelkhand region has lowest access to drinking water in both surveys among all regions but it reports highest improvement in coverage (11.3 per cent) in between DLHS-2&3. This region has distinct natural characteristics as compared to the other



regions. The region has also shown greater economic dynamism and poverty levels have declined sharply in late nineties (Uttar Pradesh HDR Report, 2006).

At the district level, there are glaring disparities in access to improved drinking water facility. Bareilly has reached almost universal coverage while only 75 per cent households in Mirzapur obtain their drinking water from improved source.

Sanitation facility is inadequate in almost all regions of Uttar Pradesh. As per the Census, percentage of households having sanitation

facility in Uttar Pradesh increased from 18.02 in 1991 to 31.43 in 2001 and 35.6 in 2011. In fact the improvement works out to be lower i.e., 4.17 per cent during 2001-11 compared to 13.41 per cent during 1991-2001. Bundelkhand region and Western region report a relatively higher increase in coverage i.e., 5.22 and 5.17 per cent during 2001-11, respectively. Eastern region reports the lowest increase in coverage i.e., 1.67 per cent during 2001-11 (Table 7).

Sanitation situation is much worse as 65 per cent population of Uttar Pradesh do not

**Table 7 : Access to Sanitation Facility in U.P. in Different Regions**

(in per cent)

Region	1991	2001	2011	Difference of 1991-01	Difference of 2001-11
Eastern region	9.47	19.47	21.14	10.00	1.67
Western region	25.50	42.93	48.1	17.43	5.17
Central region	17.59	28.14	30.87	10.55	2.73
Bundelkhand region	13.33	23.82	29.04	10.49	5.22
Uttar Pradesh	18.02	31.43	35.6	13.41	4.17

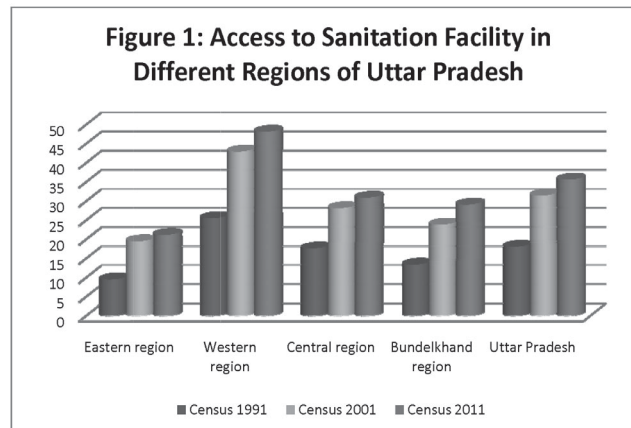
Source : Computed from the data provided by U.P. HDR report, 2003 & 2006.

still have access to sanitary latrines and basic hygiene (Census 2011). Sanitation levels especially in the Eastern region of the State are far below the State average as only 21.14 per cent households have sanitation facility.

Highest per cent of households of Western region have accessibility to toilet facility than those of in other regions. Western Uttar Pradesh is agriculturally prosperous and relatively industrialised than other regions. The worst condition of sanitation facilities is identified in Eastern region. Only one-fifth of households have a toilet facility in Eastern region. Among them Shravasti has the minimum percentage i.e., 12 of this facility.

Varanasi district reports sanitation coverage above 50 per cent in Eastern region, while in Western region, 10 districts have above 50 per cent household accessibility to toilet facility.

The situation for sanitation facilities is also worse in Central and Bundelkhand regions. Only 30 per cent households in Central region and 29 per cent households in Bundelkhand region have access to toilet facility. Bundelkhand region is the least developed region in the State due to low agricultural growth, less number of industrial units and lesser gross value of industrial products (Uttar Pradesh HDR Report, 2006).



The State has exhibited significant regional disparity in accessibility to toilets (Figure 1). Various studies confirm that low levels of latrine usage are due to lack of awareness of the importance of sanitation, water scarcity, poor construction standards and the expensive policy on standardised latrine by government (Arya, Y.B., 2009).

### Empirical Analysis

Multiple Regression Analysis by using Ordinary Least Square method has been used to study the impact of various explanatory variables on sanitation facility across districts in Uttar Pradesh. It examines the impact of

literacy rate, female literacy rate and per capita income on access to sanitation facility. The functional form of both simple Regression model and Log-Linear Regression model are as follows.

$$SF = b_0 + b_1 LR + b_2 FLR + b_3 PCI + U_i \quad (1)$$

$$LSF = b_0 + b_1 LLR + b_2 LFLR + b_3 LPCI + U_i \quad (2)$$

Where SF is the sanitation facility;  $b_0$  is the intercept;  $b_1$ ,  $b_2$  and  $b_3$  are the co-efficients associated with LR, FLR and PCI, respectively and  $U_i$  is the error term. LR is the literacy rate, FLR is female literacy rate and PCI is per capita income.

**Table 8 : Results of Both MRF& LMRF in Uttar Pradesh**

Determining Factors	Multiple Regression Function	Multiple Regression Function (Log)
Constant	39.46 (3.04)	-0.73(0.36)
FLR	2.26 (3.95*)	2.61 (3.44*)
PCI	0.0018 (5.71*)	0.9(7.38*)
R <sup>2</sup>	51.95	61.58
F-Statistics	23.78	35.25

Note : The values in the parentheses are t-values.

\* indicates 1 per cent level of significance.

In model (1), there is a positive relationship between female literacy rate and per capita income with sanitation facility. If female literacy rate and per capita income increase by 1 unit, on average, sanitation facility increases by about 2.26 and 0.0018 units, respectively. However,  $R^2$  value suggests that about 52 per cent of variation in access to sanitation facility is explained by female literacy rate and per capita income.

Similarly, model (2) explains that an increase of 1 per cent in female literacy rate leads to increase of 2.61 per cent of sanitation facility and 1 per cent increase in per capita income leads to 0.9 per cent increase in sanitation facility (model 2). Adjusted  $R^2$  value is estimated at 0.5983. It reveals that about 60 per cent of the variation in sanitation facility is explained by female literacy rate and per capita income.

### Summary and Conclusions

This paper clearly reveals that the current state of water supply in Uttar Pradesh is inadequate covering all standards, either it is for urban areas or rural areas. In Uttar Pradesh, 90 per cent households do not have access to tap water. Tubewells and handpumps are dominant sources in Uttar Pradesh while piped water is the most common source of drinking water at all India level.

Present status of sanitation facility in Uttar Pradesh is even worse compared to all India level. No district in the State at present has been able to ensure sanitation facilities for all the houses. About one-third houses in urban areas in the State do not have toilet facility.

The paper has highlighted the wide inter-regional disparities in access to drinking water and sanitation facilities in Uttar Pradesh. Western region, the most developed region of the State, reports the highest coverage in access to drinking water and sanitation facilities among all regions. Inequalities are pervasive in the availability of drinking water and sanitation facilities both in the rural and urban areas of the State.

Regression analysis confirms significant instrumental role of female literacy rate for improving access to sanitation facilities. This underlines the need for giving highest priority to female literacy and schooling in the development programmes of Uttar Pradesh.

Few aspects related to worse conditions of drinking water and sanitation facility are addressed in the present paper. Drinking water and sanitation facility of Uttar Pradesh can be improved by enhancing the share of WSS expenditure in social sector and total expenditure, by increasing political and social priority to sanitation and water supply, by formulating the water tariff rates, etc.

### Notes

- 1 Drinking water is defined as the water consumed by a human being for maintaining the biological functioning of the body.
- 2 Sanitation refers to the measures, methods and activities that prevent the transmission of diseases and safeguard public health.
- 3 Joint Monitoring Programme (JMP) began in 1990 by WHO and Unicef to monitor progress in the drinking water and sanitation sector.
- 4 Open Defecation – When human faeces are disposed of in fields, forests, bushes, open bodies of water, beaches or other open spaces or disposed of with solid waste.

Unimproved Sanitation Facilities – Unimproved facilities include pit latrines without a slab or platform, hanging latrines and bucket latrines.

Shared Sanitation Facilities – Sanitation facilities of an otherwise acceptable type shared between two or more households. Only facilities that are not shared or not public are considered improved.

Improved Sanitation Facilities – Ensure hygienic separation of human excreta from human contact (India Health Report, 2010).

- 5 The Western region has five divisions and 26 districts, the Central region covers two divisions and 10 districts, Bundelkhand has two divisions and seven districts, and the Eastern region has eight divisions and 27 districts.

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## **ECONOMIC IMPACT OF WATER MANAGEMENT : A CASE STUDY**

Arijit Roy\*

### **ABSTRACT**

*Water is commonly regarded as plentiful, especially in the medium to high rainfall areas. But water is not equally distributed over the earth's surface. The increasing uncertainty over rainfall is hampering the normal economic activities especially agriculture. In rural West Bengal, man-made "chowka" is a beautiful example of water harvesting structure acting as lifeline to farmers during the dry season and minimising the risk of water-logging during uncommon heavy rainfall. This paper attempts to assess the economic impact of water management practices in a medium rainfall area in West Bengal. Also the effects of land size, expenditure on inputs and the role of panchayat are taken into account. The impact is evaluated in terms of cropping pattern, productivity, income, employment, and household assets. The study reveals that the overall impact is positive and significant, and hence, it demands a systematic and well-organised planning-execution approach to water management projects.*

### **Introduction**

In high and medium rainfall areas, rain-water acts as the predominant input in agriculture. However, the uncertainty over rainfall in recent years is becoming a stumbling block. Farmers are exploring alternative sources of water. Here comes the significance of water resource management – to explore new sources of water, to store water, to minimise water use for maximum output and to minimise water leakages and losses. The inland small and medium scale agriculture may find surface and groundwater as viable alternatives. However, groundwater extraction using shallow pumps are prohibited in different areas for various reasons. So the

small and medium farmers fall back heavily on surface water resources. But very often, farmers are unaware or simply not interested to collect surface water, even when there is no pond or water-body nearby. The theory, process and benefit of rain and surface water harvesting is a new topic to many of them. But surface and rain-water harvesting in different structures within the landholding may contribute significantly to the agricultural productivity and income of small and medium farmers.

Pereira, H.C. (1973) has rightly pointed out that "the arable croplands carry the major burden of sustaining human food needs. The difficulties in farming them increase with

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increasing temperature and the declining amount and reliability of rainfall “ and it is in this context that “small –scale water harvesting techniques are being studied afresh in India today”. He has also pointed out that “Tying of ridges and structures of water harvesting improve rainfall penetration, increase crop growth and decrease soil erosion”. Dikshit, G.S., Kuppaswamy, G.R. and Mohan, S.K. (1993) have shown the significance of small reservoirs in the context of water management practices in India from ancient to current period and analysed the structural, financial and institutional aspects of small reservoirs. Singh Katar (1994) finds that “tanks are still an important and the least expensive means of storing rain water and using it for supplemental irrigation and other purposes in many parts of India”. He also points out that “ the outcomes and impacts of management of irrigation tanks could be seen in crop pattern, input use, yield rates, net returns, economic viability of tank irrigation; and some intangible environmental changes”. Baumann, P. (1998) has analysed the contribution of small reservoirs in the context of Panchayati Raj system in India. Goswami, S. (2006) has put forward an in-depth analysis of the practices and significance of tank irrigation in different parts of West Bengal. Nanda, P., Panda, D.K., and Swain, M. (2008) have shown the impacts of water harvesting measures in terms of cropping pattern and productivity of crops, impact on household income and employment, impact on employment generation and so on in seven villages in Digapahandi block of Ganjam district of Odisha. Pal, R.C. and Prasad, R. (2008) have shown the effects of water harvesting measures in six villages under the Rayachoty block of Kadapa district of Andhra Pradesh. The impacts upon the standard of life including livestock, water level in wells, change in cropping pattern, change in income generation activities, improvement in agriculture etc. are discussed.

Although our central aim is to find the economic impacts of water harvesting

structures, we can find the effect of farm size on productivity as well. Economic theories show that the effects may be either positive or negative. Productivity does depend on the expenditure on inputs which may be traditional (less expensive) as well as modern (more expensive). Traditional inputs include low yielding seeds, plough and bullock, cow-dung and similar organic manure etc. while the modern inputs include high-yielding variety seeds, pesticides and chemical fertilisers, tractors, power-tillers, pumpsets etc. Economic theory postulates a positive relationship between expenditure on inputs and productivity, other things remaining the same. Here, we are in a position to verify this relationship.

Impact of local government organisations like panchayat on productivity is expected to be positive. Panchayats provide various inputs (seeds, fertiliser, irrigation etc.) and extension services (training, warehousing, marketing etc.) which are very much crucial for higher productivity. Panchayats organise training camps and workshops to impart new knowledge to the farmers. They try to spread awareness regarding the growing need, scope and mechanisms for water harvesting and water management. We also examine the role of panchayat in production and productivity of the farms.

This paper, basically, attempts to evaluate the economic impacts of simple rain-water and surface water harvesting practices upon agricultural productivity and hence on the standard of living of the farmers. However, the impacts of land size, expenditure on inputs and role of panchayat are also taken into account in this model. The economic impacts are evaluated in terms of differences in income and assets, employment, cropping pattern, production and productivity of different crops.

### Methodology

Two villages with similar geographical and socio-economic features, namely, Keshabpur and Bajitpur under No.3, Chaitanyapur Gram Panchayat, Sutahata block, East Midnapore district of West Bengal were purposively selected. A complete enumeration of households was made and the pattern of land-use as well as the use of water harvesting structures was noted. From the total population, 100 households were selected at random. The sample consists of two distinctive groups. Group I consists of 80 households who

constructed different water harvesting structures and consequently cultivated the land thrice in a year. Group II includes 20 households who did not care for water harvesting and depended mostly on rain-water, cultivated their land twice in a year. The sample households were administered with well-designed, semi-structured questionnaires to get required information. The data were collected in the year 2009-2010.

The pattern of crop production by the two groups of farmers is shown in the Table below :

**Table 1 : Pattern of Crop Production**

	Kharif Season	Rabi Season	Pre-kharif Season
GR-I	Aman Paddy, Vegetables, Betelnut	Boro Paddy, Vegetables, Betelnut	Aus Paddy, Betelnut, Vegetables
Gr-II	Aman Paddy, Vegetables	Boro Paddy, Khesari	————

Source : Field Survey.

Multiple regression technique has been employed to assess the impacts of water harvesting structures along with land size, expenditure on inputs and role of panchayats on agricultural productivity and income.

### Study Area

Keshabpur and Bajitpur villages are under No.3, Chaitanyapur Gram Panchayat, Sutahata block, East Midnapore district of W.B. The area comes under the gangetic plain agro-climatic zone of the State. The area lies between 22°7' N to 22°9' N latitude and 88°1' E to 88°8' E longitude. The area is covered with loamy soil. The average temperature varies between 10° C – 35° C, while the average annual rainfall varies between 150c.m. – 175c.m. In both the villages, farmers interested in water-harvesting techniques strengthened the existing bunds and built new bunds. They established vegetation on the upstream side

of the bund. The slope of an individual land was made as minimum as possible. A grassed outlet was made according to the slope of the land for draining of rain-water. At the end of the slope along the boundary, small farm-ponds were dug out to collect the surface runoff as well as the rain-water. These are commonly called "chowkas" which act as the lifeline to farmers during the dry season. Again, during uncommon heavy rainfall, these chowkas act as buffer collecting the excess rain-water.

### Model Specification

We use the following log-lin equation:

$$\ln Y = \beta_1 + \beta_2 \ln S + \beta_3 \ln E + \beta_4 (PN) + \beta_5 (CH) + u$$

where Y is average agricultural income (₹) per month per bigha,

S is land size (in bigha),  
 E is average expenditure (₹) on inputs per month per bigha,  
 (PN) is the dummy for panchayat, (PN) = 1 if there is an influence of panchayat, (PN) = 0 if none,  
 (CH) is the dummy for chowka, (CH) = 1 if there is a role of chowka, (CH) = 0 if none.  
 u is the random error term normally distributed with zero mean and finite variance and satisfying the assumptions of the Classical Linear Regression Model.  $\beta_1$  is the intercept coefficient.  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$  and  $\beta_5$  are the partial slope coefficients.

## Result and Discussion

**Table 2 : Impact on Cropping Pattern**

Crop	% share of net sown area for Gr—I	% share of net sown area for Gr—II
Aman Paddy	83	58
Aus Paddy	40	—
Boro Paddy	60	30
Vegetables	30	20
Khesari	—	38
Betelnut	10	—

Source : Field Survey.

Table 2 shows that the cropping pattern is clearly better for the group using chowkas (Gr-I) compared to the group not using chowkas (Gr-II). Except khesari (one kind of inferior pulse), relative share of area under all other crops is more for Gr-I.

The total landholdings for Gr-I and Gr-II are 410 bigha and 90 bigha, respectively. So for Gr-I, the average landholding is 5.125 bigha

and for Gr-II, it is 4.50 bigha. The cropping intensities for Gr-I and Gr-II are shown below.

Table 3 displays the gross cultivated areas under different crops for the two groups. Better availability of irrigation water from chowkas results in multiple cropping and mixed cropping systems for the Group-I farmers. Consequently, the cropping intensity for Gr-I is much higher than that for Gr-II.

**Table 3 : Gross Cropped Area and Cropping Intensity**

		Gross Cropped Area	Cropping Intensity
Gr-I	Kharif season	Aman Paddy – 340.30 bigha Vegetables – 20.00 bigha Betelnut – 21.00 bigha	$(914.3/410)*100 = 223$
	Rabi season	Boro Paddy – 246.00 bigha Vegetables – 68.00 bigha Betelnut – 10.00 bigha	
	Pre-kharif season	Aus Paddy – 164.00 bigha Vegetables – 35.00 bigha Betelnut – 10.00 bigha	
Gr-II	Kharif season	Aman Paddy – 52.20 bigha Vegetables – 18.00 bigha	$(131.4/90)*100 = 146$
	Rabi season	Boro Paddy – 27.00 bigha Khesari – 34.20 bigha	

Source : Field Survey.

Table 4 clearly shows that productivity for different crops is better when farmers adopt water harvesting techniques and structures. The productivity of Aman paddy and Boro paddy is higher for Gr-I farmers compared to Gr-II farmers by 50 and 60 per cent, respectively. Vegetables register 300 per cent higher productivity for Gr-I compared to Gr-II.

**Table 4 : Impact on Productivity of Different Crops (Kg/ bigha)**

Crop for Gr –I	Average Productivity for Gr –II	Average Productivity Adopting Chowkas	% Increase in Yield
Aman Paddy	900	600	50.00
Aus Paddy	750	—	—
Boro Paddy	800	500	60.00
Vegetables	400	180	122.22
Khesari	—	90	—

Source : Field Survey.

The number of cattle per household in Gr-I is 4.3 as against only 1.8 in Gr-II implying that average possession of livestock by Gr-I is 138.89 per cent more than that by Gr-II.

**Table 5 : Impact on Livestock**

	Total Number of Cattle	Average Number of Cattle / Household	Difference (%)
Gr-I	344	4.3	138.89
Gr-II	36	1.8	

Source : Field Survey.

**Table 6 : Impact on Employment Generation**

Activity	Gr—I	Gr—II	Difference in %
Average Mandays/ household/year	290	195	48.72
Average Power- tiller- days/ household/year	60	32	87.50
Average Tractor - days/ household/year	20	5	300.00
Total	370	232	59.48

Source : Field Survey.

The human labour utilisation for farmers in Gr-I is 48.72 per cent higher than Gr-II. For power-tiller-days and tractor-days, 87.50 per cent more power-tiller-days and 300 per cent more tractor-days have been generated by Gr-I farmers. Pooling all the employment

generating activities, 59.48 per cent more employment opportunities have been generated by Gr-I farmers compared to Gr-II farmers and this difference can be attributed to more intensive agricultural activities undertaken by Gr-I farmers.

### Impact on Household Income and Assets

**Table 7 : Average Household Income from Agriculture**

	Income/ Household /Month(₹)	Difference in %
Gr-I	18,780	85.48
Gr-II	10,125	

Source : Field Survey.

The average monthly income of sample households from agriculture in Gr-I is ₹ 18,780 compared to ₹ 10,125 in Gr-II, i.e., the average

income in Gr-I is 85.48 per cent higher than that in Gr-II.

**Table 8 : Valuable Assets of the Households**

Asset	Gr-I	Gr-II
House with concrete roof	40	05
Fixed Deposit in Banks	12	01
Cycle	75	10
Motor cycle	18	01
Power tiller	07	00
Pumpset	11	00
Husking machine	08	00
T.V.	72	50
Phone	75	8
Refrigerator	08	01

Source : Field Survey.

Table 8 depicts that greater percentage of households in Group - I own different valuable assets as compared to households in Group - II. The higher income and assets of the farmers in Gr-I is basically due to increased productivity of crops and livestock and more employment generation. Those farmers have been encouraged to maintain and to undertake new water conservation measures due to benefits accrued from chowkas.

**Table 9 : Role of Panchayats**

1.	Distribution of Seeds	₹ 3,500/household/year
2.	Direct Purchase of Agricultural Output	₹ 5,000/household/year
3.	Organising General Meetings	One per month
4.	Organising General Training Camps	One per six months
5.	Special Meeting with Agricultural Development Officer (ADO) and Water Engineers	One per six months
6.	Direct Supervision & Encouragement for Building Chowkas ( During last 3 years)	280 numbers
7.	Total Construction of Model Chowkas (During last 3 years)	18 numbers
8.	Total Allocation of Funds for Construction of Chowkas (During last 3 years)	₹ 31,520

Source : Field Survey.

The role of Panchayats in agriculture and allied activities is evident from Table 9. In our study villages, the Panchayats have distributed seeds worth ₹ 3,500 per household per year. They have made arrangements to purchase agricultural output worth ₹ 5,000 per household per year. They have organised general meetings once in every month and special training once in every six months. They have arranged meeting with the ADO and water engineers once in every six months. During the last three years, they have undertaken direct supervision for building 280 chowkas and have completely constructed 18 model chowkas. During the last three years, the Panchayats have allocated a total of ₹ 31,520 for construction of chowkas.

*The Role of Chowkas in Irrigation :* Our study villages lie in the medium rainfall gangetic plain of West Bengal. The average rainfall in the rainy season is 120-150 c.m. and 20-30 c.m. in the rest of the year. The rain-water acts as the predominant source of irrigation. There are two canals flowing through the villages. Canal water is available for irrigation in rainy season (kharif season) and winter (rabi season). However, the canals are heavily silted so that water available in winter

is much less compared to demand for it and in pre-kharif season, the canals become completely dry so that they no longer remain a source of irrigation. On the other hand, fitting shallow pump is prohibited in both the villages. Under these circumstances, an alternative source of irrigation becomes relevant especially in the dry season. And, herein lies the significance of chowkas.

The model chowkas have the specification of 10ft x 10ft x 6ft. However, the chowkas vary in size and depth. For land size of 1 bigha or more, a series of two or more adjoining chowkas is suggested. These chowkas are built at the lower end of the slope of the lands. The chowkas collect the surface runoff as well as the rain-water. Again, during uncommon heavy rainfall, they act as buffers collecting the excess rain-water. For greater efficiency in storage, the inner walls and the bottom are suggested to be made of concrete. This will result in smaller loss of water. However, structures without concrete walls are also abundant. During the dry season, these chowkas therefore, act as the major source of irrigation. The pattern of irrigation for both the groups is shown in Table 10.

**Table 10 : Distribution of Gross Cropped Area in Bigha (with %) in Different Seasons under Alternative Irrigation Systems for Gr-I and Gr-II**

		Source of Irrigation			Total
		Rain-water	Canal water	Chowka	
S	Kharif	275.00	76.50	29.80	381.30
E		(30.10%)	(8.36%)	(3.25%)	(41.71%)
A	Rabi	52.00	186.00	86.00	324.00
S		(5.68%)	(20.34%)	(9.41%)	(35.43%)
O	Pre-kharif	0.00	00.00	209.00	209.00
N		(0.00%)	(0.00%)	(22.86%)	(22.86%)
Total		327.00	262.50	324.80	914.30
		(35.78%)	(28.70%)	(35.52%)	(100.00%)

(Contd.)



**Table 10 : (Contd.)**

	Gr-I	Source of Irrigation		Total
		Rain-water	Canal water	
S E A S O N	Kharif	55.60 (42.31%)	14.60 (11.11%)	70.20 (53.42%)
	Rabi	8.50 (6.48%)	52.70 (40.10%)	61.20 (46.58%)
	Total	64.10 (48.79%)	67.30 (51.21%)	131.40 (100.00%)

Source : Field Survey.

*Determinants of Agricultural Income Disparity:* We have shown a significantly large difference in the income of Gr-I and Gr-II farmers in the study area. This difference can be attributed to some important socio-economic and farm characteristic variables. We have tried to analyse the contribution of land

size (S), expenditure on inputs (E), panchayats (PN) and chowkas (CH) to agricultural income (Y) disparity between sample households. In our log-lin model, natural log of Y is regressed upon natural log of S, natural log of E, (PN) dummy and (CH) dummy. The estimated regression results are shown in Table 11.

**Table 11 : Regression Results of Agricultural Income Disparity**

	Coefficient	Standard error	t-statistic	p value
Intercept	2.071	0.392	5.284	0.000
ln S	1.142	0.277	4.124	0.000
ln E	0.346	0.151	2.287	0.027
PN	0.515	0.252	2.040	0.047
CH	0.758	0.283	2.678	0.010

n = 100, k = 5.

F- (4,95) d.f. = 65.816, p value = 0.000.

R<sup>2</sup> = 0.851, Adj R<sup>2</sup> = 0.838.

n (= 100) is the sample size and k (= 5) is the number of parameters to be estimated. The high t-values are indicative of the fact that all the estimated coefficients are statistically significant. The intercept coefficient  $\beta_1$  takes the value of 2.071 and is significant at any level.

The coefficient  $\beta_2$  (= 1.142) is the elasticity of agricultural income with respect to land size. The positive sign of  $\beta_2$  establishes a positive relationship between farm size and agricultural income. If land size increases by 1 per cent, average agricultural income increases by 114

per cent.  $\beta_2$  is significant at any level. The coefficient  $\beta_3$  ( $=0.346$ ) is the elasticity of agricultural income with respect to input expenditure. If input expenditure increases by 1 per cent, average agricultural income increases by 34 per cent.  $\beta_3$  is significant at 5 per cent level. The panchayat dummy coefficient  $\beta_4$  takes the value of 0.515 and is significant at 5 per cent level.  $\beta_4 = 0.515$  signifies that the average agricultural income increases by 67 per cent (approx.) for the households getting panchayat services compared to the others. The chowka dummy coefficient  $\beta_5$  takes the value of 0.758 and is significant at 1 per cent level.  $\beta_5 = 0.758$  signifies that the average agricultural income increases by 113 per cent (approx.) for the households using chowkas for water harvesting compared to the others.  $F = 65.816$  implies that all the coefficients are statistically different from zero and are significant at any level, d.f. = (4,95).  $R^2 = 0.851$  signifies that approximately 85 per cent of the variation in the dependent variable ( $\ln Y$ ) is explained by the regression model,  $R$  being the coefficient of multiple correlation.  $R^2$  becomes 0.838 when adjusted for the degrees of freedom.

### Conclusion

The case study supports chowkas as very effective tool for water harvesting and management. The construction and use of chowkas can enhance agricultural productivity and income. The paper argues that in our study village, the average agricultural income increases by 113 per cent for the households who use chowkas for agriculture compared to other households. This huge difference in agricultural productivity and income has induced the households and the panchayat to take interest in constructing chowkas.

We have shown in this paper that if land size increases by 1 per cent, average agricultural income increases by 114 per cent. In small holdings, capital-labour ratio is low and modern technology is hard to be employed. But as farm size increases, agriculture becomes more capital intensive and use of modern technology becomes more prominent. Consequently, our case study reveals a direct relationship between farm-size and agricultural income.

Expenditure on inputs has a direct influence on agricultural income. From our case study, we can conclude that as input expenditure increases by 1 per cent, average agricultural income increases by 34 per cent. The modern inputs compatible with modern technology are obviously more expensive and using these inputs can increase agricultural productivity and income to a great extent.

Last but not least, the panchayats can enhance agricultural productivity and income by providing various direct and indirect support services. Here, the average agricultural income increases by 67 per cent for the households who get panchayat services compared to the others.

The panchayats should encourage the farmers to construct small reservoirs/ chowkas and to maintain them properly. The technical support has to be provided by the panchayats. They should organise awareness campaigns. They should chart out proper management system of the chowkas and the system should be monitored by the households and panchayats jointly. This will be the key for a successful and sustainable management practice for the chowkas.

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## **EXTENT OF PEOPLE'S PARTICIPATION IN SANT GADGE BABA SANITATION MISSION IN MAHARASHTRA : A FIELD STUDY**

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### **ABSTRACT**

*With a view to knowing the extent of participation and its correlation with the characteristics of the respondents, this study was undertaken in Amravati district of Maharashtra State. Majority of the people were motivated due to their desire to make the village an ideal one and also to obtain prize for the village. Majority participated in the resolution day or commitment day, in village sweeping and freedom from garbage, and self-cleanliness awareness programme activities because they were highly aware about sanitation. The major constraints for non-participation are lack of time due to busy schedule, being male dominated family and illiteracy etc.*

### **Introduction**

The Department of Water Supply and Sanitation, Government of Maharashtra introduced 'Gadge Baba Gram Swachhata Abhiyan' to all villages in the State of Maharashtra in the year 2000-2001. It was an invitation to all villages to participate in a competition for 'clean village'. The campaign received overwhelming response and triggered phenomenal change in rural Maharashtra. The Government has declared prizes for encouragement of villages, districts and divisions level for people's achievement. The best Gram Panchayat, Panchayat Samiti and Zilla Parishad is awarded with a cash prize of ₹ 10 lakh each. People's participation in this endeavour made the campaign a grand success and brought laurels to Amravati division. The basic aim behind launching these schemes was to encourage people to actively participate in the process of development.

Though Zilla Parishad and Panchayat Samiti are entrusted to ensure people's participation, efforts must be made to obtain cooperation of the elected representatives.

Sant Gadge Baba Gram Swachhata Abhiyan would be carried out from 2 October to 17 October every year in all the villages of the State and villages would be judged on 95 parameters including potable drinking water, hygienic cleanliness and basic amenities for getting the award. There is now increased awareness about knowledge of sanitation needs, understanding constraints and possibilities. This has stimulated public and private initiatives in the rural areas to evolve and apply simple, inexpensive and socially accepted principles. This study was undertaken to measure the awareness knowledge and participation of the sanitation programme. This study is also necessary because it is likely to throw light on personal and socio-economic

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characteristics of the respondents that influence knowledge and participation of the rural people in the sanitation mission.

Keeping in view the need for participation in the sanitation programme by the rural people, this study was planned and carried out with the following specific objectives :

1. To study the personal, socio-economic and information characteristics of the respondents.
2. To assess the participation level of the respondents in sanitation mission.
3. To examine the reasons for non-participation of the people in sanitation mission.

### Methodology

The present study was undertaken in Amravati district of Maharashtra State. There are 14 Panchayat Samities in Amravati district out of which Morshi Panchayat Samiti was selected for the present study. From this Panchayat Samiti, Nashirpur village was purposively selected as this village is awarded four times at various levels. This village has received two awards in the year 2002-2003, i.e. taluka level award and district level award and also received division level award in 2003-2004 and State level award in 2004-2005.

The list of respondents from this village was prepared with the help of Gram Sevak of the village. In all a total of 150 respondents were selected who actually participated in Sant Gadge Baba Sanitation Mission. After the selection of the respondents, they were personally interviewed with the help of the structured interview schedule prepared for the study. The interviews with the respondents were conducted at their residences in an informal atmosphere after establishing rapport with them for getting reliable information. Secondary data were also

obtained from the records maintained by Sarpanch and *Gram Sevak* of that village. The data so collected were again carefully examined before tabulation.

### RESULTS AND DISCUSSION

#### Characteristics of the Respondents in Sanitation Mission

The distribution of the respondents who participated in sanitation mission according to their selected personal, socio-economic and psychological characteristics is presented in Table 1. It is expected that age is one of the factors which may influence the participation of the respondents in Sant Gadge Baba sanitation mission. Majority of respondents who participated in sanitation mission were found to be young (54 per cent) and middle (23.33 per cent) age group. A very few of them (22.67 per cent) were in old age category of more than 50 years age. The reason being that the respondents up to 50 years are capable of participating in all the activities undertaken in sanitation mission with greater efficiency. The above findings are similar to the findings reported by Sudha Haridasan (1997) that majority of the respondents in fruit nurseries mostly belonged to middle age group of 19 to 35 years.

*Education* : Education of the respondents may influence the participation level of the respondents in sanitation mission. With respect to education of the respondents, the data showed that 30 per cent respondents had education up to high school level (SSC), followed by 22.66 per cent respondents who had primary school education. About 16.67 per cent respondents had higher secondary school (HSSC) education and 13.33 respondents had middle school education followed by 8.67 per cent respondents who were illiterate and only 8.67 per cent of the respondents had education up to college level (Table 1). Thus, it was concluded that majority

of the respondents had education up to high school level. It is quite logical that their social and economic conditions might have not allowed them to go in for further education.

Therefore, it is concluded that majority of respondents who participated in sanitation mission were found to have high school (SSC) and primary education.

*Annual Income*: It is observed that 46.00 per cent of the respondents had their income up to ₹ 25,000. followed by 26 per cent

respondents who earned between ₹ 25,001 to ₹ 50,000 followed by 14.66 per cent of the respondents whose income was between ₹ 50,001 to ₹ 75,000, ₹ 1,00,001 and above income was earned by only 8.67 per cent of the respondents. However, 4.67 per cent of respondents earned ₹ 75,001 to ₹ 1,00,000 (Table 1).

From the above findings, it could be inferred that majority of respondents had their annual income up to ₹ 25,000 being landless labour and having rare sources of income.

**Table 1 : Distribution of Respondents According to Their Characteristics**

S.No.	Category	Respondents (N=150)	
		Number	Percentage
(1)	(2)	(3)	(4)
<b>Age</b>			
1	Young	81	54.00
2	Middle	35	23.33
3	Old	34	22.67
	Total	150	100.00
<b>Education</b>			
1	Illiterate	13	08.67
2	Primary school	34	22.66
3	Middle school	20	13.33
4	High school	45	30.00
5	Higher secondary school	25	16.67
6	College	13	08.67
	Total	150	100.00

(Contd.)



**Table 1 : (Contd.)**

(1)	(2)	(3)	(4)
<b>Annual Income</b>			
1)	Up to ₹ 25,000	69	46.00
2)	₹ 25,001 to ₹ 50,000	39	26.00
3)	₹ 50,001 to ₹ 75,000	22	14.66
4)	₹ 75,001 to ₹ 1,00,000	07	04.67
5)	Above ₹ 1,00,000	13	08.67
Total		150	100.00
<b>Socio-economic Status</b>			
1	Very low	43	28.66
2	Low	43	28.66
3	Medium	50	33.33
4	High	10	06.68
5	Very high	04	02.67
Total		150	100.00
<b>Social Participation</b>			
1	No participation	13	08.67
2	Low participation	32	21.33
3	Moderate participation	58	38.67
4	Moderately high participation	20	13.33
5	High participation	27	18.00
Total		150	100.00
<b>Sources of Information</b>			
1	Low	14	09.33
2	Medium	102	68.00
3	High	34	22.67
Total		150	100.00

**Socio-economic Status :** The socio-economic status may be one of the important determinants of the respondents' participation level in sanitation mission. It is observed from Table 1 that one-third of the respondents (33.33 per cent) were in medium socio-economic status category, 28.66 per cent of the respondents fall under very low and low socio-economic status category and 6.68 per cent of the respondents were found to be in high socio-economic status category. Very few respondents were found in very high level of socio-economic status (2.67 per cent). Therefore, it could be concluded that majority of the respondents who participated in sanitation mission were found to be in medium category of socio-economic status.

**Social Participation :** The social participation of the respondents may influence their level of participation in sanitation mission. The data revealed that 38.67 per cent respondents had moderate level of participation followed by 21.33 per cent respondents having low social participation. This was followed by 18 per cent respondents who had high social participation and 13.33 per cent respondents had moderately high social participation. Very few, 8.67 per cent, respondents had no social participation.

It is therefore, concluded that majority of the respondents had moderate social participation because majority of the people were members of informal organisations like, Mahila Mandal, Bhajan Mandal, Ganesh Mandal, etc. The above findings are similar to the findings reported by Katole (2001) that participation in social organisation and activities by higher percentage of the respondents (45 per cent) was of moderate degree.

Bhosle *et al.* (2000) observed that 64 per cent had medium social participation, 21.33

per cent had high and 14.67 per cent had low social participation.

**Sources of Information :** Sources of information of the respondents may influence their level of participation in sanitation mission. It is observed that 68 per cent of respondents belonged to medium category of sources of information followed by 22.67 per cent respondents having high sources of information. It was found that only very few respondents (9.33 per cent) had low sources of information. Therefore, it is found that majority of the respondents were having medium sources of information.

### **Motives Behind Participation**

Motives of the respondents about sanitation mission may influence the participation level of the respondents. The motive-wise distribution of the respondents shows that majority of the respondents (69.33 per cent) participated because they have a desire to make the village an ideal one. Followed by 64.66 per cent respondents having the motive to obtain prize for the village, 54.66 per cent respondents having a desire to make the village progressive and 47.33 per cent respondents having the motive to make the village self-sufficient in all respects. About 41 per cent have the motive of interest in social work, 38.66 per cent respondents have the motive to keep village atmosphere clean and healthy and 36 per cent respondents have the motive to eradicate diseases completely from village. About 32.66 per cent respondents have the motive to make the village addiction free, 26.66 per cent respondents have the motive to give ideal lesson to future generation and to encourage it, 22.66 per cent respondents have the motive to get publicity to the village. Only few respondents, 10 per cent, said that people participate because others also participate (Table 2).

**Table 2 : Distribution of Respondents According to their Motives Behind Participation**

S.No.	Motives	Frequency (N = 150)	Percentage
1	For the progress of the village	82	54.66
2	To eradicate diseases completely from village	54	36.00
3	To make the village an ideal one	104	69.33
4	To get publicity to the village	34	22.66
5	To have an interest in social work	62	41.33
6	To obtain prizes for the village	97	64.66
7	To make the village self-sufficient in all respects	71	47.33
8	To give ideal lesson to future generation and to encourage it	40	26.66
9	To keep village atmosphere clean and healthy	58	38.66
10	To make the village addiction free	49	32.66
11	People participate because others also participate	15	10.00

From the above findings, it could be inferred that majority of respondents have the motives like to make the village an ideal one, to obtain prize for the village and for the progress of the village.

#### **Different Activities Undertaken and Participation of People in Sanitation Mission**

For the assessment of the activities undertaken in sanitation mission, the researchers consulted the Zilla Parishad and collected information of Sant Gadge Baba Sanitation mission and also collected useful information beneficial for the present study. Internet was also used for getting information about sanitation mission. After going through thoroughly from all these sources it has been noticed that, following activities are undertaken in sanitation mission.

According to the study objectives, attempts have been made to study the participation level of the respondents in sanitation mission. The activities undertaken in Sant Gadge Baba sanitation mission were considered for the study.

*Activity-wise Participation of Respondents in Sant Gadge Baba Sanitation Mission :* The activity-wise participation of the respondents in sanitation mission was studied and the results are presented in Table 3. It is revealed that more than 50 per cent of respondents always participated in activities of sanitation mission like village sweeping and freedom from garbage, school and public buildings sanitation campaign day, house and environmental sanitation and decoration day, self-cleanliness awareness programme, clean water practical and training day, road repairs, sweeping and shramdan day, cattle sanitation

**Table 3 : Distribution of Respondents According to their Activity-wise Participation in Sanitation Mission**

S.No.	Activities	Frequency (N = 150)	Percentage
1)	Village sweeping and freedom from garbage	119	79.33
2)	Cleaning/construction of soakpits	65	43.33
3)	School and public buildings sanitation campaign day	84	56.00
4)	House and environmental sanitation and decoration day	75	50.00
5)	Exhibition of literature on sanitation campaign	62	41.33
6)	Publicity, technical knowledge campaign	40	26.67
7)	Latrine repairs/ construction campaign day	55	36.67
8)	Self-cleanliness awareness programme	110	73.33
9)	Clean water practical and training day	80	53.33
10)	Road repairs, sweeping and shramdan day	92	61.33
11)	Cattle sanitation campaign	78	52.00
12)	Ideal cattleshed and clean animal competition	75	50.00
13)	Conservation of trees, kitchen garden, protection and non-conventional energy day	65	43.33
14)	Village level slogan and essay competition	80	53.33
15)	Freedom from addiction	84	56.00
16)	Healthy baby competition	78	52.00
17)	Mother & child care diagnosis and diseases	68	45.33
18)	Control of communicable diseases	71	47.33
19)	Disposal of sewage water	40	26.66
20)	Reuse of sewage water	44	29.33
21)	Resolution or commitment day	130	86.66

campaign, ideal cattleshed and clean animal competition, village level slogan and essay competition, freedom from addiction, healthy baby competition and resolution or commitment day.

Besides the above activities, only those activities with less than 50 per cent participation of the respondents in sanitation mission are cleaning and construction of soakpits, exhibition of literature on sanitation

campaign, publicity, technical knowledge campaign day, latrine repairs/construction campaign day, conservation of trees, kitchen garden, protection and non-conventional energy day, mother and child care diagnosis and diseases, control of communicable disease, disposal of sewage water and reuse of sewage water.

It was observed that there was high participation of people i.e. 86.33, 79.33 and 73.33 per cent in activities like resolution day or commitment day, village sweeping and freedom from garbage, self-cleanliness awareness programme activities, respectively because some people were highly aware about sanitation (Table 3). Medium participation of people was observed i.e. 61.3, 56, 53.30, 52, 50 per cent in activities such as road repairs, sweeping and shramdan day, school and public buildings sanitation campaign day, freedom from addiction, clean water practical and training day, village level slogan and essay competition, cattle sanitation campaign, healthy baby competition, house and environmental sanitation and decoration day, ideal cattleshed and clean animal competition, respectively and low participation of people i.e. 47.33, 45.33, 43.33, 41.33, 36.67, 29.33, 26.66 per cent respondents participated in control of communicable diseases, mother and child care diagnosis and diseases, cleaning/construction of soak pits, conservation of trees, kitchen garden protection and non-conventional energy day, exhibition of literature on sanitation campaign, latrine repairs/construction campaign day, reuse of silage water, disposal of silage water, publicity technical knowledge campaign day, respectively.

From the above findings it could be inferred that majority of the respondents participated in activities like resolution or commitment day, village sweeping and freedom from garbage, self-cleanliness awareness programme.

### **Reasons for Non-participation of People in Sant Gadge Baba Sanitation Mission**

The categorisation of people according to their reasons for non-participation in sanitation mission is presented in Table 4.

It was observed that 36.66 per cent respondents have the reasons like lack of time due to busy schedule for non-participation, 22.66 per cent respondents, mainly females did not participate because of male dominated family, 21.33 per cent respondents did not participate because of lack of awareness and due to parda system for females by 19.33 per cent respondents. About 17.33 per cent respondents stated casteism as the reason for non-participation and 16.66 per cent respondents were not interested in any social activity. Some respondents, 16 per cent did not participate as they were not capable of doing work because of old age (Table 4).

From the above findings, it could be inferred that majority of the respondents have reasons for non-participation such as lack of time due to busy schedule, being male dominated family and illiteracy. The above finding goes with the findings of Deshmukh and Kulkarni (2006).

### **Major Findings**

Majority of respondents who participated in sanitation mission were found to be in young age category i.e. up to 35 years (54 per cent) and higher percentage (30 per cent) of them were educated up to high school. Regarding their annual income, majority of respondents had their yearly annual income (46 per cent) up to ₹ 25,000 and relatively higher per cent of respondents belonged to medium (33.33 per cent) socio-economic status. Majority of respondents (38.67 per cent) had moderate social participation and (68 per cent) had medium utilisation of sources of information. Majority

**Table 4 : Reasons for Non-participation in Sant Gadge Baba Mission**

S.No.	Reasons	Frequency (N=150)	Percentage
1.	Lack of time due to busy schedule	52	36.66
2.	Lack of awareness	32	21.33
3.	Casteism	26	17.33
4.	Male dominated family	34	22.66
5.	Not capable because of old age	24	16
6.	Parda system	29	19.33
7.	No interest in any social activity	25	16.66

of them (69.33 per cent) have the motive to make the village an ideal one and to obtain prizes for the village. Majority of respondents had (46 per cent) medium level of participation in sanitation mission. In case of relational analysis, age is negatively significant with level of participation whereas education, annual income, socio-economic status, social participation, sources of information, motives behind participation were found to be significant with level of participation. Result of multiple regression analysis indicated that motives behind participation share significant contribution with level of participation whereas remaining age, education, annual income, socio-economic status, social participation, sources of information did not show any significant relation.

### Conclusion

It can be concluded that majority of the people were motivated due to their desire to make the village an ideal one and also to obtain prize for the village. Majority people participated in the resolution day or commitment day, village sweeping and freedom from garbage, self-cleanliness awareness programme activities because they were highly aware about sanitation. Major constraints for non-participation are lack of time due to busy schedule, being male dominated family and illiteracy etc. It is therefore, suggested that efforts should be made by giving more and more benefits and awards to the villages, so that all the village people participate in the sanitation mission to make it a grand success.

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## BOOK REVIEWS

**Microfinance India, State of the Sector Report 2012**, Editor : Venugopalan Puhazhendhi, Sage Publications, Price : ₹ 850, Pages : 184.

The Microfinance India - State of the Sector Report 2012 is an authentic source of presentation of growth and development of the microfinance sector in India in its entirety. This report provides an independent and scholarly view of the state of microfinance on an annual basis, which is widely quoted in most circles and specifically those who have serious stake in the microcredit issues. As it collects information from authentic sources and field reports, it helps in identifying the knowledge and practice gaps that require further research and study.

For the last few years, this report has become the best reference material on the annual trends and progress of the Indian microfinance sector and is a must for every researcher to access the performance of the microfinance sector as a whole. The richness of the report lies in its diversity of perspectives, sectorial contents and breadth of issues covered as well as the depth of analyses. It is a rare blending of statistical rigour with policy and action relevance inputs in totality.

The report started with an 'Overview of the Microfinance Sector' and ended with 'the Future – Forward Looking' aspect of the Microfinance Sector. There are eight other relevant chapters, each redefining an important aspect. Some notable points from each chapter are illustrated below reflecting the richness of the report.

For example, in Chapter-II, entitled 'SHG Bank Linkage Programme – Revisit in Progress', the report has stated that the SHG Bank linkage

programme implemented during the last two decades has significantly contributed in terms of outreach of financial services to unreached people so far. As per the report, the review of the performance of the programme reveals that there has been a significant improvement in terms of socio-economic empowerment of rural poor, particularly of women across states in India.

In Chapter-III on 'Microfinance Institutions – Signs of Recovery', the report suggested that MFIs need to actively engage themselves as partners in the financial inclusion programme and integrate their vision and mission with the state and central government to achieve a prosperous future for the customers.

In Chapter-IV on 'Financial Inclusion – Process and Progress', the report aptly pointed out that microfinance being a sector that serves a very large number of small clients distributed over a wide geographical area could be a highly cost-intensive proposition. The adoption of appropriate technological solutions both in hardware and software platforms will ensure that the cost remains within reasonable limits. This will also enhance the value proposition for banks, BCs and above all, the customers.

In Chapter-V on 'Microfinance – Beyond Credit', the report highlights that despite crisis in the sector, many institutions innovated products which are designed within the regulatory ambit such as enterprise loans, asset creation loans, sanitation loans and several non-financial services. While many of the products showed success for replication, still there are several unresolved issues which need to be appropriately considered while upscaling these innovations.

In Chapter-VI on 'Policy Environment and Regulation – Sign of Reign,' the author has stressed that there is a need for close interaction between banks and MFIs. Banks need to realise their social obligation and choose all channels available to fulfill their obligations, which include lending to MFIs for on-lending to marginalised sections of society. The enforcement of new regulations and the concerted efforts of MFIs in complying with the regulatory and client protection norms and bank continued patronage will go a long way for sustainable growth of the microfinance sector.

In Chapter-VII on 'National Rural Livelihood Mission,' the author has highlighted that NRLM seeks to promote inclusive growth by mobilising the rural poor and enabling them to save, build productive assets and enterprises, access financial livelihood, educational, health and nutrition services and entitlements, negotiate better terms for their products and services and provide rural youth with skills and opportunities to secure jobs in mainstream economy.

In Chapter-VIII on 'Investment Climate – Faltering, but Hope Remains,' the author is hopeful to state that with the positive responses from the sector in terms of an improved regulatory environment and responsible financing by the MFIs, the equity flow is expected to be encouraging for all and more particularly to smaller and medium sized MFIs, hence hope remains, despite flattering performances. Even MFIs have turned their attention with new found rigour to new forms of capital flows including securitisations, NCDs and qualified institutional placements.

In Chapter-IX on 'Global Trends in Microfinance,' the author agreed that the global scenario is not promising for the MFI industry, though some economies have booked better portfolio. The author has suggested that a number of initiatives like values of

responsibility, corporate ethics and social performance management are to be addressed to face the key challenges of this sector. Indeed, MFIs have to adopt new strategies to bring back their clients as well as to reduce their operating and administrative expenses.

The tenth and the final chapter on 'Future – Forward Looking,' reminded that as long as ultimate focus of microfinance initiatives are towards the poor and their livelihood improvement, microfinance will survive, sustain and grow. The only relevant expectation is that it should strive to meet the requirement of the vulnerable customers.

The report is a comprehensive reference for those who want to review the performance of the microfinance sector as well as interested to know the status of various policy decisions taken by the Government of India and other agencies in facilitating the growth and development of microcredit in backward regions of India. The author should be highly appreciated as the report handles difficult and contentious issues in a most comprehensive manner and highlights the microfinance sector in a most fascinating manner. Finally, a small remark that though some critical aspects like the 'Repayment Crisis in the Microfinance Sector' has been given scant attention in the report, that does not drag attention from the broad contents and database as vividly presented in the report.

– Dr. B.K. Swain

**Dynamics of Rural Poverty in Bihar: Determinants and Strategies** by Dr. Rashmi Prasad, Janaki Prakashan Publishers, Patna 2012, Price : ₹ 995.

The book on "Dynamics of Rural Poverty in Bihar : Determinants and Strategies" seeks to explore the link between growth and poverty, between agricultural growth and

poverty, between agrarian relations and poverty and assess the impact of various poverty alleviation programmes. This book has attempted to initiate in-depth analysis of poverty in its various manifestations of regional, social and institutional aspects to bring dynamism into the studies of rural poverty in Bihar. Finally, this book seeks to suggest appropriate policy package for removal of poverty. It is based on various poverty alleviation studies conducted by MoRD and individual researchers apart from the secondary data of NSS and CSO.

The book is organised into seven chapters. The first chapter deals with the National Perspective on Planning for Poverty Eradication vis-à-vis the poverty structure and facets of poverty alleviation in Bihar. It is a resume of the poverty debate and contribution to a novel understanding of the nature and magnitude of the chronic problem of poverty in Bihar. The analytical review of large number of studies, committee reports on poverty in India as well as Bihar is presented in the second chapter. Chronological analysis of all the studies conducted on poverty in India is arranged based on various alternative approaches to poverty eradication.

The third chapter is devoted to special features of the economy of Bihar so as to understand the interface between the rich natural resources and high incidence of poverty. Shortage of investment flows is a major stumbling block in Bihar. The major constraints for the industrialisation of Bihar are infrastructural inadequacy, lack of skilled manpower, size of local and export market, industrial policies of the centre and states and natural endowment. A structural shift in rural employment has been witnessed in most of the states except Bihar.

Magnitude and trends in rural poverty and sectoral growth pattern is discussed in chapter four. Assessment of poverty indicators

and the effectiveness of poverty eradication programmes in reducing income inequalities and poverty reduction is being analysed based on the data obtained from different sources including household surveys of NSS. Social, economic, political and bureaucratic factors are adversely affecting the efforts made in Bihar compared to other states during 1983 to 2004-05. One of the causes of poverty in Bihar is low per capita income. Poverty in the State is also the outcome of slow growth and it is among the slowest states in India. The performance of agriculture is quite dismal in spite of 84.20 per cent workforce depending on agriculture. The institutional structure increasing population, slow industrial growth, infrastructural bottlenecks, literacy, states finances, absence of good governance, caste, class and politics negated the development process and diluted the RD programme implementation.

Chapter five on Agrarian relations, Agriculture development and Rural poverty examined the extent of trickledown theory and agrarians relations in reducing poverty in Bihar based on the data collected by CSO. The rate of growth in agriculture has always been on higher side in Bihar and could not create any impact on poverty reduction. The relationship between agricultural growth and poverty appears to be highly iniquitous in Bihar. This means that there are other factors explaining low trickledown or weak link between agricultural growth and poverty decline in the State of Bihar. Low productivity in agriculture shows that the impact of green revolution was limited and hence low poverty reduction. In spite of Zamindari abolition, tenancy reforms, land ceiling act and consolidation of landholdings, poverty continues to be apposing in Bihar due to iniquitous agrarian relations. The role of politicians and bureaucracy could not disturb the existing landholding pattern and power equation in Bihar.

Chapter six is devoted to evaluate the poverty alleviation programmes and impact of the programmes is assessed based on several studies conducted by MoRD, Gol and DRD of Bihar apart from the secondary sources of data. It is observed by all the studies that the impact is very limited due to the lack of follow-up support to the beneficiaries of self-employment programmes. The focus of all these programme implementation appears to be target oriented and untimely. The impact of MGNREGS is also limited due to minimum number of days of employment and low participation of women. However, the average wage rate is maintained at ₹100 on par with many other states. The impact of all other Rural Development programmes including Public Distribution Schemes (PDS), nutrition programmes (ICDS, Mid-day meal schemes) and social security programmes have a little effect on poverty. It is observed that the PAP could not reduce the poverty in Bihar but widen the gap between poor and non-poor.

Chapter seven sums up the main findings, draws the conclusions and suggests a few policy implications for Bihar as how to reduce poverty in the State. Since majority of population is dependent on agriculture in Bihar, special emphasis should be given on small and marginal farmers, employment generation programmes for landless and unskilled labour and the emphasis on skill development for women and youth. The proper integration on technological and institutional reform, providing the market, credit, input supply to farmers will induce them to adopt better farm practices to enhance the productivity and provide gainful employment opportunities that could help reducing poverty. Extension of minimum support prices, agricultural insurance, small farm technologies, agricultural export and agricultural research and development will enhance the growth in agriculture and

development. Participatory irrigation management is worth emulating in Bihar. Substantial increase in public investment, power sector reforms, effective use of land and proper infrastructural facilities could facilitate the development in Bihar. The promotion of Self-help Groups, the farmers groups and strengthening of PRIs and NGOs would facilitate decentralised governance and reduce poverty in Bihar. The growth of Bihar economy has taken a turnaround during the recent past and the State is likely to be the next home for Indian agriculture. Winds of change have started flowing. Saplings of development have been planted in the State by upholding the rights of downtrodden, neglected castes and groups, the long standing caste dominance will crumble down to the dust in the years to come. The renewed governance reforms will bring a change in the political will.

Though the book is primarily based on review of various studies conducted on the economy and the poverty structure of Bihar, the author could analyse in the chronological order so as to make a resume of the social, agricultural, economic and political development of the State. The book could get access to lot of data on various aspects of Bihar. This will be useful for all those who are working in rural development and poverty.

– Dr. Y. Gangi Reddy

**Anthropology and Tourism** by Anupama Srivastava and Keya Pandey, Serials Publications. New Delhi, 2012, Price : ₹ 695.

The book 'Anthropology and Tourism' focuses on new subject i.e., presenting tourism in anthropological point of view. The book contains 'three' parts. The first part deals with Anthropology and culture. Second part deals with Anthropology and Tourism. Third part deals with impact of tourism on tribals living in forest

areas. The authors simplify the subject of Anthropology, culture, tourism and environment to make easy understanding to the readers. The strength of the book is a case study of 'Tharu' tribe, who live in deep forest of Dudhwa National Park and impact of tourism on socio-cultural, economic life and on environment of the forest region.

The 'Tharus' is one of the tribes of India, resides in Dudhwa National Park in the State of Uttar Pradesh. They live very close to the thick forest in the hot tropical, malarial areas, infested with wild animals such as elephants, rhinoceros, bears, tigers and poisonous snakes. The Tharu community has dwelt in the forest of the Terai for a long, long time. They have practical knowledge of the jungles. Their entire life and livelihood has revolved around the jungles. Despite the hardships the community evolved a rich and vibrant culture. Tharus are very sensitive about cleanliness. The villages and dwellings are neat and clean. The traditional huts possess an aesthetic charm. The huts are often decorated with ethnic and religious motif. They are cool even during summers. The Holi (Festival of colours) is a very special occasion, celebrations, dance, music and revelry continue for days.

There is a strong linkage between anthropology and tourism i.e., cultural intermixing of the people of the two different places. A key element cultural tourism is to understand different cultures and how they react when grouped together. The cultural tourism educates, informs and at the same time entertains the traveller. But the impact of visitor's culture on host culture is an important issue. This brings changes in host's culture. The Tharu tribes of the Tarai region are also the victims of these changes. The tourism along with modernisation, developmental programmes of the government has played a vital role in transforming the lifestyle of the Tharus.

Maximum tourists visit the Dudhwa National Park to see the tigers and wildlife. The added attraction for tourists is that they also get an opportunity to witness a Tharu tribe lifestyle and culture. So Dudhwa National Park provides a unique opportunity to 'Live with the Jungle Folk'. Tharus entertain visitors with traditional Tharu dance especially during the evenings. A visit during the month of March is especially enjoyable as the tribe celebrates Holi festival which continues for ten days. This offers the tourist a unique and rare chance to participate along with the tribe and which becomes a life-time experience to the visitors.

Due to tourism many positive and negative changes were seen on tribal's life style. Tourism has brought physical change among the Tharus. The typical mongoloid feature attributed to this tribe has undergone subtle yet visible change. This is the direct outcome of cross cultural marriages and intermixing. The most prominent change is seen on spoken language. It has undergone drastic transformations with Hindi words dominating the core vocabulary.

The impact on socio - culture is that the Tharu tribe has shifted to a settled rural pattern. Traditional Tharu huts made up of mud and thatched roof are to a large extent replaced by modern cemented houses. The traditional dress especially of Tharu women are also rarely seen and are now replaced by the attire worn by Indian women staying in the surrounded areas (sarees and salwar suits). These changes have mainly occurred due to the exposure of the tribals to the nearby urban settlements due to increased transport facility between the two.

The Tharu tribal economy has undergone change. The traditional Tharu economy was based on food gathering and hunting and sometimes supplemented by fishing. The development and modernisation have

converted the tribals to a settled pattern of life with agriculture as a main economic activity and some Tharus left the areas to lookout for employment to the nearby towns. The tourism in the Dudhwa National Park has opened new avenues of earning. The performance of Tharu dance is also one way of earning added income. Apart from this, the sale of lehanga (long skirt) and choli (long blouse) as well as the potter at exorbitant price brings in money. So tourism has had a positive impact on Tharus' economy contributing to a better lifestyle and uplifted social standing of the Tharus.

Environment is a core feature of the tourist product. Increased traffic brings many negative impacts like congestion and pollution. Construction of hotels may lead to cutting down the trees and destruction of flora and fauna. But strict tourist rules are laid down to protect the environment by the government. The fixed tourist routes exist and the tourists are not allowed to enter the interiors of the forest. One of the most negative impacts of tourism on Tharu tribals is prostitution and trafficking. The simple tribals fall victim to the lures of the developed world. The tourism policy planners must control the negative impacts and promote the positive tourism.

The authors have opened up a new area of eco – tourism i.e., conservation through ecological responsible travel. The book teaches that environment and local tribal culture should be protected and made sustained. To book is an advice to the tourism policy planners, environmentalists to protect the flora and fauna and indigenous tribal culture. This book is highly educative to the students, Anthropologists, environmentalists, forest personnel, tourists, academicians, Sociologists, politicians, policy makers, NGOs and research scholars etc.

– Dr. S. N. Rao

**State of India's Livelihoods Report 2011**, Edited by Sankar Dutta, Published by ACCESS and Sage publications, Orlanda Ruthven and Vipin Sharma P : 152 Price ₹ 895.

The State of India's Livelihoods ( SOIL ) reports are being published annually since 2008 by ACCESS development services, documenting recent trends and issues, policies and programmes in the sphere of livelihoods promotion of the poor. The present volume presents the status of livelihoods during 2010-11. The report is based on recent statistics on the employment status in India, especially the NSS 66th round. It analyses different trends and various challenges affecting livelihood opportunities and zooms in on some key debates and conflicts in the sphere of livelihoods arising from the global economic slowdown and the Indian agricultural crisis on food inflation, hunger, the status of health, education, climatic changes etc. It revisits the original 4P framework focusing on the poor, the policy environment, potential and promoters. The report is divided into six chapters each taking off from where the last one has left, making for a more comprehensive and complete reading.

The year 2010-11 is marked by high rates of food inflation which not only affected the consumption level, but also called for stringent monetary policy intervention which has significant implications on the overall economic growth and livelihood opportunities. The first chapter on " State of India's Livelihoods 2011 : A Time of Volatility " presents an overview of the policy environment for livelihood promotion. While looking at the key debates and conflicts such as different definitions of poor, impact of rising wages on inflation and the conflicting demand on land, the author observes that the slow growth at the bottom of the pyramid against the impressive national growth rate is a major policy concern. Chapter two on "Livelihoods of the Poor" explores the impact of some of



the changes in the economy and the government's macro-economic policies for growth and welfare on employment, health and food security of the poor. While discussing on sectoral shift, wage shift and shift in the labour market participation, the author highlighted-growth in the number of women managed farms who are likely to suffer from reduced access to farm credit and the mismatch between women farmers' needs and the male centred targeting of inputs and services.

The third chapter "Reflections on Livelihood Policies" discusses the policies of the GoI and some of the state governments like Bihar and Odisha related to the improvement of livelihoods. The author has looked into the budgets and allocation priorities and discusses various new initiatives like skill development mission, cash transfer etc. and schemes like MGNREGS, MKSP, MBCY all of which aim to improve and augment livelihoods of the poor in particular. Corroborated by some cases the author narrates the government attempt to promote livelihoods and also the adverse impact of policies affecting the livelihoods of many. The author has come up with a Livelihood Schemes Coverage Index as a measure of actual depth and width of reach of all livelihoods schemes considered together. The author observes that there is a certain disquiet over the affirmative action of the state, about the government's capacity to deliver, which is increasingly getting manifested in poor functioning of the state systems delays and ineffectiveness and loosening control of the lower arms of the governments. Hope is placed on the maturity of Indian electorate and emerging civil society.

The fourth chapter on "State as the Largest Livelihoods Promoter" broadly analyses two flagship programmes of GoI, i.e. MGNREGS and NRLM. The author critically reviewed the policy process and implementation issues which have risen as the

MGNREGS programme reaches its maturity. The issues such as wage controversy, seasonal job demand and labour supply, initiatives to improve the transparency and efficiency of the scheme, capacity limitations at the state and panchayat level were addressed. The author while critically examining the NRLM which is a restructured version of SGSY regarding its key features, delivery systems and implementation challenges, has raised concerns on the declining role of civil society organisations in implementation of NRLM.

The fifth chapter on "Private Industry and Services- What is 'India Inc' Delivering in Employment to the Poor" addresses the subject of jobs for India's poor inside private sector industry, services and their supply chains. The chapter discusses the regulatory climate for hiring the employees and argues for liberalising the labour laws to lower the bar for the unorganised sector. The chapter also looks at the prospects for quality jobs in high growth sectors and discusses in detail about the expectations by the employers of the less skilled youth entering the job market. The chapter closes with some illustrations of how employers can themselves improve the "job offer" to better attract the attentive and committed workforce they need.

The last chapter on "Potential and Possibilities" looks at some of the key emerging and ongoing developments in government policies and practices. It covers the four key livelihood initiatives i.e. skilling and employment, market inclusion, decentralisation and revival of agri-rural economy which are likely to be included in the 12th Five Year Plan and which will provide the overall direction of resource deployment and policy framework. The emphasis is on instituting better governance through proactive citizen participation and improved accountability standards. The chapter also discusses on newly introduced Unique Id (Aadhar) project and the proposed Direct Cash



Transfer scheme, and discusses their implications for the poor as well as livelihood professionals.

Capturing livelihood debates in India has been a process of capturing the significant initiatives both by the government and private sector in enhancing and securing the livelihoods of millions in this dynamic state of economy. The SOIL Report 2011 reviews the major debates, policy initiative, implications of key macro-economic policies with a futuristic perspective. It is a good reference document which will be useful for both policy makers as well as practitioners.

– Dr. Ch. Radhika Rani

**Depression Among the Elderly** by Sumita Saha and Ruby Sain, 2012, Published by Serials Publications, 4830/24, Prahlad Street, Ansari Road, Darya Ganj, New Delhi-110002, pp378, Price : ₹ 1195.

The book is divided into six chapters. Chapter one describes the problems of depression and its social origin. Chapter two deals with the theories of ageing. Chapter three discusses the major assumptions about depression. Chapter four describes the socio-economic and demographic profile of the sample and study area. Chapter five is divided into two sub- parts: a. way of looking and b. detailed discussion. Final chapter reveals the gravity of the problem and its present condition with some suggestive measures.

This book is based on the empirical study done among the Marwari elderly residing in sub-urban of metropolitan city called Kolkata in West Bengal. In this book best efforts have been made to explore the rampant incidence of depression among the affluent urban elderly. Chapter one explained depression as a social problem by listing out the changes in the society that could be identified as possible causes for depression. It has also analysed the

demographic trends of aging population in India and the physiological, psychological and sociological problems faced by them class and religion-wise.

In chapter two in the name of theoretical understanding, elaborative review of literature was done on the important issues leading to depression among the elderly like demographic changes, environmental factors such as stress, psychosocial development, cognitive processes in adulthood, roles and expectations, attitudes and behaviours. Reviews say that ethnicity is also a factor which rates depression in late life. Several types of medical disorders are associated with depression and drugs can cause substance-induced mood disorders. Deficiencies in essential nutrients are also linked to depression. Bereavement, especially loss of a spouse, chronic pain, lack of social support as causes of depression was also reviewed. Review threw light on a variety of psychotherapies like cognitive therapy, interpersonal therapy and life review, psychopharmacological treatment and electro convulsive therapy and group therapy approaches like reminiscence therapy, supportive therapy and full-scale occupational therapy, that are used for treatment of depression.

Chapter three focused on the purpose of the study, the main objectives and hypothesis to be tested. The main objective of the study was to identify factors that trigger depression and the type of treatment they are getting. Authors almost framed 30 objectives for the study and the number of objectives could have been brought down by grouping them.

Chapter four highlighted the sample and study area i.e Marwaris in Ballygunge, the sub-urban of Kolkata and why it was chosen as the study area. Authors gave a brief profile of the study area.

In Chapter five the authors analysed the empirical results such as the socio- economic profile of the sample respondents like age, sex, income, education, marital status, type of family and the sources of income of the respondent. Focus was laid on inclination of the respondents to religious beliefs, religious gatherings and celebration of festivals, religious tours and religion as one of the coping mechanisms. How the family relations are in the respondent's household like whether the family members spend time with respondents, are they making him/her part in the discussions related to family, are they taking the respondents for outings, provision of basic facilities, respect within the family etc. were also enquired. Bereavement among elderly is also one aspect of the study like loss of spouse and children, incidents like divorce and separation etc. Respondents spending time on different activities like entertainment, household activities is also one area of enquiry. Focus was laid on respondents suffering from different health problems ranging from minor to major and chronic. It was also tried to assess the awareness levels of the respondents on the latest treatment methods to mental stress and depression. Further, the author inferred from the analysis that percentage of the respondents suffering from mild to moderate depression is high. However, percentage of the respondents suffering from severe depression that is who need psychiatric treatment is low.

Few case studies of the elderly people staying in an old age home called '*Apna Ashiyana*' and in their respective houses suffering from depression were also highlighted. Summary, conclusions and recommendations are presented in chapter six.

By reading the book, an individual develops knowledge on the issues related to depression among the elderly in general and Marwari community in particular. It is informative and readability is smooth. The

language used is simple and the style of presentation is good. The author has also used exhaustive review of literature and the book has rich bibliography. However, in the overall assessment, the book is a good resource book on various psychological and social aspects pertaining to depression among the aged and has great relevance of time to the rural development too.

– Dr. C. Dheeraja

**Micro Finance India – The Social Performance Report 2012** by Girija Srinivasan, Sage Publications India Pvt. Ltd. Pages: 121, Price : ₹ 795.

The need for customer protection, responsible finance and social performance came sharply to the fore in the aftermath of AP crisis due to some irresponsible MFIs in the State. Some MFIs caused harm to the clients leading to crisis. This has led to intervention of RBI regulating MFIs, setting margin caps and other fee that can be charged on loans. RBI also set norms for income levels of clients to be acquired and serviced by MFIs. Few good MFIs have gone beyond financial services and allocated part of their profits for client welfare measures like education, health etc. While the credit for success is easy to claim, the responsibility for failure should also be shared by MFIs.

The author discussed about various aspects of ownership and governance. balancing social and financial goals in composition of Board of Directors, CEO's compensation (High pay packet) etc., which are the cause of crisis in the sector. Historically MFIs displayed mixed enthusiasm in experimenting with new products. As the clients are poor and illiterate, they are also happy with available products and product delivery. Some MFIs, as a future business strategy, ploughed back part of their profits in the form of support to destitute, ultra poor who

need food subsidies, vocational training in income generating assets and quality education to rise out of poverty.

Failure of MFIs in fair treatment of clients, code of conduct and institutional response resulted in losing client focus. Negative outcomes of high growth, zero tolerance for default with tremendous pressure on staff to ensure 100 per cent collection – lapses on repayment led to strained relations etc., have attracted the attention of government authorities, religious groups and media. The reasons for crises were attributed to over-lending, high interest rates, unfair and disrespect to clients, lack of appropriate product design, rigidity in recovery in spite of genuine problems of clients etc. Instead, the MFIs have to adopt client protection and good governance to avoid crises in MFI sector. These aspects are discussed in detail for the benefit of future players in the sector.

MFIs seemed to have realised that in dealing with bottom line of pyramid clients, outreach and access alone are not sufficient. Rather, higher standards of client protection are needed to avoid crisis in MFI sector. The outreach of MFIs is uneven with more concentration in South (50%) followed by East (25%), West (7%) Central (10%), North (4%) and NE (4%). MFIs have concentrated less on developing community owned institutions and member-centric services like in southern States. High interest rates, disregard to over-indebtedness and coercive recovery practices have dragged MFI sector.

MFIs have to learn from Community Owned Microfinance Institutions about customer centricity, managing customer protection and socially responsible behaviour. They have to reconsider their social performance and customer centric products and processes.

No systematic Impact Assessment is done by many MFIs internally or by external agencies to measure the extent of impact on client income, living standards in terms of education, health, sanitation and social participation. It is important that the MFIs have to learn and replicate the success stories of Community Owned Micro Finance Institutions who are ahead of many MFIs in the field of social performance. The time has come to revisit our assumptions on what is fair and appropriate to ensure that the sector looks ahead to expand with responsibility towards an inclusive MF sector.

The book has given an insight into various aspects of micro-finance-sector and the positive role that is expected to be played by MFIs and other Community Owned Micro Finance Institutions to benefit the down-trodden without underscoring the good work done by MFIs before formal credit institutions have taken over. The book has analysed the current situation to guide the players in the sector and is an important publication to be read by all concerned.

– Shri R. Koteswara Rao

## Journal of Rural Development

(Quarterly Journal of NIRD)

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- (i) organise training programmes, conferences, seminars and workshops for senior level development managers, elected representatives, bankers, NGOs and other stakeholders.
- (ii) undertake, aid, promote and coordinate research.
- (iii) study functioning of the Panchayati Raj Institutions and rural development programmes across the states.
- (iv) analyse and propose solutions to problems in planning and implementation of the programmes for rural development; and
- (v) develop content and disseminate information through periodicals, reports, e-modules and other publications.

Considering the challenges faced by the Government in the development of a large section of rural poor across the country through its various policies and programmes, NIRD as apex training Institute in the field of rural development has to cater to the training and capacity development needs of a large clientele. To achieve these objectives, a nation-wide network of training infrastructure has to play its rightful role. The clientele include a large number of elected PRI representatives at different levels, rural development functionaries, NGOs, Bankers and other stakeholders. Capacity building of rural development personnel and elected representatives is an intrinsic part of the entire rural development process. It helps to improve their managerial skills while keeping them abreast with the latest changes in strategies, government policies and programmes to augment their knowledge and working efficiency resulting in strengthening of the delivery mechanism for the benefit of all the stakeholders. The challenge is huge and NIRD has been able to play its role in the country's rural development initiatives by facilitating qualitative changes in programmes implementation through a process of training, research, action research, consultancy, information dissemination and information building on a continual basis. This has enabled the Institute to emerge as the National Apex Institute for capacity development in the area of rural development.

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