What is the contribution of NREGA to the Reduction of Poverty in Bihar, India?

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A dissertation submitted to the University of Manchester for the Master of Science in Management and Implementation of Development Projects in the Faculty of Humanities
For my wife, Céline

who supported me
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Declaration

‘No Portion of the work referred to in to the dissertation has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.’
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This research took more than 600hrs from conception to completion. And I am thankful to the platoons of people who are updating the NREGA website continuously to maintain the transparency at its best. The study would have not been possible without the mass of quantitative data available on www.nrega.nic.in.
Abstract

Poverty reduction is the key priority among the global development challenges. Policy makers around the world are working on different welfare programmes in developing countries to make an impact, especially in the rural area since the magnitude is acute. The question is what is working and how much? India adopted the biggest social protection scheme in the world in 2006, NREGA; and India is the country with the largest number of people in poverty in the globe. Hence, what is the rationale of this huge scheme? Furthermore, Orissa and Bihar form the epicentre of poverty in India. This paper investigates what is the contribution of NREGA to the reduction of poverty in Bihar. The research examines the justification of the Scheme through the academic and political framework mainly based on official data.

The three major conclusions of the dissertation are:
(a) The needs based approach provides much stronger rationale to NREGA than risks or rights based approaches. However, academic and political rationales for NREGA are equally important, they are symbiont and their ends are very similar.
(b) NREGS has a significant potential to reduce the gap in poverty by 37% on average in Bihar and Scheduled Caste social group have reduced 7% of their poverty gap. NREGA has shown a pragmatic response in Bihar and it is assisting people to reduce their poverty gap.
(c) The conclusions highlight’s the significance of the poverty in context of grass root socio-political dynamics in Bihar. It is realistic to consider NREGA performance in balance with the market forces, ground level socio-political dynamics and the priorities of beneficiaries. Despite the progressive welfare intentions of senior political leadership and administration, NREGS contribution to the reduction of the poverty gap will always be dependent on the specific context of the particular area or State.

Furthermore, Table 15 clearly points out the list of principle results derived from the data analysis to support the major conclusions of the paper.
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<tr>
<td>BJP</td>
<td>Bhartiya Janta Party</td>
</tr>
<tr>
<td>BPL</td>
<td>Below Poverty Line</td>
</tr>
<tr>
<td>EGA</td>
<td>Employment Guarantee Act</td>
</tr>
<tr>
<td>EGS</td>
<td>Employment Guarantee Scheme</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GOI</td>
<td>Government of India</td>
</tr>
<tr>
<td>MAPC</td>
<td>Monthly Per Capita Expenditure</td>
</tr>
<tr>
<td>MEGS</td>
<td>Maharashtra Employment Guarantee Scheme</td>
</tr>
<tr>
<td>MGNREGA</td>
<td>Mahatma Gandhi National Rural Employment Guarantee Act</td>
</tr>
<tr>
<td>NPC</td>
<td>National Planning Commission</td>
</tr>
<tr>
<td>NREGA</td>
<td>National Rural Employment Guarantee Act</td>
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<tr>
<td>NREGS</td>
<td>National Rural Employment Guarantee Scheme</td>
</tr>
<tr>
<td>OBC</td>
<td>Other Backward Classes</td>
</tr>
<tr>
<td>Rs.</td>
<td>Rupees (Indian National Rupees)</td>
</tr>
<tr>
<td>SC</td>
<td>Scheduled Caste</td>
</tr>
<tr>
<td>ST</td>
<td>Scheduled Tribe</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>W.e.f</td>
<td>With effect from</td>
</tr>
<tr>
<td>WPR</td>
<td>Workers Participation Rate</td>
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What is the contribution of NREGA to the Reduction of Poverty in Bihar, India?

Chapter I: Introduction

Poverty reduction is a key priority for the international community and the governments of developing countries; the problems are more acute in rural areas especially in countries undergoing rapid transformation; what works; India has adopted the NREGA; it is huge; but how effective? This dissertation will identify NREGA’s contribution to the reduction of poverty in the state of Bihar in Northern India.

1.1 Introduction to NREGA

India has a large rural population who normally require formal safety nets to reduce their vulnerability and sustain livelihoods. The Government of India (GOI) already has safety net programmes such as Public Distribution System for food, Public Assistance Programmes and Public Work Schemes providing self-employment and so on. Unlike any previous social protection programmes the Government of India guaranteed rural employment by passing the National Rural Employment Guarantee Act (NREGA) in August 2005. The legislation states that each rural Indian household is now entitled by law to one hundred days of unskilled work per year on public works programmes and within fifteen days of a valid application the government must provide work or an unemployment allowance.

The NREGA was adopted following persistent public demand based on the country’s experience in reducing human distress from Maharashtra’s Employment Guarantee Scheme (EGS) which started in 1973-74 (Shariff 2009). The NREGA mass public work scheme promised to sustain the incomes of rural people while creating physical infrastructure that would benefit the country in the long term. The allocation up to the year 2009-10 was Rs 780 billion (US$ 16 billion round off) which itself highlights the magnitude of the scheme (Shariff 2009). Table 1 clearly demonstrates a significant rise in NREG expenditure over its first four years which further underlines its priority for the Government of India (GOI). NREGA is now considered to be the world’s largest social security programme, targeting 45 million poor people. The EGS was perceived as a costly exercise in public infrastructure
building and political alliance-building and which would probably bolster the government in the eyes of the electorate.

Table 1: NREG Expenditure in relation to the National Budget of India: 2009.

<table>
<thead>
<tr>
<th></th>
<th>2006-07</th>
<th>2007-08</th>
<th>2008-09 BE*</th>
<th>2008-09 RE*</th>
<th>2009-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Employment as % of Total Expenditure</td>
<td>4.2</td>
<td>1.9</td>
<td>1.6</td>
<td>3.3</td>
<td>2.8</td>
</tr>
<tr>
<td>NREG Exp. As % of Total Expenditure</td>
<td>1.2</td>
<td>1.5</td>
<td>1.6</td>
<td>2.7</td>
<td>2.8</td>
</tr>
<tr>
<td>NREG Exp. As % of Revenue receipts</td>
<td>1.6</td>
<td>1.9</td>
<td>2.0</td>
<td>4.4</td>
<td>4.1</td>
</tr>
<tr>
<td>NREG Exp. As % of Fiscal Deficit</td>
<td>6.1</td>
<td>10.0</td>
<td>10.8</td>
<td>9.2</td>
<td>9.0</td>
</tr>
<tr>
<td>Fiscal Deficit as % of GDP (Gross Domestic product)</td>
<td>3.44</td>
<td>2.69</td>
<td>2.46</td>
<td>6.02</td>
<td>5.53</td>
</tr>
</tbody>
</table>

Source: Budget Document, GOI (Chakraborthy 2009)

*B.E.-Budget Estimates, R.E.-Revised Estimates

On February 2, 2006 the National Rural Employment Guarantee Scheme (NREGS) was officially launched in 200 of India’s most backward districts to implement the Act. With effect from April 1, 2008 the Act was extended to all the districts of India. The program is relatively new and thus has not been subject to comprehensive assessment. Early indicators point to areas of success and failure and highlight where improvements can be made to a public employment program of this size. This research will take a step back from the micro problems to analyse this national social protection policy from a macro perspective. The paper will identify the underlying contribution of the NREGA to the reduction of poverty in Bihar.

In October 2009, Mahatma Gandhi (MG) was added as a prefix to the acronym of the NREGA programme and the re-acronym now is MGNREGA (Verma 2009). However, this research paper has used the previous acronym i.e. NREGA.

1.2 Poverty in Bihar

55% of Bihar’s population lives below the poverty line (Tendulkar 2009). Bihar alone accounts for 1/5th of the total rural population of India. According to the Census (2001a) Bihar is the 3rd most populated state in India with approx 83 million people. Its rural poverty
incidence was 41.1% compared with the national rate of 26.1% in 2001 (World Bank 2005). Conversely, there is an increasing rate of reduction in poverty in the last two decades, largely caused by migration (Rodgers and Rodgers 2001; Deshingkar et al. 2006; Nath 2006; Mehta et al. 2006). These contrasts highlight the need for further investigation into the dynamics of the changing pattern of poverty in Bihar and its effect on the NREGS.

As on 18th March 2010, approximately Rs 15620 million (US$ 340 m) had been utilised and Rs3920 million (US$ 85 m) was unspent by the Bihar government on NREGS (Anand 2010). However, these figures are questioned by the Bihar State government in its ongoing debates with Central Government on funds utilisation, disbursement and allocation (DNA 2010). This dissertation only considers the finance aspects briefly; its focus is on the contribution of the social investment.

1.3 Research question

The aim of the dissertation is to find ‘what is the contribution of NREGA towards reducing poverty in Bihar’. In addition, the paper will attempt to find valid arguments for social protection believers by discussing the interaction between and within academic theories and politics pathways to poverty reduction.

The importance of the topic from an academic standpoint is the compatibility of NREGA with the three schools of welfare state thought: risks, rights and needs. In addition, the research explores tools to make valuable sense for literalists, specialists and generalists of the mass of statistics from NREGS.

The paper may attract the attention of the National Planning Commission, the Ministry of Rural Development and the Ministry of Finance, Government of India (GOI), Bihar State Government and institutional research agencies because it presents a different approach to assessing the effectiveness of NREGA. Part of this approach is the provision of assessment tools in addition to discussion of numbers of jobs created, funds utilised and micro implementation issues.
NREGS is a demand driven scheme linked with market forces. Slow progress and pessimistic response to NREGA in Bihar is shown by various reports and publications (Shariff 2009; NDTV 2010; Bihartimes 2010; NREGA 2010a). Conversely, this paper comments positively on the proportionate progress and contribution of the Scheme in the framework of market forces and poverty in context. The methods of analysis used in this research could be expanded and developed further to determine the contributions of NREGA in other states and in India as a whole in both academic and welfare interests.

1.4 Theoretical framework

The policy initiatives of a welfare state to reduce poverty are sourced mainly from three schools of theories: an analysis of uninsurable risks and other market failures; doctrines of human right – specifically, economic and social rights; and needs-based doctrines (Munro 2008).

In risk-based theories, Nicholas Barr identified a list of typical market failures which may require government intervention in the economy to insure the risks. The state has the ability to insure against covariant risks such as unemployment, ‘natural’ disasters, armed conflict. The private insurer is unlikely to provide such insurance without strict limitations on level and type of liability. Banks restrain themselves from lending money to poor people due to uncertainty about their future earnings. Hence, the neo-classical risk based approach is based on income poverty and utilitarian thought, separating the ends from the means of the policy (Barr 1998 cited in Munro 2008; Stiglitz 2000).

The origin of rights based thought can be traced from Universal Declaration on Human rights (UN 1948). Fundamentally, the literature suggests that the state should provide social protection to its citizens as a matter of right. Consequently, the right based approach gives rise to binding legal obligations of the welfare state to provide economic and social rights to its citizens. Further, they do not separate the means from the ends and stress the importance of legality over paternalism (Munro 2008).

The needs-based doctrine is developed on defining minimum monetary value required to purchase basic needs of a human being. People who earn below the defined minimum income required to cover basic needs are known as ‘poor’ or people below the poverty line. They
advocate ‘progressive realization’ and redistributionist policies to increase the welfare of the mass (Munro 2008).

Rural poor typically react to government interventions based on their history of previous experiences. Inadequate protection for their lawful right, recognition, basic services in addition to their voicelessness and powerlessness contribute significantly toward their social exclusion, discrimination and solidarity (Silver 1994). Social capital is a community’s ability to create and sustain alternative delivery of services if the state provided services deteriorate or fail (Moser 1998). At the household level internal lifecycle factors that affect the structure and composition of households, such as birth, marriage and death, can affect their ability to respond to external changes (Evans 1989). Their cash dependency is often relative to their engagement with production of tradable and non-tradable goods and services. Hence, the contribution of NREGA to reduce poverty among the rural poor depends on the interaction of several factors. Essentially, this is a balance between market forces, rural poverty in context and local socio-political dynamics.

1.5 Scope of the Study

A major part of the research is based on data from Census 2001, the National Sample Survey Organisation and the NREGA website. Some of the primary data is from the seminal research published by Ashok Pankaj on ‘Process, Institutions and Mechanisms of implementation of NREGA: Impact Assessment of Bihar and Jharkhand’ (Pankaj 2008). The dissertation is not based on self collected primary data due to the limitation of time, scale of the project and cost involved. This paper will not discuss the management and implementation issues or concern itself with solutions. Furthermore, the focus of the paper is not on establishing relations between wage rates, the guarantee and poverty.

1.6 The scheme:

Chapter 2 discusses the main goals of NREGA in the framework of welfare state theories. It uses a questions matrix to identify the relevance of each type of social protection theory.

Chapter 3 reflects on NREGA from political and administrative perspectives and considers the political rationale of the Scheme. It also contains a brief description of the legislation.
Chapter 4 is the major part of the research and analyses data to deduce the contribution of NREGA to poverty reduction in Bihar. Its contribution is discussed in the contexts of risks reduced, rights exercised, needs fulfilled and there is a section which considers NREGA in the context of politics and other issues.

Chapter 5 appraises the potential contribution of the research for academics, administrative agencies and government and research institutions.
Chapter 2: NREGA, Welfare State Theories and Politics

Main goals of NREGA

The National Rural Employment Guarantee Scheme (NREGS) is a set of systematic courses of action placed by GOI to adhere to the obligations laid in the NREGA legislation. Hence, the dissertation has used NREGS and NREGA interchangeably. The National Planning Commission (NPC) of India introduced NREGA under one of the flagship programs i.e. National Rural Employment Program (NREGP) while forming the second strand of ‘Bharat Nirman’ in the Eleventh Five Year plan (2007-2012) (Planning Commission 2008). The 11th five year plan was driven by social inclusion coupled with provision of improved livelihood opportunities. The GOI highlighted the role played by infrastructure in poverty removal through the index of infrastructure which included the economic, social, and administrative indicators. These were (i) agriculture, (ii) banking, (iii) electricity, (iv) transport, (v) communication, (vi) health, and (vii) civil administration. The index of infrastructure was contrasted with the incidence of poverty, which showed generally States with high infrastructure indices have low incidence of poverty. Bihar had the 4th lowest infrastructure incidence (81.33) with second highest poverty head count ratio (42.14) among 15 States in India (Planning Commission 2008).

The GOI launched a time-bound NREGS plan under Bharat Nirman in 2005 for implementation during Tenth and Eleventh Five Year plan after considering the massive programmes for construction of rural infrastructure under different programmes in the past and recognising the index of social and economic infrastructure.

The National Planning Commission (2009) states that NREGP objectives are livelihood security, creating durable assets and strengthening the livelihood resource base of the rural poor. The NPC perceives the importance of NREGP is due its rights-based framework for wage employment programmes. According to Government Of India (2005), NREGA has the following four major goals:-

“a. strong social safety net for the vulnerable groups by providing a fall-back employment source, when other employment alternatives are scarce or inadequate,
b. growth engine for sustainable development of an agricultural economy. Through the process of providing employment on works that address causes of chronic poverty such as drought, deforestation and soil erosion, the Act seeks to strengthen the natural resource base of rural livelihood and create durable assets in rural areas. Effectively implemented, NREGA has the potential to transform the geography of poverty,
c. empowerment of rural poor through the processes of a rights-based law and
d. new ways of doing business, as a model of governance reform anchored on the principles
of transparency and grass root democracy.”

Overall it appears that the above goals are a combination of proactive, preventive and
promotive measures to ensure poverty reduction and rural development. These measures may
ensure consumption smoothening, immediate welfare, safety net from risks and shocks,
economic stimulation through cash and asset accumulation, harmonising labour market,
promoting rural nonfarm employment, equalizing wage rates, create durable physical assets
impacting the local ecosystem, reform grass root democracy and so on. Hence, a unique
feature of the NREGA is that it simultaneously exemplifies all three doctrines of welfare state
theories i.e. risks, rights and needs based. The section below will indentify the relation
between NREGA and the welfare theories through the question matrix (Table 2) followed by
a descriptive analysis.

Table 2: NREGA and Welfare theories question matrix

<table>
<thead>
<tr>
<th>Risk Based</th>
<th>Right Based</th>
<th>Need Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does NREGA provide safety net for the poor households from adverse hazards or risks? For example uncertainty of future employment and earnings.</td>
<td>Can the poor households exercise their rights and have access to their entitlement? Is NREGA a means to guarantee rights to poor people?</td>
<td>Does NREGA provide sufficient assistance to cover minimum basic need for a household?</td>
</tr>
<tr>
<td>Does it provide safety net against potential losses due to market failure?</td>
<td>Is there enough resource to ensure the obligation to provide the right under the Act?</td>
<td>Does it strengthen the natural resource base of rural livelihood and create required durable assets in rural areas?</td>
</tr>
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</table>

Risk Based:

Munro (2008) points out the main concern of the neo-classical risk-based literature is defined solely in terms of income with a major focus on absolute poverty. The risk base school argues
that the chronic poor may suffer from several overlapping and mutually reinforcing market failures that prevents them from using the market to manage risk. Moreover it underlines the importance of social protection measures for the absolute poor within a poverty context. The beneficiaries of NREGS are Below Poverty Line (BPL) rural households. Subsequently, the entire households living under chronic poverty in rural areas will be covered by NREGS.

The provision of 100 days of employment or unemployment allowance in lieu creates a safety net against the risk of employment uncertainty. It is based on the assumption that if the unskilled labour is assured of 100 days of smooth income then they can be assured of a certain level of basic consumption for their household. Realistically, the commercial banks will not be able to cover the unemployment insurance because of the uncertain future earning of the unskilled labour. Furthermore, the people in chronic poverty have nothing to lose which enhances their likelihood to default in comparison with those who are slightly better off. Conversely, 100 days labour wage might increase the possibility of access to the credit market due to the potential of saving and asset accumulation. Hence, there is validity in the argument that the Act would offer employment insurance which would most probably lead to guaranteed source of livelihood even in the instance of market failure.

Mr. S. Mehndra Dev, Director of the Centre for Economic & Social Studies at Hyderabad, observed that ‘despite 6% GDP growth, employment growth was very low’ in the 1990s (Mehandra Dev 2005 cited in Olsen and Mehta 2006) ‘In a country where we do not have unemployment insurance and social security, there is no better alternative than the rural employment guarantee scheme for many unorganised sector workers’ (ibid.). In addition, NREGA goal (a) ‘to provide a strong social safety...’ undoubtedly establishes association with the insurance against uncertainty in employment, especially during a market or government failure. The risk based intellects have asserted a convincing situation for NREGA, given the needs of poor people in the existing market situation. However, the effectiveness of the actual achievement must be based on the evidence from the field.

GOI have committed to transparency and accountability of NREGS though regular updating data on www.nrega.nic.in available in the public domain. Extensive technical and operational details are predominant in the design and implementation of NREGA, which further reflects the rationale of risks-based thinkers. With the help of the primary quantified data from the website the role of NREGA can be analysed from the social protection aspects in public policy. The wide diversity within each state in India in relation to the context of NREGA suggests the need to analyse the evidences by individual state. Thus, Chapter 4 will analyse the data in detail through the frame work of risk.
Right Based:

The rights-based approach is evidenced in the Scheme by its binding legal obligations. In principle, UN universal declaration of human rights in 1948 suggests that the state should provide social protection to its citizens as a matter of right (UN 1948). Among many things, India’s Constitution has a number of Directive Principles (see also 3.2 below) which list citizens’ rights, such as their right to work, their right to equality of opportunity in employment, their right to ‘just and humane conditions of work.. ’ (GOI 2010). NREGA takes the right to work Directive Principle and embodies it in statute, thereby making it a legally guaranteed right. In so doing, it incurs significant cost and other labour market implication.

So, NREGA is a paradigm shift in transforming the directive principle of “right to work” in the Indian constitution into obligatory legislation. The Act was notified on 7th Sept 2005 as legislation to provide at least 100 days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work. On the other hand, evaluation of NREGA data (Chapter 4) in utilitarian terms will identify whether NREGA is a means or an end to guaranteeing rights to poor people.

The rights must be respected, protected and fulfilled. There are therefore duties implicit in adhering to the obligations. Typically, not all rights are claimed against government. It would further imply that if jobs are not claimed for (or not officially recorded whether claimed or not) then the duty bearer is not responsible. The right based thinkers have provided a literalistic guidance in the Act to eliminate the ‘English Poor Law’ barriers and to facilitate real participation by poor people. The legislative details are discussed in Chapter 3.

Presuming that the beneficiaries are willing to exercise their rights then it is significant to know whether in reality the poor households are able to exercise their rights and that they do have access to their entitlement. For the first time, GOI has ensured a robust transparency plan through regular online data up-date, fast grievance addressing system, participatory social audit and involvement of local village committees. The data from www.nrega.nic.in shows that the cumulative number of jobs demanded (113.6 million) is equal to the cumulative number of jobs provided as on March, 2010 (NREGA 2010a). The data also indicates the intentions of NREGS towards maintaining gender and caste balance. This evidences that the right based thinkers’ considerations of social relations and moral dimension have been incorporated into the Act.
The economists would often challenge the rights based advocates on trade-off and opportunity cost on national resources which is typically justified by ‘progressive realisation’ of rights (Munro 2008). Apparently, cost of the Scheme was the major concern of Ministry of Finance during the discourse before NREGA was notified. But it is observed during the implementation period of NREGS that actual claimed employment is much lower than the optimistic assumption of 100% demand. Overall the government has ensured most of the means to provide the rights to the BPL households, if claimed. As on 18th March 2010, approximately Rs 15620 million (US$ 340 m) had been utilised and Rs3920 million (US$ 85 m) was unspent by the Bihar government on NREGS (Anand 2010). The goal (c) of NREGA focuses on the empowerment of rural poor through the processes of a rights-based law to claim for their entitled employment days. In summary, NREGS evidences rights based thinkers’ views that development is about people and enhances the desirability of the Scheme. Chapter 4 will show a detailed analysis of the data to identify NREGS’s performance on rights.

**Need Based:**

Munro (2008) indicates that the ‘basic human need’ thought relied, usually implicitly, on Maslow’s 1943 hierarchy of human needs. The need based argument for social protection defines poverty through a multidimensional approach. Post 1970’s studies reflect the humanistic fashion for considering the basic needs for nutrition, health, literacy, shelter, clothing, employment and security which was later shaped into the school of development policy (Afxentiou 1990). Earlier to 1970’s poverty was solely defined through development economics with the growth of income per capita in contrast to post 1970 list of basic needs (Munro 2008). It was later argued that people living below the poverty line are unable to meet their basic needs.

Munro (2008) explains that the mental and physical suffering caused by the lack of satisfaction of basic needs is largely avoidable, given modern wealth and technology as one of the arguments supporting the basic needs thinking. He further notes the universal satisfactions of basic needs are mainly social, political and economic (and thus amenable to public policy), not technical or scarcity-based. The basic needs school assumes a strong role for the state in guaranteeing basic needs, either as regulator, facilitator or direct provider (Munro 2008). Conversely, there was an assumption that the state would play this role only in the case of market failure or where community effort was not enough to satisfy basic needs, and where state intervention could improve the situation.
India's official poverty measure has long been based solely upon the ability to purchase a minimum recommended daily diet of 2,400 kilocalories in rural areas (Haub and Sherma 2010). The estimate of minimum money required to satisfy the calorific intake is derived from the National Sample Survey, which measures Monthly Per capita Consumer Expenditure (MPCE) every five years. This price cut off would underline the eligibility to qualify for the official Below Poverty Line (BPL) identity card. Millions of people were disqualified due to the limitation of the BPL measurement which excluded the dimension of inclusive view of basic needs based poverty (Haub and Sherma 2010). To address the issue, the Tendulkar Committee was set up in 2008 and reported its recommendations in November 2009 (Tendulkar 2009). The Committee has published the new poverty lines based on Consumer Price Index which included education and health needs. The previous official estimates from 2004-05 of Rs 354.36 per month per capita minimum consumption in rural Bihar are now changed to Rs. 433.42 per month per capita by the Committee (Tendulkar 2009). The change in MPCE has increased the official BPL population of Bihar from 42% in the last decade to approximately 55% in 2009. The inclusion of the minimum needs criteria and the social protection aspect for people living in rural areas under Below Poverty Line exhibits the thoughts of needs based advocates in the NREGA.

The goal (b) of NREGA, ‘growth engine for sustainable development of an agricultural economy’ mainly relates to asset creation in rural areas. According to various sources, Bihar produces only 2/3rd of its cereals consumption indicating a deficit of food production (Srivastava et al. 2004). While several other States have higher food deficits, Bihar is exceptional among them because it also has a number of other factors which make it difficult to improve its food production. Specifically, it has low waste land availability, declining per capita agricultural production in last decade, the lowest rural infrastructure availability, a low literacy rate, high incidence of poverty and also corruption and unethical politics (Bhatia 1999; Planning Commission 2001; Srivastava et al. 2004; Singh 2009; shown in Table 3 and Table 4 in appendix). Hence, the desirability of NREGA is evidently identified by the needs based cerebrals in order to provide social protection and rural infrastructure. But the changes and effect of the Employment Guarantee Scheme depends on ‘one’s judgment of the desirability of an employment guarantee’ (Ravallion et al. 1991).
Chapter 3: NREGA Preamble

3.1 Passage of NREGA: Policy or Politics?
The new era of Poverty Alleviation Programmes (PAPs) in India began with the evolution of the normative and multidimensional development paradigm with basic needs approach in 1970’s. The policies were focused on ‘Redistribution with growth’ (Chenery 1974) advocating the direct state interventions required to eradicate poverty. During that period GOI launched several PAPs all with the primary objective to generate self-employment and wage-employment through area development, asset creation, skill and entrepreneurship improvement and so on. Maharashtra Employment Guarantee Scheme (MEGS) was the first wage-employment program (WEP) introduced to address rural distress due to drought (1965-74). This scheme had the central focus on drought proofing activities that led to creation of measurable tangible assets, establishing a participatory process in the local governance and reducing income differentials through countering rural unemployment (Moore 2006). The overwhelming success of MEGS led to National Rural Employment Program initiation in 1980 followed by Rural Landless Employment Guarantee program in 1983 and in 1989 they were merged to form Jawahar Roxgar Yojana (JRY). The Employment Assurance Scheme was introduced in 1993 which became pan Indian by 1997-98. Furthermore, JRY was the largest WEP and it was restructured in 2001 to form Jawahar Gram Samridhi Yojana (JGSY). In 2002 EAS and JGSY were also merged to form Samporna Grameen Rozgar Yojana (SGRY) (Shariff 2009). The National Food for Work Programme (NFFWP) was launched in November, 2004; and finally SGRY and NFFWP were merged into NREGS in 2005.

In early 1990s, neoliberalism was dominating economic and political thought. GOI shifted the focus to minimising intervention by the state, reducing dependency and encouraging self-sufficiency to combat poverty. During that time Congress Party was in power in central government but their political pre-eminences were in decline mainly due to criticism of its neoliberalism policies, major Hindu-Muslim riots and the economic slowdown. On the other hand, the right wing Hindu Nationalist Party now called Bharatiya Janata Party (BJP) was gradually gaining greater influence and overthrew Congress in the 1996 national elections. In 2001, the Congress Party held power in Rajasthan state elections overthrowing BJP due to their inability to deal with major drought from 1998 to 2004. During this period the discourse between the actors of the Congress Party and the activist network in Rajasthan encouraged
the development of guaranteed employment as an agenda issue. Persuasion of such issue was certainly influenced by the ongoing rural distress, successful experiences from MEGS and perception by activists from variety of institutes of this agenda’s ability to address multiple goals. The idea was to change the nature of past passive beneficiary employment programmes into an active demand based programme to strengthen civil action.

Congress leaders responded favourably to the issue and at various party meetings the state leadership felt the need to enact the employment guarantee scheme as a central government financed initiative due to huge cost involved. Following this, the party president, Sonia Gandhi directed two congress leaders to frame it in the manifesto for the 2004 national election. At the same time in 2003, an activist network group drafted a Rajasthan State Employment Guarantee Act. In 2003, Congress Party lost the Rajasthan state elections to the BJP, leading to demoralisation and a major setback to any hope for winning the 2004 national elections. However, this firmly lead to the inclusion of the costly EGA in the Congress Party manifesto as a strong positive policy programme against the BJP’s well-built campaign on economic growth and ‘India Shining’.

The ‘tipoff point’ in the passage of the NREGA was the Congress alliance’s surprising victory in the 2004 national elections. This alliance formed the United Progressive Alliance (UPA) government with Left party coalition. The major immediate consequences of the win were that the Left parties made it obvious they were going to focus on EGA and also that Congress leaders, perceiving EGA as politically sensible, felt it important to prepare a policy programme rapidly. Hence the directive for an EGA entered the bureaucracy and democratic policy process (the Cabinet, Parliament, and so on). Finally, on 23rd August 2005 NREGA bill was passed unanimously having fought its way through resistance from Ministry of Finance, right wing parties and bureaucrats. However, it also had tremendous support: of the Prime Minister’s Office (as Sonia Gandhi’s pet project), of the Left parties, of activists and the Standing Committee on Rural Development (a bi-partisan group of MPs). Ministry of Rural Development and Panchayati Raj (Village Government) were given the role of implementing agency of the Act and in February 2006 the ambitious operation of NREGA began.

The above political context is drawn from ‘From poverty to power’ MacAuslan’s article written in July 2007 (MacAuslan 2008). He concludes that the NREGA was an elite creation. The leadership in civil society and politics pushed for NREGA’s inception despite all the criticisms and resistance. The manifesto formed the basis of the national government’s policy
programme, and the passage to the NREGA was entrepreneurial rather than driven by electoral political concerns.

The economic contextual support could be developed through arguments started in 2000 by Ahuluwalia until Kar and Saktivel 2007, showing NREGA as an ‘attempt to moderate the consequences of economic reforms which has increased income and regional inequality in the reform phase’ (Pankaj 2008).

The constitutional context is formed through Article 41 of the Indian Constitution which provides a non-justiciable right to work under the Directive Principles of State Policy and proclaims: “The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work in case of unemployment (Shukla 2004). Pankaj (2008) identifies the confidence of the state in its economic capacity to convert non-justiciable rights provided in Part IV of the Indian Constitution into justiciable ones.

It is interesting that among the political, economical and legal contexts of NREGA it is the political context that has taken the major lead, but with the later support of the other contexts.

3.2 Brief of NREGA legislation (NREGA 2010b)

NREGA is an Act to provide a legal guarantee of 100 days of wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work. S/he will get the minimum wage rate notified for agricultural labour in the State until the Central government notifies a minimum wage rate, which in any case shall not be less than Rs. 60 per day (Changed to Rs 100 per day for Bihar w.e.f. 1st April 2009). NREGA came into effect on February 2, 2006. All adult members of a rural household, resident in the area, willing to do unskilled manual work can apply for employment under the Act. Even if a person is already employed/engaged in work, s/he has the right to demand employment under NREGA. Priority shall be given to women. At least one-third of the beneficiaries shall be women who have registered and requested for work under the Scheme. The process of registration states that a household interested in availing itself of the NREGA benefits has to make an application for registration through the prescribed written form or orally. The registration form and process are free of cost. The application for registration has to be made to the Gram Panchayat (village level authority). The Gram Panchayat role is to authenticate the registration by verifying that the applicant resides in that village and is an
adult. The unit of registration is the household. The Job Card is issued to the applicant by Gram Panchayat after registration. A job card is the basic legal document, which enables the registered household to demand guaranteed employment. The Job Card should be issued within 15 days of application and is valid for five years. The household Job Card will have the name and photograph of each registered member. The Job Card and photograph are free for the applicant. A Job Card does not entitle a person to receive employment unless s/he applies for work. The job seeker should submit a written application to Gram Panchayat or Programme Office (at Block office) to get employment. Within a household’s entitlement for 100 days individual members can apply for work. The demand needs to be for at least 14 days of continuous work. The acknowledgment of the application is issued by the Gram Panchayat. The entitlement of 100 days can be shared within the household; more than one person within the household can be employed simultaneously or at different times. To receive the information regarding employment, the Gram Panchayat/Programme office should send letters to the applicants informing them where and when to report for work. A public notice displayed at the Gram Panchayat and at the Programme Officer’s block office, should provide information on the date, place of employment and the name of those provided employment. If the job seeker does not get employment within 15 days of submitting the application or from the date when work is sought, whichever is later, a daily unemployment allowance has to be paid as per the Act. Further, if the applicant does not report to work within 15 days of being notified s/he will not be entitled to the unemployment allowance. The applicant can however, re-apply for work. The work should be provided within 5 km of the applicant’s residence. If employment is provided beyond 5 km radius of the applicant’s residence then s/he is entitled to 10% additional wages towards transportation and living expenses. Older people and women shall be given preference for work nearer to the village. Facilities at the work site should include safe drinking water, shade for children and periods of rest, first-aid box for emergency treatment of minor injuries and other health hazards connected with work. If more than five children below six years are present a person should be engaged to look after them.

There are various types of work classified in the Act which can be given to the applicant. The important objective of the Scheme is to create durable assets and strengthen the livelihood resource base of the rural poor. Work through contractors is not possible.

The different kinds of works permissible according to priority are:

- Water conservation and water harvesting
- Drought proofing (including afforestation and tree plantation)
- Irrigation canals including micro and minor irrigation works.
- Provision of irrigation facilities to land owned by households belonging to the Scheduled Caste and Scheduled Tribe or to the beneficiaries of land reforms or that of the beneficiaries under the Indra Awas Yojana (a housing scheme for poor people).
- Renovation of traditional water bodies including desilting of tanks
- Land development
- Flood control and protection works including drainage in water logged areas
- Rural connectivity to provide all weather access
- Any other work which may be notified by the Central Government in consultation with the State government.

An overall 60:40 wage material ratio has to be maintained in the work section.

The role of Gram Sabha (village meeting) is to identify and recommend works. The Gram Panchayat should consolidate and send the recommendation to the programme officer. Once the work starts the labourers are entitled to the statutory minimum wage for agriculture labourers in the State until the Central Government notifies a minimum wage rate, which in any case shall not be less than Rs. 60 per day. Wage should be paid every week or in any case not later than a fortnight after the date on which such work was done. The calculation of the wage could either be daily wage or as piece-rate. If wages are paid on a piece-rate basis, the scheduled of rates has to be such that a person working for seven hours would normally earn the minimum wage. Accountability of the program functionaries are maintained through external and internal evaluators who will evaluate continuously. The authority to conduct social audit is vested in Gram Sabha. A village level monitoring committee is to be set up by Gram Sabha to oversee each work. Moreover, any contravention of the Act shall, no conviction, be liable to fine which may extend to one thousand rupees. A Grievance Redressal Mechanism should also be set up at the block, district and State level. There are regular amendments in the guidelines of the Act through circulars which could be found on NREGA website for further reference.
Chapter 4: NREGA, Bihar and Contribution

4.1 Pre NREGA

Bihar is the 3rd most populated state in India with approx 1/5th of the national population. The average density of the state is 880 person/sq km and the rural population is almost 90% (Census 2001a b). The growth rate of population is 28.43% decennially and 1.63% annually. The population between ages of 15-59 was 59.41% in 2001 and agriculture employed almost 80% of the labour force (Census 2001b). Therefore the estimated population for 2009 as per the growth rate would be approximately 93.38 million and number of people between ages 20-65 would be 38.71 million, which can be considered as the comprehensive labour force of Bihar.

Table 5: Below Poverty Line (BPL) household data for Bihar: 2010

<table>
<thead>
<tr>
<th>Source</th>
<th>Total number of BPL households</th>
<th>Total BPL population</th>
<th>Rural Household size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tendulkar Report 2009, GOI (Tendulkar 2009; Timesofindia 2009)</td>
<td>8 million approximately</td>
<td>49.28 million approximately</td>
<td>6.16</td>
</tr>
<tr>
<td>Bihar State Government claim (Mishra 2009)</td>
<td>12.3 million</td>
<td>49.07 million approximately</td>
<td>3.99 [State BPL Census, Himanshu (2010)]</td>
</tr>
<tr>
<td>NREGA data record as on July 2010 (cumulative no. of BPL households issued job card)</td>
<td>9.26 million*</td>
<td>48.15 million approximately</td>
<td>5.2 (Census 2001c)</td>
</tr>
</tbody>
</table>

Source: Census (2001c); Tendulkar (2009); Mishra (2009); Himanshu (2010).

*Note: This figure was 12.4 million on March 2010 and 7.28 million on April 2010 on NREGA website.
One of the reasons for the difference in NREGA households data (Table 5: Note) could be due to the cancellations of job cards after the disagreement over the number of BPL households with GOI (Mishra 2009). Pankaj (2008) observed an overwhelming demand for considering the individual and not the household as the unit for the guaranteeing employment (but also see comments on page 39, para 2). Further various evidences suggest the growing number of nuclear families due to the newly married couples within the household unit which could explains the reason for smaller family size or/and individual job guarantee demand (Prasad 1997:160; Kozel and Parker 1999:3). Conversely, the official fertility rate of Bihar still stands at 4 therefore adding the mother and father will broadly indicate average minimum household size of 6 (Ministry of Health, Family & Welfare 2009). It is obvious that there could be a significant variation in the analysis of the contribution of NREGA towards the reduction of poverty due to ambiguity on the household size. Hence, the national government’s official estimate of 5.2 household size can be considered as realistic for analysis purposes of this paper.

All primary data used in the research are provided by NREGA website for the quantitative analysis. However the website updates are sometimes delayed due to administrative issues. For the purpose of the research we would analyse the cumulative data of NREGA up to March 2010.
Table 6: Question matrix to analyse NREGA Bihar contribution to reduce poverty

<table>
<thead>
<tr>
<th>Risks reduced?</th>
<th>Rights exercised?</th>
<th>Needs fulfilled?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum assured income against claimed income per Below Poverty Line household?</td>
<td>Maximum assured employment days against average employment days claimed? Is NREGA a means to guarantee employment?</td>
<td>NREGA’s percentage contribution towards minimum basic need?</td>
</tr>
<tr>
<td>Indebtedness reduced or assets accumulated?</td>
<td>Right to work in the relation to gender and caste?</td>
<td>NREGS earning is used mainly to buy which component from the list of basic human needs? i.e. food, shelter, clothing etc</td>
</tr>
<tr>
<td>Effect on existing strategy of livelihood i.e. migration, to combat risk?</td>
<td>Resource and capacity available to adhere to the Act commitment?</td>
<td>Are the assets created durable and tangible and do they fulfil the needs of developing the rural economy?</td>
</tr>
</tbody>
</table>

4.2 Bihar NREGA: Contribution in reducing poverty

Risks reduced?
Chapter 2 discusses that risks-based school of thought concerns itself solely with income. Hence, the three major questions posed under the ‘risk reduced’ column are directly linked to the income (Table 6). According to the Tendulkar report (2009), the minimum per capita expenditure in rural Bihar to be at or above the official Poverty Line is Rs 433.42 per month.

The cumulative claimed income (total job claimed = total job provided as per data available, discussed in Chapter 2) for 100 days would be different from the average per household claimed income. The word ‘cumulative’ means data from February 2006 onwards.

The percentage of cumulative BPL households which claimed 100 days of employment is 3%, as shown in calculation below. Although this figure is very low compared to the national average it does not indicate much about NREGA contribution in the poverty context. Further,
the relevance of average person days per household for four years, 27.59 days (shown below), is too broad a figure for meaningful analysis of the NREGA contribution. Thus, to address these issues we need to dissect these figures further (shown in Table 7, in appendix). Data are extracted directly from [www.nrega.nic.in](http://www.nrega.nic.in) up to March 2010 (unless mentioned otherwise).

P=Cumulative no. of BPL households (up to July 2010) = 9.26 million
Q = cumulative no. of households provided employment = 4.12 million
R = cumulative no. of person days generated in 4 years = 113.68 million
S= cumulative no. of households which completed 100 days of employment = 0.28 million

Therefore:

- Percentage of BPL households which claimed 100 days of employment = (S / P)*100 = 3%
- Average Person days per household for 4 years = R/ Q = 27.59 days per household

**Wage Rate for Bihar NREGA (NREGA 2010b):**
- Feb 2006 – Feb 2007 = Rs 68
- w.e.f. Feb 2007 =Rs 77
- w.e.f. July 2007 = Rs 81
- w.e.f. 1st June 2009 = Rs 100 (NREGA, 2010b)

NREGA was launched in 21 out of 38 districts in Bihar on 6th February 2006 under 90:10 central-state funding share ratio. W.e.f 1st April 2008, the Act was extended to all the 38 districts. It is interesting to note that the behaviour of Maharashtra EGS, based on 13 years data prior to doubling the wage rate in mid-1998 showed expected results: ‘EGS attendances respond positively to the EGS wage rate, negatively to food-grain output, and have the expected response to unusual rainfall patterns and the normal seasonality of agricultural operations’ (Ravallion *et al.* 1991). Data available on NREGA website begins from April 2008 on cumulative basis therefore Table 7(see appendix) is formulated accordingly. Table 7(see appendix) shows the average income per BPL household during different periods as indicated in column 1.

Income per BPL household from Feb 2006 to March 2010 (inclusive) is Rs. 2656. From the Table 7(see appendix ) we can safely state that the overall earnings per BPL household for the first 3 years was around Rs 2300 but in the fourth year it is about Rs 3000. This proves the significant rise in demand for number of employment days claimed per household per year from June 2009 onwards. Awareness of NREGA among households increased from 64% in 2006 to 94% in 2008 in the 6 sample districts chosen by Pankaj for his research on Bihar in
2008. The data in Table 7 (see appendix) for the 4th year points out the significant change in the pattern of NREGA demand. Column 5 shows that over the 4 year period, 88.4% of BPL household income was earned in the last year alone compared with 11.4% for the first 3 years combined. The significant changes in 4th year of NREGS could be for several reasons. The change is due to the combination of reasons such as extension of the Scheme in 17 more districts; increase in wage rate and awareness; and improved management and implementation of NREGS. It is important to point out Ravallion et al. (1991) argued in their major empirical research on Maharastra EGS in 1991 that an increase in wage rates might result in a negative impact on poverty and demand for work in EGS.

According to Labour Bureau (2000) average indebtedness among Bihar rural labourers is between Rs. 1 - 500. Further, not less than 1/3rd of the labourers borrow from money lenders and more than 22% of consumption is for marriages and ceremonies (Ministry of Finance 2007). According to Pankaj (2008) an overwhelming proportion of the indebtedness existing among BPL households is not through any formal banking system, but from Indian rural traditional sources, such as money lenders, family and landlords. However, his research also showed a 7% point drop in indebtedness among the sample beneficiaries of NREGA within the first two years of implementation. He further maintains that there is a very small but growing percentage reduction in indebtedness among NREGA beneficiaries, and it could reduce further as incomes increase. But a significant reduction of indebtedness is not likely to occur when the growing incomes are still being used for food consumption and reducing poverty gap (graphically shown in figure 4).

The livelihood strategies in rural areas can be classified into three categories: agricultural intensification, diversification and migration. However, these three strategies could be used in combination by poor people. The phenomenon of rural-to-urban migration has been historically one of the most important kinds of migration worldwide due to increasing need to access public goods, services and material or non-material items that are available in urban areas (Smith 1984 cited in Bogin 1988). In the case of rural labourers from Bihar, the evidence from various research shows that the trend of seasonal inter-state and intra-state migration for unskilled work has almost doubled from 1990 to almost 50% in 2003 (Rodgers and Rodgers 2001; Karan 2003; Deshingkar et al. 2006). According to Deshingkar et al. (2006) caste stigma and conflict where two of the major reasons for migration being an
increasingly popular strategy for livelihood in early 1990’s. But the power of alternative options provided by integrated market across India must not be ignored.

Typically, a migrated unskilled labourer can earn between Rs. 2000 to Rs4000p.m depending on the skill and amount of work done (Deshingkar et al. 2006). The findings from the Deshingkar et al. (2006) reveals that 95% of the migrants are male from the age group of 15-45 and the majority of the unskilled labour would earn between Rs. 100- 200 per day as a migrant. This is mainly because of higher and assured minimum daily wage rates in intra and inter-state work such as Rs 200 for Delhi, Rs. 135 for Punjab and Haryana (Deshingkar et al. 2006; Ministry of Labour 2009). The ODI research argues that migration is now considered as a finite stage in the life cycle of labourers and it has improved the standard of living of thousands of families in the poorest districts of Bihar (Deshingkar et al. 2006). These factors evidence that wages are now set by the market which has also caused a substantial increase in the real wages. This concurs with Rodgers longitudinal study from 1970 to 1999 in one of the poorest district of Bihar (Rodgers and Rodgers 2001). He also observes considerable positive changes in the age old semi-feudal mechanism in rural Bihar.

The author’s personal experience suggests the following relevant factors. The seasonal migration of 3-6 months is common in Bihar which generally starts in Oct/Nov and people return home in March/April. April to July is peak summer and lean season in the agricultural fields. If we consider the major harvest of Bihar, July is the month of sowing the paddy. Then December and January would be for the wheat and pulses followed by few months of vegetable farming up to February and finally harvest in March and early April. In addition, March to July is the wedding season in rural Bihar which increases the need for extra cash. Generally, if we look at the annual life cycle of rural labourers of Bihar, without the NREGA in context, the lean period from April to June would be the period when the active labour workforce would be at home with their family. The harvest share from March and early April normally provides enough grain to ensure most of annual food supply. Cash from migration and diversified work generally contributes to meeting other needs such as variation in food intake, repairing house, festivals and weddings. More essentially, the ground situation suggests that dependence on the government programmes for livelihood of poor people is prominently an idealistic thought.
Analysis of data from NREGA website on ‘Work demand pattern during the year for financial year 2009-10’ necessitates a need to understand the life cycle of rural labour. We can observe an unusual increase in the demand and work participation of NREGA to 14% in April, 24% in May and 26% in June from less than 3% in each month between August to March. The 26% peak in NREGA demand in June can be explained by demand generated from the migrants who returned home and the resident workers in the lean period. This proves that currently NREGA is satisfying the income needs in April, May and June for the migrants and residents. However, the real influence between agricultural wage and NREGA wage is not known.

An outcome of a focus group interview with marginal farmers from Bihar highlights a substantial increase in competitive wage rate of agricultural labours during the past two decades (Sinha 2010). They claim that the higher daily wage rates in construction and non-farm work in Bihar and other states has resulted in an increase in agricultural labour wages. It was acknowledged that improved distribution of income has reduced the political power of landowners in general. Cash is increasingly preferred to payment in kind. Farmers and labourers are concerned about how increased prices are offsetting their real incomes. Documentation Centre for Women and Children (2008) argues the main causes of migration among Bihar labour force are unemployment (31%), indebtedness (23%), and low wages and irregular income in villages (81%). However, Pankaj (2008) asserts that between 2006 and 2008 there was a 12% reduction in migration based on the sample he drew for his research (see also page 39, para 2).

It can be concluded that these transitory migrant workers perceive the potential of NREGA as an opportunity of extra earning when they return home rather than an alternative to migration. So it seems that NREGA is a scheme which provides flexibility on their livelihood options. NREGA employment allows migrants to spend extra time at home despite the lower wage rate and it provides options for income during the lean period for resident workers. Consequently, NREGA has a probability to marginally, not significantly, reduce the duration of migration. It probably also has a positive psychological and social impact by increasing the time spent by migrants with their resident families.
Rights exercised?

NREGA has been universally observed under the rights-based framework of the welfare state theories. The right based approach is argued on the basis of the Indian parliament’s decision to convert the directive principle of ‘right to work’ from constitution into obligatory legislation. Perhaps there is no argument on the approach but it is important to answer the questions from Table 6 to understand the impact of NREGA on reducing poverty through the lens of Rights based approach.

The paper analyses the data to reflect on average employment days per BPL household per year, employment pattern during the year and finally actual claim and potential of NREGA to reduce poverty. All the data are comprehensive, mostly extracted from NREGA website unless mentioned otherwise in the tables. Wherever possible, the data are divided into Scheduled Caste (SC), Scheduled Tribe (ST), Other Backward Classes (OBC) and Women.

In Table 7, column 7(see appendix) shows the days of employment per BPL household during the period mentioned in column 1. If column 3 (cumulative person days generated) is divided by column1 (cumulative BPL household provided job) then it will give us days of employment per BPL household. There is a significant change in total jobs claimed per household if we consider the first 3 years and 4th year separately. For the first whole of the first 3 years only 30 days of employment in total is claimed per BPL household whereas for the fourth year alone 30 days were claimed. Furthermore, the total employment days per BPL household over the four years is 27 days. In other words, range of job claimed per BPL household per year is between 7-10 days. The gap between the number of days of employment claimed and the maximum provision (100pa) does not necessarily infer a failure on the part of NREGA since many BPL families make other considerations in deciding their livelihood strategies. It is therefore important to try and discover BPL household preferences in choosing their livelihood strategy and how this affects the extent to which they claim their rights. So a further dissection of the pattern of employment per BPL household leads to an estimate of maximum preferred claims per BPL household.

Figures in Table 8(see appendix) are solely based on data from NREGA website. The figures show a bias towards relatively low numbers of attendance days (63% of person days are generated for households which attend for less than 30 days). 39% of households employed are in the attendance day’s range of 11-20 with an average attendance of 14.1 days. It basically means that 39% of the BPL households are willing to exercise their NREGA rights.
for only 14.1 days followed by 27% for mere 6.2 days and 20% for 25.6 days (Shown in Figure 1). Conversely, only 14% of households take more than 35.1 days employment.

**Figure 1 : Employment Pattern during the year 2009-10: NREGA Bihar**

![Employment Pattern during the year 2009-10: NREGA Bihar](image)

Data sourced: NREGA 2010a Note: BPL HH-Below Poverty Line Households

**Explanation:** The willingness to exercise NREGA rights by poor households are skewed to the lowest third. Only 14% of households have taken more than 35.1 days employment.

Such a low need to exercise rights could be rationalised through the explanation of life cycle and opportunity cost for labours in Bihar (explained in the Risk based section above). The opportunity cost of income through NREGA for the participating work force of rural labour in Bihar is generally low throughout the year apart from lean season. Hence the major trade-off to work for NREGA during the lean season could be extra cash, allows extra time with family, low obligations, flexibility and probably less physical hard work.

Since NREGS is demand based scheme, it would be important to understand nature of the beneficiaries and existing market for the beneficiaries of NREGA. An analysis of workforce in terms of their participation rate, categories and rights exercised under NREGA could answer the needs of the NREGA rights in deeper sense. Table 9 (see appendix) is the data analysis to find out the participation rate within different categories in comparison to their worker participation rate. Results are shown in Table 10 and graphical presentation in Figure 2.

NREGA data has certainly shown deep correlation between caste groups and jobs provided. The data used in Table 9 (see appendix) are comprehensive, extracted from Census (2001a,e), World Food Programme (2009) and NREGA website. However, the estimation of average
person days per household in row 4 is based on Pankaj (2008) research. The figures are divided in to SC, ST, Women and OBC + others groups. The ‘other’ basically means all the people who do not fall into any of the mentioned groups but who are eligible for BPL.

NREGA guarantees 100 days of employment therefore the question is, to what extent does each group claim some portion of their right to 100 days? Percentage participation by groups would mean BPL households claimed employment anywhere between 1 to 100 days from NREGA (row 6, Table 9(see appendix) and row 1, Table 10). Conversely, those who didn’t participate at all in NREGA would be percentage BPL household who did not exercise their rights (row 7, Table 9 (see appendix) and row 2, Table 10).

If NREGA workforce participation is above the Bihar workforce participation rate (WPR) it would suggest that there has been an encouraging response from the inactive rural labour force. The data for Bihar WPR for ‘OBC+other’ group was not available. Hence for the purpose of the research it is assumed in Table 10 that Total Bihar WPR of 47.84% would be equal to ‘OBC+ Others’ WPR.

The finding in Figure 2 clearly shows an increase in Scheduled Caste (SC) and Scheduled Tribe (ST) Below Poverty Line (BPL) household exercising their rights in NREGA than normal WPR of Bihar. This obviously brings us to the conclusion that participation of the inactive workforce has resulted in a participation rate among SC of 43.8% and among ST of 93%. Low participation by Women i.e. only 13% is not an unusual circumstance in NREGA. Traditionally overall WPR of women in Bihar have been very low (13.80%) hence women participation in NREGA is currently at normal level. It is a commonly observed social phenomenon in India that the female members among the weakest sections are more likely to work to fulfil the minimum needs to survive. This shows that active female members of Scheduled Caste (SC), Scheduled Tribe (ST) and Other Backward Classes (OBC) and others are participating encouragingly. Finally, the comparative analysis of the overall participation of BPL household exercising their right under NREGA (44%) against Bihar WPR (47.84%) suggests a normal expected participation by labourers of Bihar in NREGA to claim their rights.

It is interesting to note the findings on WPR from Pankaj (2008) research, sponsored by Ministry of Rural Development, Government of India and United Nations Development Programme. It showed that WPR of the population to which his research applied was 55.25
and the female WPR was relatively higher than the male population. However, his research was only on areas where NREGA has been efficiently implemented, which constitute a small proportion of the NREGS in Bihar. Also, the sampling methodology is questionable in that two-thirds of the households surveyed were beneficiary households.

Table 10: Finding: - Percentage wise workforce participation to exercising rights under NREGA Bihar: 2010 (on average)

<table>
<thead>
<tr>
<th></th>
<th>SC</th>
<th>ST</th>
<th>OBC + Other</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>%age BPL household exercised their rights*</td>
<td>43.80%</td>
<td>93.00%</td>
<td>42.50%</td>
<td>13.00%</td>
<td>44.00%</td>
</tr>
<tr>
<td>%age BPL household did not exercised their rights*</td>
<td>56.20%</td>
<td>7.00%</td>
<td>57.50%</td>
<td>87.00%</td>
<td>56.00%</td>
</tr>
<tr>
<td>Work Participation Rate (Census 2001d)</td>
<td>39.70%</td>
<td>45.20%</td>
<td>47.84%</td>
<td>13.80%</td>
<td>47.84%</td>
</tr>
</tbody>
</table>

Data Source: Table 9 (see appendix)
*Author’s own calculation based on Census (2001a, e); Pankaj (2008); World Food Programme (2009)
Note: SC-Scheduled Caste, ST – Scheduled Tribe, BPL Below Poverty Line, OBC – Other Backward Classes
Figure 2: Percentage wise workforce participation to exercising their rights under NREGA Bihar 2010.

Data source: Table 10 and Census (2001d).
Note: SC-Scheduled Caste, ST – Scheduled Tribe, Below Poverty Line Households (BPL HH)
Explanation: The figure shows percentage wise variation in the Workforce Participation Rate between Bihar’s total population (shown in solid blue line) and its population engaged in NREGA (shown in dotted red line). The ST population is only 1% in Bihar; hence it does not have a significant effect on total workforce participation rate. However, the reason for an unusual increase in participation among ST social group in NREGA requires further investigation. Overall, participation rate in NREGA is close to expected inclusive Bihar workforce participation rate.

The government has enough funding resource to pay for NREGA cost at the present rate of demand. As on 18th March 2010, approximately Rs 15620 million (US$ 340 m) had been utilised and Rs 3920 million (US$ 85 m) was unspent by the Bihar government on NREGS (Anand 2010). However, these figures are questioned by the Bihar State government in its ongoing debates with Central Government on funds utilisation, disbursement and allocation (DNA 2010). Overall it means that the government has not fallen short of funds to pay for the employment under NREGA irrespective of these debates. The main implementation issues are often surrounded around corruption and lack of capacity of Gram Panchayats and local staff to implement the project (Pankaj 2008; Press Trust of India 2009). There are significant steps taken to combat these issues but the question remains whether it will lead to increase in
spending of NREGA and/or allow poor households to increase their annual employment days? The answer could only be found in future data of NREGA.

Will there be a significant contribution of NREGA to reducing the poverty gap through the employment right? The answer depends on a combination of circumstances. According to 1999-00 Census, Bihar rural unemployment stands at 9% (Ramaswami and Wadhwa 2007). In the last two decades the SC, ST and Women WPR are observed around 40%, 45% and 14% in Bihar. Migration has been observed as one of the most preferred options for livelihood by almost half of the active workforce of rural households. Wages from migration provides better wages than NREGA and harvest generally provides food for the whole year. Considering all these factors, it appears that NREGA demand is working in balance with the labour force market in Bihar. The assessment proves that NREGA contribution is reasonable considering its opportunity cost and lifecycle of beneficiaries despite the fact that only around 50% of the total BPL households claimed less than 30% of their full rights to 100 days in the first 4 years.

It can be concluded that although NREGA is fundamentally a rights based scheme data shows a low take up of those rights. Thus there is a need to distinguish between means and ends and NREGA is the means to the end of guaranteed rights for poor people.

**Needs fulfilled**

In 1969, Seers argued growth is possible without any improvement in quality of life, because the distributional issues are just as important (Seers 1969 cited in Munro 2008). What really matters for quality of human life is the level to which basic needs are satisfied. The underlining question for dissertation would be what is the potential of NREGA to ensure those basic human needs are met? To address this issue, the paper attempts to find answers to the Table 6 question matrix.

First, it is important to define some terms. The poverty gap is the total amount by which the consumption of the poor household falls short of the poverty line divided by the whole population and expressed as a portion of poverty line. Poverty line is the minimum consumption per household required to meet the basic needs (Tendulkar 2009). NREGA potential to fill the poverty gap is defined as the percentage coverage of poverty gap from zero level, if the population claims 100% of the earning provided by NREGA. Actual gap filled by NREGA is the percentage of poverty gap filled by NREGA income earned through
actual claims by BPL households. In other words, it is the NREGA comprehensive actual contribution towards reducing the poverty gap.

The most important finding is the NREGA potential to fill the poverty gap in Bihar is on average 37% (Table 11). It means that a BPL household at zero income can uplift itself by 37% towards reaching the defined poverty line. Tendulkar report (2009) suggests that minimum rural consumption per capita per month in Bihar for individuals to avail themselves of minimum food and health services is Rs. 433.42 (Tendulkar 2009). Hence, with an average household size of 5.2 the minimum annual consumption of a household on poverty line is Rs. 27045.41 (Table 11). NREGA potential of 37% provides a significant safety net for people below poverty line to assure themselves at least of food.

Table 11: NREGA potential to fill the poverty gap in Bihar: 2010

<table>
<thead>
<tr>
<th>NREGA: Maximum potential Income</th>
<th>Rs</th>
<th>Household income or expenditure p.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 per day</td>
<td>100 days</td>
<td>1 household</td>
</tr>
<tr>
<td>Minimum Expenditure on Poverty line</td>
<td>433.42 per month</td>
<td>12 months</td>
</tr>
</tbody>
</table>

NREGA potential to fill the poverty gap on average 37%

Source: Census (2001c); Tendulker (2009); NREGA (2010b).
Note: Author’s own calculations are based on data from the above mentioned source.

A detailed actual contribution of NREGA income towards reducing poverty gap could be derived from the information on earning from NREGA by each group. The only possible available data on income from NREGA by upper caste, OBC-1 and 2, SC and ST is from research of Pankaj in 2008. The household survey was conducted on the basis of multi-stage stratified random sampling. A total of 540 households were surveyed from 30 villages across 6 districts from Bihar. The sampling methodology was suspect in that it gave undue bias to the villages, blocks and districts where the scheme has been implemented more efficiently. This is probably the reason to believe that income from NREGA in column 2, Table 12 (see appendix) is an optimistic view of the situation.

In Table 12, total income of household (excluding NREGA’s income) and actual income from NREGA (column 2, Table 12, see appendix) is extracted from the findings of Pankaj (2008) research. Total poverty gap in percentage (column 3) of each group is derived from total income of household per annum (column 1) against minimum expenditure on poverty
line per household per annum (Rs. 27045.41 from Table 11). Poverty gap filled by NREGA in percentage is derived from income from NREGA (column 2) against poverty line (Rs. 27045.41 from Table 11).

Table 12 (see appendix) sheds light on the poverty gap filled by NREGA and is 4% on average for poor BPL household in Bihar. It is not surprising to observe that the maximum need of NREGA is by SC group by earning close to Rs2000 annually from NREGA to support their basic needs. Table 12 also substantiates the statement made about Bihar by the major architect of NREGA, Jean Drèze, in April 2010 (NDTV 2010) that annual NREGA claim per household has been around 10 days on average and it has not shown significant improvement in the last four years.

The graphical representation of Table 12 (see appendix) in Figure 3 is the major tool to reflect the status of the NREGA proposed by the research. This tool could help us to understand the worth of NREGA for those it is meant for. In the case of Bihar, the figure clearly shows that SC community are the weakest group in the State with 44.8% deep in poverty and they have taken the most benefit from NREGA to fulfil their poverty gap by 7%. Fulfilling 7% poverty gap by the most impoverished section of the society is indeed a significant achievement by government scheme. Figure 3 not only shows 30% of unutilised NREGA potential for the SC group it also demonstrates that even at full utilisation there would still be a 7.9% poverty gap.

For the other groups NREGA has the financial scope to pull them out of the poverty trap but in the context of their poverty it is too idealistic to assume that it will do so. The knowledge of poverty in the specific Bihar context suggests that NREGA could, to a sound degree, reduce transitory poverty as those people’s employment choices work with the dynamics of market forces.
The return on investment in human capital would be a long term assessment however we can identify the specific needs towards which the NREGA income is spent. It is obvious that through the existing livelihood strategies, people in poverty might have access to partial or some of the needs from the list of human basic needs. Albeit, NREGA income is most likely to be invested towards most pressing or/and emergency need by BPL household.

The data available for studying the multidimensional expenditure pattern on basic needs is extracted from Pankaj (2008) research (Table 13, appendix).

Even though land continues to be an important source of livelihood in Bihar, 65.56 per cent of the households are landless. Further, 79.2% of people are holding marginal land between 0.01 to 0.40 hectares (Ministry of Finance 2008). The overall asset base of the rural households is quite low in Bihar and the share of productive assets is only one-third to one-fourth of the total assets, which also indicates that the capacity of the households to earn through their own resources is limited. It would be highly unlikely for BPL household to save enough after spending almost 2/3rd on food and daily consumption items to accumulate assets and purchase services as in the other headings in Table 13 (see appendix). However,
totally rejecting the idea of accumulating small assets would not be realistic because expenditure, albeit small, on such things as livestock, small tools for agriculture and repair of dilapidated assets will occur.

Regardless of the bias in methodology of collecting the data in Table 13 (see appendix), it is unlikely that the pattern of consumption by BPL household would change radically across Bihar.

The microscopic view of the consumption of NREGA income for the list of needs shows that on an average 73.6% of the income is devoured for food and other consumption item (Table 13, appendix). Further, NREGA contribution to reducing poverty gap in terms of this list of basic needs is less than 0.6% excluding food and other consumption items (Figure 4). Broadly, it could be said that major contribution of NREGA income is towards food. Out of 4% of total average poverty gap filled by NREGA up to 3% is fulfilling nutrition needs. It could be assumed that the cash input from NREGA is allowing poor people to consume food items which they cannot barter or trade through the harvest produce such as cooking oil, pulses, vegetable etc. The items under ‘other consumption’ and ‘others’ were not clear in the research published by Pankaj (Pankaj 2008).

**Figure 4: Graphical presentation of % age contribution of NREGA income in Bihar by list of needs.**

Data source: Table 12 and Table 13 see Appendix
Note: SC- Scheduled Caste, ST- Scheduled Tribe, OBC – Other Backward Classes
**Explanation:** The above figure shows that the food and other consumption (black dotted line) is the major basic need which is being satisfied by NREGA income (red line) among different social groups.
One of the major goals of NREGA is to create rural assets for the sustainable development of an agricultural economy. NREGA justification is based on the needs to create sustainable rural economy through building rural infrastructure. It is evident that Bihar has the lowest rural infrastructure index among 19 states in India (Table 4, appendix). Undoubtedly there is a need to create rural infrastructure but the sustainability of these assets would depend on several factors. Major indicators of sustainable infrastructure work are quality, rural engineering, durability and maintenance. NREGA Bihar has generally maintained 60:40 ratio of wage and material as per the legislative guidelines (NREGA 2010a). The logic behind the ratio is primarily to maintain the labour intensive work to provide jobs to rural poor which is the priority of the NREGA. However, conclusions from the empirical research on Maharashtra Employment Guarantee Scheme (EGS) showed a sharp fall in EGS employment after the increase in wage rates (Ravallion et al. 1991).

Table 14 shows the percentage of work, cost and person days generated in each category of rural infrastructure development undertaken in the financial year 2009-10. It includes total number of carried over work from the previous year and total number of new work taken in the 2009-10. It is clear from table 14 that maximum number of work, cost and person days generated is for rural connectivity works. It is difficult to reconcile the relatively low level of Flood Control and Protection activities (6% of all works, 10% of all costs and 5% of person days) with the history of devastating annual floods for the last decade. There are a significant number of assets which were completely created in the first four years and there are a number which are still in the process of creation. It would be possible in the scale of time to evaluate whether the rural assets created are contributing to sustainable development of the rural economy. However, it might be too early to comment on the sustainability of the rural public works undertaken in NREGA. It would be a topic for further research to understand the sustainable aspect of public works for rural development through NREGA earth works in the flood prone areas.
Table 14: Rural Infrastructure Created under NREGA Bihar (FY 2009-10) in % age.

<table>
<thead>
<tr>
<th>Assets Created under NREGA</th>
<th>Cost</th>
<th>Person days</th>
<th>Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Connectivity</td>
<td>28</td>
<td>30</td>
<td>34</td>
</tr>
<tr>
<td>Water conservation and Water harvesting</td>
<td>15</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>renovation of traditional water bodies</td>
<td>15</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Drought proofing</td>
<td>10</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Micro Irrigation works</td>
<td>10</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Land development</td>
<td>10</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td><strong>Flood control and Protection</strong></td>
<td>10</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Provision of irrigation facilities to land owned by household belonging to SC and ST</td>
<td>3</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>any other activity approved by MoRD*</td>
<td>0.4</td>
<td>1.2</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Data Source: (NREGA 2010a)


**Explanation:** The table shows that major priority among NREGA work has been given to Rural Connectivity. However, Flood control and Protection has not received its due consideration given a decade of flood history in Bihar. This apparent disparity needs investigation.

### 4.3 Socio-political context and other issues surrounding poverty

The arguments of the research would be deficient without familiarity with poverty in the context of Bihar. Most of the statements and opinions mentioned under this section could be generally observed across Bihar; however, exceptions can always be found. The arguments, statements and opinions in this section are based on the author’s personal experiences over his two decades of living in Bihar.

Castism, caste politics, caste conflicts and caste based working preferences are accepted parts of daily life in Bihar. Power, pride and political networks are the defining line for social status. Local political leadership widely depends on caste and muscle power dominance in the area. According to Mohanty (2008), changing social dynamics in the deep rooted social conflicts is confined to high and middle castes rather than the lower caste. He further observes that while to a certain degree social conflicts have led to an improvement in wages and reduction in physical and sexual abuse of the lower castes, the extremely backward castes have been prevented from escaping poverty and remain underemployed. He concludes that conflicts have become a source of livelihood because of the vested interests of the rival armed groups of different castes. Additionally, the “balance of terror” among these armed caste groups has resulted in a two way process to maintain social amity on the surface (Mohanty 2008). Although the dynamics are changing with time, feudalism remains a matter of public debate.
On the grass root level, the effectiveness of any government programme depends on the Serpanch’s (head of the village), Gram Savek’s (village secretary) and local administration interests and motives. It is not impossible for people with influence to adjust the institutional requirements to suit their needs. Furthermore, Nath (2006) argues in his prominent paper ‘Political Perspective on Chronic Poverty’, that there is a lack of adequate explanation of how administrative efficiency affect on poverty reduction. Perhaps, if local government machinery and local understanding of ‘democracy’ were more positively aligned in the poverty reduction programmes there will be realistically better outcomes.

Bihar had the lowest Human Development Index (HDI) ranking in India when measures were taken in 1993-94 and 1999-00 (Mehta et al. 2006). Even if the HDI method was devised during independence (1947), a significant change in ranking of Bihar would have been highly unlikely. In November 2005, the political rule of Bihar went through desperate change after 14 years of the previous political regime, politically known as the 'dark age'. Since 2005, there has been increasing attention given to all-round development under the new leadership of the state. It is important to note the exceptional 11.03% GDP growth rate as per Central Statistic Organisation from 2004 to 2009 placing Bihar as second fastest growing state in India (Aiyar 2010). Regrettably, this growth is experienced along with all India annual inflation rate at 17% and Bihar at 14.7% in December 2009 (Srinivas 2010). Apparently, the needs based school of thought would not conclude an instant reduction in poverty level in Bihar on indicators based on GDP.

Records of natural disaster history could be found in living memory but I have used Google history search to find the past records for many centuries. Since 400BC, 5 major droughts have been recorded as Bihar Famine (310 BC, 1770, 1873, 1951, and 1966) (Google 2010a). However, the flood situation is worse. Bihar has experienced almost annual floods since 1930’s. Records show an increasing trend in high intensity floods from 1999 onwards and the worst floods ever in 2008, affecting entire north Bihar (Google 2010b). In some parts of Bihar, people have adjusted themselves to live with the annual floods which they have been experiencing for generations. It does not imply that these people do not need support.

The conclusion of the above discourse reminds us that an economic change in society is relatively much faster than a social change. Poverty reduction requires an adequate understanding of its specific context. According to Ravallion et al. (1991), ‘there can be no presumption that higher wage rates... will be in the interests of the poor’. Centralised administration or political leadership can be the catalyst with good intentions to initiate ambitious welfare state programmes. But the grass root socio-political dynamics will
ultimately decide the fate of those programmes in the light of the Mother Nature, market forces and needs.
Chapter 5: Conclusion

NREGA has shown a pragmatic response in Bihar and it is assisting people to reduce their poverty gap. It would be idealistic to escape the poverty trap with the Scheme but transitory poverty could be addressed for a short term. The dissertation has answered the contribution of the NREGA to the reduction of the poverty gap in Bihar and the rationale behind the Act. The rationale is justified through the inimitable interaction between and within the academic doctrines and political pathways for social protection and poverty reduction.

Birth of the NREGA is unique. It is conceived by public demand, gestated by participatory intellectual appraisal and nursed by socio-political lobbying before being born through immense labour pain caused by the administration. The child born is indeed one of the most beautiful social protection programmes of its time since it carries the genealogy of all the ancestors of a welfare state (risks, rights and needs) and of political principles.

For those who believe in social protection, they must understand the rationale to vindicate NREGA. The rationale can be derived from two sources: academic doctrines and politics. Both are equally important, they are symbiont and their ends are very similar in principle i.e. welfare for the weakest section of the society by reducing poverty and facilitating development.

The scheme can be justified academically with all three doctrines, which act as intersecting pathways. The technical and operational details of the design and implementation of the Scheme are dominated by the morals of the risk based thinkers and the concern of the needs based scholars as to whether the minimum needs are met. Advocates of a rights based approach have provided power and strength through the legally binding obligations, as well as literalistic and pedantic support. The needs and rights based advocates have proved the desirability whereas risks based intellectuals have given a convincing analysis of NREGA situation. Further, the risks and needs based cerebrals provided guidance on the role of the social protection aspects of NREGA in public policy more broadly. It is evident that NREGA is the means to the end of guaranteed rights for poor people.

The political panorama brings in the moral commitment to and wide support from electorates. Politically it is suicidal to reject the philosophy of NREGA on economic grounds especially when it is conceived in the public domain. There are indications that senior leaders of the Congress party perceived that NREGA was the choice of the wider electorates following publication of their manifesto and the subsequently exceptional win in the 2004 federal elections. Hence, there is no reason to discard the moral commitments towards the electorate.
and gaining wider support, probably rationalising it with Pareto optimality in general. Pareto optimality suggests that welfare improvements should be sought if the welfare of one can be increased without reducing the welfare of another. It is realistic to uphold the ends of NREGA by the ruling party or the opposition in cognisance of the NREGA perception in the political arena.

Finally, the underlying rationale for NREGS derives from people being involved in social relations and participation based on human needs and with that a strong moral and political philosophy. The behaviour of NREGS would certainly depend on the context where it is implemented.

The various assessments of the Bihar NREGS confer its positive contribution from its first four year of operation. Demand for NREGS is based on risks, rights and needs of its beneficiaries. This is based on the assumption that the quantitative data captured is sufficiently comprehensive. It shows performance not far from rational expectations, particularly during its fourth year. Hence, NREGA contribution to reduce poverty gap has been proportionate with the needs of the beneficiaries, integrated market forces and local socio-political dynamics in Bihar.

Under a risk-based analysis, there is evidence that the livelihood strategies were already reducing risks prior to implementation in Bihar of NREGA. Of the livelihood strategies migration has progressively gained popularity in the last two decades. This is mainly due to the stable, high and regular flow of cash ensuing from an integrated market system and also an option to escape the caste stigma. In addition, Bihar has fairly low rural unemployment but relatively high underemployment. Thus the findings show that it would be unreasonable to expect NREGS to be a substitute for migration but it is certainly complementing the cash needs during the lean season of April, May and June for the majority of beneficiaries. Further, the existing production of tradable and non-tradable goods and services by migrant and resident workers has facilitated a positive improvement in the distribution of income in the last two decades. In the instance of failure of government or of social institutions the ability of poor people to adjust in order to access resources for survival is vital. Hence, NREGA could be perceived as one of the means to combat short term risks for Below Poverty Line households in Bihar.

The rights have been exercised by the rural pool by participating and claiming jobs in NREGS. The employment patterns for 2008-09 are shown in Figure 1 and indicate that 39% of the Below Poverty Line households have exercised their rights for 14.1 days on average followed by 27% for 6.2 days and 20% for 25.6 days. The comprehensive Workforce
Participation Rate in NREGS Bihar exhibits a reasonable performance being only 3.84% on average behind the inclusive Bihar Workforce Participation Rate of 47.84% (Table 10, Figure 2). Involvement of officially inactive workforce in NREGS has resulted in a considerable rise in participation among Scheduled Caste and significant rise among Scheduled Tribe to 43.8% and 93% compared with 39.7% and 40.20% Workforce Participation Rate of the total Bihar workforce. NREGS Workforce Participation Rate of women is only 0.80% behind the women Workforce Participation Rate of total Bihar of 13.8%. In aggregate, around 50% of the total BPL households have claimed less than 30% of their full rights of 100 days per annum over the first 4 years. We can conclude that the market forces and the opportunity cost are relatively in balance with NREGA demand at present. This is based on the assumptions that most of the Below Poverty Line population is aware of its rights, basic systems are in place and government has enough funds to cover their wages if claimed.

The needs of the beneficiaries appear to be modestly satisfied by NREGS. The most important finding of the dissertation is that NREGS has substantial potential to reduce the gap in poverty by 37% on an average in Bihar (Figure 3). In addition, Scheduled Caste Below Poverty Line households have on average a 44.8% poverty gap and are the largest and the weakest group in the State. Data indicates an average of 7% reduction of their poverty gap and they still have 30% of NREGS potential unutilised. Typically, the poverty gap for Below Poverty Line households in Bihar is 24.58% and NREGS income has reduced this gap by 4% on average. Further, the objective of contribution towards sustainable rural economy development has immense scope, the success of which will largely depend on the quality, durability and maintenance of NREGS works. It is important point out that the validity of the government data and actual qualitative situation is a question of further research. Rural Connectivity Works has taken the highest priority among NREGS works out of the total works distribution for 2009-10 (Table 14). Given that Bihar is a region prone to devastating annual floods, which have intensified over the last decade, it is bizarre that Flood Control and Protection works are among the lowest priority works. Albeit, it is too early to comment on the sustainability aspect of the infrastructure works under NREGS but its immense scope cannot be ignored.

The concluding remarks are drawn from the poverty in context of grass root socio-political dynamics in Bihar. It is pragmatic to consider NREGA performance in balance with the market forces, ground level socio-political dynamics and the priorities of beneficiaries. Despite the progressive welfare intentions of senior political leadership and administration,
NREGS contribution to the reduction of the poverty gap will always be dependent on the specific context of the particular area or State.

Reflection on the dissertation suggests that limitation of space, time and costs restricted the research ability to investigate the influence between the agriculture wage rate, NREGA wage rate and the labour market. Furthermore, results are restricted by the availability of quantitative data. Perhaps a future research could be focused on the qualitative and sustainability aspect of fulfilment of rural development needs in Bihar through NREGA. The research is solely based on official data which excludes the qualitative information from the field. Hence, a further qualitative investigation can identify the correlation of the official data with the field situation.
| **Table 15: Findings of the Research** |
|--------------------------------------|--------------------------------------|
| **Academics doctrines** | **Political principle** |
| **Risks** | **Needs** | **Politics** |
| NREGA is complementing the cash needs mainly during April, May and June in Bihar for majority of migrants and residents. | On average 14% of total Below Poverty Line households are exercising more that 35 days of NREGA rights annually in Bihar. | NREGS has a significant potential to reduce the gap in poverty by 37% on average in Bihar. | Slow performance of NREGA Bihar is not mainly caused by senior political leaders or/and senior administration. |
| It is idealistic to expect NREGA to be perceived as an alternative to migration strategy of livelihood by rural poor. | NREGA Bihar workforce participation rate is only 3.8% on average behind the inclusive Bihar workforce participation rate. | Scheduled caste group have reduced 7% of their poverty gap with NREGA income which is highest in comparison with the other groups in Bihar. | Local socio-political and administration situation plays a significant role in the implementation and management of NREGA in Bihar. |
| NREGA is broadly considered as the means to combat short term risks. | NREGA is the means to the end of guaranteed rights for poor people. | Flood control and Protection works may need prioritization in Bihar. | The effect of market forces and beneficiary needs on NREGA’s effectiveness must be seen alongside political and administrative challenges. |
| 13% Women participation in NREGA Bihar is realistic in comparison with inclusive Bihar workforce participation rate. | The needs based approach provides much stronger rationale to NREGA than risks or rights based approaches. | | A further investigation can determine the relations between the results from the dissertation based on official data and the qualitative information from the field. |

- Academic and political rationales for NREGA are equally important, they are symbiont and their ends are very similar.
- It is pragmatic to consider NREGA performance in balance with the market forces, ground level socio-political dynamics and the priorities of beneficiaries.
- NREGS contribution to the reduction of the poverty gap will always be dependent on the specific context of the particular area or State.
References:


a. Bihar population age distribution
   http://www.censusindia.gov.in/Census_Data_2001/Census_data_finder/A_Series/age_groups.htm

b. Bihar projected population

c. Bihar House Hold Size
   http://censusindia.gov.in/Data_Products/Data_Highlights/Data_Highlights_link/data_highlights.hh1_2_3.pdf

d. Bihar Workforce Participation Rate
   http://censusindia.gov.in/Data_Products/Library/PostEnumeration_link/eci6_page3.html

e. Data Highlights: The Scheduled Tribe in Bihar
   http://censusindia.gov.in/Tables_Published/SCST/dh_st_bihar.pdf


Munro, L. T. (2008) ‘Risks, rights, and needs: Compatible or contradictory bases for social protection?’, Social Protection for the Poor and Poorest in Developing Countries: Reflections on a Quiet Revolution, eds Armando Barrientos and David Hulme, Brooks World Poverty Institute, Manchester, pp 27–46


Appendix

Table 3: Bihar Index of Rural Infrastructure, Yield of Food-grains and Value of Productivity per Hectare: 1999

<table>
<thead>
<tr>
<th>State</th>
<th>Index of Infrastructure</th>
<th>Yield of Food-grains per Hectare (Kg)</th>
<th>Value of Output per Hectare (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bihar</td>
<td>42.0 (15th)*</td>
<td>1446 (10th)*</td>
<td>4091 (10th)*</td>
</tr>
</tbody>
</table>

Source: (Bhatia 1999)
*rankings out of 17 States

Table 4: Pre NREGA situation in Bihar: 2004

<table>
<thead>
<tr>
<th></th>
<th>Rank^</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deficit in food production*</td>
<td>4th worst</td>
</tr>
<tr>
<td>Rural infrastructural index*</td>
<td>Worst</td>
</tr>
<tr>
<td>Rural literacy* (2001)</td>
<td>Worst</td>
</tr>
<tr>
<td>Percentage of BPL household**</td>
<td>2nd worst</td>
</tr>
<tr>
<td>Index of social and economical Infrastructure**</td>
<td>5th worst^^</td>
</tr>
</tbody>
</table>

*Source: (Srivastava et al. 2004) ^ ranking out of 19 states.
** (Planning Commission 2008)
*ranking out of 19 States
^^ranking out of 15 States

Table 7: Average NREGA Bihar income and employment days per BPL household: 2010

<table>
<thead>
<tr>
<th>NREGA Scheme Year</th>
<th>Time period (1)</th>
<th>Cumulative BPL household provided job (2)^</th>
<th>Cumulative person days generated (million) (3)*</th>
<th>Wage Rate per day. (4)*</th>
<th>Total Income for all BPL household Rs m(5) (3x4)*</th>
<th>Total Income per household Rs(6) (5/2)</th>
<th>Days of employm ent per household (7) (3/2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First 3 years</td>
<td>Feb 2006 to March 2008</td>
<td>380661</td>
<td>11.67</td>
<td>74^</td>
<td>863.58 (7.8%)</td>
<td>2269</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>April 2008 to May 2009</td>
<td>584518</td>
<td>4.93</td>
<td>81</td>
<td>399.33 (3.6%)</td>
<td>683</td>
<td>8</td>
</tr>
<tr>
<td>4th year</td>
<td>June 2009 to March 2010 (10 months)</td>
<td>3162151</td>
<td>97.00</td>
<td>100</td>
<td>9700 (88.4%)</td>
<td>3068</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>4 years</td>
<td>4127330</td>
<td>113.6</td>
<td></td>
<td>10962.91 (100%)</td>
<td>2656</td>
<td>27</td>
</tr>
</tbody>
</table>

*Source: (NREGA 2010a)
^computed as a weighted average
Note: Author’s own calculations are based on NREGA (2010s) data.
Table 8: Employment Pattern during the year 2009-10 NREGA Bihar

<table>
<thead>
<tr>
<th>Total Attendance days</th>
<th>Average Attendance Days (Person days/ Household employed)</th>
<th>%age of households in this attendance range</th>
<th>%age of Person days Employment Generated in this attendance range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 10</td>
<td>6.2</td>
<td>27</td>
<td>9</td>
</tr>
<tr>
<td>11 to 20</td>
<td>14.1</td>
<td>39</td>
<td>30</td>
</tr>
<tr>
<td>21 to 30</td>
<td>25.6</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>31 to 40</td>
<td>35.1</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>41 to 50</td>
<td>45.1</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>51 to 60</td>
<td>55.8</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>61 to 70</td>
<td>65.2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>71 to 80</td>
<td>74.2</td>
<td>0.2</td>
<td>1</td>
</tr>
<tr>
<td>81 to 99</td>
<td>86.7</td>
<td>0.4</td>
<td>2</td>
</tr>
<tr>
<td>equal to 100</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>over 100</td>
<td>103.65</td>
<td>0.1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Data sourced: NREGA (2010a)
Table 9: Analysis of participation to exercise rights under NREGA Bihar: 2010

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Percentage share of poor rural household (World Food Programme 2009:15)*</th>
<th>SC</th>
<th>ST</th>
<th>OBC + Others</th>
<th>Total</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>35.7</td>
<td>1^</td>
<td>53.8+9.4</td>
<td>99.9</td>
<td>972.3^^(0,000^ of individuals in workforce)</td>
</tr>
<tr>
<td>2</td>
<td>Number of BPL Households** (‘00,000)~</td>
<td>33</td>
<td>1.7</td>
<td>58.52</td>
<td>93.3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Total Person days generated in NREGA (NREGA 2010a) (‘00,000)⊥</td>
<td>515.05</td>
<td>24.57</td>
<td>597.26</td>
<td>1136.88</td>
<td>341.48</td>
</tr>
<tr>
<td>4</td>
<td>Average Number of persons days employment per BPL household in 4 years***</td>
<td>35.5</td>
<td>15</td>
<td>24</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Number of BPL households provided employment (‘00,000) ⊥ [3 / 4]</td>
<td>14.5</td>
<td>1.6</td>
<td>24.8</td>
<td>41.04</td>
<td>126.4 (individuals)</td>
</tr>
<tr>
<td>6</td>
<td>% of BPL households which claimed some portion of their right to max 100 days [5/3]</td>
<td>43.80%</td>
<td>93.00%</td>
<td>42.50%</td>
<td>13.00%</td>
<td>44.00%</td>
</tr>
<tr>
<td>7</td>
<td>% of BPL households which did not claim any of their right to 100 days.[100%-6]</td>
<td>56.20%</td>
<td>7.00%</td>
<td>57.50%</td>
<td>87.00%</td>
<td>56.00%</td>
</tr>
</tbody>
</table>

Note:
1. SC-Scheduled Caste, ST-Scheduled tribe, OBC-Other Backward cast, BPL-Below Poverty Line, Others include upper caste.
2. Author’s own calculations are based on data from the Census (2001a, e); Pankaj (2008); World Food Programme (2009);
Source:
* According to source of Table 2.3 in World Food Programme (2009) it is calculated from Scheduled1.0, NSS, 61st Round, 2004-05.
**The calculations of SC, OBC and Others are based on 9.26 million (or 92.6 lakh) BPL households as per NREGA website (see also Table 5)
***The figures are estimated by the author on the basis of the survey data in Table 4.5 of Pankaj (2008:113) research.
^ST population is estimated to be 1%, of which 94.6% reside in rural areas (Census 2001e). Author has assumed the total rural population is Below Poverty Line.
^Estimate population between age 20 to 69 in 2009= 38.713 million (Census 2001b)
Therefore: Working age adults per household = Working age population + Total no. of households
= Total population (Census 2001b) + Household size (Census 2001c) = 93.338/5.2 = 17.94
Hence: Working age adults per household = 38.173 = 17.94 = 2.15
Total no. of working adult women per household = Working age adults per household x %age of women in workforce (Census 2001a) = 2.15x49.12% = 1.05
Total no. of working adult women in BPL household= Total BPL household x Total no. of working adult women per household = 92.6 x 1.05 = 97.23 million
Note: around 972 lakh estimation can be derived via different calculation methods by using other types of data from Census 2001.
~ 100,000 is an Indian numbering system called lakh.
Table 12: Poverty gap filled by NREGA Bihar

<table>
<thead>
<tr>
<th>Caste</th>
<th>Total Income of household (excluding NREGA)* (1) Rs.</th>
<th>Income from NREGA* (2) Rs.</th>
<th>Total Poverty Gap % (3) [Column 1, % of Rs.27045]</th>
<th>Poverty Gap filled by NREGA income % (4) [Column 2, % of Rs.27045]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Caste</td>
<td>22938</td>
<td>780</td>
<td>15.2</td>
<td>3</td>
</tr>
<tr>
<td>OBC-1</td>
<td>24256</td>
<td>1314</td>
<td>10.3</td>
<td>5</td>
</tr>
<tr>
<td>OBC-2</td>
<td>20604</td>
<td>904</td>
<td>23.8</td>
<td>3</td>
</tr>
<tr>
<td>SC</td>
<td>14911</td>
<td>1983</td>
<td>44.9</td>
<td>7</td>
</tr>
<tr>
<td>ST</td>
<td>19266</td>
<td>544</td>
<td>28.8</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Avg.</strong></td>
<td><strong>20395</strong></td>
<td><strong>1105</strong></td>
<td><strong>24.6</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

*Source: Pankaj (2008)

Note: Author’s own calculations are based on survey data Table 6.4 from Pankaj (2008: cxxxviii) research.

It is the overall average for 2007-08. It an optimistic view on average person days employment provided per BPL household per annum for NREGA Bihar.

Table 13. Percentage contribution of NREGA income to reduce poverty gap in terms of list of Basic needs in Bihar:2008

<table>
<thead>
<tr>
<th>Caste</th>
<th>Food and Other Consumption %</th>
<th>House -hold Durables %</th>
<th>Healthcare %</th>
<th>Education %</th>
<th>Loan Repayment %</th>
<th>Social Ceremonies %</th>
<th>Land/ House %</th>
<th>Animals %</th>
<th>Productive Asset %</th>
<th>Others %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Caste*</td>
<td>2.6</td>
<td>0.06</td>
<td>0.03</td>
<td>0.01</td>
<td>0.04</td>
<td>0.17</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>OBC-1*</td>
<td>3.3</td>
<td>0.57</td>
<td>0.33</td>
<td>0.14</td>
<td>0.00</td>
<td>0.38</td>
<td>0.00</td>
<td>0.00</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>OBC-2*</td>
<td>2.3</td>
<td>0.20</td>
<td>0.21</td>
<td>0.15</td>
<td>0.00</td>
<td>0.35</td>
<td>0.05</td>
<td>0.00</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>SC*</td>
<td>5.5</td>
<td>0.18</td>
<td>0.57</td>
<td>0.21</td>
<td>0.37</td>
<td>0.26</td>
<td>0.00</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>ST*</td>
<td>1.3</td>
<td>0.08</td>
<td>0.18</td>
<td>0.12</td>
<td>0.03</td>
<td>0.14</td>
<td>0.01</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td><strong>Total Avg</strong></td>
<td><strong>3.0</strong></td>
<td><strong>0.22</strong></td>
<td><strong>0.27</strong></td>
<td><strong>0.13</strong></td>
<td><strong>0.09</strong></td>
<td><strong>0.26</strong></td>
<td><strong>0.01</strong></td>
<td><strong>0.02</strong></td>
<td><strong>0.04</strong></td>
<td><strong>0.04</strong></td>
</tr>
</tbody>
</table>

| Distribution of Expenditure from NREGA Earnings in Bihar [%age of sum total of the row & Total Avg%] | 73.6 | 5.24 | 6.23 | 3.318 | 1.552 | 6.84 | 0.368 | 0.59 | 1.14 | 1.14 |

Data source: Pankaj (2008)

Note: Author’s own calculations are based on survey data Table 6.4 from Pankaj (2008: cxi) research.