Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA): *A Study of its Implementation and Impact in* Andhra Pradesh & Telangana (2006-16)

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By

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2. MGNREGA Performance (2006-16): Inter-district Analysis of Telangana State. (*International Conference on 25 Years of Economic Reforms in India* held at Kakatiya University, Warangal, Telangana during 28-29 January 2017.) (**International**)

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Dedicated to

My Parents

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SATYANARAYANA TURANGI

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ABBREVIATIONS

AIADMK	All India Anna Dravida Munnetra Kazhagam
AITC	All India Trinamool Congress
BCs	Backward Classes
BIMARU	Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh
BJD	Biju Janata Dal
BJP	Bharatiya Janata Party
BPL	Below Poverty Line
BSP	Bahujan Samaj Party
CAG	Comptroller and Auditor General
CLDP	Comprehensive Land Development Programme
CPI	Communist Party of India
CPI (M)	Communist Party of India (Marxist)
CSP	Customer Service Provider
CSRE	Crash Scheme for Rural Employment
DMK	Dravida Munnetra Kazhagam
DPC	District Programme Coordinator
DRDA	District Rural Development Agency
DWMA	District Water Management Agency
EAS	Employment Assurance Scheme
EGA	Employment Guarantee Act
EGS	Employment Guarantee Scheme
FF	Fourth Front
FICCI	Federation of Indian Chambers of Commerce and Industry
FINO	Financial Information and Network Operations
FWP	Food for Work Programme
GDP	Gross Domestic Product
GP	Gram Panchayat
GSDP	Gross State Domestic Product
HFA	Horticulture Field Assistant
ICT	Information Communication & Technology
IJP	Indira Jal Prabha
INC	Indian National Congress
Indp	Independent
IRDP	Integrated Rural Development Programme
ITDA	Integrated Tribal Development Agency
IWMP	Integrated Water Management Programme
JDU	Janata Dal (United)
JGSY	Jawahar Gram Samriddi Yojana
JKNC	Jammu & Kashmir National Conference
JMM	Jharkhand Mukti Morcha
JRY	Jawahar Rojgar Yojana

LF	Left Front
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MIS	Management Information System
MNF	Mizo National Front
MPDO	Mandal Parishad Development Officer
NAC	National Advisory Council
NCAER	National Council of Applied Economic Research
NDA	National Democratic Alliance
NFWP	National Food for Work Programme
NHM	National Horticulture Mission
NPF	Naga People's Front
NREGA	National Rural Employment Guarantee Act
NREGS	National Rural Employment Guarantee Scheme
NREP	National Rural Employment Programme
NRU	Natural Rate of Unemployment
NSSO	National Sample Survey Office
OBCs	Other backward Classes
PAC	Public Accounts Committee
PEO	Programme Evaluation Organisation
PO	Programme Officer
PRIs	Panchayati Raj Institutions
REGS	Rural Employment Guarantee Scheme
RLEGP	Rural Landless Employment Guarantee Programme
RMP	Rural Manpower Programme
RPDS	Revamped Public Distribution System
SAD	Siromani Akali Dal
SCs	Scheduled Castes
SDF	Sikkim Democratic Front
SGRY	Sampoorna Gram Rojgar Yojana
SGSY	Swarnajayanti Gram Swarojgar Yojana
SoR	Schedule of Rate
SP	Samajwadi Party
SSAAT	Society for Social Audit, Accountability and Transparency
SSS	Shrama Shakti Sangham
STs	Scheduled Tribes
TCS	Tata Consultancy Services
TDP	Telugu Desam Party
TF	Third Front
TRS	Telangana Rashtra Samithi
UK	United Kingdom
UPA	United Progressive Alliance
US	United States
VO	Village Organisation

Chapter - I

1. Problematizing MGNREGA

1.1 Introduction

One of the most significant welfare measures in the history of Independent India is the introduction of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) 2005, which promised a minimum of 100 days of employment to any rural household who looks for employment. Unlike, earlier class of employment generation program, it is significantly different in many respects. First, it is promulgated as an Act of Parliament, hence, cannot be dropped by any government of future as a policy change. Second, it is a universal program, which does not discriminate or use discretion in choosing beneficiaries, hence is free from exclusion or inclusion errors. Third, it is a Central act that puts the onus of budgeting on the central government, making mandatory for states to implement. Fourth, it is contemplated as a `demand-driven' system rather than `supply-side' programs of previous vintages. Fourth, it is gender neutral in wage payment and employment. Fifth, it is a transparent system with all the data uploaded online on all aspects, besides having an internal social audit system to monitor the functioning. With all other important features, the Act has been under implementation for the past 11 years. It is the largest single program covering 54 million households, constituting 36 percent of total rural workers, dubbed as `Asia's largest employer'. The introduction of it is said to have changed the rural dynamics, particularly pushing up the bargaining power of the rural workers. However, it remains an unevenly implemented program and yet to meet many of the objectives mentioned in the preamble of the Act. In this context, this study proposes to a modest agenda of understanding the nature of this program, implementation and its impact, with the objectives of appraising and explaining the trends in implementation and its consequences, from a limited view of the economics discipline. We propose that it is important for researchers' fraternity to undertake this assessment exercise periodically so that they can provide useful feedback to the policy makers on an important social welfare measure.

1.2 Unemployment: The Vexatious Problem

Before we examine the issue of MGNREGA, let's engage with scholarly understanding on the issue of employment, which is perhaps the single most crucial aspect of every civilized democratic society to be taken care. In Prof. Amartya Sen's terms, employment

is the singularly crucial `entitlement' for poor people.[1] In bourgeois society, it is the only means of survival for the proletariat. It becomes the onus of democratically elected governments, to ensure in an economy, whatever is its kind –capitalist, socialist or mixed, to provide the employment to all those who are able-bodied and willing to work. Whether it really provided in history is a different matter. The problem of full employment, however, is not a simple one and over which a general theory of universal nature is not yet been possible. Since societies have historical evolutions; their economies are shaped, influenced and determined by complex factors of social, political, and economic in nature; they remain different in their nature and construction from each other; a general theory of employment is a difficult proposition.[2] Employment in a capitalist society is an indirect goal achieved when capitalists decide the level of investment and choice of techniques. Unemployment can become a common outcome, whose level and nature is determined by the level of capitalist development. It is even more difficult objective for developing society, where casual involuntary unemployment coexists with structural & disguised unemployment and livelihood crisis.

The received theory of employment in economics in the literature comes from different schools of thought such as classical, Keynesian, neoclassical, development and heterodox versions of economics. In the classical view, (which continues with neoclassical) a capitalist economy is always maintained in a state of full employment equilibrium in the long run by the free play of market mechanism; that ensures optimal allocation of resources where marginal productivity of factors equal their respective factor prices. For a self-regulated market mechanism, any deviation from equilibrium is automatically corrected by changes in aggregate supply and demand, without any need for external intervention.[3]

The classical doctrine dominated the economic theory until the `Great Depression' that broke out in 1930, which combined a massive economic downfall with endemic unemployment. It is well-known that J.M. Keynes came with different analysis to understand the problem arisen in these times. According to him, the level of output and employment in the economy is determined by the aggregate demand, which in turn determined by capitalist investment. Investment, determined by animal spirits of

[1] *See* Sen, Amartya (1981), *Poverty and Famines: An Essay on Entitlement and Deprivation*, Clarendon Press, Oxford.
[2] *See* Hodgson, Geoffrey (2001), *How Economics Forgot History,* Routledge, London.
[3] *See* Shapiro, E. (1984), *Macroeconomic Analysis*, Galgotia Publications, New Delhi.

capitalists, can swirl in any direction. Even accidental fall in individual investment can become systemic, and employment becomes the first casualty. He dismissed the notion of full employment equilibrium as a stable possibility, even if accidentally established. The reasons could be several such as, poor expectations, downward inflexibility of wages and interest rate inelasticity of investment during a depression (Shapiro, E., 1984). As Keynesians believe, unemployment in any economy is caused by the lack of aggregate demand.

The major policy implication of Keynesian economics was that it became an inevitable objective of the state to play a role in maintaining full employment in the economy, by stimulating aggregate demand, mostly through strong public sector and public expenditure. The World War II had also become a default Keynesian solution which stimulated the economies of Western nations. The Golden Period of high growth of Western capitalist countries that began by 1950s finally ended with stagflation crisis. The Keynesian solution that involved higher taxation fell out favour. The classical macroeconomics soon resurrected by the orthodoxy in the form of Monetarist and New Classical doctrines, which have argued the Keynesian policy solution of pure rooted in inflationary and inefficient policy interventions. They further stated that economics would always settle at `Natural Rate of Unemployment (NRU)' –a la Long Run Phillips Curve hypothesis.[4] Hence inflation targeting is pushed as a major objective for monetary policy taking the lead over fiscal policy, fiscal policy to be confined to reducing taxes, the role of the state, and privatization. However, the actual unemployment since the 1980s always hovered around 7 percent in US, 8 percent in UK and 6 percent in France which are far higher than the NRU. Further, after Financial Crisis in 2008, unemployment in US has gone up to 11 percent, 10.5 percent in UK, 25 percent in Greece, 14 percent in Spain and so on. This once again challenged the classical view that capitalist economics will always operate at full employment, even if defined in terms of natural rate of unemployment.

For developing economies, however, classical or even Keynesian economics appear distant from their reality of structural unemployment. For many poor developing countries, which have not yet become mature capitalist economies and achieved a structural transformation, needs the notion of employment and unemployment in perspective. The traditional sector is characterised by disguised unemployment, while

[4] Fine, Ben and Ourania Dimakou (2016), *Macroeconomics: A Critical Companion*, Pluto Press, London.

modern sector can have unemployment. The problem in the former resolved with structural transformation, while that of labour depends on the state of capitalist development. There are dual sectors, namely a combination of traditional/ pre-capitalist/ informal/ self-employed/ petty commodity sectors on the one hand and a modern capitalist sector on the other. The former sector can pose underemployment owing to the structural feature of the sector, the latter pose unemployment. Both these eventually pose the problem of poverty, besides external factors such as droughts, wars, famines, etc.

Development Theories pioneered by Arthur Lewis (1956), Rosenstein-Rodan, Ragnar Nurkse, Hirschman, Todaro have concentrated in posing conceptual understanding on the process of the structural transformation of the traditional sector to modern sector. We shall refer to two of the important models from these, which are important for the understanding issue of employment in the context of a country like India. Lewis model (1956) suggested the possibilities of constant transformation of the modern economy, which benefits from the unlimited supplies of the `surplus labour' from the traditional sector, which is basically the wage goods sector, under the assumptions of positive marginal product in modern sector, wage rate being less than or equal to marginal product.[5] However, the simple model assumes away the issue of choice of technique, foreign exchange constraints, agrarian constraints and other institutional issues. Unemployment would be the direct consequence of incomplete and insufficient transformation. Which Todaro (1969) recognized in his work, who argued for rural employment programs to arrest the unsustainable migration from the traditional/ agrarian sector to avoid unemployment, squalor and misery in the urban slums.[6] Todaro showed that rural workforce would flock into urban areas with a hope of getting employment reflected in `expected urban wage' being higher than the rural wage.

In development stream, Gunnar Myrdal's (1957) circular and cumulative causation is one such example which considers economic and non-economic factors to explain the gap between rich and poor countries. Myrdal considers the principle of interlocking and circular inter-dependence within a process of cumulative causation is relevant while studying economic underdevelopment and development. Circular causation with

[5] Lewis, W.A. (1954), "Economic Development with Unlimited Supplies of Labour", *The Manchester School*, Vol. No. 22(2), pp. 139-191.

[6] Todaro, Michael. P (1969), "A Model of Labor Migration and Urban Unemployment in Less Developed Countries", *The American Economic Review*, Vol. No. 59(1), pp.138-148.

cumulative effects released by primary change is much more typical of the actual social process. The localities and regions where economic activity is expanding will attract immigration and capital movements from other parts of the country. The movements tend to favour the rapidly growing regions and disfavours the others; trade also operates with the same fundamental bias in favour of richer regions against the others. These certain centrifugal spread effects of expansionary momentum from centres lead to economic expansion to other regions. But the regions which had not been touched by the growth momentum suffer from increasing all kinds of disadvantages such as poverty, unemployment, etc., by the cumulative effects resulting from the process of cumulative causation between all the economic and non-economic factors. Due to strong spread effects, economy progresses at a faster pace in richer countries with rising levels of incomes which in turn, reinforces the foundation for continuous economic progress. On the other hand, low level of economic development with weak spread effects and strong backwash effects by circular causation will tend towards regional inequalities, while the inequalities themselves will hold back economic development.[7] Therefore, national state has to play an effective role in poorer countries to address poverty and unemployment for spur economic development.

By contrast, Marx explains his theory based on social relations of different classes to understand historical process capitalist development in Europe. He believes the evolution of society happens when forces of production come into clash with society's class structure. Capitalism develops through the destruction of all pre-capitalist relations and creates proletariats by expropriation their means of production. In the process, the reserve army of labour was created for working under capitalist at low wages. Unemployment, according to Marx is a systemic feature of capitalism, the creation of unemployed reserve army is necessary to keep the wages in check. Full employment can be a short-term possibility, but the long-term is always characterised by unemployment in Marxian understanding.[8] To increase more and more profits, capitalists displace labour through mechanisation which accentuates the problem of unemployment further.

Karl Polanyi in his seminal work *The Great Transformation* (1944) theorised role of state under capitalism in a useful manner for understanding problems of contemporary

[7] *See* Myrdal, G. (1957). *Economic Theory and Underdeveloped Regions.* University Paperbacks, Methuen.
[8] Fine, Ben. (2014), "Introduction to Marxist Economics", *Marxismo Critico.* Retrieved from https://marxismocritico.com/2014/03/26/introduction-to-marxist-economics-ben-fine/

societies under liberal democracies. The 20th century capitalist systems had evolved into liberal capitalist democracies. Polanyi argued that even from its inception in the 17th century in England, the state had to introduce charity programs to address severe poverty arising extremely low wages, in terms of Elizabethan `Poor Laws[9]' by the state until the mid-19th century. He argued that state played a crucial role in managing a political balance in the society by arranging subsistence, while it encouraged capitalist development, which he had called it as `double movement'. The emergence of several protective legislations for compensations in industrial accidents, minimum wages, medical insurance, regulation of working day, against arbitrary dismissal from employment, maternity leave, dearness allowances, etc., by the beginning of post-War II period can effectively be interpreted as the part of the `double movement' in advanced capitalist countries. Less developed countries perhaps had to wait for a quarter century for these measures.

1.3 Capitalist Transition and Rural Underemployment & Unemployment

The problem of poverty of masses arises in less developed countries from both unemployment as well as underemployment. Unemployment is clearly a problem of wage earners. But the rural underemployment is a problem of peasants and service providers, who are small time producers as well as wage labour. This needs a political economy framework of agrarian change to explain the underemployment phenomenon. The advantage of Marxian analysis is its historicization of development so that different contexts of social reality can be located in the larger socio-historical process that determines it. The issue of underemployment and unemployment in the large agriculture sector of a less developed economy centres around the prospects of internal transformation of the sector and external links. Therefore, the agrarian transition from a pre-capitalist state to a capitalist state remains as the background of all problems like

[9] "Poor Law**,** in British history, body of laws undertaking to provide relief for the poor, developed in 16th-century England and maintained, with various changes, until after World War II. The Elizabethan Poor Laws, as codified in 1597–98, were administered through parish overseers, who provided relief for the aged, sick, and infant poor, as well as work for the able-bodied in workhouses. Late in the 18th century, this was supplemented by the so-called Speenhamland system of providing allowances to workers who received wages below what was considered a subsistence level. The resulting increase in expenditures on public relief was so great that a new Poor Law was enacted in 1834, based on a harsher philosophy that regarded pauperism among able-bodied workers as a moral failing. The new law provided no relief for the able-bodied poor except employment in the workhouse, with the object of stimulating workers to seek regular employment rather than charity. The growth of humanitarian feeling in the 19th century helped to mitigate the harshness of the law in practice, and the phenomenon of industrial unemployment in the 20th century showed that poverty was more than a moral problem. The social legislation of the 1930s and '40s replaced the Poor Laws with a comprehensive system of public welfare services". [*Britannica,* 2008. also*, Polanyi, K.* 1944*,* pp.50-150].

underemployment and poverty. According to Marx (1965), the genesis of capitalist production provides an analysis of the process that broke up feudal class relations, giving rise to a capitalist class enjoying private ownership of the means of production facing a working class which owns nothing but their labour power. In Marx view, concentration and centralisation of production occur by the dynamics of capital accumulation and elimination of petty commodity production in manufacturing, likewise, in agriculture too, that would result in the dissolution of the peasantry and polarisation of the society into two classes as rural proletariat and capitalist.[10] Eventually, the existing peasantry is subsumed under the residual category of petty commodity producers destined to disappear under capitalism. But, Kautsky (1988) observed the possibility of continuation of peasant family farms under capitalism where capital dominates and exploits without dissolving them.[11] The same happens in most of the developing and underdeveloped countries in the world. As long as petty commodity producers exist, underemployment continues to be an associated feature, which gets aggravates during crisis periods.

Unlike `revolutionary path', transition to capitalism can happen along the lines of Lenin's idea of political conservative path that consists in a modification of agrarian relations without destruction of land monopoly as in Prussia in mid-20th century, where ex-feudal proprietors themselves turned into capitalist landlords employing their former serfs as wage workers (Byres, T.S., 2003). These observations appear similar to Indian experience, where unequal access to land is deeply institutionalised under caste hierarchy and discrimination. The mode of production debate on agrarian transition among the scholars like Utsa Patnaik, Ashok Rudra and others during the 1970s, made a valiant attempt to explain the nature of capitalist relations in the context of Indian agriculture.[12]

In the process of commercialisation, differentiation of peasantry takes place into rural bourgeoisie, middle peasants and poor peasants. Eventually, the class of rural bourgeoisie turn into capitalist farmers, and middle peasants would be squeezed out of existence and reduced to the ranks of poor peasants who almost equal to proletarians (Lenin, V. I., 1964). In the process of agrarian transition, peasant farming faces several challenges from a range of socio-economic, demographic, structural and institutional factors that adversely affect its sustainability.[13] The challenges include shrinking the size

[10] *See* Marx, K. (1965), *Capital: A Critique of Political Economy (Volume. I)*, Progress Publishers, Moscow.
[11] *See* Kautsky, K. (1988), *The Agrarian Question Vol.1*, Zwan Publications, London.
[12] Thorner, Alice. (1982), "Semi-Feudalism or Capitalism-Contemporary Debate on Classes and Modes of Production in India", *Economic and Political Weekly*, Vol. No. 17 (51).
[13] Viswanathan, P.K. et al. (2012), "Agrarian Transition and Emerging Challenges in Asian Agriculture: A Critical Assessment", *Economic and Political Weekly,* Vol. No. 47(04).

of farms, feminization of agriculture caused by distress migration of men, climate change and other technological and institutional constraints. Compelled by pauperisation, peasant community is forced to diversify into casual wage labour in both farm and non-farm activities to survive themselves (Ramanamurthy, R.V., 2016). However, in practice agriculture is influenced by the multiple facets of developments in capitalism such as technology, credit, inputs, storage, etc., that brought enormous changes in the structure of the rural economy. This has provided petty commodity producers scope to escape the severity of transition (Deshpande, R.S. & Khalil Shah, 2007).

As a result of capitalistic development, modes of production and class relations have been changing over a period of time in the countryside (Vidyasagar, S. A., 2014). Capital flowed into the villages through various channels inevitably led to changes in production techniques, social habits, culture and politics. It successfully allowed the transition of middle and large peasants belonging to upper and middle castes into capitalist farmers first and later diversify into several allied activities. At that same time, social groups who historically depended on their traditional occupations have been ruined and joined in the labour market. Due to the failure of land reforms, the land is concentrated in the hands of a few social groups, and most of the families in the bottom strata do not have access to it. In agriculture, changes in land ownership and tenancy brought changes in production relations. The cultivation has shifted from traditional food crops to commercial crops. However, as it happens, farming became unviable from unregulated competition, ruining small farmers, and causing out-migration and suicides of farmers in rural areas. Farm mechanisation is another reason for falling employment levels in agriculture.[14]

Growing continuous rural distress leads to the emergence of the problems of poverty and inequalities in the economy. Having such problems at massive scale creates social unrest in the society [Chatterjee, Partha (2008)][15] making some forms of intervention necessary to avoid such social turbulence. The Mahatma Gandhi National Rural Employment Guarantee can be contemplated as one of such interventions.

[14] *See* Vidyasagar, S. A. (2014), *Voices Unheard (A Socio, Economic and Political Investigation in the Countryside*), Kalpaz Publications, Delhi.

[15] Chatterjee, P. (2008), "Capitalist Transformation and Democracy", *Economic and Political Weekly,* Vol. No. 43(16).

1.4 Background of the Study

1.4.1 Employment Programmes in India:

After independence, India adopted a policy of planned economy to improve economic growth and remove chronic problems poverty, unemployment, rural distress, inequalities, etc. Removal of poverty has been an important objective of the planning in the country; in this process, Government of India has been introduced several welfare schemes addressing it. As early as in the Third Five Year Plan, it launched Rural Manpower Programme (RMP) with the aim of providing employment for 100 days to at least 2.5 million persons by the end of the Plan period especially in areas exposed to distinctive seasonal unemployment. Under RMP, 137 million person-days of employment generated with 20 percent of the total estimated cost. It was discontinued in the period of 1968-69. It was recognised as failure programme (Gupta, R., 1971). However, it is said to unsuccessful badly because of measly resources, administrative rigidities, delays in fund release, shortage of technical manpower and lack of proper coordination among the concerned departments.[16] During Fourth Five Year Plan, the Crash Scheme for Rural Employment (CSRE) was started in 1971 with twin objectives of to providing employment to at least 1000 persons in each of 350 districts of the country every year through labour intensive works and creation of durable assets. Actual employment generated was 315.9 million man-days under the CSRE. Although employment provided, assets were not generated as proposed under the scheme. The administrative delays and lack of planning in works execution were found as major reasons for its failure (Apte, D.T., 1973). Along with CSRE, the Drought Prone Area Programme (DPAP) was introduced in 1970-71 in 54 drought prone units spread over 13 states aimed to generate considerable employment in rural areas to mitigate the severity of drought conditions through watershed approach for land development, water resource development, and afforestation works. But, DPAP didn't yield satisfactory results as it was suffered from a lack of material support, insufficient technical assistance, improper planning, and the paucity of funds and so on.[17] It is popularly recalled that only during the Fifth Five Year Plan (1974-79) some substantial rethinking began regarding anti-poverty programs.

[16] Gupta, R. (1971), "Rural Works Programmes: Where It Has Gone Astray", *Economic and Political Weekly*, Vol. No. 6(20), May 15.

[17] Planning Commission (1981), "Report on Development of Drought Prone Areas", *National Committee on The Development of Backward Areas*, Government of India, New Delhi.

In April 1977, the Food for Work Programme (FWP) was launched as a non-plan scheme for rural employment by utilising available stocks of foodgrains. The main objectives of the FWP are to generate additional gainful employment in rural areas, to create durable community assets and strengthen rural infrastructure, and utilisation of surplus foodgrains for the development of human resources. The total employment generated under the FWP is 989.32 million man-days for the period of 1977-79 to 1979-80. The considerable malpractices and difficulties such as delay in the supply of foodgrains, storage deficiency, open market selling of food grains by contractors, less payment of wages, lack of coordination between different departments, etc., were continued to plague FWP in practice.[18]

The Integrated Rural Development Programme (IRDP) was launched in 1978 and extended to throughout the country by 1980. The IRDP is a self-employment programme intended to raise the income generation capacity of target groups which consist of small and marginal farmers, agricultural labourers and rural artisans living below the poverty line. The Public Accounts Committee (PAC) pointed out IDRP as a defective approach because of lack of comprehensive approach, overlapping with other programmes, no coordination among the multiple agencies and lack of systematic planning and execution. In addition, problems like low per capita loan allocation, inadequate infrastructure support, lack of dedicated staff and malpractices at different levels weakened the programme (Hirway, I., 1988). During the Sixth five year plan, the National Rural Employment Programme (NREP) was introduced in 1980 by culminating previous employment programmes in the field. The NREP objectives are to provide additional employment to the extent of 300 to 400 million person-days per annum, durable assets creation and raising of nutritional standards of the poor. During the sixth plan, the total expenditure made on NREP was Rs. 1873 crore for creating 1775.18 million person-days. In August 1983, the Rural Landless Employment Guarantee Programme (RLEGP) was started as fully sponsored by Centre with the aim of providing 100 days of employment to at least one person from each landless household in a year. The RLEGP was implemented along with the NREP with national coverage for providing employment to the people. Under these two employment programmes, about 2631.94 million person-days were generated with the total expenditure of Rs. 5351.85 crore. In April 1989, the Jawahar Rojgar Yojana (JRY) was launched by merging both the NREP and RLEGP at

[18] Planning Commission (1979), "A Quick Evaluation Study of Food for Work Programme - An Interim Report", PEO Study No. 109, Government of India, New Delhi.

the end of the Seventh five-year plan. The main objective of the JRY was to provide gainful employment through the creation of useful and durable community assets. Both Centre and States bore the total cost of the programme for 80:20 ratio. Along with employment generation, JRY is relatively better in creating durable assets up to some extent compared to previous schemes. However, it not only failed to generate adequate employment and sustainable assets but also it hadn't able to bypass the local bureaucracy as it was intended to do.[19]

The Employment Assurance Scheme (EAS) was introduced in the month of October 1993 in 1775 rural blocks situated in drought-prone, desert, tribal and hill areas where the Revamped Public Distribution System (RPDS) was in operation. Since 1997, the EAS was extended to all the rural blocks of the country. The main objective of the EAS was the creation of additional employment during the lean agricultural period through manual work by creating durable community and social assets. Under the EAS, employment generation was increased from 875 million person-days to 1232 million person-days between 1993-94 and 1995-96. However, the actual performance of EAS is far below of its proposed target of employment creation because of meagre coverage, non-poor involvement, diversion and improper utilisation of funds, lack of proper planning and execution, etc. in its implementation.[20] After reviewing the IRDP and allied schemes, the Swarnajayanti Gram Swarojgar Yojana (SGSY) was launched in April 1999 to uplift the poor above the poverty line by providing income generating assets through bank credit and government subsidy. In 1999, JRY was reviewed and restructured as a new scheme called Jawahar Gram Samridhi Yojana (JGSY) for the creation of demand driven community infrastructure in villages. In 2001, Sampoorna Gramin Rojgar Yojana (SGRY) was introduced by merging two ongoing schemes of EAS and JGSY with the aim of providing wage employment, food security and durable assets creation in rural areas. The wage component of the SGRY consists of both cash and food grains. Centre and State share the cost of the SGRY in the proportion of 75:25 ratio. In November 2004, the National Food for Work Programme (NFWP) was launched in 150 most backward districts with the aim of generating supplementary wage employment and providing food security through the creation of durable assets. Under NFWP, wages used

[19] Shankar, K. (1994), "Jawahar Rozgar Yojana: An Assessment in UP", *Economic and Political Weekly,* Vol. No. 29(29), July16.

[20] Planning Commission (2000), "Study on Employment Assurance Scheme (EAS)", PEO Study No. 178, Government of India, New Delhi.

to pay in partly cash and partly in food grains. For the NFWP, about 20 lakh metric ton of foodgrains and Rs. 2020 crore were allocated during 2004-05. For 2005-06, total expenditure of the programme has been increased to 50 lakh metric ton of foodgrains and Rs. 4500 crore towards cash payment. The major irregularities such as administrative bottlenecks, the involvement of contractors, inappropriate wage setting, use of labour displacing machinery, etc., were found in the implementation of NFWP (Ramakrishnan, G., 2005).

Therefore, India has such a long experience in implementing wage employment programmes as just discussed. Experience reveals that many weaknesses and hiatuses have been reported in the implementation of those programmes. Some of them, mentioned by several researchers, include lack of proper planning, poor administrative structure, shortage of manpower, the supply of poor quality of food grains, fake muster rolls, political pressures, corruption, etc. As a result, previous employment programmes were failed to achieve proposed targets of reduction of poverty and unemployment in the country.

1.4.2 Poverty Situation:

It became clear that even though the growth rates of GDP in India have accelerated since the early eighties recording more than 5.6 percent rates, the impact on poverty eradication has been less than satisfactory. Dantwala (1977) estimated that about 55 percent of the population in India are below poverty. While the methodology of estimating poverty went several changes, the share of absolute poverty continued to hover around 35-40 percent (Radhakrishna, 1994) The economic reforms which have kept the pace of growth, forget to make a dent in poverty, is argued to have worsen the poverty situation during 1993-03 [Patnaik, (2005) & Sundaram (2004)]. According to the latest poverty estimates given by Planning Commission (Tendulkar methodology), the poverty rate has declined from 45.3 percent in 1993-94 to 37.2 percent in 2004-05 after the implementation of new economic reforms in the country. During 2004-05, the poverty rate is 41.8 percent in rural areas whereas 25.7 percent in urban areas; the rate of decline of poverty in urban areas is 0.55 (%age points per year) which is very slow when compared to rural areas (0.75 %age points per year) during 1993-94 to 2004-05. In 2004-05, the number of poor in the country is about 407.1 million; among them, 326.3 million people are rural poor and rest 80.8 million are urban poor. It shows that poverty in India is still high where the majority people stay below the poverty line. For the period of 2004-05, the poverty levels are very

high in the most economically poorer states like Odisha, Bihar, Chhattisgarh, Madhya Pradesh, Jharkhand, and Uttar Pradesh. The poverty rate is very high in the states like Odisha (57.2 percent) and Bihar (54.4 percent) where it is more than 50 percent. Whereas, the poverty rate is 49.4 percent in Chhattisgarh, 48.6 percent in Madhya Pradesh, 45.6 percent in Jharkhand and 40.9 percent in Uttar Pradesh. In the case of Andhra Pradesh, the poverty rate is 29.9 percent which is about 5.86 percent of total poor persons in the country [Appendix-1: A.1].

1.4.3 Employment Situation:

Enlargement of employment is a central idea for sustaining poverty and improvement in human development as labour is an important asset for most of the poorer sections of the country. According to NSS 66th round quinquennial survey on employment and unemployment, work participation rate is 40.8 percent in rural areas and 35 percent in urban areas in the country. Between 1993-94 and 2009-10, work participation rate has declined from 42 percent to 39.2 percent. For the same period, work participation rate in agricultural sector fell over a period of time as shown in the table: 1.1. The employment growth in the rural economy of India between 1999-2000 and 2004-05 is called as jobless growth which occurs in the light of the looming agrarian crisis period (Abraham, V., 2009). In this period, secondary workers such as females and aged population joined in the labour market since income levels fall below sustenance level due to rural distress, it led to increasing workforce participation after the reforms. Thereafter, the decline in agriculture happens to substitute paid labour with unpaid family labour. It makes a significant amount of young workforce shift from agriculture to non-farm sectors like construction, and migration too. Due to these changes in the rural economy, workforce participation comes down over a period of time. Although urban employment shows the same trend due to some other factors.

Table 1.1 Workforce Participation Rate in India
(Percentage)

Round	Rural	Urban	Total
50th Round (1993-94)	44.4	34.7	42.0
55th Round (1999-2000)	41.7	33.7	39.7
61st Round (2004-05)	43.9	36.5	42.0
66th Round (2009-10)	40.8	35.0	39.2

Source: Employment and Unemployment Situation in India (2009-10), 66thNSSO Round.

The employment situation in India has been worsening in spite of accelerations in the economic growth. After neo-liberal economic reforms, there is an improvement in employment elasticity from 0.2 in 1993-94 to 1999-2000 to 0.4 in 1999-2000 to 2004-05 (Table: 1.2). But after that, employment elasticity declined to 0.1 during 2004-05 to 2009-10. In the same period, employment elasticity in agricultural sector became negative that is -0.2 for the period of 2004-05 to 2009-10; it further worsened to -0.5 during 2009-10 to 2011-12. The employment elasticity in agriculture has drastically declined from 0.3 to -0.2 during 1993-2010 and further to -0.5 during 2009-12.

Table 1.2 Employment Elasticity in Different Sectors in India

Sector	**1993-94 to 1999-00**	**1999-2000 to 2004-05**	**2004-05 to 2009-10**	**2009-10 to 2011-12**
Agriculture	0.3	0.7	-0.2	-0.5
Industry	0.4	0.9	0.3	0.9
Services	0.3	0.5	0.1	0.5
Aggregate	**0.2**	**0.4**	**0.1**	**0.1**

Source: Economic Survey of India, 2014-15.

The economic growth for the first three Five Year plans remained around 3.5 percent, as stated by various economists ranging from critiquing the neglect of export promotion, licensing policies and failure of resource mobilisation to the agrarian constraint. The mid-sixties crises of wars, droughts, import dependence for foodgrains and external adverse situation made policy makers focus on food self-sufficiency [Bhalla, G.S. (1996)].[21] The introduction of Green Revolution, with the seed-fertilizer-water package along with institutional support, has improved the foodgrain production within a span of a decade by 1976-77. The agricultural growth in Green Revolution areas also was accompanied by a reduction of poverty, leaving dry and rainfall-dependent regions behind (Ladejinsky, W. 1973). The subsequent expansion of rural electrification has enabled dry land farmers to stabilize and diversify production in several regions of the country (Barnes, Douglas F. and Hans P. Binswanger, 1986).

It is also important to note the changes in the land structure to see the differences within the peasantry. With the abolition of *Zamindaries*, in several regions, the land was transferred to intermediate (upper *Sudra*) castes by sixties. In states like Andhra Pradesh, landless were encouraged to occupy *Banjar* lands and other common lands. The government later gave *pattas*[22] to these lands. Even *Dalits* were given some culturable

[21] Bhalla, G. S. (2005). *Indian Agriculture Since Independence*, National Book Trust, New Delhi.
[22] *Patta* is a legal document for land ownership in *Telugu* language.

wastelands, called assigned lands [Rao and Reddy, D. N. (2008)].[23] All these lands were brought in the cultivable form in the eighties and thanks to power supplies to agriculture, much of the lands were given some assured irrigation. However, such process is largely confined to dry zones of Telangana and Rayalaseema, not rich regions of Coastal areas in the state.

This also led to the differentiation of peasantry over period largely between the canal and dry lands on the one hand and within the regions between large-middle farmers and marginal small farmers on the other. Small and marginal farmers who were earlier landless labourers have then emerged as petty commodity producers, who are part producers and part labourers (Patnaik, U., 1976). The eighties situation is a watershed in terms of these changes in the agrarian scene. The agrarian structure slowly began filled with a large share of marginal and small farmers, who still were very poor. Employment generation schemes continued to become important to contain rural distress, as access to land did not bring much change in the majority of people.

As shown in the table: 1.3, the share of marginal holdings continuously increases from 61.59 percent to 67.1 percent between 1995-96 and 2010-11; at the same time, there is a deceleration in the share of medium and large holdings. The same trend is observed for the share of operated area by the different classes. In this phase, large and medium farmers move away from the cultivation and shift to profitable non-farm sectors without losing their control over land. These sections prefer to lease out their land to others to get rent on it. In the process of marginalisation, small and marginal farmers finally become victims who produce if losses occur. Clearly, the class of petty commodity producers constituted by marginal, small and semi-medium farmers has been going up, which have implications in terms of rural unemployment.

Table 1.3 Distribution of Land Holdings and Operated Area

Class	Share of Land Holdings				Share of Operated Area			
	1995-96	2000-01	2005-06	2010-11	1995-96	2000-01	2005-06	2010-11
Marginal	61.59	62.88	64.77	67.1	17.22	18.7	20.23	22.5
Small	18.73	18.92	18.52	17.91	18.81	20.16	20.91	22.08
Semi-medium	12.34	11.69	10.93	10.04	23.84	23.95	23.94	23.62
Medium	6.14	5.49	4.93	4.24	25.34	23.97	23.11	21.19
Large	1.22	1.03	0.84	0.71	14.79	13.22	11.82	10.59
Source: www.agcensus.dacnet.nic.in								

[23] Rao, N.G. and D. Narasimha Redddy. (Eds.). (2008). *Rural Transformation: Perspectives from Village Studies in Andhra Pradesh.* Dannish Books, New Delhi.

The introduction of neo-liberal economic policies in 1991 has affected the agriculture sector even though it was not the direct subject of the reform. Economic reforms indeed have encouraged diversification of cropping pattern from traditional food crops to non-food crops such as cotton, soya, chillies, palm oil, etc. However, the rationalisation of fertiliser subsidies, the abolition of agricultural boards, such as Tea Board, Coffee Board, Rubber Board and Maharashtra State Monopoly Cotton Procurement Scheme, spelt a disaster for farmers during the world price crashes [Bhalla, G.S. (2005)].

There was a sharp decline in the share of public sector in gross capital formation in agriculture from 34.2 percent in 1994-95 to 15.5 percent in 2002-03 (Reddy, D.N. & Srijit Mishra 2009); though it improved marginally in the later years, but it was still very low compared with a pre-reforms period. While the private capital formation in agriculture did increase substantially, it also increased the cost of production for farmers. The consequences of reduced public investment and removal of input subsidies adversely affected agriculture. Some of the state-specific studies revealed that there is an enormous escalation in the cost of cultivation due to the continuous rise in input prices and higher wages which reduce the profitability [Mishra, 2009; Galab, et al. 2009, Deshpande 2009].[24] All these factors such as institutional, environmental and structural factors cumulatively resulted in a crisis in agriculture. Such pathetic conditions drove the farmers into a constant state of indebtedness.[25] According to the 70th Round Situational Assessment Survey of Agricultural Households, around 52 percent of agricultural households are indebted with the average outstanding amount per agricultural household is Rs. 47000. As per the survey, Andhra Pradesh, Telangana, Tamil Nadu states have the highest number of indebted agricultural households in the country. A symptom of the agrarian crisis is reflected in increasing incidence of farmers' suicides in the country. According to National Bureau of Crime Records, about 3, 14,862 farmers were committed suicides in the country for past 20 years. Most of them are small and marginal farmers who committed suicide (Galab, et al., 2009). The farmers' suicides are as a result of undertaking high-risk crops with degraded resources and uncorroborated institutional structures under neoliberalism (Sainath, P., 2012).

[24] Reddy, D.N. & Srujit Mishra (2009), *Agrarian Crisis in India.* Oxford University Press, New Delhi.
[25] Radhakrishna, R (2007). *Report of the Expert Group on Agricultural Indebtedness.* Ministry of Finance, Government of India.

Though a greater number of cotton farmers committed suicides over the period, the crisis does not seem to be crop-centred. For instance, import competition of oilseeds also affected coconut farmers in Kerala. Cotton farmers in Vidarbha and Telangana, coffee farmers in Kerala, vegetable farmers in Karnataka tasted such crisis. The phenomenon of farmer's suicides which began in two states eventually spread to 11 states. Further, the back to back droughts during 2001-03 has created a decline in food availability, starvation, malnutrition, and poverty. Consequently, a major concern that is related to growing the number of rural labour households, increasing their dependence on wage labour and the declining number of days of work in wage employment. Along with agrarian crisis, destruction of traditional rural livelihoods, and shrinking the rural sector as a result of urbanisation and industry led to the further marginalisation of poor and labour dependent households in the countryside.[26] There has been increased rural-urban migration. Further, when Food Corporation of India had accumulated stocks up to 70 million tonnes and the government refused to release them in the market, in spite of starvation conditions. Supreme Court, while responding to public interest litigation, directed the state to distribute the grains, besides suggesting the state introduce food for work programs.

Even though, schemes like Employment Assurance Scheme (EAS), Swarna Jayanti Gram Swarozgar Yojana (SGSY), Sampoorna Grameen Rozgar Yojana (SGRY) and National Food for Work Programme (NFWP) were implemented earlier, their effectiveness to reduce poverty and unemployment were severely limited, due to inherent flaws in the design and execution.[27] The drought situation during 2001-04 further deepened agrarian distress that already existed. This situation had singlehandedly cost the party in power to pay for this failure. The United Progressive Alliance, an alliance of Congress party with Left parties and other regional parties had to introduce a series of measures for restoring public confidence towards economic reforms that were largely felt to be helping only rich and leaving the poor. The 11th Five Year Plan stated `inclusive growth' as its objective. In this situation, UPA led Congress party brought employment guarantee into light as an election promise in 2004-05. After coming into the power, UPA

[26] Unni, Jeemol (2014), "Rural Livelihoods in Transition: Whither Labour?", *The Indian Journal of Labour Economics,* Vol. No. 57(1), Jan-Mar, pp.35-51.
[27] Singh, K. (2012), *Rural Development: Principles, Policies and Management.* Sage Publications, New Delhi.

government launched Mahatma Gandhi Nation Rural Employment Guarantee Act (MGNREGA) in 2005.

The MGNREGA among the various other programs is first of its kind in several respects. The distinguished features of it being: (i) It is brought under Parliamentary Act, stating employment as the right, which meant even later governments have to continue it. (ii) It is a universal program that does not discriminate beneficiaries. This avoids inclusion and exclusion errors that usually happen in targeted programs. (iii) It is a demand based program, where the state is obliged to provide work up to 100 days for any rural household which applies for work. It is universal in nature. (iv) The act has to execute only designated list of works, without involving machines and middlemen. v) The act has to pay equal wages for men and women. It has come into effect in 200 selected backward districts of the country on a pilot basis in April 2006 and extended to all the rural districts from 2008-09. By 2016, it has completed successfully ten years of its implementation. It is believed to be the largest employment guarantee program in the world and certainly the most promising one for the poor of the country with multitudes of effects on lives of rural masses. However, the Central Act left the implementation mechanism to the states. Thus there is more than one model that is actually in practice. In spite the robustness of the program in design, there is a substantial unevenness in its implementation. What causes such uneven implementation of the Act at macro as well as micro levels is an important question to probe. It is also necessary for scholars to assess its impact on the rural economy, especially in agriculture. This thesis assumes these modest aims to examine the implementation and impact of the MGNREGA.

1.5 Employment Generation under MGNREGA

1.5.1 MGNREGA Employment in India:

So far, the MGNREGA has been in implementation for a decade in the countryside since its inception. In this course, we can see two broad trends. First, there has been a steady increase in employment generation during the period 2006-10; second, there is a declining trend since 2009-10 to 2015-16. Under the MGNREGA, households' coverage reached its peak in 2009-10 and since then began declining. In 2010-11, 5.49 crore households were covered; which is about 32.6 percent of rural households. The households' coverage has not gone beyond this number for any of the later years of implementation. The growing gap between the job cards given on demand and the actual households provided with employment indicates the growing hiatus between demand and supply for

employment under MGNREGA. The implementation of MGNREGA has reached its peak in 2009-10, not only in terms of employment days created but also in terms of household coverage and funds allocation. The work completion ratio reached its peak in 2010-11. We discuss the MGNREGA implementation in detail again in Chapter 3.

1.5.2 MGNREGA Employment in Andhra Pradesh:

Andhra Pradesh is one among the best performing states which are implementing MGNREGA effectively. Started with 13 backward districts in 2006, MGNREGA was extended to all the districts of the state by 2008-09, except Hyderabad. Since then, it has been continuously providing employment over a decade of MGNREGA implementation. The household coverage and person-days generated were highest in 2009-10 than any other period. Among the MGNREGA workers, the backward classes (BC) workers' proportion is highest in the state when compare to rest of the social groups. On an average, women participation is about 54.5 percent in MGNREGA works. Highest average household employment created under MGNREGA in the state is 66 days in of the year 2009-10. Although there is a decline in average household employment thereafter, comparatively it is slightly higher than the national average. The percentage of households given 100 days of employment is highest in 2009-10, and it has been coming down over a period of time. The works undertaken in the state are mostly related to water conservation and harvesting, drought proofing and irrigated related works. About MGNREGA implementation in Andhra Pradesh is discussed in Chapter 4 in a detailed manner.

1.6 Research Problem

Capitalist development in less developed countries is fraught with unemployment and underemployment causing extreme poverty. A Large majority, particularly, the rural poor are excluded from the economic growth that takes place in the neoliberal era. However, the state under liberal democracies is compelled to undertake measures to ameliorate poverty. MGNREGA is one of such important welfare measures to address the growing employment insecurity in agriculture. While it clearly benefits the rural labour, it also can generate a class conflict in the rural areas. There are three problematic areas relating to MGNREGA. First, why has such an Act promulgated in the first place; and in what way is it different from the previously implemented programs? Second, how is such an Act, which produces a class conflict, is implemented on the ground; which are the models

used in the implementation and constraints in implementing it? Third is, the question of short term and long term effects of MGNREGA.

While the state is compelled to introduce such programs, there are also obstacles to its implementation. Given this complexity, the study undertakes some important research questions to examine. The Act is supposed to be a demand-based program, yet in practice, it remained a supply-side program. As a consequence, it can become the first casualty whenever economic growth slows down, and state's revenues decline, defeating the spirit of the Act. Second, given the conflicting interests of landowners and agricultural labour, ground level political opposition can militate against a successful implementation of the program. Similarly, state governments which are responsible for implementing may vary in their commitment. This study, therefore, examines the inter-state differences in implementation of the Act. Third, the states will have to design an efficacious model to implement the Act, make a budgetary allocation, effective spending and show the political will. Fourth, a program like MGNREGA can vastly increase the bargaining power of the rural workers. This may have both positive effects like wage rise as well as serious negative effects on employment if employers shift to mechanisation. The study examines the impact of the implementation of the Act on labour markets. Fifth, the Act involves the implementation of a gender-neutral minimum wage. What would be its implications for the rural labour? The study examines the income generation; employment days created, assets generated and other issues concerned with Act.

1.7 Objectives of the Study

The specific objectives of the study are;

1. To study trends in employment generation under the MGNREGA at the macro level.
2. To analyse the inter-state differences in implementation of the MGNREGA since its inception.
3. To examine factors that influence budgetary provision and spending under MGNREGA across states.
4. To examine the specific model of implementation of MGNREGA in Andhra Pradesh and Telangana; and the implementation of it across districts of united Andhra Pradesh and also in the bifurcated states.
5. To examine the impact of the MGNREGA on the labour market and land development.
6. To examine the income generation at a household level under the MGNREGA.

1.8 Hypotheses

The study assumes the following hypotheses to be tested.

1. Aggregate temporal variations in the implementation of MGNREGA are positively influenced by central revenue.
2. Interstate variations in the implementation of MGNREGA are influenced by the political party in power.
3. MGNREGA has a positive effect on the nominal agricultural wage rate.
4. Employment generation under MGNREGA is positively influenced by the assets created under the same.

1.9 Data and Methodology

The data used in the thesis has been collected from both primary and secondary sources. The secondary data is collected from the MGNREGA Official websites of both State and the Centre; Reserve Bank of India, Election Commission of India, Census of India reports (1961-2011), District Census Handbooks of Krishna, Medak, Vizianagaram and Adilabad; various rounds of NSS reports, Agriculture Census reports, reports of Agricultural Wages in India, Economic Survey of 2014-15, Human Development Report of Andhra Pradesh 2007, etc. An index is computed to explain the inter-state and inter-district variations in the performance of the MGNREGA based on Mandira Sharma's methodology (2010). In addition, the study adopts regression technique to measure the statistical relationship between the economic variables. The state of undivided Andhra Pradesh is chosen for the study to examine the model of implementation, inter-district differences and its impacts on agriculture. The timeframe for the study is 2006-07 to 2015-16.

The primary data has been collected through field survey from the selected villages with structured questionnaire during Jan - April 2013. For the primary data collection, four villages were chosen from four districts in the states of Andhra Pradesh and Telangana (two from each). The chosen villages are namely Kalavapamula (Krishna district) and Mandiravalasa (Vizianagaram district) from Andhra Pradesh; and Achampet (Medak district) and Chandram (Adilabad district) from Telangana state. For this study, these villages are purposively selected, two villages each from irrigated and dry regions. The households' selection followed a stratified random sampling, covering not less than 30 percent of different castes in each village. The total households covered 37 percent of

total Census households. The data is aggregated using weighted averages. While doing the survey, questions were posed to head of the household to get information relating to agriculture, employment, the MGNREGA and other related issues. Also, interviews and discussions were conducted with mates and Field Assistants at village level; and Programme Officers, Directors and other related officials at Block, District and State levels to know various issues in the implementation of the MGNREGA.

1.10 Limitations of the Study

The study essentially focuses on the MGNREGA implementation for the period of 2006-16. The study made an attempt to analyse the performance of the MGNREGA and its impacts on agriculture with special attention to wages and dry land development during the last decade. In practice, the MGNREGA performance and its influence on rural economy vary across the regions according to socio-economic conditions. In this respect, the study may remain partial.

1.11 Organization of the Study

The thesis is organised into nine chapters. Present chapter (Chapter I) is an introduction which consists of a theoretical and conceptual framework, background, research problem, data methodology and objectives of the study. Chapter II deals with the review of the literature on the MGNREGA related issues. Chapter III deals with the performance of the MGNREGA at the macro level and inter-state differences in India. Andhra Pradesh model of MGNREGA, its implementation and inter-district analysis are discussed in Chapter IV. Chapter V explains the MGNREGA impact on agricultural wages and land development. Employment situation and the implementation of the MGNREGA in study villages are discussed in the chapters VI and VII. And, final chapter delivers summary and conclusions.

Chapter - II

2. Implementation and Impact of MGNREGA: Review of Literature

Mahatma Gandhi National Rural Employment Guarantee is considered to be a game changer for the rural India. The program is likely to make a definite income transfer into the accounts of the poor; it is expected to have positive effects on distress migration, increase in school enrolment, boost rural consumption, and help alleviation of extreme poverty. A lot of thinking went into framing the guidelines for implementation. The pilot implementation in states like Andhra Pradesh also gave positive feedback. The launching of the program finally in the year 2006 at all India level was done with a lot of fanfare, the government was hailed for undertaking definite measure towards inclusive growth. The implementation also saw some immediate backlash like in East Godavari district of Andhra Pradesh, where the landlords went on a `crop holiday' blaming MGNREGA for causing a massive wage rise and losing control over the labour process [Vakulabharanam., (2011)]. Many have criticised that the works done under MGNREGA are of poor quality, and the whole program is encouraging laziness on the part of the workers. Thus the program has won the admirers as well as strong critics. In this chapter, we shall the review the scholarly views and works on MGNREGA covering its implementation across the country and its impacts on several aspects based on already existed research studies.

In the post-liberalization period, agricultural sector receded in its growth momentum in terms of both gross product and output compared to 1980s. The growth rate of agricultural GDP decelerated from 3.08 percent during 1980-81 to 1990-91 to 2.57 percent during 1992-93 to 2005-06 (Reddy, D. N. and Srijit Mishra 2009). As a part of rolling back the state and fiscal adjustment, the macroeconomic measures such reduction of fertiliser and food subsidies have adversely affected the sector (Utsa Patnaik, 2005). The consequences of reduced public investment in agriculture led to obsolete infrastructure, stagnation in irrigated area, slow progress in biotechnological research and lack of technological breakthrough appropriate for rain-fed and drought-prone regions; all these factors adversely affected the efficiency of crop production and profitability. In such a crisis condition, small and marginal farmers and tenants are likely to suffer most due to lower levels of yield, higher production costs, unremunerative prices and poor/negative returns. In some cases, farmers are driven to the extreme step of suicide when they are unable to repay the loans taken from non-institutional sources at a high

rate of interest by expectations for the next crop (Vaidhyanathan, A, 2006). About one and a half lakh farmers have committed suicides during 1997-2004. The back to back droughts for three years during 2001-04 led to starvation deaths, huge indebtedness, and distress migration. The `India Shining' campaign of 'BJP-led NDA' government in the midst of this crisis led to the loss of power at the Centre in 2004 general elections. Against this backdrop of growing and acute rural distress, the new employment guarantee scheme, better known as –the Mahatma Gandhi National Rural Employment Guarantee Act, was introduced in 2006 to provide at least a minimum 100 days of employment for every rural household those who are willing to do the physical manual work (Sainath, 2006), by United Progressive Alliance government led by Congress party in 2004.

When any welfare programme turned into the Act, there would be several speculations about it, especially for the first time. So, a serious debate was held on the EGA proposal among the intellectuals, academia, economists and research community about the process, possibilities and cost and benefits. Supporters for EGA pointed the potential of such Act to provide a secure safety net for the poor and critics were concerned about the fiscal burden, possibilities for corruption and weakened grass-root level administration. Economists like Jean Dreze, Mihir Shah, Prabhat Patnaik, Amit Bhaduri, T.S. Papola and social activists like Aruna Roy, Nikhil Dey and others strongly supported and claimed EGA as a very important programme for the survival of the most of the poor households in rural India. It would protect the rural poor at the time of droughts and lean agricultural seasons.

The liberal and neoliberal economists, media commentators like Surjit S Bhalla, Swapan Dasgupta, Sunil Jain, and Shankar Acharya, Sagarika Ghose and others from corporate media targeted the Act, pictured it as a useless populism and burden on the taxpayers. Further, they commented that it would be impossible to sustain it for a long time because it requires a lot of financial resources. Some sections of the taxpayers and corporates thought that anti-poverty programmes and welfare schemes as wastage of financial resources. Even FICCI (Federation of Indian Chambers of Commerce and Industry), the representative of the India Inc., criticised the MGNREGA as a cause for labour/skill shortage.[28] But, it is the same FICCI who came back to hail it as a great measure, when the Global Financial Crisis hit the Indian economy in 2009, as a boost the

[28] *Labour in Indian Agriculture: A Growing Challenge*, FICCI, Agriculture Report, 2015.

sagging demand in the economy! As we all know from past experience, schemes, in general, always be changed, trimmed and even cancelled whenever government changes. But, an Act places an enforceable obligation on the state, and it creates accountability. Unlike the earlier programmes, an Act can go a long way towards protecting rural households from poverty and hunger. As Khera, R. (2009) said, one hundred days of employment at the statutory minimum wage is not the end of the poverty by any means, but for people who live on the brink of starvation, it makes a big difference.[29] As far as financial support is concerned, National Advisory Council (NAC) anticipated cost of the Act would rise from 0.5 percent of India's GDP in 2005-06 to one percent of GDP in 2008-09 based on the assumption of the Act would be gradually extended to the whole India within four years starting with 150 most backward districts in the first year. The NAC argued that it was quite affordable considering that there was much scope for increasing India's tax-GDP ratio as rapid economic growth is taking place. Badhuri, A., (2005) also expressed a similar view that it is worth financing the program even if it involves deficit financing of central and state budgets while observing the relevance of the program. Further, he suggests that Panchayats must have the full financial authority to design and implement EGA projects. Any programme can be implemented successfully to attain their targets to protect the poor where there is a well administrative setup at all levels with required resources and political commitment of state.

At that time, many economists have expressed different views about what should be the design, structure and implementation of this Act. The economists like T.S. Papola (2005), K.P. Khannan (2005), K.S. Gopal (2005), Aiyar, Y. and Salimah Samji (2006) have made some suggestions about guidelines, responsibilities, targeted sections, income security, human development, assets creation, importance of Gram Panchayats, etc. Unless we learn from past experiences of implementation of earlier introduced government programmes and devise corrective measures, there would not be a major difference between proposed EGA and earlier schemes.

2.1 Reviews of MGNREGA Implementation Issues

Finally much debated and awaited the National Rural Employment Guarantee Act bill was passed by both the houses of Parliament and signed by the President for enactment by September 2005 with *The Gazette* notification issued on 7 September 2005. Five

[29] Khera, Reetika. ed. (2011), "*Battle for Employment Guarantee*" Oxford University Press, New Delhi.

months later, on 2 February 2006, NREGA was launched in 200 districts and extended to the whole country by 1st April 2008. The NREGA was renamed as MGNREGA by adding a prefix of Mahatma Gandhi on 2nd October 2009. Since its commencement, the MGNREGA has completed 10 ears of its journey in providing employment guarantee to the rural poor.

For the first year of 2006-07, average employment given under NREGA is just 43 days for every participating rural household in 200 districts, with 90 crore person-days [Dreze, Jean and Christian Oldiges (2007)]. In the first year, on the whole, employment given per household was not even half of the proposed target. By that time, most of the states did not provide required arrangements before the summer months. So it could be considered as a learning phase, rather than failure. In this period, the states like Rajasthan, Assam, Madhya Pradesh, North-Eastern (excluding Assam) and Chhattisgarh are performing relatively better in terms of giving more person-days per household than the national average. Interestingly, the BJP ruling states performed very well, excluding the north-eastern states; which indicated state level adaptability is possible in spite of political differences between ruling parties at different levels. States like Kerala, Maharashtra, West Bengal, Punjab and Gujarat are ranked at the bottom on the list with poor performance. The share of women in total NREGA employment is 40 percent; it is very high in the state of Tamil Nadu (81%), Rajasthan (67%) and Kerala (66%). And, the share of women is very poor in states like Jammu & Kashmir (4%), Himachal Pradesh (12%), Bihar (17%) and Uttar Pradesh (17%). The prevailing societal norms and customs play an important role in the work participation of women. In the state of Kerala, women participation (after Tamil Nadu) and wage cost per person-day both are very high rather others. On the other hand, average wage cost per person-day for unskilled labour is around Rs. 67 on the whole; but there were variations among the states. The wage cost per person-day is relatively low in better performing states than others. It can be understood that there are huge differences in the implementation of the NREGA across states.

In contrast, Mathur, L. (2007) observed a different picture for the same year of 2006-07, in terms of person-days of employment provided per district and households provided employment. The combination of these two indicators, employment generation, was comparatively high in Madhya Pradesh (1.6 lakh households, 68 days), Odisha (0.7 lakh households, 57 days), Chhattisgarh (1.7 lakh households, 54 days) and Rajasthan (2 lakh households, 83 days). In Maharashtra and Tamil Nadu, although three

lakh and 1.2 lakh households, respectively worked under NREGA, they could do so only for 14 days and 24 days. In Gujarat and West Bengal, it was only 30,000 with 43 days and 40,000 with 40 households per district availed of the employment guarantee. It would appear that some backward states have done better than several progressive ones. As he rightly observed that, the performance of poor states was not so bad, as they are covering more households with less employment days having their own constraints.

After two years of implementation, Mehrotra, S. (2008) and Dreze, Jean and Christian Oldings (2009) made a comparison between 2006-07 and 2007-08 for the NREGA employment generation. This comparison suggests that the extension of NREGA from 200 to 330 districts was relatively smooth in the sense that what was achieved in 2006-07 was achieved again in 2007-08 on a larger scale. This achievement was made in terms of employment per rural household, the share of women in the workforce, expenditure per district and the share of wages in total expenditure. Although coverage of households is increased, the employment provision has not reduced for the second year which is a result of the experience of the previous year. During this period, they noticed two major changes; first, the share of Scheduled Tribes (STs) in the NREGA workforce declined from 36 percent to 29 percent between 2006-07 and 2007-08. It could happen because coverage of non-ST households under NREGA might be high for cumulatively both the years. Second, there was an increase of about 15 percent in the average wage rate in nominal terms – from Rs. 65 to Rs. 75 per day. Moreover, they observed that employment levels were much higher in Phase-I districts than in Phase-II districts in 2007-08. As expected, it happened because not only experience and establishments but also need/demand for employment is greater in Phase-I districts since they are so poor. At the state level, in the case of employment per rural household for 2006-07 and 2007-08 are much the same in most cases; still, there are interesting exceptions. It is found that the 'leaders' were Rajasthan, Madhya Pradesh and Chhattisgarh as well as the North-Eastern region in 2007-08. All these states were already in a leading position in 2006-07 with similar levels of employment per rural household. On the other hand, Assam was also doing very well in this respect in 2006-07; but slipped back the next year. Another state, where there was a major setback is Odisha. In Odisha, employment generation under NREGA declined from 21 days in 2006-07 to 8 days in 2007-08. Odisha was the focus of a wave of embezzlement reports in 2006-07.[30] In one

[30] Dreze, Jean, and Christian Oldiges (2011), "NREGA: The Official Picture", In *The Battle for Employment Guarantee*, edited by Reetika Khera, New Delhi: Oxford University Press.

hand, NREGA employment levels in 2007-08 were extremely low in Bihar, Gujarat, Haryana, Maharashtra, Punjab, and West Bengal remained abysmally low as they were in the first year and even declined in several cases, for instance, Gujarat and Punjab. On the other, NREGA employment per rural household doubled in Andhra Pradesh, Kerala and Tamil Nadu; where there have been active efforts to expand the programme in 2007-08. The absence of similar take-off in Bihar, West Bengal is a matter of concern, given the high levels of rural poverty in those states.[31]

How much can one expect when NREGA is implemented by the same old administrative structure that is deeply institutionalised corruption, inefficiency and non-accountability? Obviously, no programme can succeed without addressing these challenges. Although NREGA is well designed, in practice, it also suffered many hurdles as earlier employment programmes. Workers still have to fight at every step for their entitlements under the Act too, like to get employment, to be paid on time, to earn the minimum wage, to avoid harassment and so on.[32] On this issue, the Comptroller and Auditor General (CAG-2007) report made a serious criticism.

The CAG-2007 report summarises "significant deficiencies" of and their impact on NREGA implementation. It reports many bottlenecks in the implementation of the NREGA are mainly, lack of manpower at the bottom levels of administration, lack of planning and supervision, delays in administration, diversion and mis-utilisation of funds, poor maintenance of records, inefficient local bodies, lack of proper monitoring and evaluation, poor quality, etc. Besides affecting the implementation, the deficiencies also adversely effect on transparency and accountability; and made it difficult to provide employment on demand. The report found that many states have failed to put in place dedicated administrative and technical support for the NREGS at the district, block and Gram Panchayat levels, leaving its implementation to the departments that are already burdened with their own responsibilities. The major reforms are required to overcome these deficiencies and to realise massive potential of the NREGA.

For effective implementation of NREGA, Ambasta, P., et al. (2008) has put forward some suggestions; these are: (1) Deployment of dedicated full-time professionals at all levels; (2) Provision of administrative set up for continuous monitoring and

[31] Dreze, Jean and Christian Oldiges (2009), "*Work in Progress*", Frontline, Vol.26 (4), 14-27, February.
[32] Dreze, Jean and Reetika Khera (2009), "*The Battle for Employment Guarantee*", Frontline, Vol. 26 (1): 3-16, January.

evaluation at every stage to ensure quality; (3) Greater use of information technology to instil more transparency, accountability and speed at all stages, from sanction of works, release of funds, wage payments to social audit; (4) Revising the Schedule of Rates for time to time; (5) Mandating a role for civil society organizations to work with Panchayat raj institutions in NREGA planning, implementation and social audit.

Based on both secondary data and some of the micro-level studies, Indira Hirway (2010) reviewed four years' experience of the NREGA implementation during 2006-07 to 2009-10. In these four years, households' participation increased continuously from 21.02 million to 45.11 million (up to February 2010). At aggregate level and the number of person-days of employment per household increased from 43.05 to 49.06 days; total person-days also increased from for the same period. As a result, there was a significant increase in average NREGA income from Rs. 1920 in 2006-07 to Rs. 4400 in 2009-10. She observed a wide variation in the performance of the NREGA across the states. In NREGA, households' participation is the highest in Rajasthan, Madhya Pradesh, Andhra Pradesh, Tamil Nadu and Assam, whereas it is very low in Punjab and Haryana. Under the NREGA, the lowest number of days of work given per household in West Bengal, Uttarakhand and Punjab states, while it was the highest number of days given per household in Andhra Pradesh, Karnataka and Rajasthan. Another important observation is that the percentage of households completing 100 days of work is still very low in all the states. Considering households participation, employment days and proportion of households completed 100 days together; she concluded that the full potential of the NREGA was not yet tapped.[33] From different evaluation studies at micro level, she observed increased income level, decline in distress migration, generation of productive assets,; and loosening of the control of elites on the positive side; and lower wage due to `Schedule of Rates', delays in payment of wages, poor monitoring & supervision at worksite and inadequate administrative capacity on the negative side in NREGA implementation. Further, she cautioned on some of the critical concerns like the viability of agriculture due hike in wage rates, the danger of de-skilling of artisans and other skilled workers, assets quality, use and maintenance and corruption.

In 2012, Ministry of Rural development, Government of India released *MGNREGA Sameeksha* –a mid-term review, which assessed the performance of

[33] Hirway, Indira (2010), "NREGA After Four Years: Building on Experiences to Move Ahead", Indian Journal of Labour Economics, Vol. 53 (1), Jan-Mar, pp. 113-135.

MGNREGA in its six-year term. According to the Report, average employment generation under MGNREGA increased from 43 days in 2006-07 to 54 days till 2009-10; decreased to 42 days progressively by 2011-12. The same trend is shown in a person-days generation too. In spite of a remarkable increase in budget allocations in this period, it did not reflect in employment generation as desired, because there was under-utilization of funds by most states. During 2006-2012, around 1200 crores of person-days were generated for rural poor under the programme. Among them, 28 percent of person-days given for SCs (Scheduled Castes), 23 percent to STs (Scheduled Tribes), which is good coverage on the social front. If we observe, cumulative share of person-days for SCs and STs in various states for the period of 2006-12 it gives a different picture. The states that have a major share of participation of SCs and STs in cumulative person-days are Madhya Pradesh (60.4), Punjab (60), Odisha (57.7), Jharkhand (56.6), Gujarat (55.2) and Chhattisgarh (52), even though record of some of these states like Punjab in general implementation is poor. In total person-days, women's share was 47 percent which is about 561 crores person-days. It is less than even 33 percent in the states like Bihar, Uttar Pradesh and Jammu & Kashmir. In MGNREGA works, women participation is very high in Kerala and Rajasthan, but it is very low in Jammu & Kashmir. For the six years period, average employment days given per household is just 46 days per annum. In the six year's span, MGNREGA couldn't even provide half of the targeted 100 days of employment. The report mentions its disappointment over falling average days of employment per household since 2009-10. This reported that on an average, expenditure spent on wages is about 66 percent per annum out of total expenditure incurred. Within the six years period, 87 lakhs works were completed out of 146 lakhs works taken up, a completion rate being around 60 percent. The work completion rate was highest in Tripura at 71 percent, and it was lowest in Karnataka at 21 percent. Out of the total works undertaken in MGNREGA, about 51 were related to water conservation and water harvesting. About 14 percent works were undertaken in private lands under MGNREGA. A major share of works in private lands carried out in better-performing states like Madhya Pradesh (31), Rajasthan (30) and Chhattisgarh (27); the share of private land works is very poor in states like Bihar, Jammu & Kashmir, Uttarakhand, Assam,

West Bengal and Kerala; but it was near absent in the states like Tamil Nadu, Punjab and Haryana during this period.[34]

After 2009-10, there is a continuous decline in employment generation at the aggregate as well as state-level under MGNREGA. Based on National Sample Survey Organisation (NSSO) household level data for the period of 2009-10, Puja Datta., et al. (2012) confirmed that there is an unmet demand under the MGNREGA across the states. They found that some of the poorer states like Bihar, Jharkhand and Odisha have low participation and high levels of unmet demand. Except for Chhattisgarh, Rajasthan, and Madhya Pradesh, the performance of most poor states is said to be bad. According to them, poorer states have less affordability to bear the state's share of the costs; have weaker administrative structures and less empowered poor. Hence, poor institutions and infrastructure make the state government put far less weight on the need to accommodate the demand for work on the scheme.

Southern states like Andhra Pradesh, Maharashtra, Tamil Nadu and Kerala have effective administrative structures at different levels than many of the northern states. Inter-state comparative studies help us to understand differences in its implementation. One such study was conducted by Kim Bonner., et al. (2012) to compare the MGNREGA implementation in Tamil Nadu and Uttar Pradesh states in 2012. This study found that Tamil Nadu is performing relatively better than Uttar Pradesh where implementation is far tougher. In their opinion, it is not state versus centre politics that affect MGNREGA's implementation. Rather, it is the strength of district, block and Gram Panchayat level administrative and organisation capacity that appears to be a determining factor for success. In Tamil Nadu, MGNREGA's favourable performance is primarily due to top-down yet effective administrative machinery. Though the Act is intended to work as a bottom-up mechanism, in practice, it is still a top-down program whose effectiveness, thereby squarely depends on the political will and administrative efficacy. In the Tamil Nadu model, a lot of effort is put to prevent leakages and corruption and lot of responsibility is placed on the administrative staff. In Uttar Pradesh, even though they entrusted significant responsibility on staff at the Gram Panchayat level, but Gram Panchayats are often not equipped with sufficient resources, skills to carry out

[34] Ministry of Rural Development (2012), *MGNREGA Sameeksha: An Anthology of Research Studies on the Mahatma Gandhi National Rural Employment Guarantee Act 2005 (2006-2012)*. Government of India. New Delhi.

the execution effectively. But Bonner, et al. observed what is common in both states is reluctance in paying unemployment allowance to workers as per the Act, timely wage payments and the poor quality of asset generation under MGNREGA. Women's participation in Tamil Nadu, unlike in Uttar Pradesh, is impressive because of cultural acceptance of female participation in the labour force, the influence of active self-help groups, and better wage and working conditions. And, the absence of worksite facilities like crèches creates further obstacles for female participation.

Interestingly, with regard to women's participation in MGNREGA, there is a wide variation across the states. States, where person-days of work created for women has been greater than the stipulated 33 per cent, include Kerala, Tamil Nadu, Rajasthan, Sikkim, Andhra Pradesh, Tripura, Chhattisgarh, Karnataka, Meghalaya, Maharashtra, Manipur, Nagaland, Madhya Pradesh, Uttarakhand, Mizoram, Himachal Pradesh, Gujarat (2008-09 data). States where their share is very less include Bihar, Jharkhand, Haryana, Assam, West Bengal, Punjab, Uttar Pradesh, Arunachal Pradesh and Jammu & Kashmir.[35]

Sudarshan, R.M. (2011) explored some of the reasons for differences in women participation in the MGNREGA from the observations from Kerala, Himachal Pradesh and Rajasthan states. He found a high level of participation of women in Kerala and Rajasthan where women's groups are active than Himachal Pradesh. In Kerala, *Kudumbasri* groups are linked with the implementation of the MGNREGA which enable women to participate in it. In Rajasthan also, self-help groups actively participate in microcredit/finance institutions and their participation in the MGNRGEA too. But, in hilly states like Himachal Pradesh, there is no such empowered women's involvement in the MGNREGA, and traditionally women spend much time on collecting fodder for their animals and domestic works. Although women's participation is high, their involvement in Gram Sabha is very limited in the implementation of the MGNREGA. The study found no evidence of changing gender roles within the household as a result of women working under the MGNREGA, but there was evidence of increased confidence among women.

Regarding MGNREGA performance in recent years, NCAER study (2015) and Report to the people (2014) both have found similar observations such as a decline in

[35] Dasgupta, S. and R.M. Sudarshan, (2011), "*Issues in Labour Market Inequality and Women's Participation in India's National Rural Employment Guarantee Programme",* Working Paper No. 98, Policy Integration Department, International Labour Office, Geneva.

employment and funds availability as well. According to the official data, overall MGNREGA participation has declined over recent years, from 30 percent in 2009-10 to 27.8 percent in 2013-14.[36] Workers participation in MGNREGA varies widely across states. Some of the states like Chhattisgarh, Himachal Pradesh, Rajasthan, Tamil Nadu and West Bengal have workers participation more than the national average; Jharkhand, Kerala, Madhya Pradesh and Uttarakhand are very close to national average. This participation rate is very low in the states of Bihar, Punjab, Maharashtra, and Gujarat. Probably, poor implementation in states like Bihar; more wages and employment availability in both farm and non-farm sectors in richer states like Gujarat, Maharashtra and Punjab, could be the reason for low participation in the MGNREGA. The number of individuals who worked in MGNREGA has fallen from 5.06 crore in 2011-12 to 4.79 crore in 2013-14. The number of days worked for each household fell from a high of 54 days a year in 2009-10 to 43 days a year in 2011-12 but has recovered slightly to 46 days a year in 2013-14.

Over a period of implementation, the promise of giving employment assurance to the marginalised sections in rural areas is kept nowhere. The person-days for SCs and STs together were drastically fell down by 64 percent in for the period of 2009-10 to 2013-14. A very small proportion of households could get 100 days per annum. The mean level of employment per household in the last three years during 2010-11 to 2012-13 has been 41 days in the country. How does one understand the declining trend in total person-days and average employment on the one hand and rising share of women on the other? Are the males reluctant to turn up or are they getting better employment outside? Perhaps women find it easier to participate in the programme, and/or rising wages and opportunities in non-farm sectors such as construction may pull male labour away from the MGNREGA. The availability of funds rose about 25 percent between 2008-09 and 2009-10 but fell sharply after 2011-12. The fund's allocation has come down from Rs. 54172.14 crore in 2010-11 to Rs. 45051.43 crore for the year of 2012-13.[37] On the other hand, funds utilisation after 2010-11 has shown consistent improvement, but physical performance has not improved commensurately. The ratio of works completed to total works taken up reached to peak at 51 percent in 2010-11 and fell down sharply thereafter.

[36] Desai, S et al. (2015), "*Mahatma Gandhi National Rural Employment Guarantee Act: A Catalyst for Rural Transformation*", National Council of Applied Economic Research, New Delhi.

[37] MoRD, Mahatma Gandhi National Rural Employment Guarantee Act, 2005: Report to the People, 2014, GoI, New Delhi.

It happened due to a number of projects left incomplete while new projects were added to the MGNREGA annual plan. The NCEAR report finds the reduction in the MGNREGA funds as the major reason for the decline in performance.

The findings of the NCEAR report are echoed by Himanshu., et al. (2015). They have taken a large sample of 3916 households from 328 villages across eight selected districts of Rajasthan in 2013, where the story is more or less the same. The performance of the MGNREGA in Rajasthan was very well, but relatively sharp decline after 2010. In Rajasthan, the household's coverage by MGNREGA increased from 21% in 2006-07 to 62% in 2009-10 but declined to 35% in 2011-12. Saving grace was that the percentage of households which sought work but did not get work declined from 22% in 2006-07 to 11% in 2009-10 but went up again to 16% in 2011-12. In terms of percentage of households who sought work, only 15% were denied work in 2009-10, but this number went up to 32% in 2011-12. According to their field experiences, the decline in performance was not due to the lack of demand, but due to low fund allocation. In early years, Rajasthan was continued to receive the maximum funds for the implementation amongst all states. For instance, in 2009-10 the state received up to 19.2% of the total central allocation of funds for the scheme. This was because, in the previous year, Rajasthan had spent Rs. 6,164 crore which was the highest amongst all states. However, over the subsequent years, total expenditure on the MGNREGA fell from Rs. 5,669 crore in 2009-10 to Rs. 3,278 crore in 2012-13. Just to remind, Rajasthan has a huge desert and drought prone region which necessitates employment programs, and it is also the state which has a strong social movement for right to information and right to employment. Even there, the MGNREGA performance is basically seemed to be determined by budget allocations.

MGNREGA has been under criticism for the poor quality of asset creation and a poor completion rate of works, a view confirmed by several studies. In 2010, for instance, Institute of Rural Management-Anand conducted a study in Sikkim and concluded the assets created under MGNREGA were of extremely poor quality. The noted that works such as roads, channels, plantations, and land development were certainly carried out, albeit of poor quality. In contrast, the study by Ranware, K., et al. (2015), large sample survey of 4881 respondents that conducted across 20 districts in Maharashtra in 2014, confirmed that 87 percent works are in use; 40 percent of works were conducted in private lands of OBCs (other backward classes), SCs and STs; who were small (53%) and

marginal (22%) farmers and this study dismissed the widespread perception that MGNREGA doesn't create any productive assets.

2.2 Impact Studies

In general, any public programme like employment guarantee scheme can have its effects in multiple directions in the countryside. Such programmes usually influence the rural economy in various respects such as employment, incomes, consumption, migration, etc. A continuous and effective implementation of those employment programmes will definitely have a large potential to transform the rural structure and its dynamics. There are some studies related to MGNREGA evaluation and its impacts on different aspects conducted by various researchers, academicians and others. Some of the important studies are mentioned here to understand impacts of the employment guarantee programme.

2.2.1 Agriculture:

After MGNREGA coming into existence from 2008-09, there is a substantial increase in rural wages for both men and women, not just in nominal but also in real terms. It is a revolutionary change in rural wages that were historically prevailed below the minimum wages. Although it is music to ears of workers, it is a bitter pill for the farming community to swallow, since it adversely affects their profitability by increasing the cost of production.

To analyse the impacts of MGNREGA on agriculture and rural labour markets, Reddy, D. N., et al. (2014) conducted a study based on secondary data and some evaluation studies at the micro level for the period of 2006-07 to 2010-11. They argued that the MGNREGA has been an important driving force behind raising the wage rates in agriculture as they observed a significant increase in agricultural wages across the country after the MGNREGA. The rate of increase in the agricultural wage for females has been much higher than that for males, and the historically existed high male-female differences in agricultural wages have declined substantially. The tightening labour market due to a shortage of labour, have offered better bargaining power to agricultural labourers, better treatment at the workplace and ability to negotiate the duration of the working day compared to the past. They observed there is labour shortage during peak seasons for the operations like sowing, transplantation and harvesting especially crops like paddy and wheat, forcing farmers to adopt mechanisation which hastens operations

like ploughing, harvesting, and reducing the uncertainty. They found that labour shortage is negotiated with the administrators to avoid MGREGA works during peak agricultural seasons. The rise in wage rates is said to have not affected net sown area; hence there is no adverse effect on agriculture. They noticed MGNREGA had drawn non-working women in households into work, in some communities; and brought additional area effect into cultivation by converting fallow lands of the poor. They, however, felt that rise in wages, along with other factors, has caused a rise in costs of cultivation. Further, they argued that increased farm wages did not affect small peasants since they use family labour on the one hand and as wage workers also benefit from increased wages on the other. The better middle and large farmers adopted mechanisation to face the rising costs, thus, according to this study, the class conflict is some resolved by different size classes.[38] But what happens to overall farm employment? Can MGNREGA fill entire gap, is a million dollar question.

Historically male wages have always been higher than female wages in rural areas for both in farm and non-farm sectors. But, a change towards some equality seems to have been initiated. After the introduction of NREGA, female wages rose relatively higher than male wages. In 2008, an extensive survey was conducted in 100 Gram Panchayats in ten northern states to find out ground realities in the implementation of the NREGA. Based field observations from the survey in northern states, Khera, R., and Nandini Nayak (2009) have found that NREGA employment was considered to be attractive for women because it promises to pay the statutory minimum wages.[39] They observed the average wage earned by women in the private labour market ranged from Rs. 47 to Rs. 58 per day whereas the NREGA earnings were Rs. 85 per day. They also note that many women in the moderately poor households who were earlier not working because the wages being too low are now coming out to work.

In a macro level study, Berg, E., et al. (2012) confirmed the MGNREGA impact on agricultural wages by using monthly wage data from the period 2000-2011 for a panel of 249 districts across 19 Indian states. According to them, on average, MGNREGA boosted real daily agricultural wage rates by 5.3 percent. And wage effect is gender neutral and biased towards unskilled labour. Azam, M. (2012) assessed the causal impacts of

[38] Reddy, D. N, et al. (2014), "The Impact of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) on Rural Labour Markets and Agriculture", *India Review,* Vol.13 (3).

[39] Khera, R. and Nandini Nayak (2009), "Women Workers and Perceptions of National Rural Employment Guarantee Act, *Economic and Political Weekly,* Vol. 44 (43), October 24.

MGNREGA on public works participation, labour force participation and real wages of casual workers by using NSSO data. He concluded that there is a significant positive impact on labour force participation and wages, especially for females. This study found that wages of female casual workers increased by 8 percent more in the MGNREGA districts compared to non-MGNREGA districts. In contrast, the impact of the MGNREGA on wages of male casual workers has only been marginal, about 1 percent. Thus, MGNREGA has helped in reducing the gender differential in wages for casual works by pushing up the female wages in one hand; it improved female earnings by providing higher wages and more opportunities on the other.

In 2013, Gulati, A, et al. explored factors behind rural wage dynamics in the country during the period of 1990-91 to 2011-12. Contrary to several studies, which opined MGNREGA as the specific reason for rising wages, Gulati, A., et al., estimated push and pull factors operating on labour migration and wages. From their results for 16 major states for the period of 1990-91 to 2011-12, they concluded that 'pull' factors from growth process have a stronger influence on farm wages since 1990-91 than the 'push' factor, like the MGNREGA. They argued a 10 percent increase in overall GSDP leads to 2.4 percent rise in wages, 2.1 percent rise with respect to agricultural GDP and 2.8 percent of the rise in construction GDP. Even though the MGNREGA has a positive impact on wages, but it is 4 to 6 times less effective than growth variables. Although 51 percent of the MGNREGA expenditure has been on works that related to, they argued that the direct impact on the growth of the agricultural sector is not very clear. They opined that, if MGNREGA is used for wage payments in farming in general, it helps farmers to reduce costs, raise re-investible surplus.[40] In other words, they are asking MGNREGA to be a wage-subsidy program for the farming sector. Then the question would be, why only farmers are subsidised, why not non-farm producers? It goes beyond the intent of the Act, so to speak.

To find out the relationship between farm mechanisation, MGNREGA, labour supply and other related factors, Narayanamoorthy, A., et al. (2014) conducted a study using state level data for paddy and wheat crops covering the period of 2000-01 to 2010-11 using data from 11 states. They adopted fixed effect regression model using panel data to measure the relationship between different variables. With the help of descriptive

[40] Gulati, A et al. (2013), "Rising Farm Wages in India: The 'Pull' and 'Push' Factors", Commission for Agricultural Costs and Prices, Discussion Paper No. 5, Government of India, New Delhi.

analysis, the study showed that there is a considerable increase in machine labour in cultivating both paddy and wheat crops during the post MGNREGA period in almost all the states. As a result, employment declined drastically in both the crops in most of the states which confirm the fact that farm mechanisation is used to substitute the human labour especially after the MGNREGA implementation in the country.[41] The estimated panel regression results suggested that the factors determining the farm mechanisation are not the same between the two crops. Along with MGNREGA dummy, the factors such as irrigation, input costs, land-labour ratio and human labour use have significantly influenced the use of machines in paddy cultivation. In the case of wheat cultivation, irrigation and the land-labour ratio have not significantly influenced the use of machine labour. The MGNREGA dummy and farm mechanisation coefficients are positive and significant, which supports the hunch that mechanisation has increased in agriculture after the implementation of the MGNREGA.

In a study, Kareemulla, K., et al. (2013) assessed the impact on rural livelihoods with focus on employment and wages, especially in rain-fed areas in four districts namely, Anantapur (Andhra Pradesh), Bellary (Karnataka), Udaipur (Rajasthan) and Yavatmal (Maharashtra) districts for the period of 2008-10, by selecting 60 sample households from each district. They found that MGNREGA provided highest employment day for households in Anantapur district compared to other sources. They found unemployed and unemployed small and medium farmers who never worked in others fields began participating actively in the MGNREGA. They argued that the introduction of the MGNREGA has exacerbated the already existing demand-supply gap for labour during peak seasons, pushing up the wage rate.[42] Among the sample districts, highest annual growth in wage rate is noted in Anantapur district ranged from 33 to 39 percent. The increment in agricultural wage rate during the NREGS period was higher for the female labour up to 31 percent in Udaipur district compared to their male counterparts.

Nagaraj, N., et al. (2016) assessed the impacts of the MGNREGA on labour scarcity, wages and linkages between farm and non-farm employment based on field data of six semi-arid villages from Telangana and Maharashtra. They surveyed 384 households

[41] Narayanamoorthy, A, et al. (2014), "Farm Mechanisation, MGNREGS and Labour Supply Nexus: A State-wise Panel Data Analysis on Paddy and Wheat Crop", *Indian Journal of Agricultural Economics,* Vol.69 (3), July-September.

[42] Kareemulla, K, et al. (2013), "Impact of National Rural Employment Guarantee Scheme in India on Rural Poverty and Food Security", *Current Agricultural Research Journal,* Vol. 1(1), 13-28.

at two time periods, namely, 2003-05 and 2009-11. They observed that there had been a gradual increase in the real wages of both farm and non-farm workers, especially during the post MGNREGA period. They found the average daily real wage rates of male farm workers has grown sharply at 3.5 percent in Telangana and 7.6 percent in Maharashtra compared to almost negative growth rate before the MGNREGA. Besides male workers, female real wages in farm sector increased to the tune of 8 percent in Maharashtra and 4.6 percent per annum in Telangana. The slow growth in real farm wages has changed tremendously after the MGNREGA by breaking the long stagnation of rural wage rates.[43] During the period of MGNREGA implementation, both farm and non-farm nominal wages have increased by almost three times in study regions. Moreover, they also noticed higher gender gap in wages in the non-farm sector as compared to farm sector for the post-2006 period. They observed that shortage of male labour for farm operations for quite some time. They also found a steady decline in labour absorption for some of the crops like paddy, soya been and others and a marked decline in hired labour with the adoption of farm mechanisation.

Similar trends are observed from several macro and micro level studies in different states. In Karnataka, Channaveer., et al. (2011) conducted a 120 household study among jowar and redgram farmers in Gulbarga, found that machine labour progressively eliminated human labour in harvesting during the MGNREGA implementation. In spite of lowering labour cost, he observed that it could not stem the rising overall cost of production.

Harish, B.G., et al. (2011), have evaluated the impact of MGNREGA on income generation and labour supply in agriculture in Chikmagalur district in 2009-10 with the help of 120 sample respondents. They found that the total employment has significantly increased to 201 days (a 16 percent increase) and 9 percent increase in income after the implementation of MGNREGA, reflecting 16 percent increase. They argued from their study that labour scarcity due to MGNREGA is to the extent of 53 percent and 30 percent for weeding and sowing operations, respectively. It is alleged that labour scarcity is taking place because of easier nature of MGNREGA work compared to agricultural work. Workers preferred MGNREGA work when the difference between agricultural

[43] Nagaraj, N., et al. (2016), "Impact of MGNREGA on Rural Agricultural Wages, Farm Productivity and Net Returns: An Economic Analysis across SAT Villages", *Indian Journal of Agricultural Economics,* Vol. 71(2).

wage rate and NREGA wage rate is marginal, which is expected. But this may disappear once a correction takes place.

In Gujarat, Shah, V.D. and Manish Makwana (2011) studied impact of NREGA on wage rates, food security and rural-urban migration, on 250 sample households in 5 districts namely Banaskantha, Dahod, Jamnagar, Navsari and Surendranagar; where 81 days of employment was provided under NREGA in 2009.[44] Workers received an average wage rate of Rs. 87 per day which is less than prescribed wage rate. They also observed that as large participation by SC and ST categories indicating the scheme is reaching the intended sections. They also noted since 2009, there is a sizable increase in both agriculture as well as non-agricultural wages; and also uniformly across male and female wages. They estimated the cost of production of crops to up by 20 percent. After the MGNREGA, workers purchasing power and incomes were improved moderately. On the flip side, the study found no evidence of reducing distress migration.

In Andhra Pradesh, a study was conducted by the Department of Rural Development, Government of Andhra Pradesh (2012) to assess the impact of the MGNREGA on the agricultural farmers in the state. This study was carried out in three districts that are Mahabubnagar, Kurnool and East Godavari on data collected from 297 respondents in 2011. In the study, input costs in surveyed districts were found a significant increase in the cost of cultivation per acre. Among the three districts, East Godavari has the highest cost of input labour in agriculture. MGNREGA helped wage labourers in two ways, on the one hand, it provided additional and/or alternative employment and it helped an enhanced bargaining power to demand more wages from other jobs on the other. The major outcome of MGNREGA in Andhra Pradesh is changing dynamics between the relationship of large farmers and landless labourers.

Prasad, S., (2014)from his study in Bundelkhand region in the state of Uttar Pradesh, observed labour shortage as arising from several factors such as heavy rural out-migration, education and unwillingness of youth to work in agriculture. MGNREGA is argued to have contributed to further scarcity and increased wages. Medium and large farmers, who depend fully on hired labour, are said to be changing cropping pattern to cope with the rising cost of cultivation, going for lesser labour intensive crops. In Kerala,

[44] Shah, V.D. & Manish Makwana (2011), "*Impact of NREGA on Wage Rates, Food Security and Rural Urban Migration in Gujarat*", Research Study No.141, Agro-Economic Research Centre, Sardar Patel University, Gujarat.

Seenath, P., et al. (2016) in their study in Palakkad, based on 320 sample households in 2011-12, observed that women's participation in the MGNREGA is as high as 95 percent, because their work participation in agriculture decreased drastically from 64.6 days to 20.4 days during 2005-06 and 2011-12. As an inverse relation was found between agricultural labour days and MGNREGA work days, the study concluded that MGNREGA work participation has a negative effect on agricultural work participation of the respondents in the study area.[45] On the other hand, the study found that there is a drastic increase in female wages by 200 percent; and male wages by 100 percent. In agriculture, female wages were increased to Rs. 50 per day during 2005-06 to Rs. 150 during 2011-12. In the same period, wage rate was increased from Rs. 150 to Rs. 300 per day for male agricultural labourers. As a result, the household incomes of workers have increased compared to pre-MGNREGA period. Interestingly, the study found that agriculture contribution was declined in the total income of the respondents as their participation coming down. Wherever both the MGNREGA works and agricultural operations take place simultaneously, there can be a problem of labour scarcity for farm operations. Although the MGNREGA could be somewhat responsible for declining profitability due to the high cost of production, it has a potential to have positive impacts on agricultural productivity and cultivated area. Most of the works designed under MGNREGA like water harvesting, conservation, renovation of water bodies, irrigation works and land development are intended in favour of agriculture directly and/or indirectly, which will further lead to having positive impacts on farm incomes. Of course, the effectiveness of them depends on how well they are planned and executed.

In this context, Krishan, S. and A. Balakrishnan (2012) have made an attempt to assess the impact of MGNREGA on agriculture in terms of area and production for paddy crop. In this study, they concentrated mainly on water conservation and harvesting works in Vadivelkarai village of Thiruppurankundaram block of Tamil Nadu in 2010 using both primary (sample: 30 farming households) and secondary information. In the village, almost 90 percent of works are carried out under the MGNREGA are minor irrigation works. The villagers vacated the encroachment made by a private party in the catchment area of around 10 acres. It has increased the storage capacity of the village tank which reflected in the area under cultivation of paddy which rose from 57.29 hectares to 73.78 hectares. In that tank, the MGNREGA works were carried out by

[45] Seenath, P et al. (2016), "Implications of MGNREGS in Agricultural Labour Market: A Kerala Study", *Indian Research Journal of Extension Education,* Vol. No. 16(1), January.

deepening and de-siltation activities to increase the water storage capacity. Although there is a shortage of rainfall, due to increasing the storage of water, the area left as fallow land in the previous year was brought under cultivation in the current year. Due to deepening of the tanks and the result of storage capacity the cultivated area has increased from 28 percent to 36 percent to the total area of the village. Because of water availability for a longer period and an increase in acreage, total production of paddy has enhanced by 68102 kg during this year. They study argued there is a positive effect on income and purchasing power of the farming community in the village. The major portion of the incomes of downtrodden people that are received through MGNREGA was spent on food consumption which means the programme enhanced food security in the study area. Thus, this study also concludes that a positive impact on the reduction of poverty by improving their food consumption and enhanced the agricultural production by an increase in the area under cultivation.

2.2.2 Impact on Income, Expenditure, Consumption and Migration:

Increase in income due to available/additional employment at minimum wages will change expenditure and consumption pattern of participating household. Thus MGNREGA income can have the potential to stimulate aggregate consumption demand in the economy. The following are some of the studies which tried to throw light on changes in income, expenditure and consumption patterns due to the introduction of MGNREGA.

Jos Chatukulam and K. Girishan in Palakkad and Wayanad districts of Kerala in 2007, observed a marked impact of NREGA on income and somewhat mixed impact on migration. This study was conducted in 30 selected villages of the two chosen districts (two blocks from each district) covering with 814 beneficiaries and 102 non-beneficiaries. They observed an improvement in income of the beneficiary households up to 14 percent in Palakkad and 13 percent in Wayanad districts. A significant reduction found in the number of instances of migration in both districts in the state owing to the NREGA implementation. Distress migration has said to have come down by 13 percent of Palakkad district and 20 percent of Wayanad districts.

In 2008, Planning Commission commissioned a 20-district study across the country to on the evaluation of the impact of the NREGA. The study noted a drastic reduction in severely poor in households with an improvement in income, the rise in monthly

expenditure on food and non-food items. The survey found no impact on out-migration, as about 70 percent of the beneficiaries reported they are indeed migrating for sheer work and not necessarily for better wages.

Swain, M. and Shreekant Sharma (2015) study in Rajasthan for the period of 2008-11., with a sample of 250 households in five districts of the Rajasthan, namely, Banswara, Karauli, Nagaur, Jaisalmer and Sri Gangadhar, found a) a significant proportion of 66.9 percent women participated in the MGNREGA work which resulted in marked improvement in their economic freedom and standard of living. b) As the MGNREGA covers more and more non-Dalit (especially backward) households, the share of SCs and STs in total person-days is coming down over a period of time. c) They observed some political bias in issuing the job cards for the households at the village level. d) The wages from the MGNREGA are comparatively better than those received from other of public works. e) Beneficiaries in the study express that MGNREGA has enhanced food security and provided protection against starvation.

Ahuja, U. R., et al. (2011) carried out research in the state of Haryana to investigate employment generation and people's participation in MGNREGA. This study has gone through two districts, namely, Karnal which is agriculturally advanced and Mewat district -an agriculturally backward one by taking 60 farm households from each district during the period of 2010-11. Based on the logit model estimation results, they suggested that participation in MGNREGA has a negative relation with land holding size, livestock and out-migration. A significance difference has been found in the extent of employment under MGNREGA works in agriculturally advanced Karnal (13.7%) and agriculturally backward Mewat (24.6%) districts. It is observed that MGNREGA has not been able to check migration because of higher market wage rates at destinations.

In Andhra Pradesh, Department of Rural Development conducted two impact assessment studies with different objectives. During August 2010 - March 2011, a study was conducted in 81 villages in 27 Mandals of 9 districts (Nalgonda, Vizianagaram, Mahabubnagar, Khammam, Anantapur, Srikakulam, Kurnool, Adilabad and Kadapa) of Andhra Pradesh to assess the impact of MGNREGA on poverty and levels of living poor. For the study, information was collected from 1630 individual respondents in chosen villages. The study villages are categorised into least, medium and best-performing ones on the basis of employment days received per household under the scheme. The study concluded that MGNREGA had increased access to employment, improved wage

rate, and village common and private resources. It has significantly impacted the households directly in terms of income, expenditure, food security, income risk management, migration, and lifestyle, etc. The poor have increased their levels of expenditure on food and nutrition intake including vegetables, chicken and mutton as a result of an increase in incomes. As there is regular cash flow into the households because of the MGNREGA, people spent more on non-food items and quality services, as reflected in higher health and education expenditure in the 'best' villages. Among the poor households, there is 44 percent reduction in distress migration after MGNREGA; it is about 60 percent in best performing villages. After the MGNREGA, wage rates in rural areas have gone by 43 percent, from Rs.74 to 107 per day. Along with wage rate, there is an improvement in bargaining strength of the labour in study villages. Farmers had to pay higher wages to complete farm operation. MGNREGA has given employment also for the people who depend on artisanal activities and traditional occupations in the village. The villages experienced the opening of new businesses and services to cater to the increased levels of living resulting from more purchasing power. The number of the MGNREGA households confirmed increased ability of the poor to afford private school education. On the other hand, the study also found negative impacts like increasing alcohol consumption and increasing the cost of cultivation.

In another study was conducted in the same year by Department of Rural Development, Andhra Pradesh (2011) focusing on the impact of MGNREGA on food consumption of the beneficiaries and the education of their children' in 54 chosen villages of six districts, namely, Anantapur, Kadapa, Mahbubnagar, Medak, Adilabad and Vizianagaram. The study covered total 2726 beneficiaries including at least 50 beneficiaries from each village considering different social sections. This study found that MGNREGA makes the beneficiaries to afford to support the entire family with three meals a day where they used to struggle for one meal a day. With continuous employment availability, there is an immense change in the quality of food they consumed, and the frequency of consumption of milk, eggs, and meat has increased. It is found that regularity has been improved in school going children of the participated households which they attributed to the better quality of food and reduced migration.

MGNREGA is contemplated to arrest distress migration through providing employment opportunities in rural areas during lean agricultural seasons and drought times. However, are so many factors responsible for distress migration such as drought,

crop failures, lack of opportunities, debt burden and so on. But, the MGNREGA alone does not have enough capacity to curtail distress migration in rural areas as we already observed from some of the mentioned studies. In 2013, Nandini Singh conducted a study to find out the impacts of MGNREGA on migration in the Andhra Pradesh, using NSSO data of 2007-08. She found that correlation between out-migration and MGNREGA employment is very week.[46] Micro-level data reflects that MGNREGA marginally stopped the temporary migration in Dokur village in Mahabubnagar district. In the study village, low wages received and meagre employment under MGNREGA are important reasons for out-migration. Finally, this study concludes the MGNREGA can help to reduce temporary migration but is ineffective for the long run.

Amit Kundu (2014) investigated the effectiveness of MGNREGA to reduce the intensity of migration of poor rural households to urban areas in West Bengal. This study was conducted in three Gram Panchayats, namely Krishnapur, Anchona and Gabberia in Mandir Bazar block of South 24 Parganas district. The field survey was conducted during May - June of 2012 with 314 sample households. In his observation, poor households are less prone to migrate to urban areas with the availability of MGNREGA employment. In this study, rural people prefer to stay back with their family members if they get employment in agricultural slack season through the MGNREGA. So, time plan of the MGNREGA implementation is a very crucial in reducing distress migration. It happens mainly because of lack of proper planning for implementation in needy times. Moreover, non-availability of employment and getting low wages under piece-wage rate also are additional reasons for migration of poor from the villages.

2.2.3 Agrarian Change and Rural Transformation:

It is well-known that landless poor and marginal and small farmers from different social groups who economically backward, form a major share of the rural workforce. The participation in the MGNREGA depends on employment opportunities in that particular region. Workers participation in MGNREGA may be more in backward regions than economically progressive ones. According to Ahuja, U., et al. (2011), participation in MGNREGA is inversely related to farm size, dependency ratio, livestock, literacy, debt

[46] Singh, N (2013), "Impact of MGNREGA on Migration and Asset creation", Project Report, ICRISAI-Patancheru, July 12.

burden and out-migration.[47] Employment guarantee is more important and necessary in backward regions than others. However, MGNREGA can bring changes in rural labour markets and act as a catalyst for rural transformation in rural areas.

Obviously, labour markets get affected when interacting with employment generation programmes like MGNREGA. The influence depends on the nature, longevity and continuity of its implementation of the scheme. Shilip Verma and Tushaar Shah (2012) analyse the labour market dynamics in rural India in the post-MGNREGA period in their study that covered selected districts in 18 states in the country. The MGNREGA alters the local labour markets in several ways. It has increased workers participation by offering attractive, accessible and convenient work opportunities. After the MGNREGA, the authors argued that rural labour markets are segmented two MGNRGEA market and the residual labour market. By this segmentation, MGNREGA is said to have created labour shortages and pushed up wage rates in the residual market. There are administrative pressures on supervisors and technical assistants to be lenient in work measurements. This also said to have made MGNREGA less productivity-sensitive vis-à-vis the residual labour market. They argued it expanded the labour market by attracting new labour (economically inactive persons such as women) to the workforce without drawing away a significant chunk of workers from the residual market. The scarcity-causing impact of the MGNREGA on the rural labour market is said to be existing during peak agricultural seasons and summer season. Where the MGNREGA is implemented in full swing, farm and non-farm labour markets become tighter and putting upward pressure on wage rates. In some places, labour market got segmented in a different way; women, old and the infirm choosing MGNREGA but able-bodied men demanding higher wages for farming works. The MGNREGA wages, however, could not match with the wages received by able-bodied men and who migrate to urban centres where the wages are much higher. So the MGNREGA could reduce distress migration, but gainful migration continued same as before. In addition, landlords opposed the MGNREGA by complaining about the increase in wages, labour scarcity and growing laziness.

[47] Ahuja, U., et al. (2011), "Impact of MGNREGA on Rural Employment and Migration: A Study in Agriculturally-backward and Agriculturally-advanced districts of Haryana, *Agricultural Economics Research Review*, Vol. 24.

A study is conducted in Tamil Nadu by Carswell, G and Geert De Neve (2014) took a critical look at MGNREGA. They carried out field work in two villages of Allapuram (240 sample households) and Mannaapalayam (279 sample households) in Tiruppur district in two time periods in 2008-09 and 2011. In terms of the MGNREGA outcomes, they concluded that the scheme is benefitting o the poor households – and *Dalits* and women in particular as a safety net against poverty. It has also produced significant transformation outcomes for rural labourers, such as pushing up rural wage levels, enhancing low-caste workers' bargaining power in the labour market and reducing their dependency on high caste employers.[48] These benefits are not only substantial but also transformative in effecting production relations and empowering labour in rural areas. But, in terms of creating durable assets and promoting grassroots democracy, the scheme's outcomes are not satisfactory.

To understand to agrarian relations after the MGNREGA, Jakimow, T., (2014) conducted a survey in two villages of Telangana namely, Rajampuram in Nalgonda district and Krishnanagar in Mahabubnagar district. This study is based on the life history narratives of 49 individuals from both the villages which are collected between September and December 2010. The farmers with large landholdings who highly dependent on hired labour have a completely negative opinion about the MGNREGA. In her opinion, the MGNREGA is the main reason for non-availability of labour that put upward pressure on wages. Before the scheme, large farmers were monopsonists in the village. Now, large farmers no longer are able to call labourers on demand as in the past; but have to go personally and cajole to make them come.[49] Along with employment, the MGNREGA has apparently given better bargaining power and curtailed the power of landlords. But, small and medium farmers who did not participate in MGNREGA are sympathetic about conditions of the labourers and have considered it as employment provider for poor in the summer. With the period of the MGNREGA coinciding with rapid food inflation, most of the labourers opined that actual benefits are very limited although wages increased. With respect to labour scarcity, the study revealed that the MGNREGA could not be an alternative to agricultural works. Historically, landlord –labourer relations is negotiated through credit market. Usually, labourers and small and marginal farmers

[48] Carswell, G and Geert De Neve, (2014), "MGNREGA in Tamil Nadu: A Story of Success and Transformation?", *Journal of Agrarian Change*, Vol. No. 14(4), October.

[49] Jakimow, T. (2014), "'Breaking the backbone of farmers': contestations in a rural employment guarantee scheme", *The Journal of Peasant Studies*, Vol. No. 41(2), March.

depend on big farmers and landlords for credit for both productive and consumption purposes. Non-institutional rural credit markets are inter-linked with product and labour markets in the agricultural sector.

Formal rural credit markets are not strong in all regions in the country, which compels marginalised households to borrow from informal money lenders. The public programmes like the MGNREGA potentially redefine credit inter-linkages in rural areas. In Andhra Pradesh, Bhattarai, M., et al. (2014) conducted a study among panel data of 227 households in four villages, to assess the impact of MGNREGA on rural credit structure. The study used double difference method to assess the impact on credit during 2007-11. The results of the study indicated that the debt-to-asset ratio of the control group households participating in MGNREGA has substantially reduced than that of others, reducing dependence on non-institutional sources of credit over the years.[50] This study also observed a reduced share of lower caste households. Smaller peasantry escaped the dependence on big farmers, which led a considerable fall in the influence of the latter in the village life.

Jyothi Prakash (2015) in a study attempted to explore the impact of MGNREGA on nature, incidence, composition and volume of rural credit (both institutional and non-institutional) in Ranchi district of Jharkhand. For the study, 120 sample beneficiary households were selected from two blocks of Ratu and Angara in Ranchi district. It is observed in the study that the MGNREGA becomes successful in increasing income levels of the household, which in turn, increases the demand for credit for productive purposes. After the MGNREGA, the percentage of households having income less than 5000 per annum has come down from 55.56 percent to 27.08 percent. At the same time, the income levels of respondent households for different income ranges have increased by 8 to 28 percent. Increasing income levels resulted in improvement in demand for credit for productive purposes from 40.8 percent to 43.3 percent. The study found that dependence on money lenders fell from 29 percent to 14 percent, and bank credit share increased from 3.33 percent to 10 percent. In this way, MGNREGA helps in increasing demand for credit as households' repayment capacity improved.[51]

[50] Battarai, M, et al. (2014), "*Impact of MGNREGA on Rural Credit Structure in Andhra Pradesh state of India: Household Level Panel Data Analysis from 2006-12*" Socioeconomics Discussion Paper Series. 28, ICRISAT.
[51] Prakash, J, (2015), "Impact of MGNREGA on Income and Rural Credit: An Empirical Study of Ranchi District", *Journal of Economic & Social Development*, Vol. No.11 (1), June.

Conclusions:

Above discussion brings certain clarity of some issues. First, it's an important intervention for poor and vulnerable. Two, a considerable improvement is made in the design of the program/Act, but not much is said about what concrete models are in place in the implementation. Three, there is a wide temporal and spatial variation in the extent of implementation. But what are the macro and micro level variations in the MGNREGA's resource allocation and employment generation is something still to be addressed. Fourth, there has been deceleration employment generation during the second half of the decade. How does one explain this deceleration? Some political apathy or some larger factors responsible needs to be explored. Fifth, the impact of the Act on poor is unambiguously positive in terms of increase in income and consumption expenditure. What is not known clearly is how much of average income generated at a household level. Sixth, its impact on wage rates is significant, while its impact in reducing distress migration marginal. There is scope to study the impact of the program on agriculture, particularly given the fact that its impact is mixed. Finally, it affects the agrarian relations between landlords and workers. How is this conflict being resolved?

Many studies pointed out that the MGNREGA contributed towards increasing labour costs by pushing up wage rates; and labour shortage for farm operations. There is a need to study the aggregate as well as state level performance. There is no study that has taken all the important states and examined the factors that affect its implementation. It would be interesting to see whether this result can be captured in statistical terms too. Placing MGNREGA in the larger context of rural employment is important to see the overall dynamics. This should be seen at a macro and micro levels. There is certainly a lot of scope to explore the impact MGNREGA on agriculture as result of land development works undertaken. This study would attempt to fill some of the gaps in understanding the concerns of MGNREGA mentioned above.

Chapter - III

3. MGNREGA Implementation in India: An Inter-State Comparison

This chapter deals with an analysis of MGNREGA performance since its inception at the aggregate level and an inter-state comparison, regarding employment trends, physical assets and financial issues. The purpose of such an exercise is to see how serious is a government in extending the finances required for the objectives under the Act to be realised, to understand the fluctuations in the budgeting and its consequences. Second, there are state-level differences in implementation and performance of the Act. To understand the relative performance in a comparative perspective, I have constructed an index of performance for the Act to rank the states. It gives a better picture of the regional dimension of implementation of the Act. Third, as perception generated by commentators, to identify the program with the political party at the Centre that has introduced the program. If the political will is an important determinant, then implementation of the Act could be a subject of the political party in power, its ideology and its commitment in light of competitive politics. This chapter also looks into the implementation of the Act in different states, ruled by different political parties to examine whether it matters.

3.1 MGNREGA - Aggregate Trends

The MGNREGA performance can be understood through employment generation, asset creation and expenditure details. For better understanding, the entire period of implementation is categorised into two periods, one is, for the period of first three years (2006-07 to 2008-09) and another is, 2009-10 to till now. The 2006-07 to 2008-09 is a period of learning, adapting and scaling up. In this period, the MGNREGA is steadily extended to all the rural districts of the country from starting selected 200 districts. During the second phase of 2009-10 to the present (2016), is a realisation period in the implementation of the MGNREGA. The latter period can be taken for a review to identify structural bottlenecks for bettering the implementation of the programme.

3.1.1 Employment Generation:

In its journey of implementation of the MGNREGA, there is a rising phase of the program that reached a cusp in 2010-11 and began declining trend in the implementation without any significant reversal (see Table: 3.1). Under the MGNREGA, the coverage of households has begun with 2.11 crore in 2006-07, reached its maximum number of 5.49

crore (that forms 32.6 percent of rural households) in 2010-11, and fell back to 3.94 crores for 2014-15, recovered to 4.21 crore for 2015-16.Why did this steady decline take place after 2010-11, is a critical question to be asked? Is it being implemented in accordance with the demand for employment from households or as per the budgetary convenience of the government? Since, we are in a position to ascertain the total demand for a number of days of employment, since no such data is available, and if the 100 days of employment promised by the Act is taken the average household demand, the gap between demand and supply is only widening over the period. There is a possibility of movement of households' coverage and person-days in the opposite direction as a decline in total person-days as the MGNREGA covers more and more households. But, both coverage and person-days are declining over the years which clearly explains declining trend in the implementation of the programme.

Table 3.1 Households' Coverage under MGNREGA (2006-16)

Year	Total Job Cards (in Crore)	Employment Provided HHs (in Crore)	% of HHs given employment to job cards	% of HHs covered to Total Rural Households (As Per 2011 Census)	Total Person-days (in Crore)	Women share in Person-days (%)
2006-07	3.78	2.11	56	12.5	90.51	40
2007-08	6.48	3.39	52	20.1	143.76	42
2008-09	10.01	4.50	45	26.7	216.33	48
2009-10	11.25	5.25	47	31.1	283.60	48
2010-11	11.98	5.49	46	32.6	257.15	48
2011-12	12.50	4.98	40	29.5	211.71	48
2012-13	12.79	4.85	38	28.8	218.48	52
2013-14	12.81	4.76	37	28.2	218.68	53
2014-15	12.77	3.94	31	23.4	148.68	55
2015-16	13.00	4.21	32	25.0	176.46	56

Source: www.nrega.nic.in

The employment provision in terms of person-days also reached its peak in 2010-11 and kept falling continuously since then. The share of SCs in total person-days went up from 25 percent to 30 percent during 2006-07 to 2010-11 and declined to 22 percent thereafter. In the case of STs, their share in total person-days has been declined steadily from 25 percent to 17 percent during 2006-07 to 2015-16. The shares of SCs and STs came down, as the share of person-days for others (including BCs) increased from 38 percent to 60 percent (see Figure: 3-2). It seems to be a steady increase in women participation over the years as their share in person-days increases continuously from 40 percent to 56 percent. This appears consistent with shares of SC, ST and BCs in total rural poor.

Figure: 3-1

MGNREGA Households Coverage (2006-16)

(Percentage)

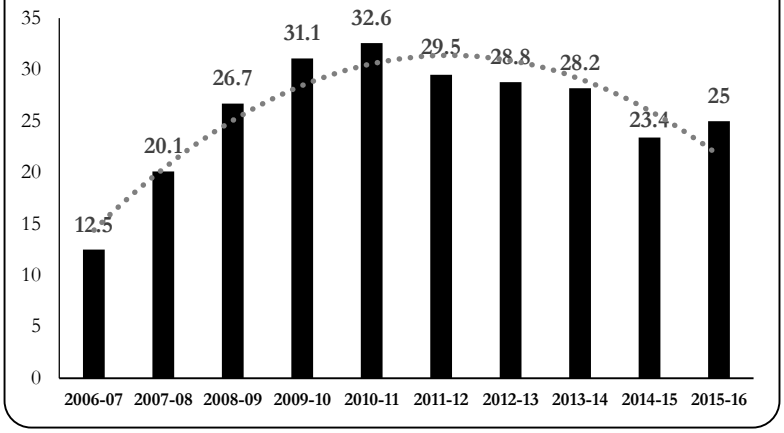
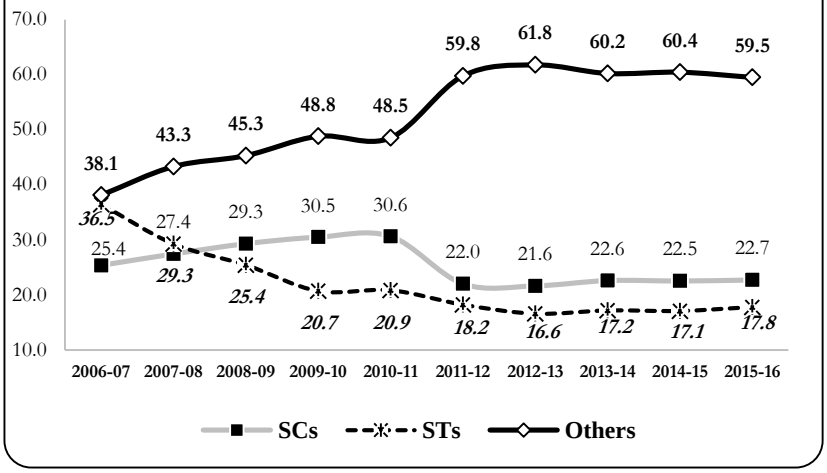


Figure: 3-2

Percentage share of SCs, STs and Others in Total Person-days



3.1.2 Average Employment:

Though the Act mentions giving a minimum 100 days employment for every rural household, still in practice, it is yet to be fulfilled objective in practice from the aggregate point of view. The highest average employment provided per household is 54 days in 2009-10 – just over the half way mark. After 2010-11, average household employment just kept declining [see Figure. 3-3].

Among the participating households, a very limited proportion of households were provided 100 days per annum. During the ten years' period, households' completed 100 days per annum was never exceeded more than 15 percent of working households under MGNREGA. The percent of households completed 100 days was highest 14.5 percent for the period of 2008-09.

Figure: 3-3
Average Employment per Household under MGNREGA *(in Days)*

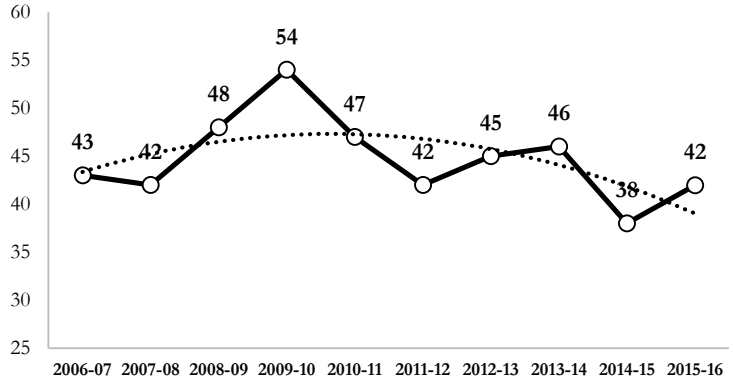


Table 3.2 MGNREGA Households' Employment and Income				
Year	**Average Employment per HHs**	**Wage Rate (Rs.)**	**Average Household Income**	**Households Completed 100 days**
2006-07	43	65	2795	2161286 (10.2)
2007-08	42	75	3150	3602405 (10.6)
2008-09	48	84	4032	6521268 (14.5)
2009-10	54	90	4860	7083663 (13.5)
2010-11	47	100	4700	5561812 (10.1)
2011-12	42	117	4914	3896589 (7.8)
2012-13	45	121	5445	4826054 (9.9)
2013-14	46	133	6118	4603973 (9.7)
2014-15	38	144	5472	1740731 (4.4)
2015-16	42	154	6460	2527237 (6.0)

Note: Numbers given in brackets indicate the percentage of households completed 100 days to total working households in a particular year.
Source: www.nrega.nic.in

What good that happened is, even though average employment declined, but the average household income per household kept increasing in the entire course during 2006-16, thanks to linking the Act with the minimum wages due to the ruling by the Supreme Court in 2010! The average income until 2010-11 increased due to improvement in an average number of days of employment, but after that, it continued to increase, in spite of average employment days has come down, it is more than compensated by the wage rate which is linked to official minimum wages during 2010-16! The wage rate that

increased by 38 percent during 2006-09 and further increased by 54 percent during 2010-16. The average employment days went up from 36 days to 54 days but came down to 46 days during the same periods [Table: 3.2].

3.1.3 Assets Generation:

Under the MGNREGA, employment guarantee for the rural households is associated with the creation of durable assets. It is impossible to create sustainable and durable assets under the MGNREGA with such a low levels of 40 to 50 days employment per annum for the household. According to the data available, in ten years' period, just 23 percent of works were completed out of a total number of works undertaken for having dual objectives of employment guarantee and asset generation as well. Over the period, work completion ratio has been coming down as shown in the figure: 3-4. In recent five years of implementation, less employment generation under MGNREGA was accompanied with poor assets completion ratio than first five years period. Especially, work completion rate has fallen drastically from 50 percent to 15 percent during the period of 2010-16.

Almost 60 percent of the works are either directly or indirectly related to the agriculture and irrigation development. But work completion rate is not at all satisfactory for none of the works that are undertaken. The CAG report (2013) states, "One of the major issues with the implementation of MGNREGA is the large number of works-in-progress in a GP (around 100). Most of these works have had sporadic bursts of person-days of employment, without continuity. Admittedly, a significant proportion of these works are, ineffective, dormant; the actual number of works on which work is being currently provided would be less".[52] Unless the MGNREGA is seriously implemented, not exclusively only for the provision of employment alone, but also for generation of proper durable assets there would not be much justification for the program.

[52] CAG. (2013). *Performance Audit on Mahatma Gandhi National Rural Employment Guarantee Act of Andhra Pradesh.*Report No. 5. Comptroller and Auditor General of India, GoI, New Delhi.

Figure: 3-4
Work Completion Ratio under MGNREGA

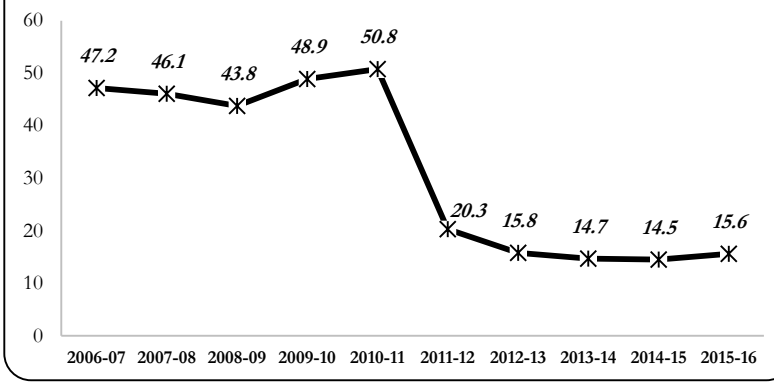


Table 3.3 MGNREGA Works During 2006-16			
Nature of Work	**Works Taken up**	**Works Completed**	**% of Works Completed**
Rural Connectivity	9775372 (15)	2660058	27
Flood Control and Protection	1932973 (3)	600295	31
Water Conservation and Water Harvesting	12219612 (18)	2764411	23
Drought Proofing	7761281 (12)	943481	12
Micro Irrigation Works	3364834 (5)	908782	27
Provision of Irrigation Facility to Land Owned by SCs/STs	10988481 (16)	2286505	21
Renovation of Traditional Water bodies	3037834 (4)	1008645	33
Land Development	5597958 (8)	2098125	37
Other works	12553632 (19)	2297300	18
Total works	**67231977 (100)**	**15567602**	**23**
Source: www.nrega.nic.in			

To test the functional relationship between the works completion rate and material share and employment; a simple regression is estimated by taking work completion rate as the dependent variable and material expenditure share and MGNREGA employment as independent variables separately, for the period of 2006-16, as mentioned in the table: 3.4. It is hypothesised that the asset creation (work completion rate) is positively influenced by both the material expenditure and employment generated. The regression results are statistically significant in the case of material expenditure only. Therefore, material expenditure is strongly correlated with asset creation. The work completion rate is also positively associated with employment generated under MGNREGA, but not statistically significant.

Table 3.4 Regression Results: Work Completion Rate vs. Material Expenditure and Employment		
	$Y_{WCR} = \alpha + \beta(Mtr) + \varepsilon$	$Y_{WCR} = \alpha + \beta(Memp) + \varepsilon$
Observations	10	
Intercept	-169.83	-55.84
Coefficient	6.86	1.96
t-stat	4.62	1.72
p - value	0.002	0.124
R - Square	0.73	0.27
Note: *WCR* = Work Completion Rate, *Mtr* = Material Expenditure Share and *Memp* = MGNREGA Employment. **Source**: Computed with the data taken from MGNREGA Official Portal.		

3.1.4 Financial Performance:

Initially, at the time of proposal of NREGA, National Advisory Committee (NAC) roughly estimated the total cost of the implementation might be around one percent of country's GDP to give 100 days of employment. But, in practice, the actual expenditure made for the programme never exceeded 0.60 percent in any year of its implementation, worse, it actually came down to 0.32 in 2016. This indicates that the MGNRGEA is never given enough financial support to meet the objective of providing 100 days of employment guarantee. As we are aware that Indian economy grew at an average rate of 8.5 percent during 2004-09, but began slowing down since 2009-10. The effect of the decline in GDP growth rate seemingly fell on the MGNREGA budget, disproportionately. Further, during these years of 2010-13, the gap between allocated budget and actual expenditure under the Act widened, which is closed later with a reduced allocation! [see Table 3.5].

The reason for the decline in MGNREGA budget allocations can be read as a measure in curtailing government expenditure to contain fiscal deficit, in light of falling government revenues as the economy slowed down.

Table 3.5 Trends in Funds Allocation from the Centre for the MGNREGA (2006-16)						
Year	GDP Growth Rate	Centre Government Revenue (% of GDP)	Centre Fiscal deficit (% of GDP)	Budgetary Allocation	Funds Release from Centre for MGNREGA	Expenditure on MGNREGA (% of GDP)
2006-07	9.57	11.8	3.3	11300	8640.85 (76)	0.21
2007-08	9.32	10.9	2.5	12000	12610.39 (105)	0.32
2008-09	6.72	9.6	6	30000	29939.6 (99.9)	0.48
2009-10	8.59	8.8	6.5	39100	33506.61 (86)	0.59
2010-11	8.91	10.1	4.8	40100	35768.95 (89)	0.51
2011-12	6.69	8.3	5.7	40000	29189.77 (73)	0.42
2012-13	4.47	8.7	4.85	33000	29908.68 (91)	0.40
2013-14	4.74	8.9	4.62	33000	32746.27 (99)	0.34
2014-15	7.08	9.2	4.13	34000	32139.1 (95)	0.29
2015-16	7.19	8.9	3.9	34699	36133.92 (104)	0.32

Note: Figures given brackets indicate the percentage of funds released by the Centre from budget allocation.
Sources: 1. Economic Survey 2014-15, **2**. Reserve Bank of India and **3**. www.nrega.nic.in

To test such a possible functional relationship between the fund release and revenue receipts; a simple regression is estimated, results given the table: 3.6. For ten years period of 2006-16, a simple regression between funds release and central revenue receipts is estimated, with funds release being the dependent variable. The regression results are statistically significant at 95% confidence level. Therefore, there is a strong positive correlation between the variables, central revenues and MGNREGA funds release. The funds' release tends to decline if there is any decrease in the revenue of the government. Similarly, these results support official figures that are given in the table. 3.5.

Table 3.6 Regression Results: Funds Release vs. Government Revenue	
$Y_{CRL} = \alpha + \beta(CRV) + \varepsilon$	
Observations	10
Intercept	9480
Coefficient	0.023
t-statistic	2.468
p-value	0.038
R^2	0.4323
r (Corr.)	0.657

Note: Y_{CRL}: Central Funds Release; CRV: Central Government Revenue.
Source: Calculated with the data taken from Economic Survey, 2014-15.

It can also be observed that the utilisation share of allocated funds seems to have constantly improved since 2009-10, it increased from 76 percent in 2009-10 to 99 percent in 2015-16. In the combined finance by Centre and State governments finance for the MGNREGA as mentioned in the Act; lion share of the total funds are given by the Centre only. So, it is not the state governments at the aggregate, compared to the central government that have to take the blame for inadequate budgeting for the MGNREGA.

Table 3.7 Funds Availability and Expenditure of the MGNREGA (2006-16) *(in Crores)*

Year	**Total Availability Funds**	**Actual Expenditure**
2006-07	12073.55	8823.35 (73)
2007-08	19305.81	15866.1 (82)
2008-09	37397.06	27250.69 (73)
2009-10	49579.19	37909.78 (76)
2010-11	54172.14	39377.27 (73)
2011-12	43265.36	37637.66 (87)
2012-13	46463.79	39778.27 (86)
2013-14	42103.88	38552.61 (92)
2014-15	37588.03	36025.04 (96)
2015-16	43641.37	43521.63 (99)

Note: Parentheses indicate percentages.
Source: www.nrega.nic.in

Total expenditure spent under MGNREGA basically consists of expenditure incurred on wages, material and administrative expenses. The share of wages in total expenditure varies around 65 to 70 percent. Revising notified wages in every year is an important reason for increasing the share of wage expenditure. When overall expenditure is declining, the rising wage share can only be at the expense of material cost share, which in turn can lead to a fall in work completion ratio. The material cost was close to 30 percent in first five years and slightly come down to 25 percent in recent years. Correspondingly administrative expenditure is steadily increasing over a period of time, from 2 percent to 6 percent in ten years period [see Table: 3.8]. Rising in administrative expenses is helpful to have better set up at different levels of administration for proper monitoring and supervision.

Table 3.8 MGNREGA Expenditure Details (in Rs. Crore)					
Year	Wages	Material	Administrative	Total	Wage-Material Ratio
2006-07	5842.37 (66.2)	2758.77 (31.3)	222.21 (2.5)	8823.35 (100)	68:32
2007-08	10743.41 (67.7)	4621.14 (29.1)	501.55 (3.2)	15866.10 (100)	70:30
2008-09	18200.45 (66.8)	8101.06 (29.7)	949.18 (3.5)	27250.69 (100)	69:31
2009-10	25578.68 (67.5)	11084.48 (29.2)	1246.62 (3.3)	37909.78 (100)	70:30
2010-11	25686.53 (65.2)	11891.09 (30.2)	1799.65 (4.6)	39377.27 (100)	68:32
2011-12	24864.23 (66.1)	10771.21 (28.6)	2002.22 (5.3)	37637.66 (100)	70:30
2012-13	27153.52 (68.3)	10429.97 (26.2)	2194.78 (5.5)	39778.27 (100)	72:28
2013-14	26491.21 (68.7)	9693.72 (25.2)	2367.68 (6.1)	38552.61 (100)	73:27
2014-15	24187.26 (67.1)	9421.11 (26.2)	2416.67 (6.7)	36025.04 (100)	72:28
2015-16	30534.07 (70.1)	10647.26 (24.5)	2340.3 (5.4)	43521.63 (100)	74:26
Note: Parentheses indicate horizontal percentages. **Source:** www.nrega.nic.in					

While the ratio of wage costs to material costs should not be less than the minimum norm of 60:40 stipulated in the Act[53], which was done so to ensure benefitting the workers. However, in practice, wages component in MGNREGA expenditure is always more than 65 percent, affecting material component; this affects the work completion.

3.2 MGNREGA: Interstate Analysis

India is a quasi-federal country, with varied economic, political, socio-cultural diversity. In such a country, any economic phenomenon is not uniform, MGNREGA is no exception. As we found a declining trend in employment generation under the MGNREGA at the national level in the previous section, it is found to be the case in different states as well. However, there are differences among the states in different aspects related to the MGNREGA implementation.

Under the MGNREGA, household's coverage is relatively high in the north-eastern region; Chhattisgarh, Tamil Nadu and Rajasthan states. At the same time, household's coverage is extremely low in the states like Goa, Haryana, Maharashtra, Punjab and Gujarat. The households' coverage is steadily increasing over a period of time in most of the states. But, there is a decline in the coverage of rural households during

[53] The National Rural Employment Guarantee Act 2005 (NREGA), Operational Guidelines 2006, 2nd Edition, GoI.

last five years (2011-2016) in states like Rajasthan, Madhya Pradesh, and Uttar Pradesh; and union territories [Appendix-2: A.2.1].

Women participation is very high in southern states like Kerala, Tamil Nadu, Rajasthan and Andhra Pradesh. The participation of women is very less in northern states like Jammu & Kashmir, Uttar Pradesh and Bihar; there is a little improvement in participation of women in recent years. The prevailing social customs, their role at home, empowerment level, etc., could be the reason for low female participation in MGNREGA work.[54] But, increase in women participation in most of the states has been found in MGNREGA over a period of time [Appendix-2: A.2.2]. When employment in agriculture gets affected, it is the women who need the safety net; therefore we should expect women's participation to increase under MGNREGA.

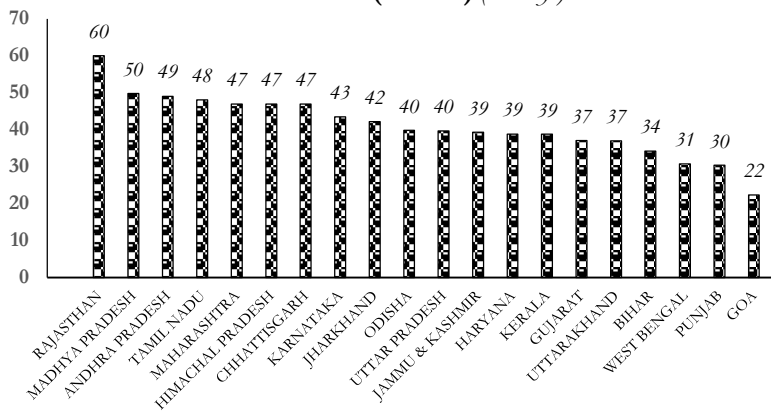
Similarly, the participation of marginalised sections of SCs and STs is also important. This too widely varies across the states. Obviously, their participation would be more in the states where their population is high. The person-days of employment provided for SCs are more in the states like Punjab, Haryana, Uttar Pradesh, Tamil Nadu, Bihar and West Bengal. The share of SCs in person-days is very low in the states like North-eastern states, Goa, Jammu & Kashmir and Gujarat, where their existence is low [Appendix-2: A.2.3]. As far as ST's participation is concerned, employment given for STs is very high, more than 70 percent in North-eastern states; after that, it is relatively better in states like Gujarat, Jharkhand, Odisha and Chhattisgarh. The ST's share in person-days is very low in Haryana, Punjab, Uttar Pradesh, Tamil Nadu, Bihar and Uttarakhand states [Appendix-2: A.2.4].

The average household employment provided MGNREGA can be considered as a touchstone to assess the performance of the MGNREGA. Till now, a decadal average of employment given per household is just 45 days per annum during 2006-07 to 2015-16, which less than half of the targeted employment. When it comes to the states, there is no clear trend in employment days; wide year-to-year variations exist in the same state. Tripura state provides maximum days of employment per household about 75 which is highest in whole India. Odisha is the median state with 40 days employment. Excluding

[54] Sudarshan R. M. (2011), "India's National Rural Employment Guarantee Act: Women's Participation and Impacts in Himachal Pradesh, Kerala and Rajasthan, Centre for Social Protection, Research Report No.06, Brighton, UK.

Arunachal Pradesh, Assam and Meghalaya, rest of the north-eastern states, average employment is more than the national average [Appendix-2: A.2.5].

Figure: 3-5
State-wise Average Employment per Household under MGNREGA (2006-16) *(in Days)*



Excluding north-eastern states, the MGNREGA performance is relatively better in Rajasthan (60 days), Madhya Pradesh (50 days), Andhra Pradesh (49 days), Tamil Nadu (48 days), Maharashtra (47 days), Himachal Pradesh (47 days) and Chhattisgarh (47 days) where employment generation is more than the national average. There is a slowdown in employment generation in these states like Rajasthan, Andhra Pradesh, Madhya Pradesh and Chhattisgarh, especially in second half of the decade.

Employment generation in some of the states like Karnataka (43 days), Jharkhand (42 days), Odisha (40 days) and Uttar Pradesh (40 days) is very close to national average. But, Goa (22 days), Punjab (30 days), West Bengal (31 days), Bihar (34 days) and union territories were listed at the bottom with minimum days of employment given per household under the MGNREGA. There is little improvement in average employment in Bihar and West Bengal when compared to first five years' period. Not surprisingly, employment generation is very poor in Goa and Punjab since more employment opportunities available in both farm and non-farm sectors. But, employment generation in poor states like Bihar, Odisha, Uttar Pradesh and Jharkhand is not satisfactory. For successful implementation of any programme, the strong administrative capability is also very important with financial support. Probably, administrative bodies are so week in poorer states which cause for poor implementation of employment guarantee programme.

3.2.1 Index of MGNREGA Performance:

One should not be obsessed with average employment as the only indicator, to judge actual performance of the MGNREGA's implementation. Because, as we see in the next chapter, within a state if backward districts are given 100 days, and advanced districts get less, the average may remain low. Besides this, a few more indicators are also needed to capture actual performance such as rural household coverage, women participation, 100 days completed households, funds utilisation, wage rate and work completion ratio along with average days of employment per household. We shall build an index of MGNREGA performance for different states.

The variables mentioned above which used in building the index are defined as following. Rural household coverage means the percentage of rural households were given employment under MGNREGA, which explains actual coverage. Women participation in MGNREGA results in their empowerment in terms of income earning, participating in public activities, decision-making at home, etc. The number of households completed 100 days actually explains how far the objective of 100 of employment is being met. Funds utilisation means a number of funds spent on to available funds. Wage rate is the remuneration for MGNREGA employment per day per person. Another indicator is work completion ratio, is a percentage of works completed against works undertaken under MGNREGA. Combining these all indicators, an index named as "Index of MGNREGA Performance" is prepared to capture the performance of MGNREGA in different states.

The present study adopted the methodology of Mandira Sharma[55] for constructing the performance of the MGNREGA Index (IMP) for different states. To measure the

[55] To measure the performance of the MGNREGA among the different states, we adopted an index developed by Mandira Sharma (2010) which is used for measuring financial inclusion. The formula developed by Mandira Sharma is,

$$IFI = 1 - \frac{\sqrt{(w_1 - d_1)^2 + (w_2 - d_2)^2 + \ldots\ldots + (w_n - d_n)^2}}{\sqrt{(w_1^2 + w_2^2 + \ldots\ldots + w_n^2)}} \quad (1)$$

For this index, dimension values are calculated by using the formula (4). The dimension value measures the state's achievement in the i^{th} dimension of the MGNREGA performance. A weight w_i such that $0 \leq w_i \geq 1$ is attached to the dimension i which indicates the relative importance of the dimension i in the quantifying performance of the MGNREGA.

$$d_i = w_i \frac{A_i - m_i}{M_i - m_i} \quad (2)$$

Where,
wi = Weight attached to the dimension i, $(0 \leq w_i \geq 1$ *and* $\sum w_i = 1)$
A_i = Actual value of dimension i,
M_i = Upper limit for dimension i and
M_i = Lower limit for dimension i.

MGNREGA performance index, we included household' coverage (HC), share of women in total person-days (PW), average employment per household (AE), proportion of households completed 100 days (HH), work completion ratio (WC), average wage cost per person (AW) and proportion of funds utilised (FU). The dimension value for each indicator is calculated by using the formula (2) (see *footnote.* 55).

For each indicator's dimension values, weights are assigned by computing inverse of the variance of the particular indicator.[56] The choice of weights in this manner ensures that large variation in any one of the indicator would not dominate the contribution of the rest of the indicators and distort inter-regional comparisons [(Iyengar, N.S. & P. Sudarshan (1982)].

The index of MGNREGA performance formula is,

$$IMP = 1 - \frac{\sqrt{(w_1 - dHC)^2 + (w_2 - dPW)^2 + (w_3 - dAE)^2 + (w_4 - dHH)^2 + (w_5 - dWC)^2 + (w_6 - dAW)^2 + (w_7 - dFU)^2}}{\sqrt{(w_1^2 + w_2^2 + w_3^2 + w_4^2 + w_5^2 + w_6^2 + w_7^2)}}$$

Whereas,

dHC = dimension value of Proportion of Rural Households Covered,

dPW = dimension value of Proportion of Person-days given for Women,

dAE = dimension value of Average Employment days per Household,

dHH = dimension value of Proportion of Households Completed 100 days,

dWC = dimension of Proportion of Works completed,

dAW = dimension value of Average Wage cost per Person, and

dFU = dimension value of Proportion of Funds Utilised.

[56] In Iyengar and Sudarshan's method, the weights are assumed to vary inversely as the variance over the regions in the respective indicators. The weight w_i is determined by,

$$w_i = \frac{k}{\sqrt{Var(y_i)}}$$

Where 'k' is a normalising constant such that,

$$k = \left[\sum_{i=1}^{n} \frac{1}{\sqrt{Var(y_i)}} \right]^{-1}$$

The MGNREGA performance index is calculated by the formula,

$$IMP = 1 - \frac{\sqrt{(0.09 - dHC)^2 + (0.07 - dPW)^2 + (0.15 - dAE)^2 + (0.38 - dHH)^2 + (0.16 - dWC)^2 + (0.05 - dAW)^2 + (0.10 - dFU)^2}}{\sqrt{(0.09)^2 + (0.07)^2 + (0.15)^2 + (0.38)^2 + (0.16)^2 + (0.05)^2 + (0.10)^2}}$$

Estimated MGNREGA Performance Index Results:

Based on the value of the index of MGNREGA Performance based on the seven indicators, states are ranked given in the table. 3.9. We are aware that the MGNREGA performance can also be determined by various other factors like political will, administrative efficiency, mobilisation from below, political economy relations and so on, which are not taken into consideration here, given the difficulties in quantifying. But we know that governments in some states have shown more political will than the others. For example, a strong political determination is seen in some north-eastern states, Rajasthan and Andhra Pradesh. The states Kerala and Rajasthan are the best examples for mobilising workers through women self-help groups. For MGNREGA implementation, southern states like Andhra Pradesh, Kerala, Tamil Nadu and Maharashtra have better administrative efficacy, and delivery mechanism when compared to other states. There is the possibility of having strong political economy influences in economically backward states which can adversely affect the performance of MGNREGA. These are certainly matters of contemplation, even if not that of estimation.

Coming to the MGNREGA performance Index, it is better in north-eastern states like Tripura, Sikkim, Mizoram, Nagaland, Manipur in all the indicators when compare to others. Being tiny geographical regions, it is possible for better delivery of employment guarantee as per workers demand in the north-eastern region. These states are excluded while computing the index.

Among the states, Rajasthan stands at first rank having highest index value with better performance. Rajasthan also happens to be the state where demand for employment guarantee came up as people's movement in 2004. Along with Rajasthan, other states like Tamil Nadu, Andhra Pradesh, Chhattisgarh, Himachal Pradesh and Madhya Pradesh stand as first six better performing states. The States like Kerala, Jharkhand, Gujarat, Uttar Pradesh, Uttarakhand, Maharashtra and Karnataka are moderately performing states, going by the index.

Table 3.9 Index of MGNREGA Performance (2006-16)		
State	Index Value	Rank
Better Performing States		
Rajasthan	0.240	1
Tamil Nadu	0.166	2
Andhra Pradesh	0.139	3
Chhattisgarh	0.138	4
Himachal Pradesh	0.137	5
Madhya Pradesh	0.136	6
Moderately Performing States		
Kerala	0.103	7
Jharkhand	0.092	8
Gujarat	0.091	9
Uttar Pradesh	0.090	10
Uttarakhand	0.079	11
Maharashtra	0.077	12
Karnataka	0.075	13
Poor Performing States		
West Bengal	0.068	14
Odisha	0.066	15
Haryana	0.066	16
Jammu & Kashmir	0.063	17
Bihar	0.059	18
Punjab	0.047	19
Goa	0.016	20
Source: Computed with the data taken from NREGA website and Census 2011.		

On the other hand, Goa, Punjab, Bihar, Jammu & Kashmir, Haryana, Odisha, and West Bengal states stand at the bottom with poor performance. In some of these states like Punjab and Goa, perhaps, one need worry less about the poor performance of the index where people can find employment in the farm (Punjab) and non-farm sector (Goa). But backward states[57] like Odisha, Bihar, Madhya Pradesh, Chhattisgarh, Jharkhand, and Uttar Pradesh poor and moderate index is not a good sign. Among the previously slotted BIMARU states, Rajasthan, Chhattisgarh and Madhya Pradesh the performance index has fared better. But, the index is found very low in poorest states of Odisha, Bihar; and moderately in Jharkhand and Uttar Pradesh, where the implementation had to be better.

[57] Ministry of Finance (2013), "Report of the Committee on for Evolving a Composite Development Index of States", GoI, New Delhi.

3.2.2 A Regression Analysis:

To understand MGNREGA implementation, a correlation exercise is undertaken, the results are given in the table. 3.10. Correlation coefficients are estimated to find a relationship between MGNREGA employment and different indicators like States' per capita income, poverty rate, rural population, funds release from the centre and expenditure. Theoretically, the relationship of MGNREGA employment with variables like poverty rate, rural population, fund release and expenditure is expected to be positive; and negatively with per capita income.

Obviously, per capita income is negatively associated with rest of the variable as shown in the table. 3.10. In developed states where per capita income is high, poverty rate always very low and their rural population may be relatively less since they diversified into non-farm sectors and urban areas too. So, demand for MGNREGA employment is very less in the states which are having more per capita income.

A correlation matrix is estimated for all states between the above-mentioned variables. The empirical results are consistent with the theoretical expectations: MGNREGA employment is negatively correlated with state per capita income, and positively with poverty levels, rural population, Fund Release and expenditure under the Act. It has the highest correlation with the amount spent, followed by percapita NSDP, rural population, fund release and poverty.[58] Correlation with poverty is weakest, that's why the performance index has shown low for poor states like Bihar, Odisha, etc.

Table 3.10 Correlation Matrix

	MGNREGA Employment	Percapita NSDP	Poverty Rate	Rural Population	Funds release	MGNREGA Expenditure
MGNREGA Employment	1					
Percapita NSDP	-0.288	1				
Poverty Rate	0.012	-0.668	1			
Rural Population	0.145	-0.703	0.453	1		
Funds release	0.139	-0.368	0.154	0.094	1	
MGNREGA Expenditure	0.430	-0.456	-0.022	0.276	0.358	1

Source: Computed with the data taken from MGNREGA Website, Economic Survey, Census 2011 & Planning Commission.

[58] However, in the previous exercise, we found the performance is very low poorer states, may not seem to be consistent with this result. However, index is an overall index consisting of other variables.

The correlation coefficient of MGNREGA employment with MGNREGA expenditure is 0.43. It has low correlation with fund release. Surprisingly there is a low correlation between MGNREGA and state poverty levels, which does not support a proposition that the Act is functioning in accordance with the need. The Central release of funds certainly is important. But whether that is actually spent depends on the disposition of the state government. Given the highest correlation found between employment generated and fund utilised, it shows that it is working where state governments are showing the political will.What explains the poor political will of poorest states? It is the thing that needs further probing. Speculatively, one can say that the way complex political economy determines the economic development and poverty level, similar complex possibly influences implementation of a welfare policy that is directed to the working class.

To observe the significance of the statistical relationships, a double log-linear regression is estimated by taking the MGNREGA employment (NEmp) as the dependent variable and both percapita income (at constant prices) of the state (PCI) and actual MGNREGA expenditure (NExp) as independent variables. It is hypothesised that the MGNREGA employment is positively influenced by expenditure and negatively by state's per capita income. For the estimation, nine years of average data for 28 states is taken for all the three variables for the period of 2006-07 to 2014-15. The regression is estimated by the following equation:

$$\ln\left(NEmp\right)_i = \alpha + \beta_1 \ln\left(PCI\right)_i + \beta_2 \ln\left(NExp\right)_i + \varepsilon$$

Table 3.11 Regression Results: MGNREGA Employment vs. MGNREGA Expenditure and Percapita Income

Observations	28	
	Coefficient	t -stat
Intercept	0.303	0.162 (0.873)
Log(NExp)	0.840	3.528 (0.002)
Log(PCI)	-0.019	-0.163 (0.873)
R^2	0.370	
F-statistic	7.344 (0.003)	

Note: p-values are given in brackets.
Source: Computed with the data taken from MGNREGA Website & Economic Survey 2014-15.

As shown in the table: 3.11, the coefficients bear the expected signs but, it is not statistically significant in the case of percapita income. The low degrees of freedom could be the suggestive reason for any meaningful result to be derived.

3.3 MGNREGA under Different Political Regimes

Another important dimension to understanding MGNREGA implementation is the political dimension if political will matters. Here, the political dimension is contemplated in the sense of ruling party of the particular state and its alliance with ruling government at Centre. Just before 2004 general elections, UPA alliance included employment guarantee as a poll promise. Congress party claimed ownership over the program, even though Left parties have done a significant role in preparing the blueprint along with several independent activists.[59] Many feel that the popularity from the implementation of MGNREGA is one of the reasons for UPA's coming into power for the second term in 2009. National Democratic Alliance (NDA) headed by Bharatiya Janata Party (BJP) often took a critical stand, including present Prime Minister Narendra Modi, then Chief Minister of Gujarat, besides taking no interest in implementing, criticized the program as one that encourages laziness among people. Similarly, Shivraj Singh Chouhan in Madhya Pradesh, Prakash Singh Badal in Punjab and Naveen Patnaik in Odisha are said to have shown lesser interest in implementing the Act. There were fears when NDA government came back into power; it might water down the implementation.[60] Contradictorily, BJP ruled states like Chhattisgarh and Rajasthan showed a lot of initiatives in the implementation of the Act. Yet, again some Congress-ruled states and some ruled by its allies the implementation is poor. So, it is an interesting exercise to observe employment provision under different political regimes in the period of last ten years. We can divide the whole period of implementation of MGNREGA into three political regimes at Centre, and in different political alliances in different states. We classify the ten years duration into three categories like UPA-I (2006-07 to 2008-09), UPA-II (2009-10 to 2013-14) and NDA (2014-15 to 2015-16) regime. Based on average employment given per household, states are arranged in order from top to bottom as per the ranks under different regimes as shown in the table: 3.12.

[59] People like Aruna Roy, Nihil Dey, Harsh Mander, Jean Dreze, Jayati Ghosh, etc.

[60] Ghose, D. (2014), "Why some economists are worried about the fate of NREGA under PM Modi govt", *First Post,* October 17.

3.3.1 UPA-I Regime (2006-07 to 2008-09):

This period is expansion phase in the implementation of the MGNREGA. In these three years, it was extended to all the rural districts of the country. During this period, average employment given per household is 44 days. In this regime, BJP led NDA ruling states and local parties that have not joined in any alliance, in fact, provided more employment when compare to Indian National Congress-led United Progressive Alliance (INC-UPA) and other party ruling states. Under the MGNREGA, employment given per household is above the national average in 10 states. Among them, four states are BJP ruling states (Rajasthan, Madhya Pradesh, Chhattisgarh and Arunachal Pradesh), two INC-UPA ruling states (Assam and Haryana), one Communist Party of India [CPI(M)] ruling state that is Tripura and 3 north-eastern states ruled by local parties that are Manipur (Independent), Sikkim (SDF) and Nagaland (NPF) which are not in any front. Average employment is close to national average in some of the states like BJP ruling states of Odisha, Jharkhand and Himachal Pradesh; INC-UPA ruling states of Maharashtra and Andhra Pradesh; and north-eastern state of Mizoram that was ruled by an independent. Employment provision in rest of the states is around 22 to 39 days per household. At bottom, CPM ruling states like West Bengal (22 days) and Kerala (25 days); BJP ruled states like Gujarat (33 days) and JDU-NDA ruled states like Bihar (28 days); and INC ruling state of Meghalaya (34 days) are listed with less number of employment days provided under the MGNREGA. Except for Tripura, Communist Party-ruled states (Kerala and West Bengal) were listed in the bottom with poor implementation. In the beginning, left parties like CPI and CPM strongly supported for the enactment of the employment guarantee act; but, implementation of it has not happened with much enthusiasm in those states.

3.3.2 UPA-II Regime (2009-10 to 2013-14):

As mentioned earlier, UPA government reclaimed power at the Centre for the second term, and ideally one expects MGNREGA implementation to go deeper. However, the average employment per household in this period is 47 days, which slightly higher than the first regime. In this period, employment generation in most of the states which are ruled by Congress and its UPA alliance is better than others. In this period, employment provision in 14 states is higher than the national average. Out of the 14 states, 9 states are ruled by Congress parties, they are, Mizoram, Andhra Pradesh, Tamil Nadu, Rajasthan, Manipur, Himachal Pradesh, Meghalaya, Maharashtra and Kerala; two BJP ruling states (Karnataka and Chhattisgarh); one CPM state of Tripura; and Sikkim and

Nagaland which are ruled by their local parties. Employment generation in some states like BJP states of Madhya Pradesh and Jharkhand, Jammu and Kashmir (JKNC-UPA); and Uttar Pradesh (BSP - Fourth front) is close to the national average. In this regime, BJP ruling states like Goa, Punjab (SAD-NDA) and Bihar (JDU-NDA); and INC- UPA ruling states like Arunachal Pradesh, Assam and West Bengal (AITC-UPA) were listed at the bottom by providing very less employment per household.

3.3.3 NDA Regime (2014-15 to 2015-16):

In this period, NDA government has come into power to replace a decade of UPA regime at Centre. The NDA government is quite against to the MGNREGA since it was launched by the UPA government. But NDA government is perceived to be resistant to the Act. The average employment given per household has at the national level also has come down to 42 days from 47 days in this two years period. This time, none of the UPA ruling states provided employment more than the national average. The states like Maharashtra, Rajasthan, Andhra Pradesh (TDP-NDA), Jharkhand and Madhya Pradesh where BJP led NDA parties in power; CPM ruling state of Tripura; and third front states like Tamil Nadu (AIADMK) and Telangana (TRS); and Sikkim (SDF) states provided more employment under the MGNREGA than rest of the states. In some states where Congress government was in power in Karnataka, Himachal Pradesh, Kerala, Meghalaya, Jammu & Kashmir and Bihar (JDU-UPA); and Gujarat (BJP) and Odisha (BJD-Third Front), the MGNREGA employment is somewhat better in the range of 35 to 41 days. But, employment provision under the MGNREGA is poor in some of the BJP governing states like Goa, Punjab (SAD-NDA) and Haryana; and along with Congress ruling states like Manipur, Arunachal Pradesh and Assam.

Although UPA government introduced the MGNREGA, many BJP ruled states performed better than some of UPA ruled states in UPA-I and NDA regimes, in terms of providing more employment to the households. Interestingly, none of the southern states was unable to provide employment up to national average in the first regime, but, they are climbed to top positions along with some of the northern states. For the period of 2009-14, almost 9 states (4 southern states and 5 northern states) which are ruled by UPA alliance parties have shown extremely good performance than other states. This is the period of more employment given to the households under the MGNREGA when compare to other regimes. States like Tripura, Rajasthan and Sikkim provided more employment in all the three regimes. Rajasthan is the best example for this; even though

it was ruled by different governments, it always has been on top in providing more number of employment days. Also, political stability for a long time in the states like Tripura and Sikkim helps for providing employment as per demand. Contradictorily, West Bengal is the example for lack of political spirit which always listed at the bottom with poor performance in both CPM as well under Trinamul Congress. In addition to West Bengal, Goa and Punjab are listed at the bottom with least employment given per household under the MGNREGA in all the three regimes.

Table 3.12 MGNREGA Implementation under Different Government Regimes

UPA – I Regime (2006-09) Average Employment - 44 Days			**UPA – II Regime (2009-14)** Average Employment - 47 Days			**NDA Regime (2014-16)** Average Employment - 42 Days		
State	***Ruling Party - Alliance***	***Avg. Days***	***State***	***Ruling Party - Alliance***	***Avg. Days***	***State***	***Ruling Party - Alliance***	***Avg. Days***
Rajasthan	BJP - NDA	79	Tripura	CPIM - TF	82	Tripura	CPIM - LF	83
Manipur	Indp - None	73	Mizoram	INC - UPA	82	Maharashtra	BJP - NDA	51
Madhya Pradesh	BJP - NDA	63	Sikkim	SDF - None	71	Tamil Nadu	AIADMK - TF	47
Tripura	CPIM - LF	58	Nagaland	NPF - None	66	Rajasthan	BJP - NDA	46
Chhattisgarh	BJP - NDA	54	Andhra Pradesh	INC - UPA	56	Andhra Pradesh	TDP - NDA	45
Sikkim	SDF - None	51	Tamil Nadu	DMK - UPA	55	Sikkim	SDF - None	45
Assam	INC - UPA	49	Rajasthan	INC - UPA	54	Telangana	TRS - TF	43
Haryana	INC - UPA	47	Manipur	INC - UPA	53	Jharkhand	BJP - NDA	42
Nagaland	NPF - None	45	Himachal Pradesh	BJP - NDA, INC - UPA	52	Madhya Pradesh	**BJP - NDA**	**42**
Arunachal Pradesh	**BJP - NDA**	**44**	Meghalaya	INC - UPA	52	Karnataka	INC - UPA	41
Odisha	BJP - NDA	43	Karnataka	BJP - NDA	49	Himachal Pradesh	INC - UPA	40
Jharkhand	BJP - NDA, JMM- NDA	43	Maharashtra	INC - UPA	48	Kerala	INC - UPA	40
Himachal Pradesh	BJP - NDA, INC - UPA	43	Chhattisgarh	BJP - NDA	47	Meghalaya	INC - UPA	40
Maharashtra	INC - UPA	42	Kerala	**CPM - LF, INC - UPA**	**47**	Bihar	JDU - UPA	37
Mizoram	MNF - None	41	Madhya Pradesh	BJP - NDA	45	Odisha	BJD - TF	36
Andhra Pradesh	INC - UPA	40	Jammu Kashmir	JK NC - UPA	45	Gujarat	BJP - NDA	35
Uttar Pradesh	SP - None, BSP - None	39	Uttar Pradesh	BSP, SP - FF	43	Jammu Kashmir	JK NC - UPA	35
Tamil Nadu	DMK - UPA	38	Jharkhand	JMM & BJP - NDA	42	West Bengal	AITC - UPA	34
Punjab	INC - UPA, BJP - NDA	38	Gujarat	BJP -NDA	40	Chhattisgarh	BJP - NDA	34
Karnataka	BJP - NDA	36	Uttarakhand	BJP - NDA, INC - UPA	40	Mizoram	INC - UPA	33
Uttarakhand	INC - UPA, BJP - NDA	36	Odisha	BJD - TF	39	Uttar Pradesh	SP - FF	31
Meghalaya	INC - UPA	34	Haryana	INC - UPA	39	Uttarakhand	INC - UPA	31
Gujarat	BJP - NDA	33	Bihar	JDU - NDA	37	Nagaland	NPF - NDA	29
Jammu Kashmir	INC - UPA	33	West Bengal	CPIM - LF, AITC - UPA	35	Haryana	INC - UPA, BJP - NDA	28
Bihar	JDU - NDA	28	Punjab	SAD - NDA	28	Assam	INC - UPA	25
Kerala	CPI - LF	25	Assam	INC - UPA	27	Punjab	SAD – NDA	24
West Bengal	CPIM - LF	22	Goa	INC - UPA, BJP - NDA	24	Goa	BJP - NDA	19
Goa	INC - UPA	-	Arunachal Pradesh	INC - UPA	23	Arunachal Pradesh	INC - UPA	18
						Manipur	INC - UPA	15

Note: Average Employment days are calculated from the data available at nrega.nic.in
Source: Election Commission of India and nrega.nic.in

There is no clear pattern between the party in power and implementation, looked from the perception that UPA as more pro-MGNREGA and NDA as anti-MGNREGA. Therefore, state-level differences in the political economy and socio-administrative regimes seem to hold the key to understanding these diverse patterns than mere political overtones of parties. The states like Rajasthan, where civil society presence is very strong and a strong need to implement such a program given the constant drought prone conditions of desert state compel any party in power. In states which have good leadership such as Nitish Kumar in Bihar and Raman Singh in Chhattisgarh are said to have to make a commendable difference in their states, given the high incidence of poverty and Maoist insurgency. Southern states, which have implemented neoliberal reforms more effectively, had development benefitting upper caste rich peasant classes, who have vacated village politics [Vakulabharamam., et al. (2009)]. Thereby, there is no political opposition for implementation by those governments in such states like Andhra Pradesh, Tamil Nadu and Kerala when governments wanted to implement. That seems to be the reason for better implementation in the four southern states. Now, for the poorer states, the village level semi-feudal classes, lack of social movements, unreflective administrative machinery and political regimes all can stand as reasons for poor implementation, who will resist the program that empowers the agricultural workers since it would lead to increase wages and loss of control over labour process.

Conclusion:

The implementation of MGNREGA since inception has shown two major trends, one, an increasing trend between 2006 and 2010, second, a declining trend during 2011-16. This rise and fall in implementation consistently reflected in terms of funds allocation, average days of employment created, households covered, assets created, and works completed, at all India level. The average aggregate employment created began at 43 days in 2006-07, increased up to 54 days in 2009-10 and began declining back to 42 days in 2015-16. However, the average household income created has steadily increased from Rs. 2795 in 2006-07 to Rs. 4860 in 2009-10 to Rs. 6460 in 2015-16. The consistent improvement in average household income created is achieved thanks to increasing wage rate under the program, despite a fall in average employment since 2009-10. The fund utilisation has also increased from about 73 percent to 95 percent during the study period. However, the wage component under implementation has always been on a higher side between 70-80 percent and the counterpart of material component taking a beating. This is bad for asset creation, which is reflected in terms of macro as well as micro levels.

Even though the MGREGA is expected to be a demand-driven system in principle, however, in practice it remained a supply-driven system. As a result, its implementation remained a subject of budget constraints of the central government. Ever since, economic growth began slowing down in India after 2008-09, after an accelerated growth of 8.5 percent achieved during 2003-08, the fund's allocation to MGNREGA appeared to have been affected. A simple regression between the MGNREGA funds released as a dependent variable and central government revenues as an explanatory variable has shown a statistically positive relationship, confirming our hypothesis.

Even though the Act is created by the central government and funds are allocated by the centre, the onus of implementation has been on the state governments. As a result, there is a considerable variation among the states in implementation of the MGNREGA. Based on the MGNREGA implementation index that we have built, we find three categories of states, namely, best performers, moderate performers and poor performers.

Along with Rajasthan, other states like Tamil Nadu, Andhra Pradesh, Chhattisgarh, Himachal Pradesh and Madhya Pradesh stand as first six better performing states. The States like Kerala, Jharkhand, Gujarat, Uttar Pradesh, Uttarakhand, Maharashtra and Karnataka are moderately performing states, going by the index. On the other hand, Goa, Punjab, Bihar, Jammu & Kashmir, Haryana, Odisha, and West Bengal states stand at the bottom with poor performance. Interestingly there is no correlation between per capita state domestic product and implementation level of MGNREGA, as expected. States with high poverty are much behind richer states in implementation. There is also no consistent pattern between the political party in power at the state level and implementation. Congress party under UPA largely claims the ownership over the program for introducing it in its regime in 2006-07. In spite of that, several Congress ruled states fare poor in implementing it. In contrast, BJP appears to have maintained distance over its attitude towards to program, states like Rajasthan, Chhattisgarh, Himachal and Madhya Pradesh have fared better. Some left ruled states like Tripura is a better performer while West Bengal ruled by the same party is a poor performer, while Kerala is a moderate performer. Hence, no discernible pattern is found between implementation and party in power. While this study has not gone into the factors at state level responsible for effective implementation, we speculate the political economy factors associated with the level of capitalist development and competitive liberal democratic pressures could explain these differences better.

Chapter - IV

4. Administrative Structure, MGNREGA Implementation At State Level: A Study of (United) Andhra Pradesh

Having seen the trends in MGNREGA implementation in the state of undivided Andhra Pradesh[61] in the previous chapter, we examine its implementation at the district level in the two states in this chapter. The states of Andhra Pradesh and Telangana, which constituted single state until 2014 was geographically the fourth largest state and fifth most populated state in India. The State Domestic Product (SDP) of Andhra Pradesh recorded a growth of 7.93 percent in the first four years of 11th Plan period (2007-12) against the nation's GDP growth rate of 8.16 percent. During the year 2010-11, the agricultural sector in the state produced 25 percent of the SDP, while industry and service sectors produced 50.6 percent and 24.3 percent respectively. In spite of producing only 1/4th of SDP, the agricultural sector remains the backbone of livelihoods in the state. The state has a work participation rate (defined as workers per 100 population) of 38.1 percent compared the national average of 25.6 percent. The state has a total workforce of 34.9 million, out of which 29 million are main workers and 5.9 million are marginal workers. The agricultural and allied sector in the state directly supports 67 percent (172 million main workers plus 45 marginal workers) of its total workforce. Out of the agricultural workers, 43 percent are cultivators, and 57 percent are agricultural labour.

Although the agriculture sector's contribution declined to 18.7 percent of the total Gross State Domestic Product (GSDP), about 49 percent of state's workforce depended on agriculture in 2011 (Census of India, 2011) for their livelihoods. Over a period of time, there is an occupational shift of workforce, especially during the last three decades. The

[61] To recall, the state of Andhra Pradesh was formed by a merger of Hyderabad State with state of Andhra State in 1956, which is again bifurcated in 2014. Since our study period is between 2006-07 and 2015-16, which includes the two different states, our reference to the state of Andhra Pradesh in this thesis connotes the united Andhra Pradesh before their bifurcation in 2014. Andhra Pradesh is referenced in the thesis indicates the united Andhra Pradesh including Telangana. Geographically Andhra Pradesh is a fifth largest state in the country having an area of 275.04 lakh hectares accounting for 8.37 percent of the total area of the country. The state consists of 23 districts, they are; 9 districts of East Godavari, Guntur, Krishna, Prakasam, SPS Nellore, Srikakulam, Visakhapatnam, Vizianagaram and West Godavari in Coastal Andhra; Anantapur, Chittoor, Kadapa and Kurnool districts in Rayalaseema; and 10 districts of Adilabad, Hyderabad, Karimnagar, Khammam, Mahaboobnagar, Medak, Nalgonda, Nizamabad, Rangareddy, and Warangal in Telangana region. According to 2011 Census, the state population is about 8.46 crores which equal to 6.9 percent of total population of the country. Among them, majority people live in rural areas in the state that is about 67 percent.

cultivators' share in the workforce slowly came down, and the shares of agricultural labourers and other workers were increased as shown in the table: 4.1.

Table 4.1 Workforce in Andhra Pradesh

Year	Workforce Participation (%)	Share of Workforce (%)			
		Cultivators	Agricultural Labourers	Household Industry Workers	Other workers
1961	48	40	29	10	21
1971	41	32	38	5	25
1981	42	33	37	4	26
1991	43	28	41	3	28
2001	38	25	34	5	36
2011	39	18	40	4	38

Source: Census of India Reports (1961-2011)

Still, agriculture sector continues to be the potent area in overcoming poverty, hunger and unemployment in rural areas. But, the agricultural sector has been facing a multi-dimensional crisis. First, employment elasticities have been falling. Second, with increasing marginalisation of operational holdings, the share of marginal and small holdings has been on the increase. These farmers, who are petty commodity producers, are producers as well as labourers. On the one hand, they face unemployment and underemployment. On the other hand, they also face viability crisis due to increased cost of production and falling relative prices [Reddy and Mishra (2009), Patnaik (2005), Ramachandran, et al. (2010), & Ramanamurthy (2016)]. According to various rounds of NSSO data, the growth rate of employment in rural areas the state declined from 2.32 percent in the pre-reform period to 0.72 percent in the post-reform period. Moreover, employment elasticity which indicates responsiveness of employment growth to growth in GSDP is lower during the post-reform period when compare to the pre-reform period (Human Development Report of Andhra Pradesh, 2007).

The state faced several droughts in the past two decades that cause fluctuations in production in irrigated-dry regions, which caused unrelenting suicides of farmers, starvation deaths and poverty. The state also had militant *Naxalite* movement two decades ago. The successive state governments tried to solve these problems with growth with inclusion. The state witnessed largest microcredit initiative in the country, almost university public distribution program, and midday meal programs. During the elections of 2004, Congress Government under Y.S. Rajashekhara Reddy's stewardship came into

power by promising to reverse the hardships caused by the `economic reforms' undertaken under World Bank's Structural Adjustment Loan.

In that scenario, MGNREGA became an additional source of employment to rural masses to improve their livelihood by giving at least one hundred days of employment to a rural household. Andhra Pradesh is one of the better performers in the implementation of the MGNREGA in south India. What made possible such a better performing state for MGNREGA is one of the questions this chapter takes up. This chapter reviews the so-called Andhra Pradesh model of MGNRGEA, including examining the administrative structure, employment generation process, and ten years of its implementation at the macro level and inter-district analysis are discussed in a detailed manner.

4.1 Andhra Pradesh (AP) Model of MGNREGA

The AP-model is formed under the Congress government in 2006 when Andhra Pradesh was selected as the first state to implement on the pilot basis. The state administration already became techno-savvy under the previous regime of Chandra Babu Naidu, which basically followed a model to establish parallel institutions to Panchayat Raj institutions, directly under the command of the ministry of rural development, commanded by an IAS officer, who is identified for his/her credibility and commitment to work zealously. The progressive movements in the State have generated several idealists who have the enthusiasm to help the poor.[62] The Program Director, along with Commissioner, Rural Development will coordinate with a Joint Collectors at a district level along with district Rural Development Officers. The Mandal Development Officers at Mandal level (a subdivision of revenue Block) will liaison with village level administrative setup; it is supposed to work with Gram Panchayat and Gram Sabha in principle. In practice, they totally bypass the Gram Sabha.

For MGNREGA implementation, southern states like Andhra Pradesh, Tamil Nadu and Kerala states have a proper administrative setup. There are some variations among the states in their administrative structures. The top level administrative bodies at the state and district levels are more or less similar in the states, but it differs when coming to the bottom level of administration, especially village level. In Kerala, MGNREGA

[62] There are several IAS officers to name a few, Mr. Yugandhar, Mr. Sankaran, Mr. Reddy Subrahmanyam, and Mr. K. Raju, who all have championed the cause of poor and delivered yeomen's services by heading anti-poverty initiatives like Bonded Labour Abolition, Land Redistribution to the poor, SHG programs, and MGNREGA.

implementation is monitored by *Kudumbasrhee*[63] mission at different stages in association with Gram Panchayat.[64] In Tamil Nadu, Panchayats play an effective role in registration, job cards issuance, identifying the works, employment provision, payment of wages, etc. in MGNREGA implementation.[65] Although Andhra Pradesh model of MGNREGA seems to be similar to Tamil Nadu model, but, the role of Gram Panchayat is limited. However, Andhra Pradesh state is obviously superior having strong technical support in MGNREGA implementation when compared to other states. Unlike any other states, Andhra Pradesh uses information & technology which is specially designed for it, at every step of the implementation. In addition, there is a special mechanism to conduct social audit regularly to address the various issues in the implementation.

4.1.1 Information and Communication Technology (ICT):

Information and communication technology can greatly increase transparency and efficiency in governance. Andhra Pradesh is only the state in the country, which placed an effective Management Information System (MIS) to make the MGNREGA more accountable and transparent. It emerges as a role model for other states in the implementation of the MGNREGA with its innovative designs in using Information and Communication Technology (ICT). The MGNREGA-AP software is a web-based end-to-end ICT solution with a local language interface to ensure that the objectives and entitlements of the programme reach the wage-seeking households. The software, developed by Tata Consultancy Services (TCS), has many modules that include wage seeker, work estimates, work execution and payments, material management, reports, analysis and administration. The job cards, muster rolls and wage payments are handled through this software to enable speed and accuracy in the implementation. Entire information related to job card holders, works, muster rolls, expenditure and progress, are made available in public domain through the website www.nrega.ap.gov.in. This information can be accessed to all.

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[63] Kudumbashree is the organisation of women's self-help groups in Kerala. It has three tier structure, viz. Neighbourhood Group (NHG), Area Development Society (ADS) and Community Development Society (CDS). These groups involve in formulation, implementation, monitoring and supervision of MGNREGA.

[64] Government of Kerala (2011), "*The Performance of NREGS in Phase-I and Phase-II Districts in Kerala: An Evaluation Study*", Evaluation Series No: 89, Kerala State Planning Board, Thiruvananthapuram.

[65] Government of Tamil Nadu (2006), "*Steps to Operationalise the NREG Act in Tamil Nadu*", Rural Development (CGS I) Department, G.O. (Ms). No. 9, Dt. 01.02.2006.

4.1.2 Social Audit:

Social audit is an innovative feature of the Mahatma Gandhi National Rural Employment Guarantee Act, which is meant for a continuous public vigilance. In the context of NREGA, social audit ensures public vigilance and verification of the following stages such as registration, distribution of job cards, works selection, technical approvals, worksite monitoring and supervision, payment of unemployment allowance, wage disbursement, evaluation of work, etc. For the first time, the Department of Rural Development of Andhra Pradesh conducted a mass social audit in 600 villages in 39 Mandals of Ananthapur district in 2006 as a pilot. Later on, the state government set up a separate administration for taking care of social audit process named as 'Society for Social Audit, Accountability and Transparency (SSAAT)'. The Department of Rural Development has been allocating 0.5 percent of the total the MGNREGA budget for the purpose of conducting the social audit in the state. At present social audits are conducting in all the 22 districts of the state. So far, nine rounds of social audits were conducted in all the districts of the state. The process of social auditing in Andhra Pradesh is explained in Appendix 3.1. Andhra Pradesh is the role model for other states in conducting the social audits (Afridi, F. and Vegard Iversen, 2013).

4.1.3 Administrative Set-up:

The formal agencies involved in the implementation of the MGNREGA in Andhra Pradesh are Gram Sabha[66] and Gram Panchayat at the village level, Mandal Parishad at the Mandal level, Zilla Parishad at the district level, and State Employment Guarantee Council and Ministry of Rural Development at the top level.

[66] Gram Sabha includes people of the particular Gram Panchayat, representatives, and officials of the village. As the Act authorises, the Gram Sabha has a crucial role to play in ensuring transparency and accountability. The Gram Sabha recommends works to be taken up under EGS, monitor and supervise these works in the implementation of the scheme. The Gram Sabha is used as a forum for unveiling information about the scheme, for instance, verification of social audit findings.

Table 4.2 Administrative Setup - MGNREGA	
Administrative Division	***Team***
State Level	
State Employment Guarantee Council (SEGC) Department of Rural Development	Commissioner Rural Development Director 5 Programme Managers Finance Manager Supporting Staff
District Level	
District EGS Unit Zilla Parishad	District Programme Coordinator (DPC) / District Collector Assisted by Addl. DPCs
Mandal Level	
Mandal Parishad	Mandal Parishad Development Officer (MPDO) Programme Officer (PO) EGS Engineer 3 Technical Assistants (TAs) 2 Accountant cum Computer Programmer
Village Level	
Gram Sabha Gram Panchayat Shrama Shakti Sangham (SSS) Groups	Panchayat Secretary Field Assist (FA) Mate

In MGNREGA implementation, there are different administrative manpower who are actually responsible at different levels as shown in the table: 4.2. At the state level, Commissioner, Rural Development is the authority to look after the programme implementation in the state. For him/her assistance, there are a director, programme managers, finance manager and other supporting staff. In the district, District Collector acts as District Programme Coordinator (DPC) of the MGNREGA unit who is responsible directly to the Commissioner. The DPC is assisted by additional DPCs who are selected from Zilla Parishad, DWMA, ITDA, DRDA, etc. At the Mandal unit, there are Mandal Parishad Development Officer (MPDO), Programme Officer (PO), an Engineer, technical assistants, an accountant and computer operators for the implementation. At bottom, programme implementation is taken care by Panchayat Secretary, Field Assistant and Mate in the village. The roles and responsibilities of administrative staff at different levels are clearly specified in Appendix: 3.2.

4.1.4 MGNREGA Implementation in Practice:

As per the Act, Gram Sabha is expected to be conducted in every village to create awareness about the MGNREGA to the people. In Gram Sabha, people are supposed to

be informed about the EGS and list of works to be undertaken for employment generation. Estimation of identified works and approval process is carried out at Mandal level with the help of Technical Assistants, PO and MPDO. Then, PO issues work commencement letter to the Gram Panchayat for carrying the works. The interested workers have to register for employment under MGNREGA attaching with residential proof for job card to Panchayat Secretary at the Gram Panchayat. The registered workers are issued job card for allowing into the EGS works. Within 15 days of the registration, workers will be given employment under NREGA; otherwise, they are paid unemployment allowance. These works are provided within five-kilo metres of radius to the village. Whenever work commencement orders received, then Field Assistant inform and mobilise the workers to start the works. At worksite, field assistant allocates a piece of work as per measurements to a group of members as per schedule of rates[67] (SoRs) prepared at the district level. The SoRs are differed depending on the nature of work. At worksite, field assistants record musters of the workers and submit them for data updating at Mandal level. After the works are done, technical assistant checks work measurements and quality on weekly basis or fortnight basis. Once technical assistant approved, he/she recommend for the wage payments to district level unit through PO and MPDO. Then, wages are disbursed to the workers who involve in MGNREGA.

The Gram Panchayat on paper has a pivotal role in the planning and implementation of the MGNREGA. It is supposed to be responsible for the planning of at least 75 percent of works regarding cost; registering households, issuance of job cards, allocating employment, executing minimum 50 percent of the works, and monitoring the implementation of the scheme at the village level. It is supposed to assess the labour demand based on the applications received and worker's demands and reports to the Programme Officer for the commencement of work. It is supposed to approve a list of works recommended by the Gram Sabha and report at the Mandal level. But in practice, it hardly works in this fashion, since the mate, the technical assistant, MDO –none of them are under Panchayat, they are not governed by it.

In practice, both Gram Sabha and Gram Panchayat, in Andhra Pradesh played a minimal role in MGNREGA implementation. The model of governance since the rule of Telugu Desam under Chandra Babu Naidu as Chief Minister, always followed a

[67] SoR is a rate which is determined as equivalence between physical quantum of work and financial payment to be made for the work.

strategy of bypassing Panchayats by creating alternative parallel institutions.[68] Have seen their power diminished as alternative local bodies emerged.[69] The same trend continues, in the case of MGNREGA too. Instead of Panchayat Raj Institutions (PRIs), bureaucrats and local dominant leaders decide the projects and get *post fact* ratified at the Gram Sabha. The role of Gram Panchayat (GP) initially was involved in registration and job cards issuance. Now, even that is dealt by the field assistant. In villages, Sarpanch and Secretary both initially used to pay a crucial role in the MGNREGA when the wages were paid through Village Organisation (VO).[70] Later on, VOs were completely sidelined with the invention of new delivery mechanisms. Another new feature is Shrama Shakti Sangham (SSS) in the implementation [*See* Appendix: 3.3]. All the workers are formed into different SSS groups for proper management at the worksite.[71] The newly introduced technological innovations further led to the departure of PRIs from the implementation. The AP model typically bypasses Panchayat Raj Institutions as noted by several scholars like Mooji (2003), Sukumar (2010) and others.

4.1.5 Wage Payment Mechanism:

After Verification of muster rolls and works details, District Programme Coordinator release funds to the MPDO. Then, pay orders will be generated at a Mandal level on the name job card holders. Based on those pay orders, wage amount will be disbursed to the workers. At present, MGNREGA wage payments are being made through either Post Offices or Banking Correspondents. At the time of wage payments, MPDO issues cheques to the Sub Post offices after verification of records and generating pay slips. Then, money is credited into accounts of job card holders in the branch post office through the sub-post office. In Banking Correspondent Model, FINO (Financial

[68] Like Water Users Association, Village Forest Protection Committees, and Parents Committees, see Jos Mooij (2003), *'Smart Governance? Politics in the Policy Process in Andhra Pradesh, India',*Working Paper No.228, Overseas Development Institute, London.

[69] Sukumar, C.R. (2010), "MGNREGA Status Report: New Model for Success in Andhra", *Livemint*, May 06.

[70] Earlier, the wage disbursement used to make through the Village Organisations (VO). In this process, a bank account will be operated by President and Secretary of the particular Gram Panchayat. The pay orders will be generated at the Block level after verifying muster rolls and work measurements. These are sent to the village through the Field Assistant (FA). The GP President and Secretary shall be responsible for ensuring that disbursements from the REGS account are made for legitimate purposes. When the amount sanctioned by the competent authorities will be credited to this REGS account. Then they will distribute the money to the labourers with the help of Gram Rozgar Sevak (FA). Till 2009, wages were used to pay through these VOs to MGNREGA workers in the State, but not now.

[71] Each SSS group is formed workers with the limit of 15 to 20 members, in general, these groups are formed with labour belong to the same community or identified groups. From each SSS group, one person is selected as 'Mate' to mobilise and motivate the workers within the group.

Information and Network Operations) and Customer Service Providers (CSP) involve in payment of MGNREGA wages [see Appendix: 3.4].

4.1.6 Andhra Pradesh Model: A Critique

Andhra Pradesh is considered as a top performer in MGNREGA implementation with better delivery and monitoring systems. The advantages of the AP Model are that it is administratively run an ICT-coordinated model that reduces transaction costs involved in the political process of mobilisation, prevention of corruption at lower level officials, ease of payment, transparency in works, avoidance of leakage in payment and mechanisms to check irregularities. The use of information technology makes the evaluation of the work immediate through photo-simulated images. It makes quick submission of musters from the worksite itself through e-mustering to avoid delays and manipulations as well. But, the issue of delays in wage payments is yet to be addressed. Perhaps, it seems to be a problem of funds release rather than administrative interruptions. There is remarkable coordination between different departments like Rural Development, Panchayat Raj, District Water Management Agency (DWMA), Integrated Tribal Development Agency (ITDA), Information and Technology (IT), horticulture and others. It helps in creating durable and sustainable assets and avoiding department related deferments. On the flip side, it avoids the PRIs at grass-root level; and no involvement of local bodies in planning or execution. In the state, planning, execution, monitoring and supervision became departmental affairs where PRIs have no statutory role to play under MGNREGA. It clearly indicates the bureaucratic interest of the state government in the implementation (Sukumar, C.R. 2010). It is a completely top-down model, and precisely against the Act in letter and spirit. The SSS groups are created at the village level. However, they are yet to perform in accordance with the objective of the Act, in terms of applying for work, planning the work, organising the work, applying for the unemployment allowance, etc. However, the success of the model vitally depends only upon the state government's commitment towards the programme, not from the participatory process by people.

4.2 MGNREGA Implementation in Andhra Pradesh

Initially, MGNREGA was introduced in 13 districts viz., Adilabad, Anantapur, Chittoor, Kadapa, Karimnagar, Khammam, Mahabubnagar, Medak, Nalgonda, Nizamabad, Rangareddy, Vizianagaram, and Warangal in 2006-07. In the next year of 2007-08, it was

extended to six more districts, namely, East Godavari, Guntur, Kurnool, Prakasam, Nellore and Srikakulam. From April 2008, MGNREGA has come into implementation is all the districts of the State except Hyderabad. Then onwards, remaining three districts that are Krishna, Visakhapatnam and West Godavari were brought into its coverage.

4.2.1 Households Coverage and Workers' Participation:

In Andhra Pradesh, the MGNREGA is being implemented successfully in 21928 Gram Panchayats of 1099 Mandals in 22 districts. On the whole, 69146 habitations are covering for employment generation under the MGNREGA. By the end of 2015-16, total job cards issued for employment was reached to 139.7 lakhs in the state. There is a continuous increase in issuance of job cards over a decade of its implementation which explains its coverage is less than optimum level yet. As far as households' coverage is concerned, there are similar trends at both the national level and state level as well. Since Centre funds more for the programme, definitely, its impact resembles in employment guarantee at states also. As like national level, households' coverage for employment generation is the highest for the period of 2010-11 at about 62 lakhs households, which is equal to 44 percent of total rural households in the state. After that, there is a decline in households' coverage for the next year, but, it is still close to 40 percent in later years which far better when compare to the national average for the recent five years (2011-12 to 2015-16). Women's participation in the MGNREGA is always more than 50 percent in the state which indicates a sign of increasing female workers in rural labour markets. The MGNREGA makes women provide notable economic support to the family in addition to other available employment in rural areas. Another important point is that MGNREGA takes care of partially disabled persons who can work, but not get access to employment like normal workers. In most of the cases, the disabled are discriminated in terms of denying for work or/and less paid in the labour market even though they can able to work. For such disadvantaged, disabled people, MGNREGA gives employment opportunities to work for their livelihood. At present, more than one lakh of disabled workers are getting employment under the MGNREGA [see Table: 4.3]. Under the MGNREGA, the participation of BCs is higher than remaining social groups in the state as like their population. Among total workers who participate in the MGNREGA, BCs are 49 percent, SCs are 26 percent, and STs are 14 percent; whereas Muslim minorities are just one percent only [see Figure: 4-1].

Figure: 4-1

Caste-wise Workers Participation in MGNREGA (2006 - 16)

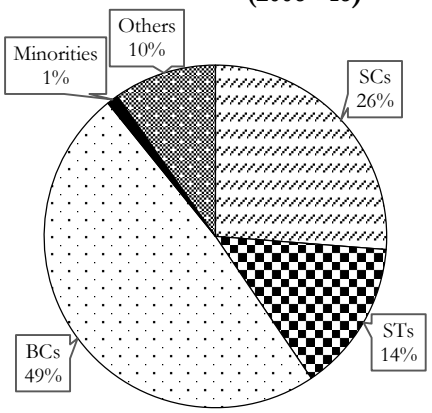


Table 4.3 Households, Women and Disabled Participation under MGNREGA in Andhra Pradesh

Year	Total Job Cards (in Lakhs)	HHs Employment Provided (in Lakhs)	Women Participation (Percentage)	No. of Disabled Persons
(1)	***(2)***	***(3)***	***(4)***	***(5)***
2006-07	45.9	21.61 (15)	53	34013 (1.07)
2007-08	87.5 (41.6)	48.04 (34)	54	71339 (0.97)
2008-09	102.3 (14.8)	57.00 (40)	54	91439 (0.92)
2009-10	112.1 (9.8)	61.58 (43)	54	101896 (0.88)
2010-11	118.6 (6.5)	62.00 (44)	55	102799 (0.86)
2011-12	121.8 (3.2)	48.99 (34)	55	100498 (1.10)
2012-13	129.7 (7.9)	58.16 (41)	55	133541 (1.25)
2013-14	134.3 (4.6)	59.22 (42)	55	140905 (1.33)
2014-15	136.1 (1.8)	55.75 (39)	55	139209 (1.39)
2015-16	139.7 (3.6)	57.45 (40)	55	139471 (1.33)

Note:

1. Numbers given in brackets in Column (2) indicate newly issued job cards in that particular financial year.
2. Numbers given in brackets in Column (3) indicate the percentage of households covered to total rural households as per Census 2011.
3. Numbers given in Column (4) are the percentage of women participation to total participants.
4. Numbers given in brackets in Column (5) indicate the percentage of total disabled workers to total participated workers.

Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in

4.2.2 Shrama Shakti Sangham (SSS) Labour Groups:

Actually, Shrama Shakti Sangham (SSS) groups were introduced in the phase of declining employment generation under the MGNREGA. For the first time, the MGNREGA workers are formed into Shrama Shakti Sangham (SSS) groups in 2011-12. In this period, total 100.87 lakhs of workers were formed into 6.15 lakhs of SSS groups on an average of 16 workers per each group. By the end of the 2015-16, SSS groups' number was increased to 9.05 lakhs in the state as additional workers joined in due to increasing job cards over the years. Not surprisingly, the percentage of SSS groups given employment is coming down as number groups increase in the period of decelerating the MGNREGA employment.

Table 4.4 Labour Groups under MGNREGA in Andhra Pradesh

Year	Total SSS Groups (in Lakhs)	Total Number of Labour in SSS Groups (in Lakhs)	Total SSS Groups are given Employment (in Lakhs)
(1)	***(2)***	***(3)***	***(4)***
2011-12	6.15	100.87 (16)	4.94 (80)
2012-13	6.15	110.83 (18)	5.65 (92)
2013-14	6.18	163.17 (26)	5.62 (91)
2014-15	8.94	169.17 (19)	3.81 (43)
2015-16	9.05	171.34 (19)	5.75 (63)

Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in

Note:

1. Numbers given in brackets in Column (3) indicate an average number of workers per each SSS Group.
2. Numbers given in brackets indicate the percentage of SSS groups given employment (Column - 4) to total existed SSS groups (Column - 2).

4.2.3 Employment Generation:

In Andhra Pradesh, average employment given per household is 66 days per annum in 2009-10, which is maximum in entire ten years of the MGNREGA implementation same as national average. There is a continuous increase in employment provision from 31 days per household with 678.77 lakhs person-days in 2006-07 to 66 days per household with 4044.3 person-days for the period of 2009-10. This is the turning point where the MGNREGA employment started declining and never reached to this point again as shown in the figure: 4-2. For the next four years, employment provision under the MGNREGA was maintained up to 50 days per annum, but, it became worse

subsequently. Unfortunately, at least one-quarter of the total households also is not given hundred days of employment under hundred days employment scheme in a decade of implementation. The highest number of households completed 100 days is 13.9 lakhs in the year of 2009-10, that is equal to 23 percent of total participated households. For the remaining years, the 100 days completing households is not even more than 18 percent.

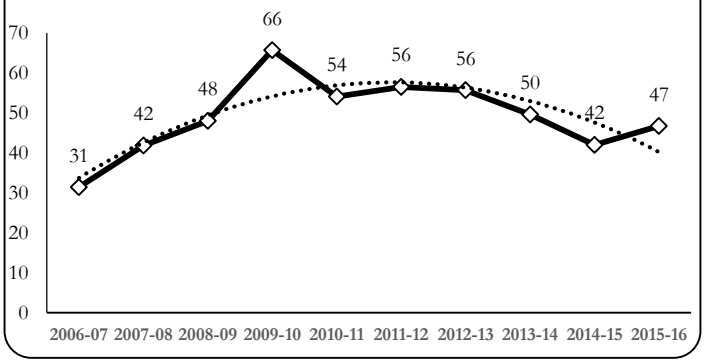
Table 4.5 Person-days and 100 days Completed Households under MGNREGA

Year	Person-days (in Lakhs)	Households Completed 100 days
2006-07	678.77	57946 (3)
2007-08	2010.28	432357 (9)
2008-09	2735.45	483058 (8)
2009-10	4044.3	1395537 (23)
2010-11	3351.61	964713 (16)
2011-12	2767.69	870048 (18)
2012-13	3238.86	995394 (17)
2013-14	2937.36	730916 (12)
2014-15	2345.88	369848 (7)
2015-16	2652.67	544229 (9)

Note: Parentheses indicate the percentage of households completed 100 days to total participated households.

Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in

Figure: 4-2
Average MGNREGA Employment per Household in Andhra Pradesh



4.2.4 MGNREGA Wage Rate:

As stated in the NREGA 2005 (Schedule I, Section 6), labourers shall not be paid less than minimum wages under any circumstances. So, minimum wage rate of Rs. 80 was considered as the minimum limit for the MGNREGA workers for the first three years (2006-07 to 2008-09). In this period, received wage rate for MGNREGA works is slightly higher than minimum wages in the state. For the first time, MGNREGA wage rate was notified as Rs. 100 in 2009-10. Since 2011-12, the government of India has been revising MGNRGEA wages for every year as inflation is taken into consideration. Then onwards, received wage rate is always lesser than notified wages under MGNREGA. The gap between notified wages and received wage is widening steadily over a period of time. Although Government of India is revising wages every year, there are no major changes in implementation agencies in terms of required and dedicated staff; and there is no sufficient well-trained and committed staff (Mate, Field Assistant and Technical Assistants) at grass-root level for proper monitoring and supervision at the worksite. In the absence of these devoted stakeholders in the ground, it is impossible to expect such reflection on received wages in practice.

Table 4.6 MGNREGA Wage Rates in Andhra Pradesh

Year	Notified Wages	Received Wage Rate	Percentage of Wages disbursed within 15 days
2006-07	80	82	0
2007-08	80	84	0
2008-09	80	84	0
2009-10	100	90	6.12
2010-11	100	97	27.61
2011-12	121	98	34.06
2012-13	137	106	25.02
2013-14	149	107	13.05
2014-15	169	117	5.57
2015-16	180	127	10.7

Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in

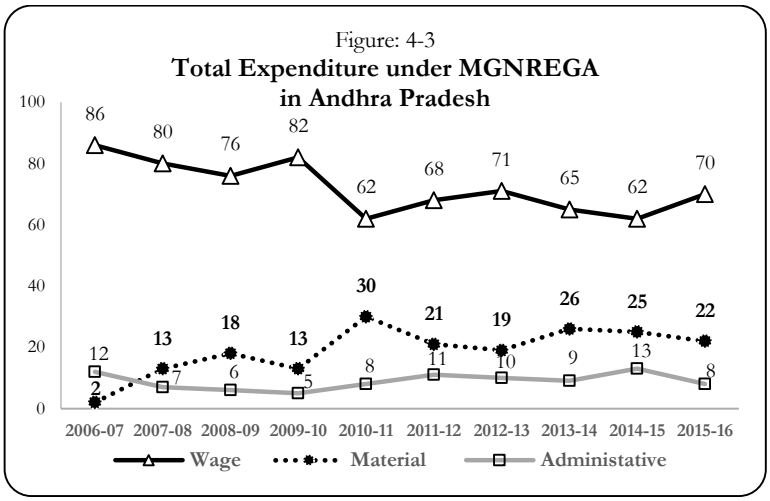
According to the NREGA 2005 (Schedule II (3)), the disbursement of daily wages shall be made on a weekly basis or in any case not later than a fortnight after the date on which such work was done. In practice, it is not at all happening for the MGNREGA workers after the work was done. Evidently, no worker had paid wages within 15 days after the work completed for the first three years as shown in the table: 4.6. Since 2009-10, there is little change in the disbursement of wages when compare to previous years.

In 2009-10, 6.12 percent of workers were paid within 15 days of work done which is a welcome process. Later periods, the percentage of workers who paid within 15 days increased for next two years, because of improvement of delivery systems through the business correspondent model and post office accounts to speed up wage disbursements. The process of funds flow from top to bottom is the most important which determines timely disbursement of wages for MGNREGA workers. In recent years, wage disbursement slowed down rather than increasing during 2012-13 to 2015-16. Still, under MGNREGA, more than half of the workers were not paid wages within 15 days after work done in any period in the state. There is an urgent need to concentrate on fast delivery of disbursement of wages within 15 days as mentioned in the NREGA, 2005.

4.2.5 Expenditure:

In Andhra Pradesh, total expenditure spent for employment generation under the MGNREGA shows the same trend like national level expenditure trend. So far, maximum expenditure spent under the MGNREGA is Rs. 543938.6 lakhs for the year of 2010-11 in the state. Initially, the MGNREGA expenditure increases continuously up to 2010-11 as the scheme was extended to all the districts of the state except Hyderabad. During this period, total expenditure increased from Rs. 68020.32 lakhs to Rs. 543938.6 lakhs as shown in the table: 4.7. There are ups and downs in the trends of the MGNRGEA expenditure in later years. However, wage expenditure is the major corpus in the total expenditure under the MGNREGA.

Figure: 4-3



As shown figure: 4-3, the proportion of wage expenditure and material expenditure both are moving in opposite direction over a period of time; administrative expenditure is moving relatively smooth when compare to others. More or less both the wage and

material expenditures move in the same direction as like in total expenditure in actual amount but not in percentage terms. The proportion of expenditure spent on wages initially was around 80 percent for the first four years, and it was come down to below 70 percent with an increase in the shares of material and administrative expenditure. The material share varied between 2 to 30 percent up to 2010-11; this share was around 20 percent for the remaining periods. As far as administrative expenditure is concerned, it was initially 12 percent of total expenditure in 2006-07 because of establishing administrative set up for the programme implementation; thereafter, the proportion of amount spent on administrative purposes is coming down up to 2009-10, after that, it keeps maintained around 10 percent.

Table 4.7 MGNREGA Expenditure in Andhra Pradesh
(Rs. In Lakhs)

Year	Wages	Material	Administrative	Total Expenditure
2006-07	58422.46 (86)	1196.14 (2)	8401.72 (12)	68020.32 (100)
2007-08	166929.8 (80)	27474.56 (13)	13970.4 (7)	208374.8 (100)
2008-09	225796.5 (76)	53356.9 (18)	17236.98 (6)	296390.4 (100)
2009-10	371511 (82)	59501 (13)	19906 (5)	450918 (100)
2010-11	335056.2 (62)	166121.5 (30)	42760.86 (8)	543938.6 (100)
2011-12	280269 (68)	85447.83 (21)	43676.57 (11)	409393.4 (100)
2012-13	305883.8 (71)	81910.69 (19)	41679.58 (10)	429474.1 (100)
2013-14	344034.3 (65)	139102.6 (26)	45198.88 (9)	528335.7 (100)
2014-15	276377.7 (62)	108349 (25)	58236.64 (13)	442963.3 (100)
2015-16	356669.9 (70)	110355.1 (22)	41536.68 (8)	508561.6 (100)

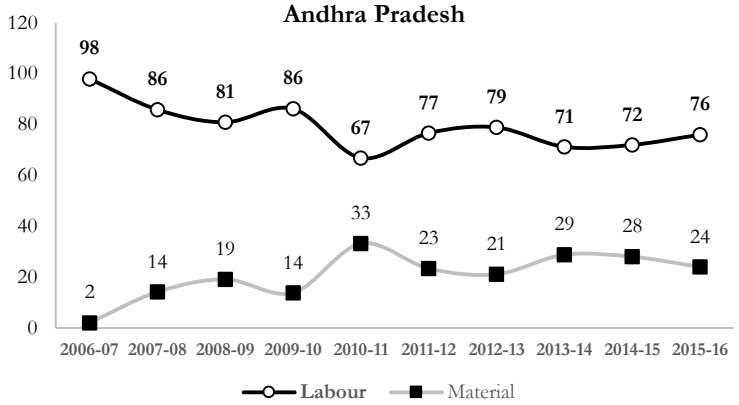
Note: Parentheses indicate horizontal percentages.
Source: nrega.ap.gov.in and nrega.telangana.gov.in

Labour-Material Ratio:

According to the MGNREGA, the ratio of wage costs to material costs should not be less than the minimum norm of 60:40. It indicates employment generation along with assets creation. But first priority is given to employment generation for unskilled labour rather than assets. As shown in the below figure: 4-4, the actual labour material ratio is always more than the ratio that is stated in the Act. Initially, wage expenditure is almost very high, whereas material expenditure is so small. Over a period of time, there is a

decline in wage expenditure and increase in material costs significantly towards the minimum norm. The increase in the material expenditure means that importance of assets is recognised seriously under MGNREGA.

Figure: 4-4
Labour Material Ratio under MGNREGA in Andhra Pradesh

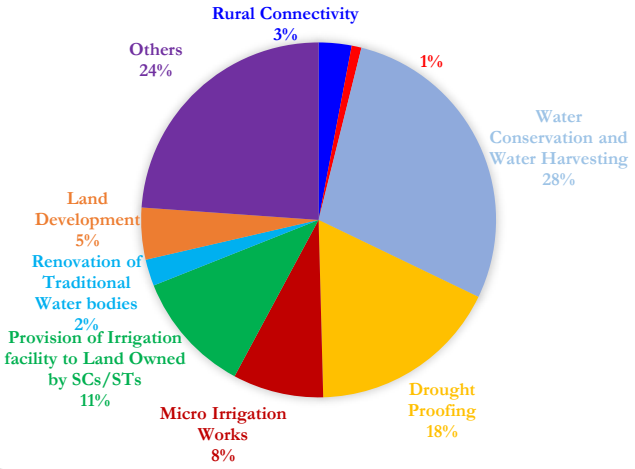


4.2.6 Assets Creation:

In practice, most of the works undertaken that are related to water conservation and water harvesting, rural sanitation, drought proofing and provision of irrigation facilities to the lands belong to SCs/STs. As it shown in the figure: 4-5, 28 percent of works are water conservation and water harvesting and 24 percent are other works which include construction of Bharat Nirman Rajiv Gandhi Seva Kendra, playgrounds in school, Anganwadi centre, fisheries, rural drinking water and rural sanitation. And, drought proofing works are 18 percent and provision of irrigation facilities to land owned by SCs/STs are about 11 percent. Remaining works that are undertaken under MGNREGA are such as micro-irrigation works (8 percent), land development (5 percent), renovation of traditional water bodies (2 percent), rural connectivity (3 percent) and flood control and protection related works (1 percent).

Figure: 4-5

MGNREGA Works in Andhra Pradesh



Work Completion Rate:

Work completion rate is defined as a total number of works completed to total works undertaken in the particular year. The work completion rate in first five years is relatively better than recent three years. The major observation is that both average employment days per household and asset creation show declining trend after 2010-11. For the first five years, work completion rate increased from 38 percent in 2006-07 to 67 percent in 2010-11. Thereafter, there is a drastic decline in work completion rate; it continues at below 5 percent in recent years. For the entire period of MGNREGA implementation (2006-16), 12 percent of works completed out of total works undertaken.

Under the MGNREGA, most of the undertaken works are related to water conservation and water harvesting, other works, drought proofing and provision of irrigation facilities to SC/STs lands [see Table: 4.8]. The work completion rate is relatively high in works like land development (48 percent), renovation of traditional water bodies (38 percent) and micro irrigation works (23 percent). But, work completion is below 20 percent for the rest of the works. The work completion rate is very low in drought proofing (2 percent) and others (5 percent).

Figure: 4-6

Work Comletion Ratio in Andhra Pradesh

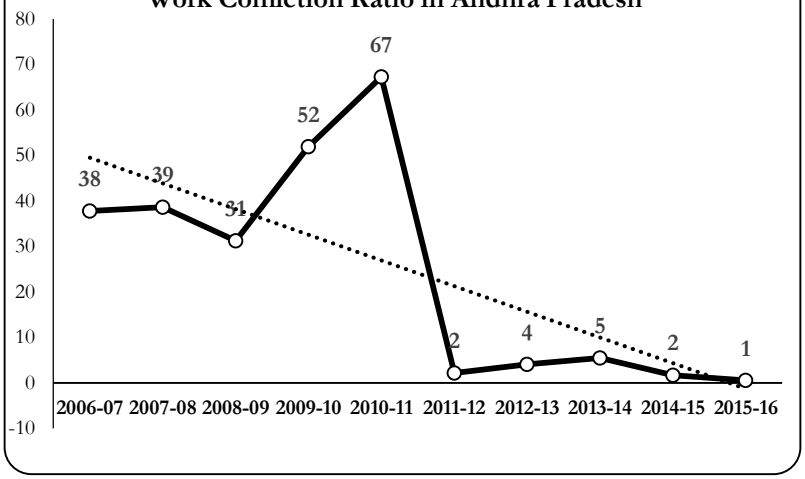


Table 4.8 MGNREGA Works During 2006-16			
Work Type	**Works Taken up**	**Works Completed**	**% of Works Completed**
Rural Connectivity	644386 (3)	97496	15
Flood Control and Protection	190769 (1)	23375	12
Water Conservation and Water Harvesting	6075087 (28)	788041	13
Drought Proofing	3749389 (18)	80837	2
Micro Irrigation Works	1776539 (8)	408040	23
Provision of Irrigation Facility to Land Owned by SCs/STs	2392406 (11)	183754	8
Renovation of Traditional Water bodies	520291 (2)	197544	38
Land Development	1014773 (5)	483831	48
Other works	5134086 (24)	262524	5
Total works	**21497726 (100)**	**2525442**	**12**
Source: www.nrega.nic.in			

As far as the creation of durable assets is concerned, material expenditure is a very important component to doing so. But, a material component in total expenditure was never reached to its proposed upper limit of 40 percent. As shown in the figure: 4-4, the highest material share is 33 percent in 2010-11, and it is always less than 30 percent in rest of the years in the decade. The priority was given for such works which require less/no material could be the reason in the phase of declining financial support. Declining funds for the MGNREGA is another reason for deceleration of employment and assets

generation as well. Lack of proper planning at block and village level officials regarding completing the works and starting new works could also be a reason. In some cases of de-silting of tanks and irrigation channels, if those worksites are filled with rain water, it is impossible to rework in these work points. So those works would leave incomplete and discontinued. In the case of works that are converged with other departments, if there is no coordination with those departments, it would lead to works left incomplete. Regarding convergence works, a major share of material expenditure is borne by other departments than MGNREGA; then, completion of the work depends on that particular department dedication. To complete such works in scheduled time, coordination between the MGNREGA and respective departments is matter; otherwise, it affects work completion. All these things are together responsible for delays and in-completion of works under the MGNREGA.

4.3 Inter-District Performance

In Andhra Pradesh, there are differences in geographical, economic and structural characteristics among the districts. The districts like West Godavari, East Godavari, Krishna, Guntur and Nellore have abundant water resources where agriculture is well-developed under Krishna and Godavari river basins. The districts like Adilabad and Mahabubnagar of Telangana region; Vizianagaram, Srikakulam and Visakhapatnam of north coastal Andhra region; and the Rayalaseema districts are economically backward when compared to other districts. Even within districts, there is variation in terms of irrigation and development. In the process of urbanisation, economic development is concentrated around a few urban centres like Hyderabad, Vijayawada, Guntur, Vijayawada, Tirupati, Vizag, etc. Labour migration is a very common scenario in the state from these backward districts to developed districts and urban places as well. Generally, seasonal labour migrates to involve in agricultural operations for paddy and sugarcane crops. Another important activity is construction sector, where the majority of unskilled labour do involve. In addition, these unskilled migrants work in restaurants, hotels, mills, hostels, residential apartments, etc. Most frequently, agricultural labour from north coastal Andhra migrates to well irrigated-regions for seasonal agricultural works like paddy and sugarcane operations. The labour from Srikakulam district migrates to all other districts to work in brick kilns. The workers of the districts like Adilabad and Mahabubnagar usually migrate to the Mumbai and Bangalore for construction works.

4.3.1 District-wise Employment Generation:

Although MGNREGA introduced in 2006, it has come into implementation in all the districts of the state since 2008 except Hyderabad. In general, employment guarantee is needed for economically backward districts because where employment opportunities are limited due to rain-fed nature of agriculture. The performance of MGNREGA in different districts is explained on the basis of household coverage, average employment days, 100 days completed households and assets created for the period of 2006-14 [see Table: 4.9]. The MGNREGA covers are the relatively better proportion of the rural households in Telangana region; whereas it shows good performance in Rayalaseema region in terms of average employment per household and percentage of households completed hundred days.

There is a good proportion of households covered in backward districts where it is necessary than progressive ones. Under the MGNREGA, households' coverage in the districts like Vizianagaram, Srikakulam, Nalgonda, and Adilabad is more than 50 percent of total rural households. In the districts like Warangal, Visakhapatnam, Nizamabad, Khammam, Kurnool, Prakasam, Kadapa, Medak, Anantapur and Mahabubnagar, households' coverage varies between 40 to 50 percent. The MGNREGA coverage is very low in districts like West Godavari, Guntur, Krishna and Chittoor where it is less than 30 percent.

Average employment given per household is 59 days in Rayalaseema region whereas it is 49 days in Telangana and 45 days in Coastal Andhra region. In Coastal region, northern districts, Vizianagaram, Srikakulam and Visakhapatnam are performing well with the highest number of employment days; and Krishna, Guntur and West Godavari districts are listed at the bottom with less employment days per household per annum. In Rayalaseema region, all the districts are showing better performance with a good number of average employment days that are more than 50 days. The MGNREGA employment per household is relatively higher in Chittoor and Anantapur than Kadapa and Kurnool districts. In Telangana region, the highest number of employment per household is given in the districts of Rangareddy (65 days) and Adilabad (56 days); and least number of employment days created in districts of Karimnagar (38 days) and Warangal (40 days). In the state, average employment given per household is extremely high, more than 60 days per annum in the district like Vizianagaram, Rangareddy and Chittoor in the state. In addition to them, districts with average employment are more

than 50 days per household in Coastal Andhra are Srikakulam and Visakhapatnam; all districts in Rayalaseema; and Adilabad, Nizamabad and Medak in Telangana. The average days of employment given per household per annum are very low in the districts of Krishna (28 days), Guntur (28 days) and West Godavari (34 days).

Table 4.9 District-wise Employment Generation under MGNREGA (2006-16)

District	% Households Covered to Total Rural Households	Average Employment days per Household	% of Households Completed 100 days
COASTAL ANDHRA			
Vizianagaram	64	66	23
Srikakulam	54	60	19
Visakhapatnam	49	58	19
Prakasam	42	46	11
East Godavari	31	43	9
Nellore	34	42	9
West Godavari	22	34	6
Krishna	24	28	4
Guntur	23	28	3
AVERAGE	**38**	**45**	**11**
RAYALASEEMA			
Chittoor	29	61	20
Anantapur	41	59	18
Kurnool	43	59	17
Kadapa	42	57	16
AVERAGE	**39**	**59**	**18**
TELANGANA			
Rangareddy	32	65	20
Adilabad	53	56	15
Nizamabad	45	55	16
Medak	42	51	13
Mahbubnagar	41	48	12
Khammam	45	48	11
Nalgonda	54	42	8
Warangal	50	40	7
Karimnagar	38	38	8
AVERAGE	**44**	**49**	**12**

Source: Computations are made with the data taken from Census 2011 and MGNREGA Official websites.

Note:

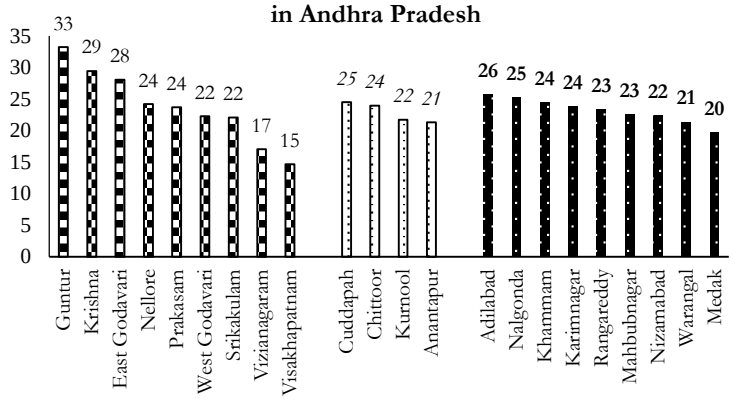
1. Numbers are given in Column (2) indicate the percentage of households covered under MGNREGA to total rural households according to Census 2011.
2. Numbers are given in Column (4) indicate the percentage of households completed 100 days out of total households covered by MGNREGA.

In Andhra Pradesh, the percentage of households completed 100 days is less than one-fourth of the total covered households in any period as discussed earlier [see Table: 4.5]. On an average, the situation is same at the district level for the decade of the MGNREGA implementation. Around 20 percent of households completed 100 days in the districts like Vizianagaram, Chittoor, Rangareddy, Srikakulam, Visakhapatnam, Anantapur and Kurnool. This proportion is even less than 10 percent in the districts like both Godavari districts, Nellore, Krishna and Guntur from Coastal Andhra region; and Nalgonda, Warangal and Karimnagar from the Telangana region. Among the regions, 18 percent of households completed 100 days in Rayalaseema region, but it is about 12 percent in Telangana and 11 percent in Coastal Andhra regions.

Assets Completion Rate:

Contradictorily assets completion rate is very high in the districts where the employment provision is low. In Coastal Andhra region, assets completion rate is very high in districts like Guntur (33 percent), Krishna (29 percent) and East Godavari (28 percent). This rate is very low in the districts where more employment was generated such as Visakhapatnam (15 percent), Vizianagaram (17 percent) and Srikakulam (22 percent). In Rayalaseema region, there is no major difference in assets creation among the districts; completion rate varies between 21 to 25 percent. The districts like Adilabad, Nalgonda, Khammam and Karimnagar districts have more number of assets created under MGNREGA when compare to remaining districts in Telangana region [Figure:4-7].

Figure: 4-7
District-wise MGNREGA Asset Completion Rate in Andhra Pradesh



4.3.2 MGNREGA Performance Index:

To find the relative MGNREGA performance among different districts in the state, an index is constructed, using the same methodology, explained in Chapter 3, based on seven indicators such as household coverage, women participation, average employment, 100 days completed households, work completion, wage cost and expenditure (EX) as it is done in the previous chapter. Instead of funds utilisation like an index for inter-state analysis, expenditure is taken for the computation of index for inter-district analysis in the state of Andhra Pradesh. The index of MGNREGA performance (IMP) is computed by the following formula;

$$IMP = 1 - \frac{\sqrt{(0.05 - dHC)^2 + (0.13 - dPW)^2 + (0.05 - dAE)^2 + (0.09 - dHH)^2 + (0.14 - dWC)^2 + (0.10 - dAW)^2 + (0.44 - dEX)^2}}{\sqrt{(0.05)^2 + (0.13)^2 + (0.05)^2 + (0.09)^2 + (0.14)^2 + (0.10)^2 + (0.44)^2}}$$

The index of the MGNREGA performance is given the different order in rankings of the districts in the state when compare to the table: 4.9 which is based on only three indicators such as households coverage, average employment and 100 days completed. But, computed index by taking all the seven indicators together is given some different picture in the MGNREGA performance in the state as shown in the table: 4.10. The districts like Srikakulam, Anantapur, Nalgonda, Vizianagaram and Kurnool are listed in top 5 ranks with better performance in the state. Whereas the districts like West Godavari, Krishna, Guntur, Nellore and Rangareddy are listed from the bottom with poor performance in the MGNREGA implementation.

Table 4.10 Index of MGNREGA Performance in Andhra Pradesh (2006-16)

District	*Index Value*	*Rank*	*District*	*Index Value*	*Rank*
Srikakulam	**0.128**	**1**	Prakasam	0.090	12
Anantapur	**0.125**	**2**	Warangal	0.086	13
Nalgonda	**0.113**	**3**	Karimnagar	0.084	14
Vizianagaram	**0.107**	**4**	Nizamabad	0.084	15
Kurnool	**0.103**	**5**	Khammam	0.083	16
Mahabubnagar	0.101	6	Medak	0.078	17
Adilabad	0.099	7	**Rangareddy**	**0.054**	**18**
Visakhapatnam	0.099	8	**Nellore**	**0.051**	**19**
Chittoor	0.099	9	**Guntur**	**0.039**	**20**
East Godavari	0.094	10	**Krishna**	**0.035**	**21**
Kadapa	0.090	11	**West Godavari**	**0.032**	**22**

Source: Computations are made with the data taken from Census 2011 and MGNREGA Official websites of Andhra Pradesh & Telangana.

Conclusion:

In this chapter, we have seen how MGNREGA is being implemented in Andhra Pradesh. The state of Andhra Pradesh is one of the better performing states in India. There are socio-economic reasons as well as the administrative model behind this performance. First, Andhra Pradesh had a serious political unrest for very long time, particularly, in backward districts in Telangana and Andhra Pradesh, in terms of *Naxalite* movement. When, then ruling party in the state in 1994, Telugu Desam party, implemented economic reforms under the World Bank structural adjustment loan, with a focus on models of governance using information communication technology. Andhra Pradesh government was a forerunner in computerising the administration and introducing e-governance. The state also implemented biggest self-help group based micro-credit movement, linking one crore women in the state to make the poor access the credit market. The benefits of the growth process still could not percolate to the poor. Two back to back drought years during 2002-04 created huge distress in the farm sector. The worsening rural distress cost the ruling party to lose power. In 2004 Assembly elections, Congress party came into power with a promise of economic inclusion and social welfare. It is the first state where MGNREGA was inaugurated. The political leadership was autonomy to the bureaucracy to develop an effective administrative model based on ICT, from its past legacy, for implementing MGNREGA. Given the fact that grass-root political formations were weakened in the state long ago, the Panchayati Raj institutions have collapsed, and there are no conditions for Panchayats to play a proactive role unless they are revived. So alternative bureaucratic model of governance, which replaced Panchayati Raj institutions, based on information and communication technologies, came handy for implementing the program. They have thus adopted a model with a dedicated administrative structure to carry out the implementation. This is perhaps one of the most important factors for its reasonably good implementation besides the growing pressure on the governments to provide relief to the bottom classes under widening disparities. The second aspect is about the efficiency of the works, the extent of asset creation, employment generation, wage payment, prevention of corruption and audit. The technical staff shall assess and execute the sanction of payment directly into the accounts of the beneficiaries or through the business correspondent taking cash to the village point.

The average employment created in the state has increased from 31 days in 2006 to 66 days in 2009-10 and gone down to 47 days in 2015-16. This is still higher than the

national average. In the state, MGNREGA covers around 40 percent of total rural households which is slightly better than the national average. But to compare with the 100-day given in the Act, the overall average of 49 days for 2006-16 is way off the target. Moreover, in the last six years employment generation has been slowly coming down in the state, as also happening at the national level due to falling budgetary support. Even though the received wage has steadily increased, but the gap between received wage and notified wage is widening over a period of time. The delay in wage payments is quite common in the state and is worsened in the recent period. Most of the MGNREGA works are related to water conservation and water harvesting, drought proofing, provision of irrigation facilities to SC/STs lands and other works in the state. Out of total works undertaken, only 12 percent of works were completed for the period of 2006-16. The works completion rate has increased 38 percent to 67 percent between 2006-07 and 2010-11 but declined drastically thereafter. However, its implementation of the Act has some positive dimensions. The backward districts are given priority in implementation in the state. Employment generation is found very high in backward districts where demand is high. On the other hand, work completion ratio is very high in the districts where material expenditure is higher than wage component. Even though there are some gaps in the implementation, employment guarantee programme has been reaching the needy and desirable sections in the state of Andhra Pradesh, (even after bifurcated).

Chapter - V

5. Impact of MGNREGA on Agriculture of Andhra Pradesh

Having examined the implementation of MGNREGA at the aggregate level and comparative scenario between the different states, we shall now look into its impact in the state of Andhra Pradesh. An impact study is important from several dimensions. This Act has come into existence because of dwindling employment in agriculture and non-farm sector. In a way, this is aimed at filling the `gap' in employment. However, labour market itself gets influenced by movement in the wage rate. MGNREGA, *inter alia*, has the potential to increase the market wage rate by increasing the bargaining power of the rural workers, payment of minimum wages, gender-neutral wages, and guaranteeing an alternative labour market. In a capitalist economy, however, wage increase can reduce employment, as employers tend to displace labour through mechanization. This could be true for agricultural as well as non-agricultural sectors. Thereby, the net effects of MGNREGA can be quite mixed for the labour. This potential to outweigh this tendency of creating unemployment can come from the positive effects of asset creation under MGNREGA, provided such assets are created in practice. Therefore, it would be meaningful and interesting to examine the impact of implementation of MGNREGA on wages and agricultural output. We shall, in this chapter, undertake a simple empirical exercise to examine the same.

Under MGNREGA, wage rate cannot be less than minimum wage mentioned in the Minimum Wages Act, 1948 for both men and women. Although Minimum Wages Act exits, both Centre and state government never took seriously to implement the minimum wages for agricultural workers in the country. But, work measurement will be prepared as a schedule of rates for different proposed works under MGNREGA by keeping minimum wages in mind. Since 2011, MGNREGA wages are revising every year by the Centre according to the Consumer Price Index for Agricultural Labourers to adjust inflation. In this way, the MGNREGA has set a floor for market wages in rural areas. Unlike the past, now farmers are compelled to pay minimum wages to attract the labour for their agricultural operations. As a result, there is a significant increase in wages for both men and women in the agricultural sector.

In agriculture, labour component can range from 30 to 70 percent in the total cost of cultivation, depending on the crop. Wage rates are therefore can potentially increase

the cost of cultivation substantially. On the other hand, land development works such as bush clearances, bund plantation, farm ponds, silt application, etc., improve the productivity of agricultural lands of the farmers. In Andhra Pradesh, horticulture plantation is included into MGNREGA works, where private farmers can also use the labour, belonging to marginalised sections, under the Act. Apparently, this has encouraged horticulture, especially, mango plantation extensively by the indirect subsidy in terms of MGNREGA labour, directly helps farmers to make fruit gardens to receive sustainable income.

5.1 Impact on Agricultural Wages

Before we contemplate the impact of MGNREGA on market wages, let us place different factors that influence the wages in perspective. First, wage as the price of labour in the labour market is subject to supply and demand factors. The labour supply factor is determined by several demographic and economic conditions, such as age, sex, and education. School enrolment and education are known to withdraw labour from agricultural labour markets. With the steady increase in education on the one hand and ageing of the rural population on the other; it is likely to withdraw older people from agriculture. Besides the demographic factor, the second major that can influence wages is the entitlement of labour. Labour historically lived on the edge of starvation; food access on a daily basis has a crucial bearing on their willingness to take up unskilled labour. Provision of food grains through public distribution system can reduce the desperateness for work, thereby can increase the bargaining power of the labour. On the demand side, besides the demand for labour that comes within agriculture, due to extensive and intensive cultivation, the demand for labour arising from non-farm sector within and outside the village is an important factor. Among all these factors, we contemplate the MGNREGA income to play a positive role in raising their bargaining power by increasing their entitlements, among the other factors.

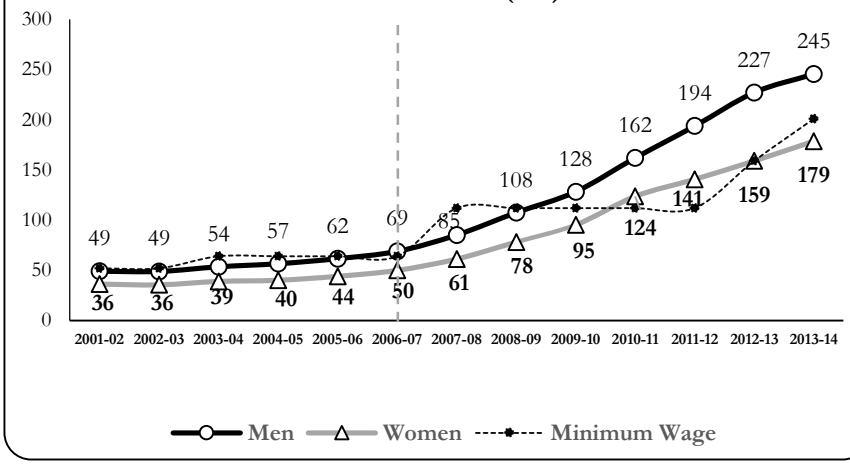
Even though that MGNREGA works are usually organised during April-June, which is mostly off-season, the program is receiving criticism from farming sections that it created a labour shortage. While it is true that in many parts, the *rabi* harvesting is done in April, there is a marginal overlapping with the MGNREGA work, similarly, in June. But, as revealed in our field investigation, only one-third of labour households are provided MGNREGA work, that too to only one person in the family, MGNREGA, in reality, does not have potential to reduce labour supply in a substantive way. In the

villages, there is generally a deficit in labour owing to ageing of older generation labour, and younger generations are going to school or not preferring to work under harsh conditions in agriculture. When they go the MGNREGA works, farmers acquire a misconception that MGNREGA has created labour shortage; in fact, the labour shortage is being created by the demographic factor. On the contrary, due to increased mechanization, there is a drastic reduction in the labour demand in agriculture, which farmers refuse to acknowledge.

Coming to the empirical observation, we find certain interesting trends in nominal agricultural wages for men and women for in Andhra Pradesh during 2001-14. During 2001-06, the nominal wage rate has gone up for men; it has gone by 40 percent per annum, while for 2006-14, it has gone up by 255.5 percent! The nominal wage for women during 2001-06 has gone up by 40 percent, and during 2006-14 it has gone up by 258 percent. It is, therefore, the nominal wages for men and women have risen many more times during the post-MGNREGA period. This is unprecedented in the history of agricultural wages in the State. This rise, as can be seen from the figure: 5-1, is quite stark from the year the MGNREGA is launched. It is, therefore, along with other factors, MGNREGA appears to have some causative influence on the market wages.

Figure: 5-1

Agricultural (Nominal) Wages for Field Labour in Andhra Pradesh (Rs.)



5.1.1 Real Wages and Growth Rates:

In real terms also, there is a steady increase in agricultural wages in the post-MGNREGA period in the state. Evidently, there is a significant increase in the growth of real wages in agriculture for three years after 2006-07, a total increase of 30 percent in real terms during 2006-10 and little over 15 percent during 2011-13. There is a big jump in growth of real

wages from 3.4 percent for men and 4.9 percent for women in 2006-07 to 15.3 percent for men and 14.4 percent for women in the next year, that in 2007-08. After that jump, real wages are growing in significant proportion over the period of time (see Table: 5.1). The sharp turn in nominal as well as real wages makes a compelling case to believe that MGNREGA had a formidable rise in agricultural wages for men as well as women.

Table 5.1 Annual Growth in Agricultural (Real) Wages for Field Labour in Andhra Pradesh
(Base Year = 2001)

Year	Real Wages (Rs.)		Growth Rate (%)	
	Men	Women	Men	Women
2001-02	47	35	-1.6	-0.5
2002-03	45	33	-4.5	-6.0
2003-04	49	36	7.9	8.0
2004-05	50	36	2.7	0.1
2005-06	53	38	4.8	5.6
2006-07	55	40	3.4	4.9
2007-08	63	45	**15.3**	**14.4**
2008-09	70	51	**12.1**	**13.3**
2009-10	74	55	4.6	6.9
2010-11	85	65	15.6	18.8
2011-12	92	67	7.9	2.7
2012-13	98	69	6.8	3.0
2013-14	95	69	-3.3	0.5

Note: Real Wages are estimated using Consumer Price Index (General) for Agricultural Labourers for respective years.
Source: Directorate of Economics and Statistics, GoI.

In this regards, a multiple regression between the wage rate as the dependent variable and agricultural state domestic product (SDP) and dummy variables for MGNREGA period as independent variables is estimated for the period 1981-2014. State Domestic Product represents demand for labour, expected to have a positive sign. For this, 34 years data on agricultural wages both for men and women and agricultural SDP are taken from annual reports of the Agricultural Wages in India and Economic Surveys to estimate the regression for the period of 1981-82 to 2014-15.

The functional relationship between wage rate agricultural SDP and MGNREGA is defined as the following regression equations:

Men's Wage Rate (Mwage):

$$\ln W_{m_i} = \alpha + \beta_1 \ln\left(AgSDP\right)_i + \beta_2 \ln D_{Mi} + \varepsilon$$

Women's Wage Rate (Wwage):

$$\ln W_{w_i} = \alpha + \beta_1 \ln\left(AgSDP\right)_i + \beta_2 \ln D_{Mi} + \varepsilon$$

Where,

lnW_m is Agricultural Wage Rate for men; lnW_w is Agricultural Wage Rate for women; and, ln$AgSDP$ is Agricultural SDP, and D_M is MGNREGA Dummy.

Table 5.2 Regression Results for Agricultural Wages

Dependent Variable	Male wages		Female wages	
Total Observations	34		34	
Intercept	-4.698		-4.951	
Independent Variables	AgriSDP	Dummy (D_M)	AgriSDP	Dummy (D_M)
Co-efficient	0.807	0.213	0.800	0.231
t-stat	30.722	2.782	32.251	3.40
P-value	0.000	0.006	0.000	0.002
R - Square	0.98		0.99	
F-statistic	1131.53 (0.000)		1262.73 (0.000)	

Source: Computations are made with that data taken from Agricultural Wages in India & Directorate of Economics and Statistics, GoAP, Hyderabad.

The estimated regression results suggested both Agricultural SDP as well as the dummy for MGNREGA have yielded an expected sign and the coefficients are significant at 95 percent of confidence levels, negating the null hypotheses that no relation exists. Therefore, this leads to our overall understanding that besides the demand factors that arise from agricultural growth, MGNREGA can have a positive influence on the wage rate. While coefficient of dummy for MGNREGA is statistically significant along with that of that of agricultural GDP, the latter is four times larger than the former. Hence it is to be read as a contributing factor.

5.1.2 Cost of Cultivation and MGNREGA Effect:

In agriculture, labour cost is a substantial component of cost of cultivation in agriculture, as said earlier. Any increase in wage rates always adversely affects agricultural incomes by reducing profitability. To examine the effect of this, we estimated growth rates of labour component in the cost of cultivation for five crops namely paddy, cotton, maize, sugarcane and groundnut, the same is presented in the table: 5.3. As explained earlier, agricultural wages for both men and women have increased three folds during the period of 2006-07 to 2013-14, after MGNREGA come into existence. After 2006-07, it is observed that there is a tremendous growth in labour costs for different crops in agriculture. As mentioned in the table: 5.3, growth in labour costs per hectare was very low and even negative for some crops with some exceptions between 2000-01 to 2003-04; thereafter, labour costs were started growing for these. After MGNREGA implementation, labour costs in agriculture were increased substantially during the period of 2006-07 to 2008-09. Between 2006-07 and 2012-13, the growth momentum of the labour costs is positive in many cases for these crops.

Table 5.3 Annual Growth Rates in Labour Costs for Different Crops in Andhra Pradesh (per Hectare)

Year	Paddy	Cotton	Sugarcane	Maize	Ground Nut
Before MGNREGA					
2000-01	1.60	41.79	7.26	18.57	7.49
2001-02	1.89	8.95	-7.65	-4.03	-8.15
2002-03	-1.30	-22.44	-5.14	-0.44	-14.39
2003-04	-2.41	12.91	-25.17	34.78	32.69
2004-05	7.45	18.54	51.71	1.20	8.93
2005-06	18.70	10.91	24.04	53.74	30.37
After MGNREGA					
2006-07	**0.55**	**17.92**	**40.17**	**9.14**	**-4.22**
2007-08	**32.86**	**54.92**	**44.13**	**36.79**	**65.05**
2008-09	**25.96**	**3.61**	-15.81	**60.86**	**23.40**
2009-10	3.96	-2.00	4.22	-3.25	5.63
2010-11	14.16	4.85	27.70	17.47	78.40
2011-12	8.62	51.69	8.17	5.30	24.70
2012-13	11.42	36.83	-53.87	6.10	7.43
2013-14	6.87	22.95	59.99	10.02	-0.50

Note: Labour Costs include only costs incurred to casual wage labour; family labour and attached labour excluded here.
Source: Cost of Cultivation Reports, DES, GoI, India.

During field survey, we observe the impact of MGNREGA on agriculture from narrations of different farmers as a result of an increase in wage rates and costs of cultivation. As explained in Case Studies 1 to 3, profitability in agriculture declined because of continuous rise in farm wages. Farmers blame MGNREGA for increasing agricultural wages. In addition, they argued that there is a labour shortage, fall in work intensity, unproductive nature of works undertaken, etc. In Kalavapamula, after MGNREGA implementation, the tenancy was further consolidated as a result of increasing wages and costs of cultivation as landlords lease out their lands to avoid risk.[72] As we found in Achampet and Chandram villages, farmers prefer harvesters for cutting the paddy crop to cut down cultivation costs. But, it again adversely affects the volume of employment in agriculture. We illustrate few case studies reflecting the views mentioned above.

> **Case Study No. 1**: *Kodali Nageshwara Rao* (68, M) is an owner cum tenant farmer, belongs to Kamma community, who cultivates around twenty acres of land in Kalavapamula village. He has two acres of land and leases in another 18 acres of land for cultivation. He cultivates paddy and sugar cane crops mostly, and blackgram sometimes. He has been practising agriculture for the past 40 years after his marriage. He engaged an attached labour to take care of his farming as well as cattle. He gets agricultural credit from Chittaranjan Co-operative Credit Society which is located in the same village and Andhra Bank, *Katuru*. According to him "nowadays, the cost of cultivation almost increased three folds for both the crops as a result of upward movement of wage rates and input prices. Especially wage rates for agricultural labour tremendously went up for both men (from Rs. 50 to Rs. 200) and women (from Rs. 35 to Rs. 150) after MGNREGA implementation. During the periods of transplantation and harvesting, wage rates become much higher than normal wages. In agriculture, profitability drastically comes down and negative returns too, because of continuous increase in labour costs". Moreover, works carried out under the MGNREGA like removing grass from the drains and digging in canals are not at all useful to anybody. There is no proper design for the MGNREGA works to make helpful to agriculture.
>
> **Case Study No. 2**: *Kuchipudi Narasimharao* (35, M) belongs to Kamma community in Gopalakrishnapuram habitation of Achampet village. Along with him, wife, mother and his brother stay in his family. They own 14 acres of land that is inherited from his father. From his family, he and his brother both take care of agriculture. They engaged two attached labourers and one driver for their own tractor. They have their own farm implements like bore-wells, tiller, sprayers and cattle and so on. In their land, they cultivate mainly paddy and maize crops. Unlike other farmers in the village, they have enough irrigation facility through bore-wells to do cultivation without depending upon rainfall. It makes them have better yielding since they are capable to adequate investment in the land. They earn income not only through agriculture but also through non-agricultural sources by using the tractor. In his opinion, the MGNREGA adversely affect agricultural sector in two ways. One hand, it leads to increasing wage rates; and make the

[72] In Kalavapamula, tenancy expanded at large scale even before 20 years ago.

labourers lazy and unproductive on the other. He says "now, labourers habituated to go for the MGNREGA work to play at the worksite and get the wages for doing nothing. No labour is able to work as they had done in the past and willing to do throughout the day. Now, labourer prefers to do easiest works like the MGNREGA than farm operations. Hence, we engaged two attached labourers to continue cultivation."

Case Study No. 3: *Annam Suresh* (35, M) is a semi-medium farmer in the Munnuru Kapu community who lives in Chandram village. There are four members of his family, he, his wife and two kids. He only involves in farming activities of his cultivating land. He owns three acres of land that is located in under tank coverage. In addition, he leases in about two acres of land for cultivation. He grows paddy, maize and cotton crops in that land depending on the water availability. Available cattle at his home are a buffalo, and calf and oxen. He has a bullock cart which helps his family in multiple ways. He doesn't participate in the MGNREGA for getting work, and he has no job card too. According to him, "the MGNREGA implementation puts upward pressure on wage rates for agriculture. Moreover, it is also the reason for labour shortage for agricultural operations. Simultaneous happenings of agricultural operations and the MGNREGA works led to a labour shortage in agriculture. Hence, farmers prefer using harvesters for paddy cutting in agriculture to avoid higher costs and a shortage of labour."

The rapid growth in agricultural wages after MGNREGA implementation has a substantial potential to reduce profitability. The cost of cultivation for all crops have increased in the last one decade. Understandably, the farmers, particularly, the big farmers oppose the implementation of MGNREGA. In East Godavari district, paddy farmers have gone on a crop holiday[a] as a way of protest during 2011 *rabi* season on the demand for compensating rise in minimum support prices for paddy. We have also observed that harvesters are prominently used in Andhra Pradesh since 2006-07, in the very year MGNREGA is implemented. Since lease markets are available for hiring harvesters, all classes of farmers have adopted them to save themselves from prohibitive labour costs in harvesting. However, the widespread use of harvesters has also reduced agricultural employment. Thus, as we began arguing, the effects of MGNREGA for labour have mixed prospects, on the one hand, they have raised wage rates, but on the other, it has reduced employment days.

5.2 MGNREGA Works in Individual Lands

Enhancement of livelihood security is given importance as a part of employment guarantee to encourage sustainable development and address chronic problems like poverty and unemployment in rural areas. It can be possible only through generating productive assets and strengthening the livelihood resource base. Hence, a list of the permissible works is designed accordingly, for employment generation as mentioned in the Schedule-I of the NREGA Act, 2005. Among them, provision of irrigation facilities

to the land belong to SC/STs, and land development works are permitted to work on individual land under the MGNREGA. In the first year of its implementation itself, these works are revised as 'provision of irrigation facility, horticulture plantation and land development facilities in the land owned by SC/STs or BPL (Below Poverty Line) families. In 2009, small and marginal farmers were added to the definition of land development works under MGNREGA. These works helped to improve agricultural productivity and generate steady income of the rural people. In this regards, the MGNREGA is associated with Department of Agriculture, Department of Horticulture and other departmental programmes like District Water Management Agency (DWMA), Integrated Watershed Management Programme (IWMP), Indira Jala Prabha (IJP), Comprehensive Land Development Programme (CLDP) and others in Andhra Pradesh.

The works on individual lands are permitted under MGNREGA can be classified into two categories, that are irrigation facilities and land development. The works under irrigation facilities are related to the construction of dug well, farm pond, drainage channels, percolation tank, groundwater recharge construction, construction/ lining of watercourses and irrigation channel and so on. The works come under land development are mainly bush clearance, boulder removal, construction of contour/graded bund, land levelling and shaping, reclamation of saline/ alkaline land, soil cover with silt application on waste land, terracing in slope areas, trenching, plantation, etc.

On the whole, 34 lakhs of works were undertaken in individual lands in the state of Andhra Pradesh under the MGNREGA during the period of 2006-07 to 2015-16. These works are almost equal to 16 percent of total works undertaken during the same period. The proportion of works in private lands is slightly high between 2006-07 and 2010-11 when compare to later years. As shown in the table: 5.4, the number of works related to the provision of irrigation facilities was increased over a period of time. But, the number of works related to land development category were declined drastically after the first five years period. This decline happened because of changing preferences for other categories of existing works and newly introduced works like rural sanitation, coastal areas, playgrounds, Anganwadi, fisheries and others.

Table 5.4 MGNREGA Works Undertaken in Individual Lands in Andhra Pradesh (Number)			
Year	***Irrigation Facility***	***Development***	***Total***
2006-07	429	54066	54495 (23)
2007-08	37806	137209	175015 (37)
2008-09	91220	164614	255834 (38)
2009-10	151461	224081	375542 (37)
2010-11	239363	168566	407929 (32)
2011-12	155990	70635	226625 (13)
2012-13	354472	30341	384813 (8)
2013-14	616027	82462	698489 (10)
2014-15	333503	34624	368127 (17)
2015-16	412135	48175	460310 (18)
AGGREGATE	**2392406**	**1014773**	**3407179 (16)**
Note: Figures given in brackets indicate the percentage of individual works carried out in total works undertaken under the MGNREGA. **Source**: www.nrega.ap.gov.in & www.nrega.telangana.gov.in			

Development of Marginal Sections Lands:

As already explained, scheduled caste and scheduled tribes; and small and marginal farmers are preferred for land development works under the MGNREGA. The land development works are being done in both fallow lands and cultivable lands of the marginal sections.

During ten years period, land development works have been undertaken in the lands of 6.82 lakhs of small and marginal farmers. So far, about 7.34 lakhs farmers belong to scheduled castes and scheduled tribes in the state. On the whole, cultivation is supposed to have begun in 17.74 lakhs acres of small and marginal farmers; and 18.49 acres of land which belong to SCs and STs in the state. The average amount of land is 2.50 acres per farmer where development took place under the MGNREGA.

Table 5.5 Land Development in Marginal Sections' Lands under MGNREGA in Andhra Pradesh (2006-16)						
Category	**Small & Marginal Farmers**			**SCs & STs**		
	Fallow Land	Cultivable Land	**Total Land**	Fallow Land	Cultivable Land	**Total Land**
No. of Farmers *(in Lakhs)*	3.41	3.41	**6.82**	3.48	3.86	**7.34**
Extent of Land Developed *(in Lakh Acres)*	9.26	8.48	**17.74**	9.01	9.48	**18.49**
Avg. Extent per Farmer *(in Acres)*	2.71	2.49	**2.60**	2.59	2.46	**2.52**
Expenditure *(in Lakhs)*	222413	179561	**401973**	229945	207591	**437536**
Amount Spent on Per Acre ***(Rs.)***	24012	21155	**22646**	25528	21886	**23660**
Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in						

Especially, large investments are required to develop fallow lands. It is hard for economically poor sections like SCs and STs, and small and marginal farmers as well. The average amount spent per acre for small and marginal farmers is Rs. 22646 and is Rs. 23660 for SCs and STs which by itself, however, is too little to make a sizeable impact, unless a complementary investment is put forth by the beneficiary.

In the ground, we evidently found the land development activities were undertaken in the lands of marginal sections for one time. So, the average expenditure spent per acre is quite small, that varies between Rs. 3000 to Rs. 9000. However, beneficiary farmers expressed their happiness for conducting such works in their lands at free of cost in addition to giving employment as explained in the Case Studies 4 to 7.

Case Study. 4: *Kodi Mariya* (58, F) belongs to Mala community in the village of Chandram. There are seven members of her family, are her husband, two sons, daughter-in-law, two grandchildren and herself. They have two acres of land; one acre is located under the tank coverage, and an acre is a dry land. In addition, they lease in two more acres of irrigated land from others to do cultivation. They grow paddy and cotton crops in that land. They have their own implements like oxen, bullock cart and a wooden plough. Her elder son usually handles those implements in their own farms and others' farms too. Sometimes he gets employment to the loading of clay, sand and other materials using bullock cart outside of the agriculture. She and her daughter-in-law both do work their farm only, in addition, to making their home. Three of the men of the family work go to work outside. From her family, only one person participates in the MGNREGA work that is her husband. Her husband go for the MGNREGA work when they don't have their own farm work. Once, land levelling work was conducted in their dry land. In her opinion, the MGNREGA works such as the development of irrigation canals and land development works are useful to the farming community in addition to the employment provision, especially for marginal sections like SCs and STs.

Case Study. 5: *Mogiligundla Swamy* (60, M) is a small farmer from the Madiga community in Achampet village. Including himself, there are four members of his family, are a wife, son and daughter. His wife Lakshmi works as Aaya at Anganwadi centre in this village. He owns 1.5 acres inherited land which is used for cultivation of maize crop. Another 3 acres of ceiling land is given to him by the government in 2005. That ceiling land is not suitable for cultivation which contains heavy thorny bushes. He is a farmer as well as a labourer. He goes for the MGNREGA work since its implementation in the village. He worked nearly 100 days under the MGNREGA in last year (2012) and received wage rate is about Rs. 120 per day. In 2010, bush clearance works were conducted in his ceiling land with nearly 40 person-days at the cost of Rs. 5660 under the MGNREGA. In his opinion, the MGNREGA not only provides employment for people but also it is developing the lands of SCs/STs. According to him, it requires a huge investment to remove the bushes in that ceiling land at present market wage rate. It becomes possible for the programmes like the MGNREGA with a group effort. It would be too expensive to do such work for an individual farmer. Moreover, it would become easy to clear bushes in that land for next time."

Case Study. 6: *Lingala Tavitanna Dora* (40, M) belongs to Konda Dora tribal community in the Mandiravalasa village. There are four members of the family; they are his wife, two daughters (Naveena and Lakshmi) and himself. He is a cultivator cum agricultural labourer. His wife is an Auxiliary Nurse Midwife who takes care of maternal women in the village. Both of his daughters are studying (Naveena - B.com and Lakshmi - Intermediate) by staying at Srikakulam ST hostel. He brought around 5 acres of land under cultivation that comes under village Panchayat and grown cashew plants in that land. For that five acres of land, he got D-*patta* during the regime of Y.S. Rajasekhara Reddy in 2005. Along with farming, he goes for broomstick collection from the forest in surrounding areas and sells them to the merchant at Cheepurupalli. He has been working in the MGNREGA since inception. Usually, he goes 50 to 100 days for the MGNREGA work per annum. He received wage rate for the MGNREGA work is around Rs. 80 per day. In his land, land levelling and boundary trench works were undertaken in the part of the MGNREGA land development works. As part of afforestation work under the MGNREGA, teak plants were given to him to plant at the boundaries of his land. According to his, "such kind of land development works in the lands help to improve the productivity of the cashew trees in the region. In addition to employment generation, the MGNREGA supports farmers who belong to marginal sections of the village."

Case Study. 7: *Tekkali Veeramma* (43, F) belongs to Konda Dora tribe from Mandiravalasa village. There are five members of the family, they are, husband, two sons, daughter-in-law and herself. Her husband is a farmer cum agricultural labour. She goes for broomstick collection and labour works too. Her elder son is also labourer who involves in both agricultural work and construction work. They have an acre of cashew garden, which land is given by the government in the past. From this family, three members (she, husband and elder son) participate in the MGNREGA for work. Generally, they get the MGNREGA employment for around 100 days, and wage rate varies between Rs.80 to Rs.100 per day. In their cashew garden, mango plantation is done under the project of the MGNREGA and horticulture convergence. They benefitted from the MGNREGA in both ways, as workers as well as a landholder. As she explains, they receive around 100 days of employment per annum, and they benefitted with mango plantation in their land at free of cost. In their land, 40 mango plants were planted after the land preparation and pit digging work under the MGNREGA. "This plantation will enable us to get sustainable income in the near future after a gestation period", she adds.

In addition to employment generation, the MGNREGA helps farming community into two ways, on the one hand, it reduces economic burden in improving their land and creating resource base, on the other, it leads to increase in productivity in agriculture. Conducting such works in private lands requires a large amount of investment for individual farmers which they unable to bear, especially for marginal sections. For them, land development works are most helpful to improve their land to do cultivation. Moreover, plantation works in the individual lands give more sustainable income for the farming community at large extent.

5.3 Horticulture

Horticulture is the major part of asset creation which comes under the category of development of individual lands, especially for dryland agriculture. Under the MGNREGA, horticulture works are permanent and visible assets that are created in convergence with National Horticulture Mission (NHM). The schemes like *Indiramma Paccha Thoranam* (Indiramma Green Initiative) and *Neeru-Chettu* (water-tree) are associated with the MGNREGA to promote the plantation works in private lands in the state of Andhra Pradesh. The main purpose of undertaking horticulture works is to create sustainable assets, enhance livelihood security and increase revenue sources of the rural poor. These works enable the farmers to receive sustainable income for 15 to 20 years period. Under the MGNREGA, these horticulture works are permitted in the lands of SC/STs, and small and marginal farmers. The works are identified based on demand from the farmers who have job cards. These works will be sanctioned only after verification and estimates prepared on the proposed projects by respective authorities to proceed to take up in the lands of the farmers. As of now, plantation works are taking place for species like mango, sapota (sapodilla), sweet orange, acid lime, guava, custard apple, cashew, jamun (*allaneredu*), coconut, karanda, oil palm, rubber, coffee, pulpwood, mulberry, etc. The activities like nursery maintenance, land preparation, pit digging, plantation, the supply of fertilisers and pesticides and training for farmers about cultivation practice are involved in the process of horticulture projects. Selection of the species plantation depends on the farmers' interest and nature of the soil on that particular farm. Under MGNREGA, the required plant material is raised in "Decentralised People's Nurseries" arranged in identified villages under the supervision of Horticulture Field Assistant (HFA). This approach enables the beneficiaries to involve at every step of the programme starting from raising the nurseries in the villages so that

good quality of plant material is available in the village itself. If there is no adequate plant material in the decentralised peoples' nurseries, plants will be collected from department farms, public sector nurseries, model nurseries, Krishi Vignana Kendra, satellite nurseries of ITDA and registered private nurseries. The supply of seedlings, plant material, fertilisers and pesticides will be provided at 100 percent subsidy to the farmers. Under this convergence plan, farmers receive support to grow their plantation for three years as maintenance for these crops. The cost for the horticulture is borne from the 40 percent of the material of the MGNREGA and funds available from converged departments.

5.3.1 Horticulture Works in Andhra Pradesh:

In Andhra Pradesh, horticulture plantation of different crops is done in 5.52 lakhs acres during the period of 2006-07 to 2015-16 under the MGNREGA, said to be benefitting a total of 3,18,342 farmers with an average plantation per farmer is 1.73 acres.

Since it is a dry land agriculture development, horticulture plantations have taken place at large extent in some of the regions of dry regions of the state. In this decade, the maximum extent of horticulture plantation took place in three districts, namely, Chittoor, Mahabubnagar and Visakhapatnam in the state. The number of plantation works happened in the districts like West Godavari, Krishna, Guntur, Nizamabad and Prakasam was at a minimum. Since they are agriculturally developed districts, almost all the cultivated lands are in use under different crops having no or less fallow land. In contrast, the situation is completely different in the regions where agriculture completely depends on rainfall. Hence, availability of fallow and uncultivable lands are used for the horticulture plantation. But, it is not happening in all the regions at the same pace, because of funds availability, demand from the farmers, administration and other reasons.[73]

Out of total beneficiary farmers, more than 60 percent of farmers belong to three districts, namely, Visakhapatnam (35.6 percent), Chittoor (19.5 percent) and Mahabubnagar (6.2 percent) as shown in the table: 5.6.

[73] In Chittoor district, these plantations were done in the large extent of land about 86692.5 acres which is equal to 15.7 percent of the total extent of the plantation, followed by Mahabubnagar (12.67 percent), Visakhapatnam (12.38 percent) and Kadapa (9 percent). The area where plantation was done is less than 1 percent in the district like West Godavari (0.43 percent), Krishna (0.61 percent) and Guntur (0.73 percent) under the MGNREGA.

Some of the semi-medium and medium farmers were benefitted under the MGNREGA in the districts like Guntur (17.2 acres) and Kurnool (6.14 acres) and Prakasam (5.23 acres). Except for these three districts, all the beneficiaries are small and marginal farmers in the state. The average plantation area per farmer is very low in Visakhapatnam (0.6 acres) and West Godavari (0.97 acres).

Table 5.6 District-wise MGNREGA - Horticulture Plantation in Private Lands (2006-16)			
District	**Number of Farmers**	**Total Extent (in Acres)**	**Average Extent Per Farmer (in Acres)**
Adilabad	15306 (4.81)	25216.4 (4.57)	1.65
Anantapur	6147 (1.93)	20631.9 (3.74)	3.36
Chittoor	**62207 (19.54)**	**86692.5 (15.70)**	**1.39**
East Godavari	14565 (4.58)	25114.8 (4.55)	1.72
Guntur	233 (0.07)	4007.1 (0.73)	17.20
Kadapa	12584 (3.95)	49720.4 (9.00)	3.95
Karimnagar	6747 (2.12)	18238.0 (3.30)	2.70
Khammam	5659 (1.78)	13308.1 (2.41)	2.35
Krishna	2240 (0.70)	3367.3 (0.61)	1.50
Kurnool	2141 (0.67)	13141.9 (2.38)	6.14
Mahabubnagar	**19826 (6.23)**	**69980.5 (12.67)**	**3.53**
Medak	4085 (1.28)	13536.3 (2.45)	3.31
Nalgonda	13830 (4.34)	40163.5 (7.27)	2.90
Nizamabad	1878 (0.59)	6190.7 (1.12)	3.30
Prakasam	1675 (0.53)	8766.3 (1.59)	5.23
Rangareddy	5562 (1.75)	15198.7 (2.75)	2.73
S.P.S Nellore	8683 (2.73)	29367.4 (5.32)	3.38
Srikakulam	9414 (2.96)	9675.1 (1.75)	1.03
Visakhapatnam	**113497 (35.65)**	**68355.4 (12.38)**	**0.60**
Vizianagaram	3962 (1.24)	14660.2 (2.65)	3.70
Warangal	5648 (1.77)	14599.8 (2.64)	2.58
West Godavari	2453 (0.77)	2373.5 (0.43)	0.97
Total	**318342 (100)**	**552305.9 (100)**	**1.73**
Note: Parentheses indicate vertical percentages of a particular column. Source: Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in.			

Under MGNREGA, mango crop is preferred by most of the farmers for the plantation of in their individual lands. For mango cultivation, the plantation was taken place to the extent of 322556 acres which is about 58.4 percent of total plantation land. After that, the acreage of land that was put for the cultivation of sweet orange, cashew

and acid lime are 83740.9 acres (15.2 percent), 30052.9 acres (5.4 percent) and 19251.3 acres (3.5 percent), respectively.[74]

Table 5.7 Crop-specific Horticulture Plantation under MGNREGA (2006-16)

Crop	**Number of Farmers**	**Total Extent** (in Acres)	**Average Extent Per Farmer** (in Acres)
Mango	171959 (54.0)	322556.0 (58.4)	1.88
Sweet Orange	17182 (5.4)	83740.9 (15.2)	4.87
Cashew	16197 (5.1)	30052.9 (5.4)	1.86
Acid Lime	22025 (6.9)	19251.3 (3.5)	0.87
Sapota	872 (0.3)	4272.1 (0.8)	4.90
Custard Apple	962 (0.3)	1824.9 (0.3)	1.90
Guava	773 (0.2)	1639.4 (0.3)	2.12
Others	88372 (27.8)	88968.5 (16.1)	1.01
Total	**318342 (100)**	**552305.9 (100)**	**1.73**

Note:
1. Others include crops like Jamun, Karanda, Oil Palm, Tamarind, Coffee, Rubber, Pulpwood, etc.
2. Figures given in brackets indicate vertical percentages of the respective column.

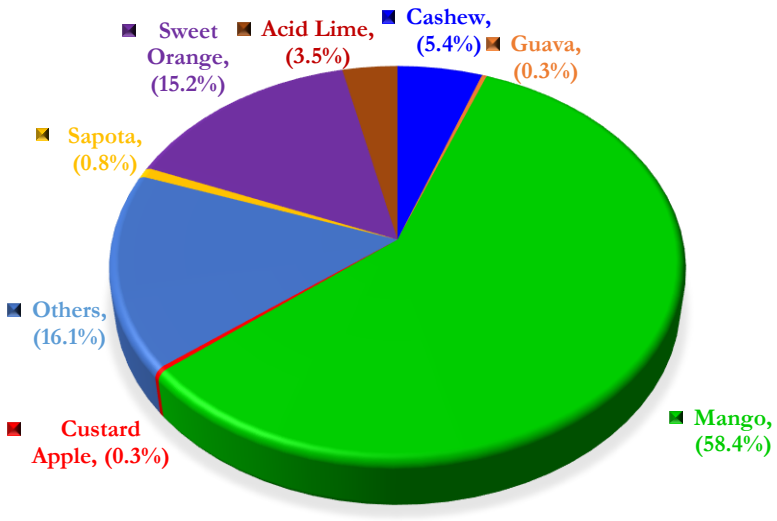
Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in

[74] Of the total beneficiaries, 6.9 percent have chosen acid lime, and around 5 percent of farmers preferred sweet orange and cashew each. The plantation area is very less under rest of the crops like custard apple and guava. The plantation area under other crops include jamun, karanda, coconut, coffee, pulpwood, tamarind, mulberry, etc., is about 16.1 percent by 28 percent of farmers. Although mango plantation took place in the large extent of land by more number of farmers, but average acreage per farmer for mango crop is just 1.88 acres only. The average extent per farmer is relatively little larger in sapota (4.9 acres) and sweet orange (4.87 acres) than rest of the crops.

Figure: 5-2

Percentage of Plantation Area under Different Crops

(2006-07 to 2015-16)



5.3.2 MGNREGA - Mango Plantation in Andhra Pradesh:

Under MGNREGA horticulture plantation, nearly 60 percent of total extent has been put for mango plantation by more than 50 percent of farmers (see Figure. 5-2). Obviously, it will have a positive impact on the growth of area and production of mango in the state. As shown in the table: 5.8, growth in area under mango cultivation steadily in the state over a period of time. Due to MGNREGA plantation, around 130590 hectares of land was brought under mango cultivation in the past ten years. Hence, the growth rate in the area under mango cultivation is caused by the MGNREGA during the period of 2005-06 to 2014-15. Initially, only mango plantation was undertaken in private lands of the individuals which result in high growth in area under mango cultivation between 2004-05 and 2009-10. Thereafter, other crops are being promoted for the plantation in the lands of farmers under the MGNREGA. Along with the growth of area under cultivation, a significant rate of growth is observed in mango production.

Table 5.8 Quinquennial Growth of Area and Production in Mango Orchards in Andhra Pradesh

Period	Area (000' Hectares)	Production (M.Tonnes)	Compound Growth Rate	
			Area	Production
1994-95	255.9	3071.2	-	-
1999-00	297.5	2379.6	3.06	-4.97
2004-05	391.9	3135.2	5.67	5.67
2009-10	480.4	4058.3	4.16	5.30
2014-15	511.8	4623.9	1.27	2.64

Source: Ministry of Agriculture, GoI.

Conclusion:

As we have seen the overall impact of MGNREGA is quite mixed. It has a potential to benefit the labour in the short and medium run. In the case of Andhra Pradesh, the data clearly suggests that implementation of MGNREGA is significantly associated almost quadrupling of nominal wages and a one-third increase in real wages for agricultural workers, which is statistically significant. While there could be some other causal factors behind the wage rise, we feel it certainly is certainly a contributing factor. Our empirical analysis lends evidence to this effect. This is an unprecedented benefit for the workers, which even no labour movement has succeeded in this manner. At the same time, it has also led a substantial rise in the cost of cultivation for almost all crops in the state of Andhra Pradesh. It is not out of place to correlate the fact the harvester use in agriculture in the state has increased from the same year of implementation of MGNREGA. We know that harvesters are provided at 90 percent subsidy to farmers, thereby farmers are saved from the adverse effect of the unprecedented rise in labour cost in the state. This move, in turn, could be quite damaging for the labour in terms of reducing employment. Under the MGNREGA, the works like land development and horticulture plantations can have a potential impact on agriculture. These assertions were echoed by case studies in this chapter. Creation of such assets for marginal farmers, marginalised sections of farmers can show its impact in the long run. The plantation of fruit gardens in dry regions can ensure sustainable income to the farmers.

[a] I have been published an article "Crop holiday versus Employment Guarantee: An Indian Experience of Godavari Delta Region" in *Asian Economic Review*, Vol. 53, No.3, Sept 2015, pp. 99-109. (ISSN 0004-4555)

Chapter - VI

6. Workforce and Employment Scenario: A Grassroots View

In the previous chapters, we have seen the implementation of MGNREGA at national and state levels and its impact. Our endeavour is to understand the how such program, which is given a status of a fundamental right, is actually grounded by the state machinery in a country which is social, geographically and politically so diverse. It needs to be looked at several levels to understand its need, implications, implementation and impact. In this and the subsequent two chapters, we shall take a grassroots view of MGNREGA by studying some sample villages. As a part of initiating the presentation of sample village study, in this chapter, we shall give an overview of the profile of workforce and employment scenario. The need and justification for presenting the village study data arise because of the paucity of such data from secondary sources. Especially, when the `agricultural labour' come from landed and landless households, belonging to different castes which determine a social hierarchy, there is need to have an understanding of employment profile in agriculture. Further, the agricultural sector is dynamic sector; the concrete conditions need to be assessed periodically. In this chapter, we present data from a sample survey undertaken on workforce participation, and employment situation in both farm and non-farm sectors at the village level. The sample survey is conducted in four villages from different agro-climatic regions of Andhra Pradesh, namely, Achampet, Chandram, Kalavapamula and Mandiravalasa.

6.1 Sample Size, Methodology and Distribution

This study has been conducted in four villages from four different districts in both Andhra Pradesh and Telangana (two from each state). I consider irrigation as a criterion to pick the villages for the study. I selected one irrigated village and one dry/semi-arid village from each state. In the study, Achampet and Mandiravalasa villages are semi-arid/dry villages, whereas Kalavapamula and Chandram villages are irrigated ones. I choose Achampet (Medak district) and Chandram (Adilabad district) from Telangana, and Kalavapamula (Krishna district) and Mandiravalasa (Vizianagaram district) from Andhra Pradesh to conduct a field survey. The complete descriptive background about the study villages is given in Appendix: 4.

Profile of the Sample

For the study, field work is carried out in these four villages during the period of February – April in 2013. Total sample households are 652 that are randomly selected from the chosen villages, distributed as 177 from Achampet, Chandram (197), Kalavapamula (121) and Mandiravalasa (157) which fall under different agro-climatic regions. The sample covered 37 percent of total households of the four villages. There is no uniformity in coverage of sample households in all the four villages. The households' coverage is very high in small villages such as Achampet (78 percent) and Mandiravalasa (61 percent); whereas, in Kalavapamula[75] and Chandram villages, it is 25 percent each. The sample is a stratified random sample, covering all castes in each village.

Table 6.1 Sample Households and Coverage

Village	**2011 Census Households**	**Sample Households**	*% of Coverage*
Achampet	228	177	78
Chandaram	799	197	25
Kalavapamula	480	121	25
Mandiravalasa	258	157	61
TOTAL	**1765**	**652**	**37**

Source: Census of India, 2011 and Field Survey, 2013.

Table 6.2 Caste-wise Distribution of Sample Households
(Total Sample Size: 652 Households)

	Achampet	**Chandram**	**Kalavapamula**	**Mandiravalasa**	**Total**
Upper Castes	15 (8)	6 (3)	17 (14)	5 (3)	**43 (6.7)**
BCs	99 (56)	143 (72)	45 (37)	128 (82)	**415 (64)**
SCs	63 (36)	35 (18)	47 (39)	8 (5)	**153 (23)**
STs	0	13 (7)	10 (8)	16 (10)	**39 (6)**
Muslims	0	0	2 (2)	0	**2 (0.3)**
Total	**177 (100)**	**197 (100)**	**121 (100)**	**157 (100)**	**652 (100)**

Note: Parentheses indicate vertical percentages.
Source: Field Survey, 2013.

[75] According to Census 2011, total households in Kalavapamula Panchayat is 1050 households which are scattered in three residential habitations

About 64 percent of sample households belong to BCs; and 23 percent households belong to SC community, upper castes and STs being around 6 percent each; and households from Muslim minorities, have a very minimal share (0.3 percent) in the total sample. (Table: 6.2).

In terms of land ownership, out of the total sample households, 427 households owned some agricultural land which is about 65 percent. Remaining 35 percent households in the sample, are landless. In general, land concentration is very high in areas where abundant irrigation owned by dominant sections of the society. The percentage of landed households is as low as 31 percent in Kalavapamula, whereas in dry villages like Achampet it is 91 percent and 73 percent in Mandiravalasa.

Table 6.3 Class-wise Distribution of Sample Households

Class	**Achampet**	**Chandram**	**Kalavapamula**	**Mandiravalasa**	**Total**
Distribution by Land Ownership					
Landless	16 (9)	82 (42)	84 (69)	43 (27)	**225** **(35)**
Land owned	161 (91)	115 (58)	37 (31)	114 (73)	**427** **(65)**
Distribution by Cultivation Practice					
Landless (Uncultivated)	8 (4.5)	65 (33)	29 (24)	40 (25)	**142** **(22)**
Landless Tenant	8 (4.5)	17 (9)	55 (46)	3 (2)	**83** **(13)**
Owner-tenant	23 (13)	42 (21)	15 (12)	12 (8)	**92** **(14)**
Owner Cultivator	115 (65)	45 (23)	16 (13)	96 (61)	**272** **(42)**
Non-cultivating HHs	23 (13)	28 (14)	6 (5)	6 (4)	**63** **(9)**
Total	**177** **(100)**	**197** **(100)**	**121** **(100)**	**157** **(100)**	**652** **(100)**

Note: Parentheses indicate vertical percentages.
Source: Field Survey, 2013.

Looking at their cultivating practice as shown in the table: 6.3, both landless (uncultivated) and non-cultivating landed households are around 31 percent. There is a diversion of occupation from agriculture to non-agriculture, particularly among upper castes households.[76] About 42 percent of households cultivate their own land. The share

[76] The share of non-cultivating households is very high in Telangana villages when compare to others. In Achampet, most of the households have at least some piece of land because of distribution of land by the government a decade back. Due to the scarcity of water, the majority of the lands are left as fallows. But the reason is different for having more non-cultivating households in Chandaram. In Chandaram village, some of the elite sections of Kamma, Velama, Vysya and Munnuru Kapu communities who involved in non-agricultural and business activities lease out their lands for others, which makes them non-cultivating households.

of owner-cultivators is relatively high in un-irrigated villages, which is about 60 percent. Tenancy practice is highly prevalent in irrigated regions which have double cropping is possible and greater crop stability. About 27 percent who are tenants, among them 13 percent are landless, and 14 percent are owner-cum-tenants. The percentage of pure/landless tenants is as high as 46 percent in Kalavapamula where the tenancy is under practice at large scale.

In total sample households, about 69 percent are agricultural households; rest do non-farm activities. Agriculture is carried out by mostly marginal and small farmers about 77.4 percent in all the study villages. Around 22.2 percent of farmers come under semi-medium and medium categories; whereas the percentage of large farmers is negligible, that is just 0.4 percent [see Table: 6.4].

Among the farm households, 56.4 percent belong to marginal households, 21 percent small farmers, 15.2 percent semi-medium and 7 percent medium farmers. The percentage of marginal farmers is relatively high in un-irrigated villages of Mandiravalasa (76 percent) and Achampet (59 percent) than irrigated villages.

Table 6.4 Farm-size Distribution of Sample Households

Category	Achampet	Chandram	Kalavapamula	Mandiravalasa	Total
Distribution by Farming Practice					
Farming HHs	146 (82)	104 (53)	86 (71)	111 (71)	**447 (69)**
Non-farming HHs	31 (18)	93 (47)	35 (29)	46 (29)	**205 (31)**
Distribution by Farm Size					
Marginal	86 (59)	43 (41)	39 (45)	84 (76)	**252 (56.4)**
Small	42 (29)	20 (19)	11 (13)	20 (18)	**93 (21)**
Semi-medium	15 (10)	30 (29)	18 (21)	5 (4)	**68 (15.2)**
Medium	3 (2)	11 (11)	16 (19)	2 (2)	**32 (7)**
Large	0	0	2 (2)	0	**2 (0.4)**
Total	**146 (100)**	**104 (100)**	**86 (100)**	**111 (100)**	**447 (100)**

Note: Parentheses indicate vertical percentages.
Source: Field Survey, 2013.

6.2 Demographic Profile

The villages selected can be described to be small to medium in terms of households and population. The sex ratio is 49.5 (females for 100 population), and the average literacy rate is 58 percent.

Table 6.5 Population and Literacy in Study Villages							
Village	**Households**	**Population**			**Literacy Rate** *(%)*		
		Male	***Female***	***Total***	***Male***	***Female***	***Overall***
Achampet	228	498	512	1010	63	44	53
Chandram	799	1477	1427	2904	69	49	59
Kalavapamula	1050	1826	1820	3646	80	75	77
Mandiravalasa	258	570	529	1099	52	33	43
Source: Census of India, 2011.							

6.3 Workforce

The villages have around 54 percent working population, comprising of 56 percent men, and 44 percent are women. The workforce participation is relatively high in the complete dry village of Mandiravalasa where rural incomes so poor. Out of total workforce in sample villages, 80 percent of them being main workers whereas rest of the 20 percent are marginal workers. A higher share of marginal workers is found in irrigated villages of Chandram and Kalavapamula.

Table 6.6 Total Workforce				
Village	**Men**	**Women**	**Total**	**Work Force Participation** (%) *****
Achampet	278 (54)	237 (46)	515 (100)	51
Chandaram	862 (56)	670 (44)	1532 (100)	53
Kalavapamula	1143 (57)	852 (43)	1995 (100)	55
Mandiravalasa	345 (54)	292 (46)	637 (100)	58
Total	**2628 (56)**	**2051 (44)**	**4679 (100)**	**54**
Note: 1. Parentheses indicate vertical percentages. 2. ***** proportion of total workforce to total Census population in respective villages. **Source:** Census of India, 2011.				

Table 6.7 Main, Marginal Workers and Non-workers				
Village	**Marginal Workers**	**Main Workers**	**Total Workers**	Non-workers *
Achampet	49 (9.5)	466 (90.5)	515 (100)	495 (49)
Chandaram	583 (38.1)	949 (61.9)	1532 (100)	1372 (47)
Kalavapamula	287 (14.4)	1708 (85.6)	1995 (100)	1651 (45)
Mandiravalasa	2 (0.3)	635 (99.7)	637 (100)	462 (42)
AGGREGATE	**921 (20)**	**3758 (80)**	**4679 (100)**	**3980** (46)

Note:
1. Parentheses indicate horizontal percentages.
2. * proportion of the non-working population in total population in respective villages.
Source: Census of India, 2011.

According to Census 2011, the majority of the workers in the villages depend on agriculture that is about 86 percent, which is a reflection of non-availability of non-farm work. About 14 percent of the workers involve in non-agricultural activities. The workers who involve in activities like traditional occupations, construction, transport, petty trading, self-employment activities such as *beedi* rolling, leaf plate making, broomstick collection, etc., come under the category of non-agricultural workers in rural areas.

Table 6.8 Agricultural and Non-Agricultural Workers			
Village	**Total Workers**		
	Agriculture	**Non-agriculture**	**Total**
Achampet	460 (89)	55 (11)	515 (100)
Chandaram	1323 (86)	209 (14)	1532 (100)
Kalavapamula	1678 (84)	317 (16)	1995 (100)
Mandiravalasa	566 (89)	71 (11)	637 (100)
AGGREGATE	**4027 (86)**	**652 (14)**	**4679 (100)**

Note: Parentheses indicate horizontal percentages.
Source: Census of India, 2011.

The total workforce is classified into four categories such as cultivators, agricultural labourers, household industry workers and others as given by Census 2011. On the whole, 70 percent of the total workforce are agricultural labourers, and 16 percent are cultivators in the sample villages. The marginal and small farmers might have reported themselves as labourers since they also work par with labourers for their survival.

Possibly, they may work for more days in other farms than their own farm. It is the reason for mentioning just 4 percent of cultivators in Kalavapamula village where abundant irrigation available. In Chandram, the percentage of agricultural labour is about 54 percent that is little lesser than other villages, where the share of cultivators is, highly 32 percent. On the whole, the villages have just 2 percent of household industry workers and 12 percent of other workers. In Telangana villages of Achampet and Chandram have slightly higher household industry workers than Coastal Andhra villages where beedi rolling and leaf plate making activities are in practice by quite a good amount of women.

Table 6.9 Workers Distribution by Economic Status

Workers	**Achampet**	**Chandram**	**Kalavapamula**	**Mandiravalasa**	**AGGREGATE**
Cultivators	92 (18)	494 (32)	71 (4)	116 (18)	773 (16)
Agricultural labourers	368 (72)	829 (54)	1607 (80)	450 (71)	3254 (70)
Household Industry workers	22 (4)	53 (4)	12 (1)	9 (1)	96 (2)
Others	33 (6)	156 (10)	305 (15)	62 (10)	556 (12)
Total	**515** (100)	**1532** (100)	**1995** (100)	**637** (100)	**4679** (100)

Note: Parentheses indicate vertical percentages.
Source: Census of India, 2011.

6.4 Employment Scenario in Study Villages

6.4.1 Agricultural Employment:

According to our survey, among the sample villages, average employment days available is 96 days for men and 118 days for women under different crops. As the four villages differ in their characteristics, employment availability also differs. Irrigated villages have marginally better employment than the dry villages. On the whole, the employment availability can be considered to be very low, as on average employment availability used to be about 180 days.

In *kharif* season, the average employment for men in coastal Andhra village is 55 and 44 days (in Kalavapamula and Mandiravalasa); whereas it is 39 and 26 in Achampet and Chandram villages. But women employment is largely 65 days in Kalavapamula and 52 days in both Achampet and Chadram each; it is very less in Mandiravalasa village. The reason is, Mandiravalasa, being a dry village which completely depends on rainfall. What is most important to note is average employment is shockingly low in *kharif* season.

The employment is available during *rabi* season is 33 days for men and 50 for women. It is 44 days and 36 days in Kalavapamula and Mandiravalasa, and it is 28 and 23 days in Achampet and Chadram villages. Women get 63 days in Chandram and 59 days in Kalavapamula whereas it is 43 in Achampet and 35 days in Mandiravalsa. Especially cotton crop gives more employment to women in Chandram, and paddy crop is the reason in Kalavapamula.

The crops like sugarcane in Kalavapamula and garden crops of mango and cashew in Mandiravalasa give some employment spread over the year.[77] The employment availability in study villages is 41 days for men and 52 days for women in *kharif* season. Whereas, it is 33 days for men and 50 days for women in *rabi* season. In addition to these two seasons, 22 days for men and 16 days for women employment is available in the summer period, exclusively in Coastal Andhra villages.

Table 6.10 Season-wise Employment Availability in Agriculture (in days)

Village	**Khiarf (K)**		***Rabi* (R)**		**Summer Period (S) ***		Total (K+R+S)	
	Men	Women	Men	Women	Men	Women	Men	Women
Achampet	39	52	28	43	-	-	67	95
Chandram	26	52	23	63	-	-	49	115
Kalavapamula	55	65	44	59	5	8	104	132
Mandiravalasa	44	38	36	35	38	23	118	96
AVERAGE	**41**	**52**	**33**	**50**	**22**	**16**	**96**	**118**

Note: *Black-gram in Kalavapamula; and Mango and Cashew crops in Mandiravalasa come under summer crops.
Source: Field Survey, 2013.

Table 6.11 Crops Grown in Different Seasons

Village	***Kharif* Crops**	***Rabi* Crops**	**Yearly Crops ***
Achampet	Paddy and Red-gram	Paddy, Maize and Sunflower	-
Chandram	Paddy	Paddy, Cotton and Janumu	-
Kalavapamula	Paddy	Paddy and Black-gram	Sugarcane
Mandiravalasa	Paddy, Maize, Groundnut and Sesame	Paddy	Gardens (Mango and Cashew)

Note: * Crops which give employment throughout the year.
Source: Field Survey, 2013.

[77] The cropping period for sugarcane crops is 10 to 11 months in a year. The employment is available over a year in sugarcane crop for operations like a plantation, weeding, application of fertilisers and pesticides, threading (2 times), harvesting, loading, transportation, etc. In the case of mango and cashew gardens, activities like bush clearance, fertilisers and pesticides application, harvesting, assembling, packing, loading, etc., are carried out in all the seasons, in summer too. Black gram crop that is grown in summer after the *rabi* crop harvesting in Kalavapamula which gives employment to some extent depending on area sown.

Harvester's Usage:

Previously, agricultural employment used to be around 120 days for men and 180 days for women. As discussed earlier, the employment availability in agriculture sector is just 96 days for men and 118 days for women. This drastic reduction of employment is because harvester's usage has gone up. At present, harvesters are being used at large scale for cutting paddy crop. Due to harvester's usage, wage labour lost around 30 to 40 days of employment per season for carrying out the operations like harvesting, assembling, threshing, winnowing, etc. No wonder, MGNREGA became an important source for providing employment to unskilled workers in the rural areas.

Since 2007, harvesters have been introduced in the state for cutting paddy crop. Most of them are owned by semi-urban residents who bought with subsidy under agricultural credit from John Deer, a multinational company. During the field work, it is observed that harvesters are used for paddy harvesting in Telangana villages of Achampet and Chandram, but not found in Coastal Andhra villages. On an average, 57 percent of farmers use harvesters for cutting of paddy in Telangana villages. The percentage of farmers who use harvesters is about 70 percent in Achampet and 41 percent in Chandram. Interestingly, all farmers prefer harvesters for the cutting of paddy crop irrespective of their farm sizes to reduce the cost of cultivation as much as possible. As shown in the table: 6.12, 41 percent of marginal farmers and 33 percent of small farmers are using harvesters whereas proportions of semi-medium and medium farmers are 19 percent and 7 percent, respectively.

Table 6.12 Farmers Who Use Harvesters

Farmers	Achampet	Chandram	Total	Percentage of Farmers using Harvesters (%)
Marginal	41	13	54	41
Small	34	10	44	33
Semi-medium	13	12	25	19
Medium	3	7	10	7
Total	**91** (70 %)	**42** (41%)	**133** (57 %)	**100**

Source: Field Survey, 2013.

6.4.2 Non-Agricultural Employment:

The non-agricultural sector plays a vital role in rural areas for attaining employment and income of the rural households. Today in rural areas, one can hardly find households

who depend only on agriculture for livelihood today. It is found in the sample villages; the households depend only on agriculture is just 13 percent, and 6 percent of households exclusively depend on non-agriculture. A vast majority of 81 percent of households depend on both the sectors for their livelihood. Since most of the households are landless, marginal, small, semi-medium households, it becomes clear that poor farm incomes force them to diversify and look for non-farm income sources for their livelihood. The situation is remarkably uniform across the four villages in this concern.

The rural non-farm employment can be divided into three categories, as casual labour, regular/salaried employment and self-employment activities. In rural areas, non-farm employment consists of majorly casual labour and self-employment; scope for regular or salaried employment is very less. About 88 percent of non-farm workers involvement is observed in both casual and self-employment at more or less equal proportions. The proportion of non-farm workers who engaged in regular/salaried employment is 12 percent. The percentage of casual labour is very high in Mandiravalasa where literacy levels are very low. The share of regular employment is somewhat better in Kalavapamula village which is having urban proximity at large extent. The self-employment is found relatively higher in Achampet and Chandram villages in Telangana as shown in the table: 6.14.

Table 6.13 Sector-wise Share of Households' Rural Livelihoods (*Percentage*)

Village	Agricultural Sector	Non-agricultural Sector	Both Sectors
Achampet	12	4	84
Chandram	16	6	78
Kalavapamula	21	7	72
Mandiravalasa	4	8	88
AGGREGATE	**13**	**6**	**81**

Source: Field Survey, 2013.

Table 6.14 Share of Workers Distribution in Non-farm Sector (*Percentage***)**

Village	Casual Labour	Regular / Salaried	Self-Employment	Total
Achampet	27	11	62	100
Chandram	34	12	54	100
Kalavapamula	49	28	23	100
Mandiravalasa	66	5	29	100
AGGREGATE	**45**	**12**	**43**	**100**

Source: Field Survey, 2013.

In the villages, the construction sector is a major employment provider for the majority of unskilled and semi-skilled workers in the non-farm sector. A Large number of casual labour participating in construction is observed in all study villages, except in Kalavapamula. The construction labour gets employment around 149 to 210 days, and mason gets 233 to 266 days of employment per annum in Chandram and Mandiravalasa; whereas employment for construction labour is very less in Achampet village. In addition, casual labourers get employment in seeds company and granite quarry (at Ramanthapur) in Achampet; hamali work (at Luxettipet) and brick kilns in Chandram; Khata (Weigh and Measure) work, plumbing works (nearby), and work in sugar factory (at Vuyyuru) in Kalavapamula village. In the villages, the majority of the non-farm casual labours are men who involve different activities. As casual labour, women get employment around 120 days in the non-farm sector in activities such as granite quarry work, brick kiln and construction. In the non-farm sector, daily wages are slightly higher than normal agricultural wages in the villages for both men and women. The wage rates for casual labour are very high in irrigated villages than dry ones [see Table: 6.15].

Table 6.15 Casual Labour Employment in Non-farm Sector

Activity	Employment Days		Wage Rate	
	Men	Women	Men	Women
ACHAMPET				
Seed company	127	-	150	-
Granite Quarry work	92	120	150	120
Construction	55	-	200	-
CHANDRAM				
Construction	210	-	300	-
Mason	233	-	500	-
Hamali work	123	-	300	-
Brick Kilns	-	110	-	180
KALAVAPAMULA				
Sugarfactory	82	-	300	-
Khata work	60	-	350	-
Bore fitting	85	-	350	-
MANDIRAVALASA				
Construction	149	127	170	120
Mason	266	-	280	-

Source: Field Survey, 2013.

Self-Employment:

At the village level, self-employment activities such as traditional occupations, petty business activities like Kirana stores, small hotels, etc., transport, money lending and some kind of household manufacturing like tailoring, *beedi* rolling and leaf plate making, bamboo material making and so on, are commonly found. About 32 percent of sample households involved in various self-employment activities. The proportion of household who carry self-employment activities is highly 41 percent in Achampet where beedi-rolling and leaf-plate making in practice at large scale. The share of self-employment households is very less in Mandiravalasa about 14 percent. Its proportion is around 21 to 25 percent in rest of the two villages.

A major non-farm activity in the villages is the traditional caste occupations. On an average, about 8.3 percent households have been continuing their involvement in traditional occupations for a long time [see Table: 6.17]. There is a significant proportion of ST households are carrying their occupations of bamboo gates making (*Nayakapollu* in Chandram) and broom collection (*Konda Dora* in Mandiravalasa) that is about 30 percent on the whole. The percentage of households continuing traditional occupations is very less in Kalavapamula village (4.1 percent) which is economically progressive than others.

Table 6.16 Households involved in Self-employment Activities					
Activity	**ACHAMPET**	**CHANDRAM**	**KALAVAPAMULA**	**MANDIRAVALASA**	AGGREGATE
Traditional Occupations	12	25	5	12	**54** (26)
Auto transport	5	6	7	2	**20** (9.6)
Tractors	4	5	12	3	**24** (11.5)
Tailoring	8	2	4	-	**14** (6.7)
Kirana Stores	3	2	4	5	**14** (6.7)
Hotels	1	1	1	2	**5** (2.4)
Fertiliser Shop	-	1	-	-	**1** (0.5)
Tent House	-	-	1	-	**1** (0.5)
Sounds & Lighting	-	-	1	-	**1** (0.5)
Video Grapher	-	2	-	-	**2** (1)
Cable Operator	-	1	-	-	**1** (0.5)
Electrician	-	1	4	-	**5** (2.4)
Mechanic Work	-	-	2	-	**2** (1)
Commission Agents	-	-	2	2	**4** (1.9)
IKP Centre	-	4	-	-	**4** (1.9)
Plastic Vendors	1	-	-	-	**1** (0.5)
Scrap Business	-	-	-	1	**1** (0.5)
Vegetable Vendor	-	-	-	2	**2** (1)
RMP Doctor	-	1	-	-	**1** (0.5)
Beedi rolling & leaf plate making	51	-	-	-	**51** (24.4)
Total	**85 (41)**	**51 (25)**	**43 (21)**	**29 (14)**	**208** (100) **(32)**
Source: Field Survey, 2013.					

Table 6.17 Households Carrying out Traditional Occupations					
Caste	**Achampet**	**Chandram**	**Kalavapamula**	**Mandiravalasa**	**Total**
Goud	4	10	1	1	16 (29.6)
Rajaka	6	5	3	2	16 (29.6)
Mangali	1	1	1		3 (5.5)
Vadrangi	-	-	-	1	1 (1.9)
Brahmin	1		-	-	1 (1.9)
Nayakapollu	-	9	-	-	9 (16.7)
Konda Reddy	-	-	-	8	8 (14.8)
AGGREGATE	**12 (6.8)**	**25 (12.7)**	**5 (4.1)**	**12 (7.6)**	**54** (100) **(8.3)**
Source: Field Survey, 2013.					

Conclusion:

We presented the socio-economic profile of the sample households studied in order to understand employment situation in villages in agriculture and non-agricultural sector. There is working population of 54 percent in the selected villages, 80 percent engaged in agriculture and 20 percent in non-agriculture. In irrigated villages, there is a preponderance of landless households, and in dry villages, there is a preponderance of marginal and small farmers. Both categories depend on wage employment primarily. The employment in agriculture is seriously low in all the villages, with minor variations, confirming the concern raised by several scholars that employment generation in agriculture as seriously fallen in the recent period. One important reason seems to be the increasing use of harvesters which have drastically reduced employment for agricultural labour. Hence, there is a problem of unemployment growing in the countryside. Second, there is, however, no category of pure agricultural labour. A majority of 80 percent of rural labour, as found in our sample, work on the farm as well as non-farm activity. The reasons could be several, ranging from inadequate employment in agriculture to rising high-wage employment in the non-farm sector, mostly in construction activity. Most of the able-bodied people are finding some employment up to 180-200 days in non-farm activities, while agriculture is providing 90-110 days, there are some categories of labour like women with domestic responsibilities and elderly people who are facing unemployment. The supplementary provision of 65 days of MGNREGA employment for each household, which comes to about 21 days for a worker, is still not yet a major

source of employment. But it could be a major source for women and elderly. Another source of employment supplement is MGNREGA which is intended to generate employment as well as assets creation in rural areas.

Chapter - VII

7. Impact of MGNREGA: A Village Level Assessment

A grassroots view of an employment guarantee program can help confirm what aggregate data indicates and also see what it conceals. We have seen in the earlier chapter about the workforce profile and employment situation. In some states, it is alleged that job card issue is uneven across households while it is said to be fair in some. Having received a job card need not mean everyone on village may need employment under such a program. Just to recall, we observed that employment in agriculture is dwindling and but non-farm employment share is increasing.[78] This is perhaps a moment of a transition from agricultural to the non-agricultural economy. But, it is keeping the large mass of workforce in villages, even though they circulate between the villages and outside. They are tied up in the village to their small parcels of land that gives them some economic and social value, besides no stable employment is available outside the village. There are so many among the workforce who cannot participate in the non-agricultural sector due to old age, immobility, domestic obligations, etc. All this reinforce the argument that MGNREGA is the need of the hour under jobless growth. However, the participation is expected more from the smaller segments of the peasantry than the larger. Further, given the uneven nature of development, the need for employment provision can vary according to the situation. As observed among the sample villages, one village is completely dry and one-crop villages which have less non-farm opportunities; while another is also a dry village, but it has non-farm alternative employment. A third variant is one which has a good farm as well as non-farm employment. At the same time, if there is no timely monsoon and sufficient rainfall, agricultural employment is a deficit in every kind of village. Hence, employment creation need depends on geographical conditions as well as other contingent conditions such as rainfall. Finally, when mechanisation takes place, agricultural as well as non-agricultural employments both tend to erode. For instance, harvesters' use under paddy crop witnesses loss of nearly 40 days of employment per season in agriculture. Due to harvester's usage, employment has come down in irrigated, semi-irrigated and dry villages. At the same time, adoption of agricultural workers into the non-farm sector is not much encouraged. In such grave circumstances, the MGNREGA has become the last resort for unskilled labour to get

[78] The NSSO round in 2010 also revealed that 40 percent of farmers expressed their desire to quit agriculture given an opportunity outside.

employment in rural areas. Finally, asset creation which is one of the objectives of the Act should help job creation in agriculture in the long run. How are the assets being created can be looked at the village level? This chapter presents observations on Workforce participation, social and class composition, wage rates, employment and asset creation in the sample villages, whole profile we have described in the previous chapter.

MGNREGA Performance at Village level

Total job cards issued in Kalavapamula and Chandram are 860 and 834 respectively; whereas they were 536 in Mandiravalasa and 393 in Achampet village. The difference is largely because of the size of the villages.

7.1 Household's Coverage & Workforce Participation

7.1.1 Households Coverage:

The household coverage of job cards is relatively higher in un-irrigated villages where the programme is actually needed, as shown in the table: 7.1. The households' coverage is very high in Mandiravalasa (76 percent) and Achampet (63 percent), which are completely dry villages. Whereas, it was about 40 percent in Kalavapamula which is well-irrigated under delta region. This coverage is 56 percent in Chandram village little higher than Kalavapamula village.

Table 7.1 MGNREGA - Households' Coverage in Study Villages

Year	Kalavapamula	Chandram	Mandiravalasa	Achampet
2006-07	-	230 (61)	183 (60)	139 (51)
2007-08	-	276 (69)	264 (86)	278 (88)
2008-09	2 (0.3)	403 (87)	264 (81)	243 (75)
2009-10	274 (43)	324 (59)	277 (84)	254 (79)
2010-11	342 (45)	358 (58)	282 (86)	177 (55)
2011-12	398 (50)	223 (34)	295 (69)	165 (51)
2012-13	455 (56)	371 (51)	365 (76)	206 (63)
2013-14	397 (47)	323 (41)	384 (73)	202 (52)
2014-15	397 (47)	410 (50)	377 (70)	235 (60)
2015-16	283 (33)	431 (52)	390 (73)	227 (58)
Aggregate (Percentage)	**40**	**56**	**76**	**63**

Note: Parentheses indicate the percentage of households participated in the MGNREGA in total Census households.
Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in

At the aggregate level, land owned households' participation is higher than landless households in MGNREGA since they cannot move as free as landless to other places for work by leaving their agriculture. Hence, their participation is very high in un-irrigated villages of Mandiravalasa and Achampet. But, landless households participate much in irrigated villages for MGNREGA work, where land concentration is very high [see Table: 7.2]. Out of total participating households, cultivating households (including landless tenants) share is very high in all the villages than non-cultivating households (including landless and land owned non-cultivators) as shown in the figure: 7-1. The percentage of non-cultivating households' participation is relatively higher in Chandram who are mostly landless non-farmers.[79] On the other hand, most of the cultivating households in un-irrigated villages are owner cultivators where there is no/less scope for tenancy. On the whole, about 81 percent of cultivating households who participate in MGNREGA belong to small and marginal farmer category. Their share is the largest in all the study villages than rest of the farm categories [see Table: 7.3]. In irrigated villages, the share of semi-medium households seems to better after the marginal farm households in participating MGNREGA work. This section of workers does only family labour on their own farms; don't hire out to other farms. They look after both household duties, farm activities[80] (to some extent) and cattle grazing after the MGNREGA work.

Table 7.2 Sample Households' Participation in MGNREGA

Village	Landless Households	Land Owned Households	Total Households
Kalavapamula	40 (83)	8 (17)	48 (100)
Chandram	41 (51)	40 (49)	81 (100)
Mandiravalasa	22 (26)	64 (74)	86 (100)
Achampet	9 (7)	115 (93)	124 (100)
AGGREGATE	**112** **(33)**	**227** **(67)**	**339** **(100)**

Note: Parentheses indicate horizontal percentages.
Source: Field Survey, 2013

[79] Unlike Kalavapamula village, the share of owner-cum-tenants is the highest in Chandram village compared to the landless tenants.

[80] Farm operations like weeding, cotton picking, application of fertilisers and pesticides, etc.

Figure: 7-1

Cultivating and Non-cultivating Households in MGNREGA (*Percentage*)

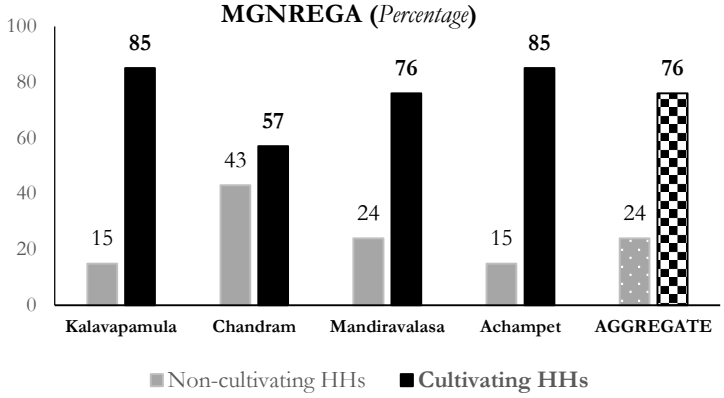


Table 7.3 Cultivating Households' Participation in MGNREGA					
Category	KALAVAPAMULA	CHANDRAM	MANDIRAVALASA	ACHAMPET	**AGGREGATE**
Marginal	22 (54)	25 (54)	50 (77)	62 (59)	159 (62)
Small	5 (12)	7 (15)	8 (12)	30 (29)	50 (19)
Semi-medium	10 (24)	13 (28)	5 (8)	13 (12)	41 (16)
Medium	4 (10)	1 (2)	2 (3)	0	7 (3)
Large	0	-	-	-	0
Total	**41 (100)**	**46 (100)**	**65 (100)**	**105 (100)**	**257 (100)**

Note: Parentheses indicate vertical percentages.
Source: Field Survey, 2013.

7.1.2 Workforce Participation:

Like households' coverage, workers' participation in MGNREGA is also very high in Mandiravalasa compare to other three villages. It typically represents the situation of Northern-Coastal districts, where agricultural development is very poor.[81] On an average, worker participation is very high in Mandiravalasa (82 percent), after that, Achampet (53 percent). The average workers' participation is more or less same in both the irrigated villages of Kalavapamula (30 percent) and Chandram (32 percent). (Table: 7.4). Excluding the first year, workforce participation in MGNREGA in Mandiravalasa was varied between 75 to 95 percent which is the maximum rate of participation than rest of the three villages. In the case of Achampet, it was varied between 40 to 69 percent of their total village workforce. On the other hand, workers' participation was very low in irrigated villages where it varied between 23 to 43 percent.

[81] There is only one crop which is rainfall dependent. There is only one bore-well in the entire village.

Table 7.4 Workforce Participation in MGNREGA				
YEAR	**KALAVAPAMULA**	**CHANDRAM**	**MANDIRAVALASA**	**ACHAMPET**
2006-07	-	295 (18)	281 (36)	221 (29)
2007-08	-	400 (25)	593 (75)	522 (69)
2008-09	2 (0.1)	610 (38)	589 (75)	426 (57)
2009-10	564 (28)	531 (33)	725 (92)	520 (69)
2010-11	679 (34)	577 (36)	744 (95)	319 (42)
2011-12	751 (38)	369 (23)	745 (95)	299 (40)
2012-13	848 (43)	590 (37)	769 (98)	391 (52)
2013-14	706 (35)	506 (31)	714 (91)	388 (52)
2014-15	720 (36)	616 (38)	653 (83)	459 (61)
2015-16	475 (24)	648 (40)	657 (84)	459 (61)
Aggregate (Percentage)	**30**	**32**	**82**	**53**

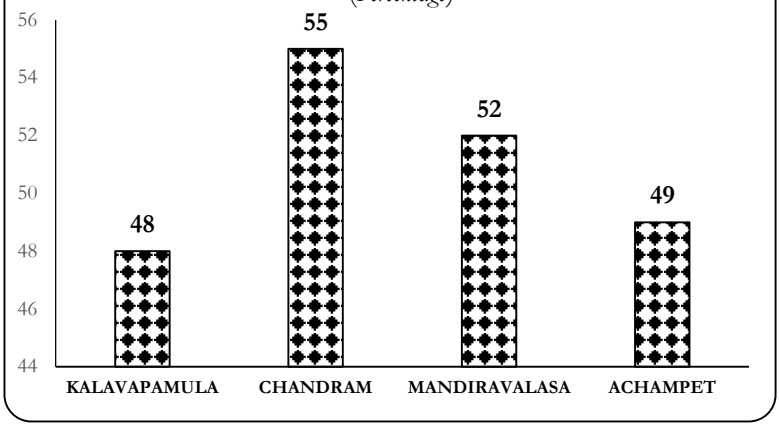
Note: Parentheses indicate the percentage of workers involved in MGNREGA with respect to Census 2011 Workers.
Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in

There are no large differences in participation between men and women in general in MGNREGA in the observed villages. Women participation in the MGNREGA works is slightly more than men participation in Chandram (55 percent) and Mandiravalasa (52 percent), but it was little lesser than men workers in other two villages. In MGNREGA, women participation in Chandram village, was always higher than men participation when compare to other three villages, except for the first year. Because, mostly men involve in farm and non-farm activities more than women in Chandram village; hence, obviously their participation would be less than women in MGNREGA. In Mandiravalasa village, which has a significantly long distance of male migration could be the reason for the higher participation of female workers in the MGNREGA. Women participation is almost similar in Kalavapamula and Achampet villages. The equal participation could well be administrative dictates also.

Figure: 7-2

Women Participation in MGNREGA

(*Percentage*)



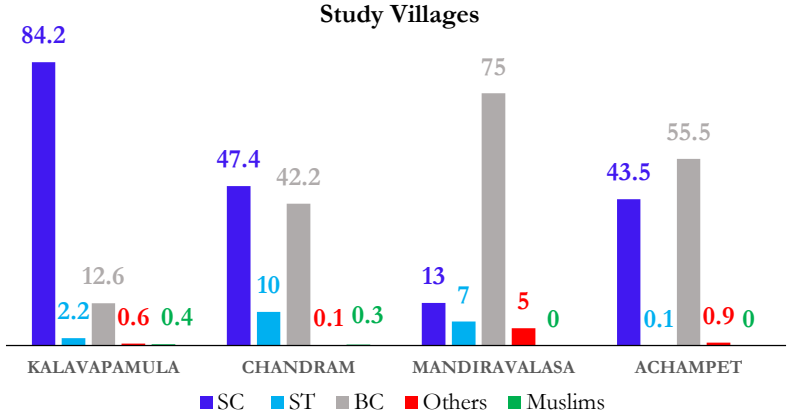
Caste-wise Workforce Participation:

Workers participation from different social groups depends upon the social structure of the particular village. The communities which contain most population can have the majority of working population. In general, work participation is always higher in such social groups than other communities. As explained in the previous chapter, Kalavapamula is the most SC populated village; and other villages have more BC population when compare to other social groups. There is a good amount of SC population in the villages like Achampet and Chandram villages. Perhaps, the same can reflect in the workers' participation in the MGNREGA too. Higher participation of SCs should be read as a positive outcome, given the fact that most of them are landless. Most of BC households belong to small and marginal households; their petty commodity production status needs employment supplementation.

The SC worker's participation in the MGNREGA is very high about 84.2 percent in Kalavapamula, as the majority of them are landless. It is just 13 percent in Mandiravalasa, which has a lesser SC population. Similarly, BCs participation is very high in Mandiravalasa about 75 percent and very less in Kalavapamula village (12.6 percent). The BCs participation is 55.5 percent and 42.2 percent in the villages of Achampet and Chandram, respectively. Although BC population is more in Chandram, their participation is relatively less in MGNREGA. The relative participation of social classes reflects their opportunities in agriculture and outside, which varies from village to village. Hence, no social class is uniformly powerful geographically, making the program an opportunity wherever required. Making it universal certainly avoids making exclusion and inclusion errors. The administrative efficacy of MGNREGA in study villages in case of

its reach to tribals, the program is reaching them in the proportion of their population. For, e.g., the community of *Nayakapollu* in Chandram and *Konda Dora* in Mandiravalasa belonging to STs who involve in MGNREGA works, 10 percent and 7 percent, respectively. Participation of other sections in MGNREGA is about 5 percent in the dry village of Mandiravalasa, whereas it is even less than one percent in rest of the villages. Another group is Muslims which is found in both the irrigated villages; their participation is almost same in both the villages equal to 0.4 percent only. STs are given proportionate employment, and they actually belong to most vulnerable and extremely poor households who need more employment than others.

Figure: 7-3
Caste-wise Workers Participation in MGNREGA in Study Villages



7.2 Employment and Income Generation under MGNREGA

Along with households' coverage and workforce participation, some important indicators such as average household employment, person-days and households completed 100 days are helpful to understand employment generation under MGNREGA in the villages. Considering three indicators together, the MGNREGA performance is far better in the complete dry village of Mandiravalasa than other villages. But, its implementation was not satisfactory in Achampet which comes under the same kind of agro-climatic region. Based on the information provided in tables 7.5 and 7.6, employment generation in MGNREGA is relatively better in un-irrigated villages, where it ought to be.

In Mandiravalasa village, average employment generation per household is as high as 102 days per annum. In some cases, there is the possibility of getting more than hundred days of employment under MGNREGA if state government identifies that particular block as drought affected. This employment generation is two times more than employment provision in Achampet, and three to five times higher than irrigated villages.

Except for the first year, on an average, every participatory household received more than 80 days of employment for every year. In 2009-10, nearly double of employment target was achieved in this village, which is about 186 days were provided to the household, with 51531 person-days on the whole. The households completed 100 days per annum are, on an average, 59 percent of total working households during the decade of implementation. After the first year, percent of households completed hundred days varied between 70 to 80 percent per annum for five years; it has come down to 40 percent in later years. Still, it is higher than remaining the three villages.

After Mandiravalasa, Achampet is another village where MGNREGA provides more employment on average, which is 51 days per household per household, which is way below the target of 100 days. In the beginning, in 2007-08, employment generation was 118 days per household, which is very high, but has drastically come down and could not even provide half of the employment given in the second year. Our inquiry revealed that, due to lack of co-operation and proper monitoring at the worksite by the mate and the field assistant, as a reason, workers lost their interest in participating in the MGNREGA and started looking for alternative employment opportunities if possible.

Table 7.5 MGNREGA Employment in Un-irrigated Villages

YEAR	MANDIRAVALASA			ACHAMPET		
	Total Person-days	Average Household Employment	No. of HHs Completed 100 days	Total Person-days	Average Household Employment	No. of HHs Completed 100 days
2006-07	6830	37	24 (13)	4888	35	4 (3)
2007-08	25811	98	194 (73)	32737	118	142 (51)
2008-09	22960	87	214 (81)	9051	37	10 (4)
2009-10	51531	186	216 (78)	13414	53	15 (6)
2010-11	38198	135	207 (73)	6784	38	0
2011-12	35335	120	222 (75)	6315	38	0
2012-13	29441	81	148 (41)	10441	51	0
2013-14	39929	104	225 (59)	6373	32	0
2014-15	33903	90	186 (49)	13634	58	34 (14)
2015-16	32331	83	196 (50)	11692	52	21 (9)
AVERAGE		**102**	**(59 %)**		**51**	**(9 %)**

Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in

In the case of irrigated villages, MGNREGA may not be as necessary as compare to un-irrigated regions, where people can find more employment opportunities in the agriculture sector. It goes with our finding in irrigated villages where average workforce participation is not more than 32 percent. When compared to Kalavapamula, nature of irrigation is limited in Chandram than a canal irrigated village, springs from hills irrigate tanks. Kalavapamula is fully irrigated through canals from Krishna River. In this village, assured irrigation is available for both the crops for whole farm land. The differences in irrigation clearly reflect in employment generation in MGNREGA. It can be understood from the table: 7.6. The average employment given per family is relatively more in Chandram (30 days) than Kalavapamula (18 days). The period of implementation is little longer in Chandram since some amount of households completed hundred days compare to Kalavapamula village. The average employment in Kalavapamula never exceeded more than 35 days. In the village, the households completed 100 days are just 9 during 2011-15.

Table 7.6 MGNREGA Employment in Irrigated Villages

YEAR	KAVAPAMULA			CHANDRAM		
	Total Person-days	**Average Household Employment**	**No. of HHs Completed 100 days**	**Total Person-days**	**Average Household Employment**	**No. of HHs Completed 100 days**
2006-07	-	-	-	4262	19	1 (0.4)
2007-08	-	-	-	9366	34	14 (5)
2008-09	2	1	0	6824	17	0
2009-10	5322	19	0	8174	25	9 (3)
2010-11	3087	9	0	9462	26	7 (2)
2011-12	13734	35	8 (2)	6998	31	2 (1)
2012-13	11169	25	0	13965	38	0
2013-14	8763	22	0	11474	36	0
2014-15	9865	25	1 (0.3)	15132	37	20 (5)
2015-16	3225	11	0	17145	40	24 (6)
AVERAGE		**18**	**0.3 %**		**30**	**2.2 %**

Source: www.nrega.ap.gov.in &www.nrega.telangana.gov.in

In Chandram, there is an improvement in employment generation over a period of time. Average employment given per household was 24 days per annum in first five years; it was improved to 36 days for later five years' period. Amidst ebbs and flows, average employment per household was increased to 40 days for the period of 2015-16. Except

for three years, some households were received 100 days of employment under MGNREGA, but their proportion was not more than 6 percent for any period.

7.2.1 Farm-size and MGNREGA Participation: An Econometric Exercise

MGNREGA is meant for the rural poor and is a universal program, no matter the applicant for employment's economic position. However, the participation of poor, who are mostly landless and smaller peasantry are expected to be more. In order to confirm this relation, we have estimated a simple regression between MGNREGA employment (*MEmp*) as a dependent variable and farm size (*Fsize*) of the participant as an independent variable, expecting a negative.

The regression is estimated as the following equation:

$$\ln\left(MEmp\right)_i = \alpha + \beta \ln\left(Fsize\right)_i + \varepsilon_i$$

A double-log regression is estimated for cross-section data of the sample villages. As shown in the table: 7.7, the results confirmed our conjecture that there is an inverse relationship between MGNREGA employment and farm size, statistically significant at 95 percent level of confidence. Since cross section data is used in the model, the value of R^2 is expected to be low.

Table 7.7 Regression Results: MGNREGA Employment vs. Farm Size

Dependent variable	$\ln\left(MEmp\right)_i$
Independent variable	$\ln\left(Fsize\right)_i$
Observations	257
R^2	0.030
Co-efficient	-0.166
t-stat	-2.766 (0.006)
p-value	0.006
F-statistic	7.653 (0.006)

Source: computed from the data collected through field survey.

7.2.2 MGNREGA Wage Rate:

An important observation is that MGNREGA wage rate is significantly less than market wage rates for males as well as females in all the study villages. Andhra Pradesh has been a high wage state in the country for quite some time. As we argued elsewhere, MGNREGA has contributed in pushing the market wages ever since the Act is implemented.

Further, MGNREGA wages are expectedly even much lower than the non-farm wage rates. However, there are minor variations in the wage rates between villages. For instance, MGNREGA wage rate is higher in Kalavapamula (Rs.114) where employment provision is least. On the other hand, workers received lower wages in Mandiravalasa village (Rs.84) where more days of employment is given per household. Since MGNREGA wages are paid on a piece-rate basis[82], there are several factors to explain wage differences among the villages such as nature of work, worker abilities, worksite management, etc. Unlike other villages, type of work is an important factor in determining wages for MGNREGA workers in Kalavapamula. In this village, MGNREGA works are mostly related to irrigation canals such as removal of water hyacinth and de-silting and deepening works. The loose soil in the village enables a faster completion of assigned tasks and confirm to measurements, unlike villages which have hard soil, and digging works are undertaken. But less employment is created in Kalavapamula, which is a canal irrigated village, where only de-silting and deepening of canals can be taken, and no bush-clearance, tank works, etc. exist. The situation is completely different remaining villages. In these villages, it is very difficult to finish given a quantum of work in scheduled time, except works like clearance of bushes. In addition, proper management at work site is also another important factor which influences wage rate for MGNREGA workers. The absence of such supervision can be caused for non-completion of work in time and led to low wages. The wage rates received by the MGNREGA workers are Rs. 93 and Rs. 99 in the villages of Chandram and Achampet, respectively.

Table 7.8 Rural Wage Rates in Study Villages

Village	Agriculture		Non-agriculture		Received Wage in MGNREGA
	Men	Women	Men	Women	
Kalavapamula	250	150	300	-	**114**
Chandaram	200	100	300	-	**93**
Mandiravalasa	150	100	170	120	**84**
Achampet	120	80	200	150	**99**

Source: Field Survey, 2013.

Delay in payment of wages is a serious issue in MGNREGA implementation, which is yet to be addressed. An official information also reveals that some delay exists in wage disbursement [see Table: 7.9]. However, the delay seems to be caused by non-release of funds than any other reason. When it comes to compensation, we found in all

[82] Under piece-rate basis, wage are paid according to the quantum work is done by labour. The value of work is determined by Schedule of Rates (SoR) that differ from work to work.

the villages nobody even heard about the compensation which is to be paid for delay payments as stipulated in the Act.

Table 7.9 Percentage of Wage Disbursed within Fortnight				
Year	KALAVAPAMULA	CHANDRAM	MANDIRAVALASA	ACHAMPET
2006-07	-	0	0	0
2007-08	-	0	0	0
2008-09	0	0	0	0
2009-10	0	0	0	0
2010-11	0	0	0	0
2011-12	95.67	0	26.01	36.17
2012-13	60.16	0	39.87	38.12
2013-14	51.7	0	27.23	14.47
2014-15	0	2.51	1.97	8.15
2015-16	1.99	16.07	16.54	1.84
Source: www.nrega.ap.gov.in & www.nrega.telangana.gov.in				

7.2.3 Income received through MGNREGA:

As far the income received from participating in MGNREGA, there is a variation between the villages; in two villages the average income in the last 10 years is poor in two villages, while is much better in other two villages. Fortunately, the villages where it is better, are deserving the cases of backward ones. [see Table 7.10]. So if the 100 days employment is given like in Mandiravalasa, the annual income is about Rs. 8450 and where 50 days average employment is provided like in Achampet, earning is Rs. 4985. In Chandram, only 30 days average employment is provided, and in Kalavapamula only 18 days, so the income is also proportionately fell, i.e., Rs. 2919 and Rs. 2112 respectively. It is interesting to observe that the trend in income generation in two villages, namely, Kaluvapamula and Mandiravalasa, has gone up during 2009-12 and declined towards 2014-15, which is consistent with the national trend. In other two villages, the trend only steadily increased.

Table 7.10 Average Household Income through MGNREGA (Rs.)				
Year	**KALAVAPAMULA**	**CHANDRAM**	**MANDIRAVALASA**	**ACHAMPET**
2006-07	-	1314	2687	2768
2007-08	-	2869	7366	9992
2008-09	103	1408	6589	3179
2009-10	1906	2286	12810	4292
2010-11	924	2198	10289	3203
2011-12	3981	2545	11020	3369
2012-13	2799	3168	6728	5650
2013-14	2420	3354	8449	4405
2014-15	3103	3852	9854	6506
2015-16	1662	6200	8709	6489
AVERAGE	**2112**	**2919**	**8450**	**4985**
Note: Computed with the data collected from official websites of Andhra Pradesh and Telangana states. **Source:** www.nrega.ap.gov.in &www.nrega.telangana.gov.in				

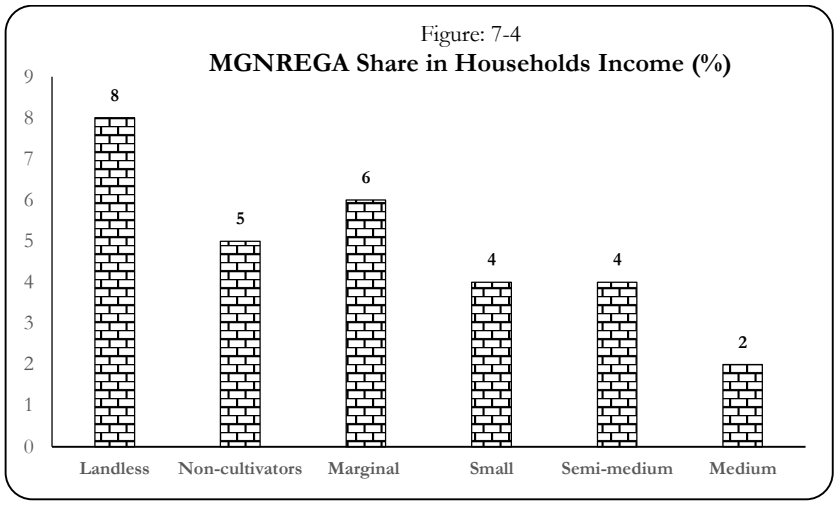
However, MGNREGA by itself is not a major income contributor to the households' income. In total income of the households, MGNREGA contributes 3 to 4 percent in irrigated villages and 6 to 7 percent in unirrigated. As shown in figure: 7-4, farm size is inversely related to the share of MGNREGA income as it is related to MGNREGA employment. But, given its potential to boost market wages, it can make overall wage income increase for labour households, provided employment days do not fall.

Table 7.11 Share of MGNREGA in Households' Income for Different Categories
(Percentage)

Category	Kalavapamula	Chandram	Mandiravalasa	Achampet	Aggregate Average
Landless	3	6	9	12	**8**
Non-cultivators	1	5	8	5	**5**
Marginal	4	3	12	4	**6**
Small	6	4	4	3	**4**
Semi-medium	3	3	6	5	**4**
Medium	3	1	3	-	**2**
Average	**3**	**4**	**7**	**6**	5

Source: Field Survey, 2013.

Figure: 7-4



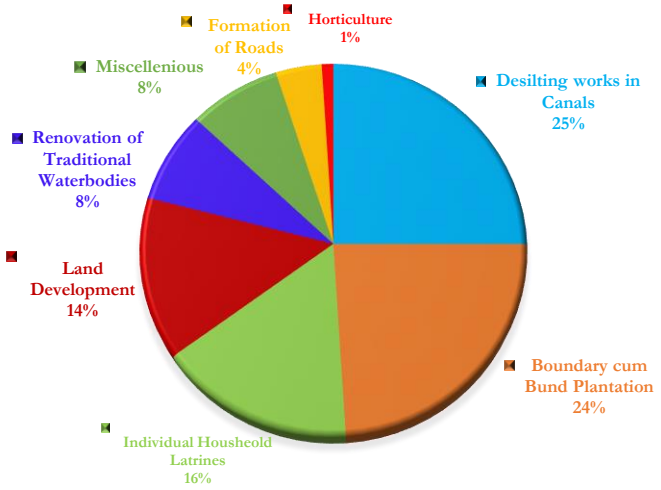
7.3 Assets Creation under MGNREGA

In the study villages, we observe works that are commonly undertaken consisting of household latrines construction[83], de-silting canals, renovation of traditional water bodies, roads, bund plantation and plantation works. However, these common works occupy

[83] In 2013, construction of Individual Household Latrines was included in proposed works of MGNREGA in association with Nirmal Bharat Abhiyan (now, under Swachh Bharat Abhiyan).

major proportion in the total works of their respective villages.[84] Around 50 percent of works are related to de-silting of feeder channels and field channels and boundary cum bund plantation. Another 30 percent of works are related to household latrines construction and land development. The remaining works include renovation of traditional water bodies (8 percent), the formation of roads (4 percent), horticulture (1 percent) and miscellaneous works (8 percent) as shown in figure: 7-5.

Figure: 7-5
MGNREGA WORKS IN STUDY VILLAGES



Under MGNREGA, more household latrines were constructed in Chandram and Achampet villages. Indeed, there is a need for latrine facility in these villages where open defecation has been in practice much than other two villages. Obviously, canal de-silting works can be undertaken at large scale where canal/tank irrigation is available. Therefore, we found most of the de-silting and deepening/widening of field channels and feeder channels in irrigated villages of Kalavapamula (77.9 percent) and Chandram (23 percent). Such de-silting works conducted in traditional water bodies like tanks, ponds, etc., to renovate them in un-irrigated villages. There is much scope for conducting the works such as land development, boundary cum bund plantation, horticulture, bush clearance,

[84] There are some differences between the villages for rest of the works (see Table: 7.12). Removal of water hyacinth in drains is exclusively carrying out in Kalavapamula, about 8.8 percent which is only activity other than common works. In the same way, contour trenching work at foothills is conducting solely in Mandiravalasa (3 percent). Horticulture works are found in only un-irrigated villages, but their proportion is too small. Bush clearance and compost pit digging works are carried out in Chandram and Achampet villages. Some of the works like fodder trough, burial ground levelling and IAY (Indira Awas Yojana) house work come under other works.

farm ponds, silt application, trenching, etc. in un-irrigated villages where dry lands and fallows exist. The same is noticed in Achampet and Mandiravalasa villages [see Table: 7.12].

Table 7.12 MGNREGA Works					
Work Type	**Kalavapamula**	**Chandram**	**Mandiravalasa**	**Achampet**	AGGREGATE
Individual Household Latrines	24 (8.8)	94 (24)	20 (6)	84 (23.7)	**222 (16.1)**
De-silting works in Canals	212 (77.9)	92 (23)	34 (9)	8 (2.3)	**346 (25.1)**
Renovation of Traditional Water Bodies	4 (1.5)	16 (4)	70 (19)	17 (4.8)	**107 (7.7)**
Horticulture	-	-	3 (1)	10 (2.8)	**13 (0.9)**
Land development	-	62 (16)	128 (35)	13 (3.6)	**203 (14.7)**
Formation of Roads	4 (1.5)	13 (3)	10 (3)	25 (7)	**52 (3.8)**
Boundary and Bund Plantation	3 (1.1)	84 (21)	68 (19)	175 (49.3)	**330 (23.9)**
Plantation	1 (0.4)	14 (4)	6 (2)	7 (2)	**28 (2)**
Bush Clearances	-	5 (1)	-	2 (0.6)	**7 (0.5)**
Compost Pit	-	11 (3)	-	11 (3)	**22 (1.6)**
Removal of Water Hyacinth	24 (8.8)	-	-	-	**24 (1.7)**
Contour trench	-	-	10 (3)	-	**10 (0.7)**
Check Dams	-	2 (1)	4 (1)	2 (0.6)	**8 (0.6)**
Others	-		8 (2)	1 (0.3)	**9 (0.7)**
Total	**272 (100)**	**393 (100)**	**361 (100)**	**355 (100)**	**1381 (100)**
Source: www.nrega.ap.gov.in &www.nrega.telangana.gov.in					

7.4 Development of Individual Lands under MGNREGA

Land development in the lands of private individuals is an important aspect of assets creation under MGNREGA. The lands belong to SC/STs, and small and marginal farmers are given first priority. These works can be conducted in both cultivable and fallow lands of the individuals. The land development works include bush clearances, land levelling, bunding, horticulture and so on. We observe such development of individual lands in three villages only, but not in Kalavapamula.[85] Moreover, this type of

[85] In Kalavapamula, there is no scope to conduct such activities where all the extent of agricultural land is under cultivation in both the seasons through canal irrigation. There are no fallows and any other dry lands.

MGNREGA works is intended to develop the dry land agriculture rather than irrigated one. Therefore, the proportion of households benefitted from land development is more in un-irrigated villages as shown in the table: 7.13. At the aggregate level, land development works carried out to the extent of 479.01 acres of which belong to 196 small and marginal households. Under MGNREGA, the proportion of landed households who benefitted through various land development works is 46 percent. Obviously, such works are helpful to develop the lands of small and marginal households who cannot invest in them. These land development works can have a potential impact on the growth of area and productivity in dry land agriculture.

Table 7.13 Land Development Beneficiaries under MGNREGA in Study Villages

Village	Beneficiary Households	Extent of Land (in Acres)	Average Extent per Farmer (in Acres)
Achampet	114 (71)	341 (64)	2.99
Chandram	24 (21)	59 (19)	2.46
Mandiravalasa	58 (51)	79.01 (39)	1.36
Kalavapamula	0	0	0
AGGREGATE	**196 (46)**	**479.01 (40)**	**2.44**

Note: Parentheses indicate percentages of a particular village.
Source: Field Work, 2013.

Achampet:

In Achampet village, land development works were carried out in sealing lands of the farmers which were distributed by the government. Almost 90 percent of these lands are not suitable for cultivation as they contain heavy thorny bushes. A huge investment is required to bring those lands under cultivation which cannot be borne by poor farmers. Under MGNREGA, land development works such as bush clearances, land levelling and earthen bunding activities were taken place in the lands of BCs and SCs. Most of the lands where development happened belong to the SCs [Table: 7.14]. But, these works do not add anything to the production as these lands need to be taken care for a long period of additional investment. In that direction, land development under the MGNREGA becomes the first step in improving such lands to turn them into cultivation. On an average, the amount spent on for bush clearance, land levelling and earthen bunding are, Rs. 2496, Rs. 3764 and Rs. 3617 respectively. There are small differences in the amount spent on different groups are explained by nature of soil and type of work. With such

tiny amount of expenditure, it would be impossible to carry those works for individual farmers at market wage.

Table 7.14 MGNREGA Works in the Lands of Sample Households in Achampet				
Caste	*Farmers (No.)*	*Total Extent (in Acres)*	*Average Extent per farmer (in Acres)*	*Average Expenditure per Acre (Rs.)*
Medium Bush Clearances				
BCs	18	40	2.22	2615
SCs	22	78	3.55	2377
Total	40	118	2.95	2496
Earthen Bunding				
BCs	15	32	2.13	3476
SCs	21	74	3.52	4051
Total	36	106	2.94	3764
Land levelling				
BCs	14	30	2.14	3532
SCs	24	87	3.63	3702
Total	38	117	3.08	3617
Source: Field Survey, 2013.				

Chandram:

In this village, cultivable lands of small and marginal farmers who mostly belong to SCs, STs and BCs, were preferred to chosen for land development works. These lands are located outside of the coverage of available tank irrigation. Generally, they are used for the cultivation of Janumu (Sunn hemp) and Red Gram crops if monsoons arrive in time. Under MGNREGA, those dry solid lands were deeply excavated to loosen upper layers of the land to increase the absorption capacity of rainwater into it. Such activities were conducted nearly 59 acres of land of 24 farmers who belong to different social groups at the average cost of Rs.3886 per acre [Table: 7.15]. Under the MGNREGA, most of the beneficiaries belong to BCs households who own land, and a very few of them are SCs and STs. After excavation of the lands, they can be used for paddy cultivation if there is sufficient rainfall at the right time.

Table 7.15 MGNREGA Works in the Lands of Sample Households in Chandram				
Caste	*Farmers (No.)*	*Total Extent (in Acres)*	*Average Extent per farmer (in Acres)*	*Average Expenditure per Acre (Rs.)*
Preparation of dry fields into Rainfed paddy fields				
BC	20	50	2.5	4067
SC	2	7	3.5	4374
ST	2	2	1	3218
Total	**24**	**59**	**2.46**	**3886**
Source: Field Survey, 2013.				

Mandiravalasa:

In Mandiravalasa, land development works on private lands can be categorised into land levelling and mango plantation. Under MGNREGA, land levelling was carried out to the extent of 73.51 acres whereas mango plantation took place on 5.5 acres of land of the sample beneficiaries. The average acreage of land used for development is small, but expenditure spent on it is relatively high when compared to other two villages.[86] Around 90 percent of beneficiaries of land development works belong to BCs as like their population share in the village.

Table 7.16 MGNREGA Works in the Lands of Sample Households in Mandiravalasa				
Caste	*Farmers (No.)*	*Total Extent (in Acres)*	*Average Extent per farmer (in Acres)*	*Average Expenditure per Acre (Rs.)*
Land levelling in cultivable lands				
BC	49	61.38	1.25	5892
SC	2	5.87	2.94	5337
ST	4	6.26	1.57	5182
Total	**55**	**73.51**	**1.34**	**5470**
Horticulture (Mango Plantation)				
ST	**3**	**5.5**	**1.83**	**9233**
Source: Field Survey, 2013.				

We found horticulture plantation in the lands of three ST (*Konda Dora*) farmers. On an average, mango plantation was done in 1.83 acres per farmer in the village. Unlike land development works, horticulture plantation is required much expenditure per acre including all the costs. Average expenditure spent for mango plantation is Rs. 9233 per acre [Table: 7.16]. But, the gestation period for mango gardens is more than 5 years to

[86] In Mandiravalasa, the nature of soil is so hard and rock-strewn in places where land levelling was taken place.

get optimal production. However, mango plantation is the only activity which will generate sustainable income to the farmers for a long period of time. A dry village like Mandiravalasa needs such auxiliary programs like horticulture, and MGNREGA's contribution makes meaning.

Conclusion:

At grass-root level, observations on the performance of MGNREGA suggest that it is satisfactory from several points of view. First, it has provided relatively better employment where actually it is needed. In un-irrigated villages, households' coverage, workforce participation and employment generation is relatively better than irrigated regions. The participation of different social groups under MGNREGA depends upon their demographic size. MGNREGA provided more number of days of employment in dry regions than irrigated villages, which apparently justifiable. In rural areas, MGNREGA employment is mostly utilised by bottom sections; this is supported by our econometric estimation. Unfortunately, the proportion of households completed 100 days is still very poor, even in dry regions too. Under piece rate mechanism, average wage rate received for MGNREGA works is less than both farm and non-farm wage rates in rural areas. There is a common problem in all the villages which is a delay in payment of wages in rural areas, in spite of the use of smart cards, post office accounts and business correspondent model. The income generation under the Act forms 4 to 8 percent of the household income, depending on the employment generation. The positive impact on the overall income is perhaps the welcoming outcome. The assets created under MGNREGA include household latrines, de-silting of canals, boundary cum bund plantation, land development, roads, horticulture and so on. Among them, land development and horticulture plantations directly help to the small and marginal farmers of SC/ST and BCs. MGNREGA should promote works like mango plantation to ensure sustainable income to farm households.

Chapter - VIII

8. Summary and Conclusions

Mahatma Gandhi National Rural Employment Act (MGNREGA) came into existence in India in the context of a growing agrarian crisis and rural distress during the post-reform period. It is considered as a flagship programme in the history of wage employment programmes in the country.

The reason why such program has come about is an important issue. It is well known that capitalist development, as everywhere, in less developed countries is fraught with unemployment and underemployment, causing extreme poverty. A Large majority, particularly, the rural poor are excluded from the economic growth that takes place in the neoliberal era. However, the state under liberal democracies is compelled to undertake measures to ameliorate poverty. MGNREGA is thus an important welfare measure to address the growing employment insecurity in agriculture. However, the Act when implemented as an immense potential to alter the employment relations, as it can improve the bargaining power of the other hapless labour. In such a case, there could be resistance towards its implementation, which could get reflected in terms of the political will of the state in implementing it.

Therefore, there are three basic problematics relating to MGNREGA one can conceive. First, why is such an Act promulgated and how much is it different from the past programs? Second, how is it implemented, which are the models used in the implementation and constraints in implementing it? Third, the question of short terms and long term effects of MGNREGA. This thesis addresses these problematics, intuitively as well as empirically.

The poverty issue has been the Achilles Heel for the Indian state, even after placing a strong emphasis on growth of national income for the first four decades. Given that trickle down effects of growth process have been weak; there was a need for a direct attack on poverty in the mid-seventies. Several anti-poverty programs were tried in creating assets and employment for rural households with mixed success. The economic reforms introduced in 1991, though have succeeded in keeping the growth momentum of the economy, have also led to jobless growth and severe inequalities. Given the growing political unrest, MGNREGA is conceived as a completely new program in terms of intent, letter and status. For the first time, it is made as constitutional right to seek a

minimum of 100 days by any poor household, no government can stop this program, on its own. With so much care going into its drafting to minimise its misuse, the Act became a historical tool in the hands of rural poor.

One can theorise the promulgation of the Act as a part of `double movement' in Polyanian terms, by the liberal democratic state to withstand the poverty and misery created by a capitalist order. One may also theorise this as a social welfare measure for the large mass of rural economy under a capitalist transition, integrates all small peasants into production circuit without giving complete livelihood; force them to become wage labour, yet do not find stable employment to meet their subsistence. Having accepted this more as a political and economic outcome, there are equally difficult challenges for the state to implement the Act. First, the Act would lead to a class conflict between the labourers and landowning farmers. Thus where landlord lobbies are prominent, the program is likely to face resistance. The power configuration in the political economy, therefore, may either enable or obstruct the implementation, manifested in terms of apathy and lack of will on the part of the state. Given the uneven capitalist development in the country, these factors certainly are going to have repercussions on the implementation. Third, this program is likely to be a subject of resources of the state, as in practice, it has not become a demand-driven system. Given these considerations, this thesis looked into few specific questions on the implementation and impact of the MGNREGA in India, at the aggregate level, at the state level and at a village level.

The specific objectives of the thesis have been: to examine the trends in employment generation under the MGNREGA, to analyse the inter-state differences in implementation of the MGNREGA; to examine factors that influence budgetary provision and spending under MGNREGA; the specific model of implementation of MGNREGA in Andhra Pradesh; the impact of the MGNREGA on labour market and land development; and income generation at household level under the MGNREGA.

The study assumed four simple hypotheses: 1). Aggregate temporal variations in the implementation of MGNREGA are positively influenced by central revenue; 2). Interstate variations in the implementation of MGNREGA are influenced by the political party in power; 3). MGNREGA has a positive effect on nominal agricultural wage rate; 4). Employment generation under MGNREGA is positively influenced by the assets created under the same.

The data for the analysis is collected for the study from both primary and secondary sources. The secondary data is collected from the MGNREGA Official websites of both State and Centre; Reserve Bank of India, Census of India reports (1961-2011), District Census Handbooks, Agriculture Census reports, reports of Agricultural Wages in India, Economic Survey of 2014-15, Human Development Report of Andhra Pradesh 2007, etc.

The thesis also used primary data has been collected from 652 households from four villages in (united) Andhra Pradesh, using structured questionnaire and stratified random sampling during Jan - April 2013. For the primary data collection, four villages were chosen from four districts in the states of Andhra Pradesh and Telangana (two from each). The chosen villages are, namely Kalavapamula (Krishna district) and Mandiravalasa (Vizianagaram district) from Andhra Pradesh; and Achampet (Medak district) and Chandram (Adilabad district) from Telangana state. The sample households covered 37 percent of total households. The data is aggregated using weighted averages.

The study has used simple statistical tools such as compound growth rates, weighted averages, simple and multiple regressions. The researcher also estimated an index of MGNREGA performance using seven indicators. The time frame for the study is 2006-07 to 2015-16.

8.1 MGNREGA Performance

8.1.1 MGNREGA at Macro level:

The implementation of MGNREGA since inception has shown two major trends, one, an increasing trend between 2006-10, and second, a declining trend during 2011-16. This rise and fall in implementation consistently reflected in terms of funds allocation, average days of employment created, households covered, assets created, and works completed, at all India level. The average aggregate employment created began at 43 days in 2006-07, increased up to 54 days in 2009-10 and began declining back to 42 days in 2015-16. However, the average household income created has steadily increased from Rs. 2795 in 2006-07 to Rs. 4860 in 2009-10 to Rs. 6460 in 2015-16. The consistent improvement in average household income created is achieved thanks to increasing wage rate under the program, despite a fall in average employment since 2009-10. The fund utilisation has also increased from about 73 percent to 95 percent during the study period. However, the wage component under implementation has always been on a higher side between

70-80 percent and the counterpart of material component taking a beating. This is bad for asset creation, which is reflected in terms of macro as well as micro levels.

Even though the MGNREGA is expected to be a demand-driven system in principle, however, in practice it remained a supply-driven system. As a result, its implementation remained a subject of budget constraints of the central government. Ever since, economic growth began slowing down in India after 2008-09, after an accelerated growth of 8.5 percent achieved during 2003-08, the fund's allocation to MGNREGA appeared to have been affected. A simple regression between the MGNREGA funds released as a dependent variable and central government revenues as an explanatory variable has shown a statistically positive relationship, confirming our hypothesis that central government resources, which are obviously determined by the economic growth of GDP, significantly influences the MGNREGA fund allocation. This is not a good sign, and things have to change. Even during the poor growth years, where the need for employment is high, MGNREGA allocation should not be affected.

Even though the Act is created by the central government and funds are allocated by the centre, the onus of implementation has been on the state governments. As a result, there is a considerable variation among the states in the performance of the MGNREGA. Based on the MGNREGA performance index that we have built, we find three categories of states, namely, best performers, moderate performers and poor performers.

Along with Rajasthan, other states like Tamil Nadu, Andhra Pradesh, Chhattisgarh, Himachal Pradesh and Madhya Pradesh stand as first six better performing states. The States like Kerala, Jharkhand, Gujarat, Uttar Pradesh, Uttarakhand, Maharashtra and Karnataka are moderately performing states, going by the index. On the other hand, Goa, Punjab, Bihar, Jammu & Kashmir, Haryana, Odisha, and West Bengal states stand at the bottom with poor performance. Interestingly there is no correlation between per capita state domestic product and implementation level of MGNREGA, as expected. States with high poverty are much behind richer states in implementation. There is also no consistent pattern between the political party in power at the state level and implementation. Congress party under UPA largely claims the ownership over the program for introducing it in its regime in 2006-07. In spite of that, several Congress ruled states fare poor in implementing it. In contrast, BJP appears to have maintained distance over its attitude towards to program, states like Rajasthan, Chhattisgarh, Himachal and Madhya Pradesh have fared better. Some left ruled states like Tripura is a

better performer while West Bengal ruled by the same party is a poor performer, while Kerala is a moderate performer. Hence, no discernible pattern is found between implementation and party in power. While this study has not gone into the factors at state level responsible for effective implementation, we speculate the political economy factors associated with the level of capitalist development and competitive liberal democratic pressures could explain these differences better. Hence our second hypothesis political party in power determines MGNREGA performance stands rejected.

8.1.2 MGNREGA in Andhra Pradesh:

Andhra Pradesh is one of the better performers in the implementation of MGNREGA in India, where average employment created always remained above the national average. As we said earlier, while this is fully centrally sponsored program, onus and model of implementation totally rests on the state government. Andhra Pradesh, which one of the leading states that have implemented economic reforms at the state level under World Bank aided structural adjustment load since 1997, has a history of creating techno-managerial models of governance. The positive side of this model is that it is a bureaucratic controlled top-down model that uses Information technologies effectively. The negative side of it is a completely top-down model, circumventing Panchayat raj institutions. Such a model, for implementing, MGNREGA can be said to be against the spirit of the Act itself. However, it fares better compared to some many other models followed in other states, in terms of timely payment, preventing leakages and large scale corruption, transparency and accountability. Dedicated administrators were deployed to set up the system; the state government developed a separate administrative structure at State, district, block and village level dedicated to carrying out the MGNREGA implementation.

In Andhra Pradesh, the trends of employment generation under MGNREGA is similar to the national trend during ten years of implementation. The performance of MGNREGA has steadily increased during 2006-10 and a steady decline for 2010-16, in terms of households' coverage, person-days generated, average household employment and percentage of households completed 100 days. The average employment created in the state has increased from 31 days in 2006 to 66 days in 2009-10 and gone down to 47 days in 2015-16. This is still higher than the national average. The coverage of households in the state is around 40 percent of rural households per annum. The good thing is a

significant proportion of women, and disabled workers received a good amount of employment in the state.

Even though the wage rate received has steadily increased over the period, in spite of average days of employment created came down from 2009-10, which enabled households to receive an increased total income on average. However, the gap between notified wage rate and received wage rate has been widened over a period of time. Although wage rates revised regularly, it is not reflecting on received wages due to piece rates. On the negative side, there is a drastic fall in the works completed since 2010-11 in Andhra Pradesh. Though there is a decline in the share of wage expenditure, it still it is dominant component. The material expenditure is just 20 to 30 percent, which affects assets creation. In entire period of implementation, just 12 percent of works were completed in total works undertaken. On the positive side, in MGNREGA implementation in the state, most backward districts were given priority to provide employment guarantee. Even when the fund allocation came down, the state government seemed to have focussed on employment creation under the program in backward districts. For example, employment generation is remarkably high in the districts of Srikakulam, Vizianagaram and Visakhapatnam in coastal region; Anantapuram, Chttioor, Kadapa and Kurnool in Rayalaseema region; and Adilabad, Rangareddy and Medak of Telangana region of the state.

8.1.3 Impact of MGNREGA on Agriculture:

We tried to examine the impact of MGNREGA implementation on agriculture. In the case of Andhra Pradesh, MGNREGA implementation is significantly associated with the growth of both nominal and real wages in agriculture. The rate of growth in agricultural wages during 2006-14 is six times higher than the growth of 2001-06. During 2001-06, normal wages for both men and women went up by 40 percent, but they have gone up by more than 250 percent during 2006-14. After 2006-07, wage rate for men has gone up more than minimum wages; and wages for women too increased on par with minimum wages. While there could be other demographic and economic reasons, however, agricultural wages for men and women have risen many times during the post-MGNREGA period. At the same time, the wage rise that led to a substantial increase in the cost of cultivation for various crops in the state. In order to face the rising cost of cultivation, one witnessed the extensive use of harvesters in many crops, which in turn resulted in a decline in employment.

In Andhra Pradesh, 34 lakhs works were undertaken in the lands of private individuals during 2006-16, which is equal to 16 percent of total works under MGNREGA. While the impact of assets created under MGNREGA is yet to make any significant impact on overall productivity in agriculture, it is making some difference to marginalised sections. Around 14.16 lakhs of farmers got benefitted from land development works who mostly belong to SC/STs and marginal and small farmers. The land development activities include irrigation works, land levelling, bush clearance, boulder removal, farm pond, silt application, terracing, trenching, plantation, etc. In the part of dry land development, MGNREGA promotes horticulture plantation to directly help the farmers by enabling them to create a sustainable income. So far, horticulture plantation was done in 5.52 lakhs acres under different species like mango, sapota, acid lime, sweet orange, cashew, custard apple, guava, etc. Under horticulture plantation, nearly 60 percent of total extent has been put for mango plantation by more than 50 percent of farmers in the state. Both land development and horticulture plantation can have potential impact in the long run. Under MGNREGA, agriculturally backward districts were supported in two ways, generating more employment and horticulture plantation.

8.1.4 Grass-root level Observations:

At grass-root level, employment situation varies across the villages depending socio-economic and ago-climatic characteristics. In the sample villages, 80 percent of workers engaged in agriculture and 20 percent in the non-farm sector. The majority of households are landless in irrigated villages, and the share of marginal and small farmers is high in dry villages. Both this category of households primarily depend on wage employment. The employment availability in agriculture has seriously fallen due to increasing usage of harvesters. Therefore, people find supplementary employment mostly in construction and MGNREGA in the villages.

The MGNREGA performance is satisfactory from multiple facets. It provided more employment where actually it needed. It is mostly utilised by bottom sections of the society. The households' coverage, average employment and workers participation is relatively better than irrigated villages. Under MGNREGA, the proportion of households completed 100 days is still very less, even in dry villages where more employment generated. The wage rate received under piece-rate mechanism is less than both farm and non-farm wages. The delays in wage payments are quite common in the villages even

though they are disbursed through post office accounts and banking correspondents using smart cards. The contribution of MGNREGA is around 4 to 8 percent of total household income. The assets created under MGNREGA include household latrines, de-silting of canals, boundary cum bund plantation, land development, roads, horticulture and so on. Among them, land development and horticulture plantation works can have potential impact in the long run to ensure sustainable income. Both land development and horticulture plantation were undertaken in the lands of marginalised sections who can't invest in them, but they are very few in number. The rural elite and supervisory sections oppose MGNREGA showing it as the cause for increasing cost of cultivation and declining profitability in agriculture. The marginal and small farmers are in favour of the MGNREGA who mostly benefit through employment and land development as well. Such land development works will have a positive impact on the growth of area and productivity in dry land agriculture.

8.2 Recommendations

1. The MGNREGA is still far away in achieving its proposed targets during a decade of its implementation. The governments should show more commitment towards the employment guarantee.

2. Financial support is the major barrier to providing at least 100 days of employment for every rural household. There should be enough financial backup and timely release of funds from both the States and Centre for the programme.

3. Farmers and agricultural labour unions should take up organising rural labour for MGNREGA employment. They must take an interest in insisting Gram Sabhas, claiming unemployment insurance, conduct legal battles and claim other benefits under the Act. This could force the state to take up the bottom up approach, leaving the current top-down approach.

4. The delay in wage payments in very common in MGNREGA implementation. It should be addressed immediately by removing administrative and financial bottlenecks in this concern.

5. So far, the work completion ratio is so poor under the MGNREGA. There is an urgent need for concentration in durable assets creation without leaving them incomplete. There should be technical supervision at the worksite to improve the

quality of the assets. There is a need for concentration on maintenance of created assets for sustainability.

6. The MGNREGA performance in unsatisfactory in poorer states like Bihar, Odisha, Jharkhand, Uttar Pradesh, etc. The special attention is required in the states where it utterly fails in terms of setting up the proper administrative structure, dedicated staff, proper monitoring and supervision, using technical support in avoiding delays and so on.

7. For proper implementation of the MGNREGA, administrative bodies are not strong enough at the grass-root level. The village administrative bodies should be strengthened by providing required staff and support.

8. The development of private lands belong to marginalised sections under the MGNREGA is important. Those lands should be taken care for some more time until they turn to be productive.

APPENDICES

Appendix -1

A.1 State-wise Poverty Rates:

Number and Percentage of Population Below Poverty Line by States - 2004-05 (Tendulkar Methodology)							
S. No.	States/UTs	Rural		Urban		Total	
		% age of Persons	No. of Persons (lakhs)	% age of Persons	No. of Persons (lakhs)	% age of Persons	No. of Persons (lakhs)
1	Andhra Pradesh	32.3	187.1	23.4	51.3	29.9	238.8
2	Arunachal Pradesh	33.6	2.9	23.5	0.7	31.1	3.6
3	Assam	36.4	88.8	21.8	8.4	34.4	97.3
4	Bihar	55.7	445.1	43.7	40.9	54.4	485.6
5	Chhattisgarh	55.1	96.5	28.4	13.4	49.4	109.9
6	Delhi	15.6	1.4	12.9	18.9	13.1	20.4
7	Goa	28.1	1.9	22.2	1.7	25.0	3.6
8	Gujarat	39.1	130.1	20.1	41.9	31.8	172.2
9	Haryana	24.8	39.3	22.4	15.8	24.1	55.1
10	Himachal Pradesh	25.0	14.3	4.6	0.3	22.9	14.6
11	Jammu & Kashmir	14.1	11.3	10.4	2.9	13.2	14.2
12	Jharkhand	51.6	115.1	23.8	15.6	45.3	130.7
13	Karnataka	37.5	135.0	25.9	50.8	33.4	185.7
14	Kerala	20.2	49.5	18.4	15.7	19.7	65.0
15	Madhya Pradesh	53.6	255.3	35.1	61.7	48.6	316.9
16	Maharashtra	47.9	277.1	25.6	116.1	38.1	393.3
17	Manipur	39.3	6.6	34.5	2.1	38.0	8.7
18	Meghalaya	14.0	2.7	24.7	1.2	16.1	3.9
19	Mizoram	23.0	1.1	7.9	0.4	15.3	1.4
20	Nagaland	10.0	1.7	4.3	0.2	9.0	1.9
21	Odisha	60.8	197.3	37.6	22.7	57.2	220.2
22	Puducherry	22.9	0.8	9.9	0.7	14.1	1.5
23	Punjab	22.1	36.5	18.7	17.2	20.9	53.8
24	Rajasthan	35.8	167.2	29.7	42.8	34.4	210.3
25	Sikkim	31.8	1.6	25.9	0.2	31.1	1.8
26	Tamil Nadu	37.5	125.6	19.7	61.3	28.9	186.8
27	Tripura	44.5	12.3	22.5	1.3	40.6	13.7
28	Uttar Pradesh	42.7	604.7	34.1	130.3	40.9	735.5
29	Uttarakhand	35.1	23.3	26.2	6.4	32.7	29.7
30	West Bengal	38.2	231.2	24.4	57.9	34.3	289.1
All India		**41.8**	**3266.6**	**25.7**	**807.6**	**37.2**	**4076.1**

Notes: Population as on 1st March 2005 has been used for estimating number of persons below poverty line.
Source: Planning Commission, Government of India, 2014.

Appendix - 2

A.2.1: Households Coverage under MGNREGA

Household's Coverage under MGNREGA in Different Districts (Percentage)											
STATE	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**AVERAGE**
Andhra Pradesh	15	34	40	43	44	35	41	42	39	40	37.3
Bihar	10	24	23	25	28	10	11	12	6	7	15.6
Chhattisgarh	32	53	52	47	57	63	60	58	40	43	50.5
Goa	-	-	0	5	11	9	3	4	5	4	5.1
Gujarat	3	4	13	24	16	12	10	9	7	6	10.4
Haryana	2	2	5	5	8	9	10	11	7	5	6.4
Himachal Pradesh	5	21	34	38	34	38	38	41	33	29	31.1
Jammu & Kashmir	8	8	13	22	32	23	32	42	14	28	22.2
Jharkhand	30	36	33	36	42	33	30	24	23	21	30.8
Karnataka	7	7	11	45	28	21	17	18	13	12	17.9
Kerala	2	6	17	23	28	34	37	37	32	35	25.1
Madhya Pradesh	26	39	47	43	40	34	28	26	25	23	33.1
Maharashtra	3	4	7	4	3	10	12	9	8	8	6.8
Odisha	17	14	15	17	25	17	20	21	17	21	18.4
Punjab	1	1	4	8	8	7	7	12	8	12	6.8
Rajasthan	12	23	67	69	62	48	44	38	38	40	44.1
Tamil Nadu	7	13	35	46	52	67	74	66	58	60	47.8
Uttar Pradesh	10	16	17	21	25	29	19	19	14	16	18.6
Uttarakhand	9	13	21	37	38	32	28	27	27	32	26.4
West Bengal	22	28	22	25	36	39	41	44	35	39	33.1
NE	16	38	80	87	92	79	89	97	91	98	76.7
UTs	-	-	35	70	61	54	32	21	15	10	37.3
All India	**13**	**20**	**27**	**31**	**33**	**30**	**29**	**28**	**23**	**25**	**25.9**

Note: Proportion of households covered to the total Census rural households.
Source: www.nrega.nic.in

A.2.2: Women Participation under the MGNREGA

Women Participation under the MGNREGA in Different States (Percentage)											
STATE	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**AVERAGE**
Andhra Pradesh	54.79	57.75	58.15	58.1	57.05	57.79	58.32	58.71	59.765	58.98	57.94
Bihar	17.38	26.62	30.02	30.04	28.5	28.64	30.46	34.94	37.2	41.01	30.48
Chhattisgarh	39.32	42.05	47.43	49.21	48.63	45.25	46.93	48.53	49.89	48.64	46.59
Goa	0	0	0	62.3	68.42	75.56	78.95	75.65	74.68	77.01	51.26
Gujarat	50.19	46.54	42.82	47.55	44.23	45.23	42.8	43.97	43.07	46.36	45.28
Haryana	30.59	34.44	30.64	34.81	35.62	36.43	39.88	41.7	41.64	45.17	37.09
Himachal Pradesh	12.24	30.11	39.02	46.09	48.25	59.51	60.63	62.52	61.34	63.64	48.34
Jammu & Kashmir	4.45	0.92	5.76	6.67	7.47	17.72	20.5	23.11	26.37	24.33	13.73
Jharkhand	39.48	27.17	28.51	34.25	33.47	31.28	32.64	31.89	32.05	32.67	32.34
Karnataka	50.56	50.27	50.42	36.79	46.01	45.93	46.25	46.59	46.92	47.08	46.68
Kerala	65.62	71.39	85.01	88.19	90.39	92.85	92.99	93.37	92.32	91.38	86.35
Madhya Pradesh	43.24	41.67	43.28	44.23	44.4	42.65	42.47	42.64	43.25	43.15	43.10
Maharashtra	37.07	39.99	46.22	39.65	45.88	45.98	44.48	43.7	43.38	43.9	43.03
Odisha	35.6	36.39	37.58	36.25	39.4	38.65	35.96	33.57	33.67	37.48	36.46
Punjab	37.76	16.29	24.62	26.28	33.83	43.24	46.67	52.74	57.29	58.23	39.70
Rajasthan	67.14	69	67.11	66.89	68.34	69.17	68.99	67.76	68.31	69.57	68.23
Tamil Nadu	81.11	82.01	79.67	82.91	82.59	74.02	74.17	84.04	85.69	84.96	81.12
Uttar Pradesh	16.55	14.53	18.11	21.67	21.42	17.13	19.67	22.17	24.42	29.15	20.48
Uttarakhand	30.46	42.77	36.86	40.28	40.3	44.59	45.99	44.66	49.52	49.83	42.53
West Bengal	18.28	16.99	26.53	33.42	33.69	32.44	33.61	35.45	40.95	46.63	31.80
NE	37.06	33.54	37.82	38.87	36.62	34.4	33.5	35.32	38.5	39.23	36.49
UTs	0	0	56.59	58.05	62.23	41.69	40.12	38.31	43.1	48.84	38.89
All India	**40.19**	**42.49**	**47.88**	**48.1**	**47.73**	**48.17**	**52.13**	**52.84**	**55.03**	**55.84**	**49.04**
Note: Women's share in total person-days **Source:** www.nrega.nic.in											

A.2.3: SCs Share in Total Person-days

SCs Share in Total Person-days in the MGNREGA in Different States (Percentage)											
STATE	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**AVERAGE**
Andhra Pradesh	29.82	27.72	26.14	24.68	24.32	26.99	23.33	23.23	23.63	23.74	25.36
Bihar	47.08	45.66	50.07	45.3	45.4	24.57	24.12	28.36	28.33	23.34	36.22
Chhattisgarh	12.01	14.91	16.41	15.32	14.57	9.63	9.07	8.92	10.82	8.22	11.99
Goa	0	0	0	5.2	4.09	3.22	3.51	2.61	3.25	3.45	2.53
Gujarat	7.04	5.92	12.67	14.87	14.54	7.85	8.62	7.61	6.95	7.9	9.40
Haryana	60.03	53.81	53.03	53.59	48.93	49.68	50.74	48.41	44.32	49.91	51.25
Himachal Pradesh	30.4	32.31	33.51	33.36	32.58	30.08	28.58	28.44	27.29	26.87	30.34
Jammu & Kashmir	5.42	9.5	8.46	8.39	7.21	7.36	5.84	5.71	4.39	5.87	6.82
Jharkhand	23.48	20.74	18.1	16.04	13.44	12.75	12.44	12.86	13.73	12.49	15.61
Karnataka	33.05	30.23	27.77	16.7	16.16	15.7	16.87	15.89	15.83	16.21	20.44
Kerala	20.12	16.88	19.47	16.77	16.22	14.32	15.28	15.65	17.6	17.39	16.97
Madhya Pradesh	15.87	17.87	17.82	18.48	19.34	21.16	19.2	18.51	15.97	16.35	18.06
Maharashtra	16.19	18.44	16.51	25.61	22	5.8	6.98	9.58	10.17	9.24	14.05
Odisha	23.65	24.33	20.24	19.16	18.13	17.5	17.59	16.36	15.84	15.96	18.88
Punjab	69.36	76.3	74.22	78.92	78.31	77.44	78.66	76.94	76.49	76.87	76.35
Rajasthan	15.97	19.24	28.79	26.53	25.5	16.76	18.46	19.84	19.76	21.38	21.22
Tamil Nadu	56.06	57.36	60.27	59.07	57.71	28.88	27.94	29.58	28.94	28.54	43.44
Uttar Pradesh	56.85	53.75	53.56	56.41	53.96	31.55	33.51	33.14	34.36	35.01	44.21
Uttarakhand	26.7	27.3	27.15	26.04	26.37	18.34	18.01	18.67	18.54	18.08	22.52
West Bengal	36.08	36.28	37.45	36.86	36.91	33.74	32.65	32.98	33.32	33.8	35.01
NE	3.2	4.53	5.42	8.49	5.5	3.76	3.83	3.81	3.97	3.81	4.63
UTs	0	0	12.38	11.54	8.2	8.63	8.73	8.85	9.29	17.16	8.48
All India	**25.36**	**27.43**	**29.29**	**30.48**	**30.63**	**22.01**	**21.63**	**22.6**	**22.52**	**22.66**	25.46
Source: www.nrega.nic.in											

A.2.4: STs Share in Total Person-days

STs Share in Total Person-days in the MGNREGA in Different States (Percentage)											
STATES	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**AVERAGE**
Andhra Pradesh	13.01	12.79	12.95	14.71	16.02	18.36	15.52	14.56	15.44	14.96	14.83
Bihar	3.2	2.46	2.65	2.16	2.14	1.77	1.86	2.11	1.85	1.86	2.21
Chhattisgarh	45.55	41.39	41.32	38.2	36.51	37.56	38.17	39.79	31.97	43.62	39.41
Goa	0	0	0	26.89	24.26	21.22	19.3	33.04	27.27	24.14	17.61
Gujarat	64.26	65.92	50.56	39.46	41.18	40.26	38.41	41.05	40.28	38.73	46.01
Haryana	0	0	0	0.01	0	0.02	0.03	0	0	0	0.01
Himachal Pradesh	22.41	11.04	7.79	8.7	8.19	6.11	6.81	7.37	8.42	8.65	9.55
Jammu & Kashmir	23.22	24.69	27.43	26.13	25.07	14.98	16.05	15.13	20.37	18.21	21.13
Jharkhand	40.29	41.65	39.97	42.99	42.08	39.1	40.7	37.09	35.25	38.14	39.73
Karnataka	20.35	19.18	13.87	8.57	9.36	8.3	8.94	7.93	8.17	8.96	11.36
Kerala	12.4	16.89	9.26	5.33	3.1	2.37	2.55	2.67	3.98	4.08	6.26
Madhya Pradesh	48.64	48.76	46.81	45.34	43.45	27.42	27.62	29.82	28.53	32.73	37.91
Maharashtra	40.88	38.5	44.17	33.16	25.57	17.11	14.6	18.93	18.93	18.04	26.99
Odisha	49.27	39.65	35.81	36.26	35.55	38.17	37.64	40.82	41.52	42.37	39.71
Punjab	0	0	0	0	0.02	0	0.03	0.04	0	0.01	0.01
Rajasthan	64.36	46.39	23.24	22.5	23.28	24.54	23.87	26.16	26.56	24.82	30.57
Tamil Nadu	2.38	2.63	1.74	2.5	2.19	1.28	1.33	1.28	1.1	1.12	1.76
Uttar Pradesh	3.11	1.85	1.96	1.48	2.1	1.25	1.04	0.99	0.8	1.08	1.57
Uttarakhand	1.41	4.35	5.15	4.04	4.24	2.89	2.69	2.65	2.63	4.5	3.46
West Bengal	18.61	13.8	14.81	14.38	13.41	10.24	9.81	9.45	8.61	8.52	12.16
NE	86.19	72.17	71.55	68.64	70.73	69.68	65.87	67.51	65.36	66.58	70.43
UTs	0	0	52.35	51.68	53.44	25.61	25.76	27.49	26.88	34.75	29.80
All India	**36.45**	**29.27**	**25.43**	**20.71**	**20.85**	**18.24**	**16.6**	**17.19**	**17.04**	**17.82**	**21.96**
Source: www.nrega.nic.in											

A.2.5: Average Employment in the MGNRGEA

Average Employment Given Per Household in MGNREGA (Days)											
STATE/UT	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**AVERAGE**
Andhra Pradesh	31.4	41.85	47.99	65.67	54.05	56.49	55.69	49.6	41.82	46.07	49.06
Bihar	35.34	22.16	25.95	27.55	33.82	37.75	43.32	41.78	32.87	41.86	34.24
Chhattisgarh	50.89	57.6	54.76	51.41	44.67	44.47	45.04	51.64	31.76	36.77	46.90
Goa	0	0	0	28.03	26.59	27.85	13	22.9	22.21	15.58	15.62
Gujarat	44.41	30.98	25.05	36.65	44.87	37.93	41.31	39.79	34.44	35.14	37.06
Haryana	47.52	50.46	42.41	37.74	35.79	39.28	43.57	36.26	27.15	27.89	38.81
Himachal Pradesh	47.08	35.98	46.06	57.29	49.4	52.4	48.67	52.34	39.92	40.17	46.93
Jammu & Kashmir	26.62	32.65	39.57	38.3	42.19	44.85	48.93	50.94	33.08	35.97	39.31
Jharkhand	37.33	44.5	47.58	49.48	41.81	38.63	39.5	38.3	38.96	45.44	42.15
Karnataka	40.72	35.96	32.1	56.67	49.35	42.34	46.48	49.56	38.8	42.41	43.44
Kerala	20.67	32.77	22.22	35.54	40.85	44.61	54.83	56.83	37.54	41.96	38.78
Madhya Pradesh	68.79	63.33	56.59	55.66	49.87	42.24	36.1	42.19	41.56	42.02	49.84
Maharashtra	41.38	38.94	46.33	51.18	44.33	47.17	52.66	45.18	50.22	52.44	46.98
Odisha	57.33	36.82	36.08	39.63	48.71	32.91	34.11	41.61	33.82	37.48	39.85
Punjab	49.2	38.54	26.87	28.37	27.11	26.25	27.08	32.67	21.49	26.31	30.39
Rajasthan	85	77.33	75.78	68.97	51.64	46.6	51.9	50.85	43.95	48.57	60.06
Tamil Nadu	26.74	52.25	35.97	54.67	54.05	47.51	57.82	58.59	43.42	49.55	48.06
Uttar Pradesh	31.98	33.27	52.4	64.91	52.07	36.35	28.2	34.96	31.3	31.04	39.65
Uttarakhand	30.23	42.45	34.92	34.92	42.44	41.53	39.96	41.28	29.11	33.02	36.99
West Bengal	14.27	25.21	26	44.59	31.07	26.47	33.66	37.44	30.63	38.32	30.77
NORTH-EASTERN STATES (N-E)											
Arunachal Pradesh	26.76	62.19	43.33	24.91	23.13	16.05	25.38	25.25	10.37	26.32	28.37
Assam	72.31	34.76	40.01	34.29	26.16	26.23	25.44	23.68	20.99	28.84	33.27
Manipur	100	42.93	74.94	73.15	68.14	61.06	37.13	24.82	19.58	10.33	51.21
Meghalaya	25.07	38.98	38.49	49.41	57.72	48.84	44.77	56.76	40.19	39.31	43.95
Mizoram	15.39	35.45	72.82	94.57	97.13	72.49	73.24	70.55	19.29	46.21	59.71
Nagaland	46.91	21.09	68.32	87.4	95.3	69.4	35.1	42.92	16.29	40.77	52.35
Sikkim	59.05	43.72	50.64	79.92	85.35	60.13	60.79	68.91	39.62	50.06	59.82
Tripura	67.44	42.73	63.95	79.83	67.23	86.47	86.78	87.69	77.08	88.32	74.75
N-E	**51.62**	**40.23**	**56.56**	**65.44**	**65.02**	**55.08**	**48.58**	**50.07**	**30.43**	**41.27**	**50.43**
UNION TERRITORIES (U-T)											
Andaman & Nicobar	0	0	16.67	28.64	22.87	43.33	47.8	43.9	37.32	17.62	25.82
Dadra & Nagar Haveli	0	0	25.24	18.82	20.31	0	0	0	0	0	6.44
Lakshadweep	0	0	60.17	27.1	29.73	38.97	26.01	22.88	19.8	18.18	24.28
Puducherry	0	0	13.39	22.46	29.56	25.34	21.03	21.48	11.47	16.06	16.08
U-T	**0**	**0**	**28.87**	**24.26**	**25.62**	**26.91**	**23.71**	**22.07**	**17.15**	**12.97**	**18.16**
ALL INDIA	***42.82***	***42.4***	***47.95***	***53.99***	***46.79***	***42.43***	***44.99***	***45.86***	***37.74***	***41.95***	**44.69**
Source: www.nrega.nic.in											

Appendix -3

A.3.1: Social Audit Process in Andhra Pradesh

At first, SSAAT officials prepares an action plan regarding districts coverage and expenditure for conducting social audit process at the state level. Once Commissioner approves the action plan, the district resource persons (DRP) and another technical team will be hired for the purpose of the social audit. This unit collects information related to employment, expenditure, assets and so on, from selected Mandals with the help of Right to Information Act. Before going to the field, village social auditors (VSA) will be hired from the villages and trained them about social audit process and other technical aspects for two days at Mandal level. Then, field work starts in the selected villages with the help of well-trained village social auditors and district resource persons in scheduled dates. At ground level, VSAs go door to door to verify documents such as job cards, pay slips, bank passbook, etc. These VSA visit the work sites for verification of completed and ongoing works and their quality. To get evidence and cross-check on certain issues, the VSAs conduct focus groups discussions during the period of the social audit. After that, Gram Sabha will be conducted to explain their findings for the confirmation to the stakeholders and villagers in the presence of officials related to the programme. The similar public hearing will be arranged at a Mandal level for decision making on issues aroused from the village level social audit reports. The public hearing will be presided by the district level programme officer. After this process, actions will be initiated on several issues that are found through social audit after 15 days of appraisal by the VSAs and DRPs of the particular district. Once again, these actions will be followed-up and taken for the final report of the social audit.

A.3.2: A.P. Model of MGNREGA: Administrative Structure at Different Levels

1. State Level:

As mentioned in the Act 2005, Andhra Pradesh State government set up a State Employment Guarantee Council (SEGC) in 2006, headed by Employment Guarantee Scheme Commissioner. The SEGC advises the state government on the scheme implementation, evaluation and monitoring it. The state government established a State Employment Guarantee Fund to ensure timely resource support to the scheme. It ensures all administrative, financial and technical support to all other implementing agencies.

Commissioner, Rural Development:

In the state, Rural Development Commissioner acts as Commissioner for the Employment Guarantee Scheme. The SEGC Commissioner is assisted by a Director, State Programme Manager, and five programme managers that represent for Technical help, communication and documentation, capacity building and training, tribal areas and IT & MIT-related issues, along with supporting staff like accounts assistants, civil engineer, programme assistants, programme executives and office staff. The main responsibilities of the commissioner are; formulation operational guidelines, design and managing capacity building, monitoring and review with district programme coordinators, promoting innovations and developing new initiatives in implementation; to ensure that the system of grievance redressal, social audit and other measures of public accountability and transparency are effective as well as responsive to the demands of wage seekers. In coordination with other departments like Panchayat Raj, Society for Elimination of Rural Poverty (SERP), APARD, Tribal welfare, etc., Commissioner Rural Development takes necessary steps for the effective and transparent functioning of the program.

Director, Employment Guarantee Scheme (EGS):

Director is head of the EGS unit in the office of the Commissioner, Rural Development. He/she assists the State Programme Coordinator and Commissioner Rural Development in the implementation of the programme. The functions and responsibilities of the director are classified as administrative, financial and programme related. As an administrator, the director deals with all the corresponding currents, leave sanctioning to all the programme officers and other staff, identify the omissions and leakages of

implementation officers at Mandal and district levels, initiate disciplinary action for effective and transparent implementation. As far as financial responsibilities are concerned, the director supports the commissioner in all financial management matters such as budget and expenditure. The director sanctions purchase and procurement of any material related to the program or administrative costing up to Rs.3, 00,000. He/she also sanctions powers for activities such as work motion studies, training programs, consultancy works and other expenditure up to Rs.5, 00,000. The program related responsibilities of the directors such as assist the Commissioner in formulating policies and planning process, implement the program in a qualitative manner and in coordinating with other programmes and other agencies in connection to EGS. The director carries out inspections to programme districts and sites of the works and issues necessary instructions and advice the district EGS units for smooth implementation of the EGS.

2. District Level:

At the district level, District Programme Coordinator (DPC) is responsible for the over coordination and implementation of the scheme. To assist DPC, there are Additional DPCs from ZP, DWMA, ITDA and DRDA in the implementation of the EGS. In Andhra Pradesh, District Collector act as a District Programme Coordinator who finalises the district plans and for monitoring and supervising the EGS in the district. Each district EGS unit comprises of three functional wings viz., works, MIS, and funds. The specific functions of the DPC are: (i) provide supportive guidance to the POs in assessing labour demand and match with works, (ii) supervise and monitor the functioning of POs and the line departments, (iii) manage the funds and ensure proper accounting and auditing of the funds, (iv) ensures transparency, accountability and quality control and the execution and maintenance of the works, (v) ensures that the Additional DPCs discharges their responsibilities as envisaged in the scheme, (vi) coordinates with PRI bodies in the planning and implementation, (vii) receives the Mandal plan from programme officer and consolidate them along with Zilla Parishad project proposals received from other executive agencies, (viii) prepare a labour budget by December containing the details of anticipated demand for unskilled manual work in the district and plan for approval by the Zilla Parishad, (ix) accord administrative sanctions for the works included in the District EGS plan an assign executing responsibilities to various agencies like Panchayats, line departments etc., (x) release funds to MPDO and Programme Officers, (xi) conduct periodical inspection of works for quality control and vigilance, (xii) maintain accounts and get periodic audit done, (xiii) empowers the PRI bodies for enabling them to discharge their responsibilities of planning and implementation of the scheme, (xiv) redress grievances of applicants, and (xv) perform other functions like commissioning studies and impact assessments, monitoring and evaluation, etc.

3. Mandal level:

At Mandal level, Mandal Parishad is the principal authority for planning and implementation of the scheme. There are a Programme Officer, MPDO, EGS engineer (Mandal Engineer of Panchayat Raj), three technical assistants and two account assistants cum computer operators in the Mandal EGS unit. The Programme Officer essentially acts as a coordinator for EGS; and important responsibilities of PO are: scrutinising the village EGS plans and proposals, maintaining a shelf of works sufficient to match employment demand, issuing work commencement letters to executing agency, coordinating between the GPs and the Mandal and also between Mandal and Addl.DPCs, capacity building programmes for Field Assistants, village secretaries, technical assistants and EGS engineers, issuance of job cards, estimates, wage pay orders to village organisations, monitoring and reviewing implementation, timely worksite visits, coordinating with banks and post offices in making wage payments regularly, conduct social audits, grievance redressal etc.

Under MGNREGA, Mandal Parishad Development Officer's responsibilities are mainly; assist with Mandal Parishad, receiving the detailed EGS plans and estimates and forwarded to the POs, monitor the execution of works within the Mandal, scrutinizes musters and vouchers and issue pass orders and cheques for all works, make payments to material suppliers and to TAs, receive funds from DPC for payment of works and administrative expenses, maintenance of proper accounts for funds received, released and utilised at Mandal level, and obtain, consolidate progress reports, work completion reports from the GPs.

The Mandal engineer works as EGS engineer who is responsible for preparing work estimates of more than Rs. 2 lakhs and supervise all the works for final payment.

In a Mandal, there are three technical assistants in charge of two/three cluster of Gram Panchayat, who are attached to the EGS engineer. One of them will be from the agricultural department, and the other two will be from the engineering. These TAs prepare estimates for works up to Rs. 2 lakhs and do supervision of works and support the Field Assistants of the GPs. They are responsible for the quality of the works taken up under the EGS and check measurements after the work done. In addition, two accountant assistant cum computer operators are responsible for the preparation of job cards, upload the data, and maintenance of accounts books, registers, and files.

4. Village Level:

Panchayat Secretary: Under EGS, the Panchayat Secretary is designated as the 'Registration Officer' for the purpose of receiving the applications for the issuance of job cards. At the village, Panchayat secretary is assisted by Field Assistant in the implementation. He/she receives applications for wage employment from job-card holders and forward to the demand to the PO for opening up of works. This is the only power that is vested with the Panchayat. As a member of Village Organisation, Panchayat secretary supposed to ensure timely payments to the wage seekers after work done. At Gram Panchayat level, Secretary maintains musters, all records and registers for accounting, annual audit and social audit. Under EGS, Panchayat secretary is responsible for building awareness of the labour; and dissemination of every information to the community.

Field Assistant:

Field assistant is appointed as an 'Employment Guarantee Assistant (Gram Rozgar Sevak)' in each Gram Panchayat by MPDO up to five habitations. Another FA is appointed in the same Gram Panchayat if there are 5 or more habitations in the GP. In any case, Field Assistant is selected from the same village. The major responsibilities of the FA are; take the measurements for works identified by Gram Sabha with the help of TAs, give mark out at worksite, maintain muster rolls, provide technical support to Labour groups, e-mustering through mobile phones that are given by EGS department, maintain the register of material procured and consumed, coordinate with other officials and so on.

A.3.3: Shrama Shakti Sangham (SSS Groups)

Another important feature of MGNREG Act is the mandatory creation of labour unions. Srama Shakti Sangham (SSS) Group is a new initiative of the Government of Andhra Pradesh in MGNREGA implementation, inspired by self-help group model. The SSS groups are intended to check for phoney muster rolls in NREGA works. From each group, one person is selected as a 'Mate' for motivating the workers to do allotted work as per measurements and filling musters for assisting field assistant to avoid delays in the data entry. This mechanism makes administrative feasibility for allotment of works and better monitoring without misperceptions. With these groups, employment is made available for labour groups rather than individual households. For the first time, the SSS groups were introduced in the year of 2011-12, have been continuing in the implementation of the MGNREGA in Andhra Pradesh.

A.3.4: Banking Correspondent Model:

In Banking Correspondent Model, the Correspondent providers involve in the payment of NREGA wages. In this process, in this mechanism, banks and technology provider are interconnected to access the data of NREGA beneficiaries. Whenever NREGA wages have to be made, DPC issues instructions to the banks and Mandal level EGS unit. Then, Programme Officer issues a cheque worth of the total disbursement

amount to FINO (Financial Information and Network Operations), and FINO, in turn, deposits the cheque in the correspondent bank. This model includes a handheld device called POS/POT (Point of Sale / Point of Terminal) which get connected to bank server at the village level. This POS is manned by an SHG (Self Help Group) member called CSP (Customer Service Provider) on behalf of the bank. A biometric reader is used for identification of beneficiaries by CSP at the time of payments. Cash is handed over from FINO to CSP appointed by the bank in the village. Finally, CSP makes wage payments to the NREGA workers in the presence of field assistant.

A.3.5: District-wise Household Employment in Andhra Pradesh

District-wise MGNREGA Household Employment in Andhra Pradesh												
S. No.	**DISTRICT**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**AVERAGE**
1	Adilabad	35	53	54	78	63	58	67	55	48	46	**56**
2	Anantapur	37	50	53	70	62	79	68	60	52	64	**59**
3	Chittoor	39	57	81	81	55	63	63	60	53	58	**61**
4	Kadapa	40	53	53	82	67	66	53	54	50	53	**57**
5	East Godavari	-	39	41	54	37	50	45	42	38	36	**43**
6	Guntur	-	15	28	21	31	38	33	32	29	27	**28**
7	Karimnagar	26	38	46	63	40	34	32	35	35	36	**38**
8	Khammam	32	49	54	65	47	53	54	48	39	36	**48**
9	Krishna	-	-	15	24	27	35	38	31	29	27	**28**
10	Kurnool	-	56	70	88	61	71	58	44	35	45	**59**
11	Mahbubnagar	26	43	57	62	57	59	57	39	37	44	**48**
12	Medak	29	54	52	66	61	53	49	45	41	58	**51**
13	Nalgonda	22	35	41	58	49	46	53	42	38	35	**42**
14	Nellore	-	29	42	54	42	50	44	42	34	45	**42**
15	Nizamabad	27	50	56	78	82	46	53	46	44	66	**55**
16	Prakasam	-	19	41	55	53	59	57	41	43	45	**46**
17	Rangareddi	53	53	66	82	61	75	60	67	56	72	**65**
18	Srikakulam	-	31	44	77	66	56	87	78	48	51	**60**
19	Visakhapatnam	-	-	24	68	58	71	68	62	56	58	**58**
20	Vizianagaram	24	45	58	91	77	90	82	84	54	54	**66**
21	Warangal	28	30	39	55	47	44	44	39	33	37	**40**
22	West Godavari	-	-	19	38	38	39	34	33	32	36	**34**
AGGREGATE AVERAGE		**31**	**42**	**48**	**66**	**54**	**56**	**56**	**50**	**42**	**47**	49

Appendix - 4

Socio-Economic Description of Sample Villages

A.4.1: ACHAMPET (Yeldurthy Mandal, Medak District)

Geographically Achampet village is situated between 17^0 45^1 North latitude and 78^0 19^1 East longitudes above 522 meters to sea level. Achampet is a small drowsy village, located 5 km far from the Nagpur-Hyderabad National highway (NH7) in Yeldurthy Mandal of Medak district. This Achampet village was under Daripally Panchayat of Ramayampet taluk up to 1980's; later on, it was incorporated in newly formed Hakimpet Panchayat along with Gopala Krishnapuram and Hakimpet habitations which come under Yelduthy Mandal. The nearest town on the highway is Thupran at 11 km distance.

Social Structure:

Achampet village has 228 households having a population of 1010 with 498 males and 512 females as per the 2011 Census of India. The sex ratio is 1028 females per 1000 males. Child population (age group of 0 to 6 years) is 129 of which is 70 boys and 59 girls; that is about 13 percent of total population. The child sex ratio is 843 girls per 1000 boys. The literacy rate is 53 percent in the village; 468 literates out of the total population. Male literacy is 63 percent which is higher than female literacy that is about 44 percent.

This village consists of different social groups that are Upper castes such as Reddies and Brahmins, Backward Castes such as Munnuru kapu, Padmasali, Vanjara, Goud, Muthrasi, Yadava, Mangali, Rajaka and Kummari, and Scheduled Castes of Madiga and Mala communities. Out of total households, 56 percent of BCs and 36 percent of SCs, where upper caste households just 8 only. Backward castes have relatively high population having different sub-groups in the village. After BCs, scheduled classes have a significant size of the population from both Madiga and Mala communities.

Land Structure:

Total geographical area of the village is 1480 Hectares. Of that, 200 hectares of land is covered by forest, the barren and uncultivable land is 60 hectares, land put to non-agricultural use is 14 hectares, and 618 hectares of land is other fallows, rest of the extent of land is 588 acres of land is cultivable for the agricultural purposes. Out of the 588 hectares of the cultivable land, irrigated land under borewells is about 100 hectare, and 488 hectares of land is un-irrigated which depend on completely rain-fall. At present, 60 percent under BCs, 30 percent under SCs and remaining 10 percent of the land is under Upper caste people of the total cultivable land in the village.

Agriculture:

Albeit the village as an ayacut of 450 acres under a canal from Hakeempet minor irrigation project, the canal did not receive water even once in the past one decade. The village has one tank and a pond; both have a rocky bottom which makes them too dry very soon. Apparently, due to the construction of check dams on small rivulets, the village tank is not receiving sufficient water into it for the past decade and more. Thereby, the fallow land is as much as 75 percent since the tank is not at all helpful for agricultural practices. Agriculture is carried with the help of borewells in irrigated lands. In this village, around 154 borewells are working to do cultivation; even they don't flow continuously due drying up of aquifers and motor failures. On an average land irrigated under borewell is 1.5 acres in *kharif* and up to one acre during *rabi* season.

The main crops are Paddy, Maize, Sunflower and Red-gram crops in the village agriculture. In general, paddy crop is grown in *kharif* season, Sunflower and Red-gram crops are grown in *rabi* village, and vegetable cultivation is also taking place where the sufficient and continuous flow of water from borewells. Most of the farmers are marginal farmers who belong to BC and SCs communities. Sharecropping and tenancy system are in practice between Reddy's and other BCs and SCs. Among the small and marginal

farmers exchange their labour themselves to reduce paid out costs in farm operations. Farmers usually get institutional credit from Primary Agricultural Co-operative Society, Masaipet and Canara Bank, Tuphran and non-institutional credit through relatives, friends and other sources to meet their requirements. The available livestock is mainly cattle like buffaloes, cows and oxen. The majority of the people are BCs who owned cattle more especially Munnurukapu and Yadava communities. These people get income through milk selling and ploughing, use of bullock cart for various purposes.

Employment:

According to 2011 Census of India, working population is 515, of which 278 are men and 237 are women who involved both agricultural and non-agricultural activities. Among the total workers, most of them are main workers, that are 466 and a few are 49 marginal workers who work for not more than six months. Work participation rate is 51 percent; it is 56 percent for men and 46 percent for women. This working population is distributed among the different social groups as same as population, 60 percent of BCs, 35 percent are SCs and remaining 5 percent belong to upper castes.

Out of the total workers, most of them are casual labourers who work which ever work is available to them. In agriculture, women get more employment than men for different farm activities like sowing, transplantation, weeding, harvesting and so on. Around 70 days for men and 100 days for women get employment for both the seasons in the agriculture including employment available in surrounding villages. The casual labourers get employment in construction, Seed Company (in Thupran and Chegonda) and nearby Granite quarry works. And, they get employment under MGNREGA whenever it is in implementation. In the case of regular workers, a very few people engaged in petrol bunk, welding shop and auto driver, tractor driver, etc. The workers who involve in Self-employment activities are at large scale though animal grazing, petty business, beedi-rolling, leaf-plate making, auto wallas, bullock carter, tailoring and so on. In addition to that, traditional activities are doing by respective social groups like Rajaka, Gouda and Mangali are continuing their occupational activities in the village. Some of the households maintain livestock such as buffaloes, cows and oxen as supplementary income activity. From this village, construction labour and mason migrate to the places of Medchal, Medak, Shamirpet, Bollaram, etc. They work for a few months at the destination and come back after the contract is completed. There are a few cases of permanent migration to Hyderabad and Bangalore who work as DCM driving, Cable operating business and Software engineer.

A.4.2: CHANDRAM (Luxettipet Mandal, Adilabad District)

Geographically Chandram is located between 19^0 3^1 North latitude and 78^0 30^1 East longitudes, 159 meters above sea level. Chandram is a medium size of the village, situated 6 km away from Luxettipet in the southern part of Adilabad District. There are three habitations in this Gram Panchayat; they are Chandram, Hanmanthupally and Chellampet in Luxettipet Mandal. Manchirial is the nearest town which is 32 km away from the village. The nearby villages to Chandram are Venkatraopet, Jendavenkatapur, Kothur and Utukur.

Social Structure:

According to Census 2011, Chandram village has 799 households; the total population is 2904 with 1477 males and 1427 females. The sex ratio is 966 females per 1000 males. Child population (age group of 0 to 6 years) is 188, of that, 98 boys and 90 girls; that is about 6 percent of total population. The child sex ratio is 918 girls per 1000 boys. Literacy rate in this village is 59 percent; literates are 1609 in the total population. The literacy rate for a male is 69 percent, whereas 49 percent of females.

The village is structured by different social groups like Kamma, Velama and Vysya communities who belong to upper castes; BCs such as Goud, Kummari, Mangali, Medari, Mudiraj, Munnuru Kapu, Padmasali, Rajaka, Vadla and Yadava communities; Scheduled Castes of Madiga and Mala communities; and Nayakapolls community which comes under Scheduled Tribes. Out of 799 households, 80 percent households belong to BCs, 15 percent belong to both SCs and STs; and remaining 5 percent belong are

upper caste people of Velama, Kamma and Vysya communities. Munnuru kapu of BCs is the most populated community in the village having about 70 percent of the population. After them, Madiga and Mala of SCs population is relatively higher than remaining all communities with 13 percent.

Land Structure:

Total geographical area of this village is 585.17 Hectares. Of that, land used for agriculture is 548.17 Hectares, that is about 94 percent of total area of the village; remaining 7% includes of land includes an area not available for cultivation and other lands. Out of the total cultivable land of 548.17 Hectares, irrigated land is 278 hectares, around 51 percent; and rest of the land is un-irrigated which completely depends on monsoons. Most of the land is owned by BCs about 83 percent. Among the BCs, the share of Munnuru Kapu community is 67 percent of total land. After the BCs, OCs and SCs own land, 8% and 7% respectively. In this village, STs have a very marginal share that is about 2 percent.

Agriculture:

In the village, the main irrigation sources for agriculture are a canal, tank, and bore-wells. The village has two tanks which have a potential to irrigate 550 acres. There is spring in the nearby forests that yield a continuous stream of water which fills the tanks in 45 villages in the region throughout the year. One-third of the village cultivated land under the two tanks support two crops, supported by borewells and open wells. These are recharged continuously by the spring. The rest of two-thirds of the land receives water from right canal from the Kadem Dam which is 55 km away. However canal water is sufficient for only one crop, thereafter cultivation depends on rainfall for these lands.

The major crops are Paddy, Cotton, Janumu and pulses. Paddy is grown for both *kharif* and *rabi* seasons depends on the accessibility of water. The Paddy has an acreage of 1200 acres during *kharif* and 500 acres during the *rabi* season. The Cotton is sown in about 750 acres of *rabi* crop in irrigated lands, but Janumu crop is preferred as a second crop in dry lands. Tenancy system is in practice among different cultivators in the agriculture. Farmers get agricultural credit from Luxettipet bank; rich peasants, friends, relatives and others. Animal husbandry is another source of income for the people. Most of the farming households who belong to Munnuru Kapu and Yadava communities have milch animals especially buffaloes, and some of them have bullocks that are used for both agricultural and non-agricultural purposes. The Medari community of BCs own goats and SCs and a few Munnuru Kapu households own chicken.

Employment:

The total working population who involve in various economic activities in the village is 1532, among them, 862 are men, and 670 are women. About 62 percent are main workers that are 949, and marginal workers are 583 which are equal to 38 percent of total workers. Work participation rate is 53 percent; it is 58 per male workers and 47 percent for females. Out of total working population, most of the workers belong to BC community that is about 70 percent. Around 20 percent workers are from SCs, and 7 percent workers belong to STs and rest of 3 percent of workers belong to the upper castes.

Since this village has moderate irrigation accessibility for cropping, agriculture provides reasonable employment to people in both the seasons. The crops like paddy and cotton are labour intensive, especially cotton which requires more labour for sowing, weeding and cotton picking. In general, female workers get more employment in agriculture when compare to men. Female workers are used mostly for sowing, weeding and harvesting for paddy and cotton; they get much employment for cotton picking around two months. Usually, men get around 50 days, and women get 115 days of employment in the agriculture. In addition to agriculture, casual labour depends on non-agricultural activities like construction and centring activities in and surrounding villages. There are few regular workers like clerks in private companies, Hamali, tractor driver, poclain driver, bus driver, fertiliser company workers, Singareni workers, rice mill workers and so on, but their proportion is very less. As far as self-employment is concerned, activities like auto drivers, vegetable vendors, beedi and leaf-plate making, electrician, videographers, tailors, bullock

carters, etc. are available in the village. Besides, some of the social groups like Rajaka, Goud, MangaliMedari, Nayakapol are carrying their traditional occupational activities like washing, toddy tapping, bamboo gates and wooden material making and so on.

Generally, periodic droughts compel people to migrate out for work. The droughts during 2002-04 have apparently caused heavy migration from the village. There are three streams of labour migrations taken place from the village. First, about 90 persons got jobs in mining in Singareni Collieries which is situated 25 Km away. The second stream of migrants belongs to labour who migrate to Mumbai as construction workers and domestic maids; they are Munnuru Kapus (BC) and Madiga& Mala (SC) communities. The third stream is a migration to Gulf countries for unskilled work; around 70 persons were migrated to Gulf and returned, some of them recently have gone too.

A.4.3: KALAVAPAMULA (Vuyyuru Mandal, Krishna District)

Geographically, Kalavapamula is located between 16^0 26^1 North latitude and 80^0 52^1 East longitudes, 11 meters above the sea level. Kaluvapamula is a noisy village situated on Kankipadu-Gudivada connecting rural road of Krishna district in Andhra Pradesh, lying 37 km from Vijayawada city. This village comes under the territorial division of Vuyyuru Mandal which is 10 Km away. The nearest town is Gudiwada which is 13 Km away from here. The neighbourhood of the village is Maanikonda, Kandalampadu and Nandamuru towards Kankipadu; Katuru, Bollapadu, Mudunuru towards Vuyyuru; Ventrapragada and Sivapuram towards Gudiwada; and Indupalli towards Vemanda. It is located on the edge of the Krishna Sub sub-canal which flows through the village.

Social Structure:

The total population of the village is 3646, out of which total maleare1826, and total females are 1820. The total households are 1050. The sex ratio of the village is 997 female per 1000 males. A total number of children (age group of 0 – 6 years) is 323, of that the number of boys and girls are 175 and 148 respectively. The child sex ratio is 846 per 100 boys. About 9 percent of the population belong to age group of 0 – 6 years in the village. The literacy level of the village is 77 percent. This rate is 85 percent for males and 75 percent in the case of females.

In this village, a total number of households is 1050 which consists of different social strata. The social composition is divided amongst upper caste people like Brahmin, Kamma and Vysya; backward classes like Gouda, Mangali, Rajaka and Yadava; Scheduled Castes like Madiga and Mala; and Yerukula and Yenadula who come under Scheduled Tribe category. Around 35 percent of households belong to Kammas and 5 percent of both Brahmin and Vysya communities. About 50 percent of households are both SC and STs, remaining 10 percent households belong to backward classes like Gouda, Mangali, Rajaka and Yadava communities. And Muslim households contribute less than one percent. SCs population is very high compared to other social groups. After SCs, the population of BCs is higher than upper castes and STs in the village.

Land Structure:

This village is situated in Krishna delta where the texture of the soil is alluvial which consists of all the particles in an optimum ratio. The soils are highly fertile and suitable for agriculture with better yielding. The total geographical area is 1938.19 acres. Out of total extent, irrigated land is 1735.02 acres with 1660.68 acres are irrigated land, and 74.34 acres are dry lands; rest of 203.17 acres of land includes barren land, uncultivable lands, land put to non-agricultural uses and all lands covered by houses, buildings, water bodies, roads and so on. No forest cover available in the village.

Agriculture:

In the village, around 70 percent of the land is owned by Karmas; Brahmin and Vysya both have 2 percent of land; who belong to upper castes. Remaining 20 percent land owned by backward classes, 7 percent of

Scheduled caste and 1 percent have scheduled tribes. Among the BCs, Gouds have relatively more land when compare to remaining subgroups. In the case of SCs, Erukula has some piece of land, but Yenadula is a landless group. Tenancy is practised at large scale in agriculture. The people like Brahmin, Vysya and some of the Kamma do not cultivate their holdings; they lease out to landless and marginal communities of BCs, SCs and STs. The land belongs to Kammas, almost 80 percent land is under tenancy and rent is paid in grains in case of paddy and in cash form for rest of the crops.

It is an agriculturally rich village with sufficient canal irrigation facilities and fertile soil under the Krishna delta. Generally, farming takes place for the three seasons, namely *kharif*, *rabi* and summer time. The main crops grown are paddy, sugarcane, blackgram, greengram and maize. Paddy crop is grown for both the seasons of *kharif* and *rabi*; Sugarcane is grown for 10 to 11 months, maize is grown in *rabi* season only; and blackgram and greengram are grown as a summer crop and sometimes in *rabi* also. Paddy is grown in around 1400 acres in *kharif*; this extent may come down in *rabi* season as it depends on the release of canal water. Farmers prefer pulses in *rabi* if water not released. Sugarcane grows in about 250 acres, and average yield is 35 tonnes per acre; cane supplies to K.C.P. Sugar Industries and Corporation Ltd., at Vuyyuru. In dry land areas are cultivated by paddy in *kharif* and maize and pulses in *rabi* season. Farmers get institutional loans from Chittaranjan Large Size Co-operative Credit Society in the village which was established in 1955, Andhra bank located at Katuru, State Bank of India at Gudiwada. Chittaranjan Large Size Co-operative Credit Society also provides loans to tenant farmers under Joint Liability Groups (JLG). And, sugarcane growers get credit, fertilisers from the K.C.P. Sugar Industry of Vuyyuru. Non-institutional credit is provided by two commission agents who belong to kamma community. Usually, farmers sell their farm produce to these commission merchants only. Along with agriculture, pisciculture is under practising in the four tanks in the village. Some of Kamma, Goud, Yadava and Mala communities have milch animals like buffalos and cows. To feed the cattle, they use the grass which gets from paddy fields their own and/or at a cheaper cost. Some of Yadava households have goats and sheep, and Yenadula households from ST category are raising pigs.

Employment:

According to 2011 census, working population in the village is 1995, approximately 55 percent of total population; males are 1143 and females are 852. This working population can be divided into main workers and marginal workers; 85 percent are main, and 15 percent are marginal workers. It represents landless people and marginal and small holders who belong to BC, SC and ST castes. Out of this working population, cultivators are only 4 percent, and agricultural labourers are 80 percent, and rest of the 15 percent are other workers. In agriculture, handful employment available for both the seasons of farm activities like sowing, transplantation, weeding, application of fertilisers and pesticides, threading (sugarcane), harvesting, bundling, winnowing, threshing, loading and so on. In agriculture, availability of employment is 110 days for men and 130 days for women workers including surrounding village's works also. The bullock carters get huge employment while sugarcane harvesting time to shift the sugarcane to K.C.P. Sugar Industry in Vuyyuru around three months. In the time of paddy harvesting, some group of workers who engaged under commission agents get work to weighing and loading at Khata (weight machine) for around 40 days per annum. In-migration is an additional important feature in the village. At the time of Sugarcane harvesting, several labour groups in-migrate into the region from Nalgonda district of Telangana and northern Andhra districts like Srikakulam, Visakhapatnam and Vizianagaram into this region. This type of migration into the village happens twice in a year. The first flow of in-migration occurs in the month of November. In this period, so many labour groups come for work and stay up to Sankranti festival (January). The second flow of in-migration happens in the month of January-February, they stay up to summer starts (end of the April month). The main reason for in-migration is village labour do not prefer to do work throughout the day. But labour coming from outside are ready to do so; they do cane harvesting in the day time and do loading work at night time as per the convenience of the owner's mode of transport and factory timings as well. In addition that, some persons are engaged in activities like work in sugarcane factory, mechanic work, tailoring, tractor driving, auto walla, etc. Some of the Muslim male workers are engaged in fishing, painting, bore fitting and so on.

A.4.4: MANDIRAVALASA (Garividi Mandal, Vizianagaram District)

Geographically Mandiravalasa is located between 18^0 21^1 North latitude and 83^0 33^1 East longitude, 92 meters above the sea level. Mandiravalasa village is situated 4 km away from Cheepurupalli in the eastern part of Vizianagaram district. This village comes under the administrative division of Garividi Mandal which is 14 Km away. The neighbourhood of the village are Mokshaduggivalasa and Gadabavalasa towards Bondapalle; Avagudem and Vedullavalasa towards Billalavalasa; and Burravarigollalapalem, Sumtrapuram and Baguvalasa towards Cheepurupalli.

Social Structure:

According to 2011 Census, Mandiravalasa village has 258 households; the total population is 1099, consists of 570 males and 529 females. The sex ratio is 928 per thousand males. Child population is 120, of that 62 boys and 58 girls; it is nearly 11 percent of total population. The child sex ratio is 935. Literacy is 43 percent with 422 literates in the total population. The literacy rate for men is 52 percent and for women is 33 percent.

The village is structured by different social groups like Thoorpu Kapu, Rajaka, Vadrangi, Goud, Mangali and Yadav communities who belong to BCs; Vysya community which comes under upper castes; Mala community of SCs and Konda Dora community which falls under Scheduled Tribes. Out of total population, BCs have a major share about 83 percent. The most populated community is Thoorpu kapu, having 79 percent in total population. After BCs, ST population is 10 percent and remaining 7 percent includes SCs and Vysya communities. Like population, 82 percent of households belong to BCs and 18 percent of the households belongs to rest of the groups.

Land Structure:

The total geographical area is 344.39 Hectares. Out of total land, cultivable land is 327.49 hectare; 13 percent extent (41.85 hectares) is irrigated, and 285.64 hectares are unirrigated which is about 87 percent of the total cultivable area. Remaining land includes 8 hectares of cultivable waste and 8.90 hectares of the area not available for cultivation. A large chunk of land is owned by BCs about 82 percent; especially Thoorpu Kapu community. After the BCs, SCs and STs have land that is 8 percent and 9 percent respectively. The land owned by Vysyas is a very marginal around one percent; even though they belong to an upper caste, their economic conditions are almost par with other SCs and STs.

Agriculture:

Since agriculture entirely depends on rainfall, the possibility for growing only one crop in a year. The major crops are Paddy, Maize, Ground Nut, Mango, Cashew, sesame and horsegram, etc. Usually, Paddy, Maize and Ground Nut are sown in plain fields; and Sesame, redgram and horsegram are sown in mango and cashew gardens in *kharif* season depends on upon soil nature, water retention capacity and flow. Paddy is grown as *rabi* crop by ten farmers who have bore-wells in their farms. The period of March to May is a time for getting produce from mango and cashew gardens. The mango and cashew gardens occupied about the extent of 500 acres, and 150 acres of plain fields are suitable for paddy, maize and groundnut crops. Regarding animal husbandry of the village, livestock consists of mostly milch animals like buffaloes and cows; and very few goats and sheep. Most of the cattle are owned by Thurpukapus and somewhat SC and STs for the purpose of milk only. Almost oxen were disappeared because of tractors are using for ploughing of farm fields.

Employment:

The total working population is 637, approximately 58 percent of total populace, of that 345 are male, and 292 are female, as per 2011 census. All workers are main workers who work for more than 3 months. The workforce participation in men is more than women, the participation rate for men is 61 percent whereas it is 55 percent for women. This working population do involve in both farm and non-farm activities for

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their livelihood. Like population share, most of the workers belong to Kapu community when compare to other groups. In agriculture, employment availability is uncertain since it is monsoon-driven. Usually, people get employment in *kharif* agricultural season for the cultivation of Paddy, Maize and Groundnut crops. *Rabi* season employment depends monsoons if they come in time. In addition, workers get employment in time summer period for the operations of garden crops like mango and cashew. There is a possibility of getting employment around 130 days for men and 100 days for women in agriculture if there is sufficient rainfall for both the seasons. The workers belong to Konda reddy community of STs mostly depend on self-employment especially broomstick collection; they do wage labour also. Some social groups like rajaka, goud, mangali and vadrangi are carrying their traditional occupations along other employment. In addition, construction is another major source of employment for villagers in Cheepurupalli and nearby. And, some people involves in non-farm employment activities in Cheepurupalli. The main self-employment activities are broomstick collection, vegetable selling and auto driving.

Being rainfed village, agriculture is unable to provide sufficient employment to all people. So, migration for work is inevitable from the village. People who are landless and/or have very small pieces of land from Kapu, Rajaka and Mala communities. Some of the people migrate to towns of neighbour districts like Visakhapatnam, Vizianagaram, Srikakulam and Berhampur (Odisha) for construction work. Some people migrate to districts like Guntur, Prakasam and Khammam to work in hostels, mills, cold storages and market yards. Another type of migrants goes to Hyderabad and Chennai for work whatever they get.