CHAPTER I

INTRODUCTION

1.1 INTRODUCTION

Idea of an Employment Guarantee or the government as an employer of last resort (ELR) has been used by many governments in different shapes beginning with the Poor Employment Act of 1817 in Great Britain, New Deal Programmes in the USA in the 1930s, Argentina’s Plan Jefes Y Jefas (Programme for Unemployed Male and Female Heads of Households), Morocco’s Promotion Nationale (since 1961), Bolivia’s Emergency Social Fund, Labour Based Drought Relief Programme and Labour Intensive Rural Public Works Programme in Botswana (1980s onwards), Programa de Empleo Mínimo (Minimum Employment Programme) in Chile, South Africa’s Expanded Public Works Programme (2004 onwards) and so on. During last few decades government intervention in the labour market as an employer of the last resort has become an integral part of labour market policies in many developing countries. Recent examples of the latter include public work programmes in India, Bangladesh, Pakistan, Philippines, Egypt, Botswana, Kenya and Chile (Subbarao, 1997; Lipton, 1996).

In the fore of that development, in India, an ambitious National Rural Employment Guarantee Scheme (NREGS) came into force in February 2006. The scheme is based on the National Rural Employment Guarantee Act (NREGA) which was passed by the Indian parliament in September 2005. This new scheme
has renewed interest in evaluating the effectiveness of such welfare through
workfare programmes in terms of provide an economic safety net to the rural poor
(Dey, 2009).

The present study on assessment of NREGS examines five issues. First, the study
examines the impact of the programme on the welfare of the participating
households, second, the level of information of households about the provisions of
NREGS, third, the implementation problem and administrative inefficiency,
fourth, the seasonality of the NREGS performance in terms of employment
creation and the expenditure incurred on NREGS and finally the impact of the
programme on migration.

An employment guarantee scheme is designed to reduce poverty which is
experienced by those whose income is low due to joblessness. Moreover, any such
scheme is though primarily designed to reduce poverty but is not a targeted social
protection scheme for the poor. These are designed to provide universal guarantee
of employment. Besides fulfilling availability of guaranteed unskilled manual
work on piece-rate basis on demand, the employment guarantee schemes also
satisfy the following conditions:

1) The work which is chosen is labour intensive in nature.

2) After completion of the work under the scheme a productive asset is
supposed to be generated.

In EGS, government provides the job opportunity with assurance of minimum
wage. But whether to participate or not is decided by the beneficiaries themselves.
That is why this is a self targeting programme & this option of self targeting is
universal. In EGS, the minimum wage rate, unskilled manual labour work, piece-rate— all these are designed in such a way that non-poor will supposedly find disincentive with these kinds of arrangements. Hence, these schemes are ‘universal de jure, but targeting de facto’ (Imai, 2007).

In principle, the EGS (as a special case of rural public works) confers transfer and stabilisation benefits. The transfer benefits can be direct— the gross earnings of participants less any cost they incur in participating— or indirect— including the share of the poor in the extra income generated by the scheme’s output, and any other second round effects from other income sources (e.g., higher agricultural wage rates). The stabilisation benefits arise mainly from the scheme’s effect on the risk faced by the poor of a decrease in consumption. Since large segments of the rural population barely survive during slack periods, a reduction in the risk of consumption falling below a subsistence level matters a great deal. The reduction of this risk, in turn, may be the crucial welfare gain of the scheme, as a form of insurance that effectively increases ex ante contingent wealth and reduces ex post income volatility of workers.

At the moment, such types of EGP are operating in many parts of the world including India as mentioned in the introduction.

1.2 THE CONCEPTUAL DESCRIPTION OF NREGS

The NREGS is an attempt to improve up on the weaknesses of the previous programmes. More specifically, as far as the flagship scheme is concerned, the formal Act describes NREGS:
As a scheme to provide for the enhancement of livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work and for matters connected therewith or incidental thereto.

1.2.1 Objective of NREGS

Creation of durable assets and strengthening the livelihood resource base of the rural poor is an important objective of the scheme.

1.2.2 NREGS Goals

The four formal goals of the scheme are:

a) The first goal of NREGS is strong social safety net for the poor groups of the population by providing a fall-back employment source, when other employment opportunities are scarce or inadequate.

b) Growth engine for sustainable development of an agricultural economy is another goal of the flagship programme. Through the process of generating employment on works that tackle causes of chronic poverty such as drought, deforestation and soil erosion, the scheme seeks to strengthen the natural resource base of rural livelihood and create durable assets in rural areas. Effectively implemented, NREGS has the potential to transform the geography of poverty.

c) The third goal of NREGS is empowerment of rural poor through the processes of a rights-based employment programme.
d) The fourth goal of the scheme is new ways of doing business as a model of governance reform anchored on the principles of transparency and grass root democracy.

1.2.3 Salient Features of NREGS

1) Right based Work:

Under NREGS, the job seeker is entitled of the following:

i) Adult members of a rural household, willing to do unskilled manual work have the right to demand employment.

ii) Such households apply for the job card to the Gram Panchayat. The Gram Panchayat verifies the age and local domicile of the applicant.

iii) After verification, the Gram Panchayat issues a job card to the household with photograph free of cost.

iv) The job card remains in the care of the household.

v) Job card holder can apply for work to the Gram Panchayat which issues him/her a dated receipt of the application for work.

2) Time bound Guarantee of Employment:

The NREGS guarantees time bound employment to the job card holder as given below:-

(i) The job card holder is entitled of getting Employment within 15 days of application for work from the Gram Panchayat; else unemployment
allowance will be paid. The cost of unemployment allowance is borne by the state govt.

(ii) A household seeking job under NREGS may avail up to 100 days of guaranteed employment in a financial year depending on its need.

3) **Work Site:**

The job card holder under NREGS is entitled of the following work site facility:
Work is in general provided within 5 km radius of the village. In case work is provided beyond 5 km, extra wages of 10% are payable to meet additional transportation and living expenses.

4) **Permissible works:**

The NREGS focuses on the following works in order of priority to create a sound infrastructural base in rural areas.

i) Water, drought proofing including plantation and afforestation, flood protection and minor irrigation.

ii) Annual shelf of works prepared in advance of each year.

5) **Labour Intensive Works:**

The labour intensive characteristic of NREGS is revealed by the following points:

(i) Maintaining a ratio of 60:40 between wage and material under NREGS.

(ii) Contractors/machinery is not permitted in executing the programme.

6) **Payment of Wages :**

The payment of wages under NREGS is guided by the following principles:
(i) Wages are to be paid according to piece rate or daily rate.

(ii) Wages are to be paid at the wage earners through their Bank/Post office accounts.

(iii) Disbursement of wages has to be done on weekly basis and not beyond fortnight in any case.

7) **Decentralisation:**

The NREGS focuses on decentralised implementation mechanism where the people can participate in planning, monitoring and implementation of NREGS under the following provisions:

(i) Gram Sabha recommends works for execution.

(ii) Gram Panchayat executes at least 50 per cent of works.

(iii) Panchayat Raj Institutions (PRIs) plays a principal role in planning, monitoring and implementation.

8) **Women Empowerment:**

The NREGS gives priority to women empowerment. In this regard, the scheme focuses on:

(i) At least one-third beneficiaries are women who have registered and demanded work under the scheme.

(ii) Equal wage is paid to male and female workers. Thus, the NREGS guarantees equal opportunity for all.
9) **Work Site Management and Facilities:**

The Panchayat provides the following facilities to the NREGS workers at the worksites:

(i) Citizen Information Boards with details of work are put at the work sites.

(ii) Work site facilities such as crèche, drinking water, shade.

(iii) Muster rolls are maintained and open to inspection by the Gram Rozgar Sahayak.

(iv) Timely measurement of work is ensured by the administration.

10) **Transparency and Accountability:**

The NREGS emphasizes on transparency and accountability in implementation of the scheme under the following provisions:

(i) Proactive disclosure of information.

(ii) Organising social Audit by the Gram Sabha.

(iii) Regular monitoring at all levels.

(iv) Putting grievance redressal mechanisms in place for ensuring a responsive implementation process.

(v) All accounts and records relating to the Scheme are available for public scrutiny.

11) **Use of Information Technology:**

The govt. linked the NREGS with the web. In this regard, the govt. started a web enabled MIS www.nrega.nic.in for monitoring, decision making and transparency.
12) Funding:

The NREGS is a labour intensive employment guarantee programme based on the NREGA passed by the central govt. in 2005. However, the implementation of the programme rests with the state govt. However, as far funding is concerned, 90% expenditure is borne by the central govt. and 10% by state govt.

'Thus, NREGS promotes conditions for inclusive growth ranging from basic wage security and recharging rural economy to a transformative empowerment process of democracy.' (NREGA operational Guide line-2008 3rd ed.)

1.2.4 Coverage

The NREGS was launched on 2nd February, 2006 in 200 poor and backward districts of India in the first phase and then extended to additional 130 districts from the financial year 2007-08. The remaining districts have been covered under the NREGS from 1st April, 2008. Thus, NREGS covered the entire country with the exception of districts that have a hundred percent urban population. (NREGA operational Guide line-2008 3rd ed.)

NREGS was launched in Assam in 2006-07 in first phase in seven districts viz. Bongaigaon, Dhemaji, Goalpara, Karbi Anglong, Kokrajhar, Lakhimpur and North Cachar Hills. The scheme was extended to 6 more districts including Barpeta, Cachar (area of the present study), Darrang, Hailakandi, Marigaon and Nalbari in the second phase in 2007-08. The remaining districts of the state were covered under the scheme in the third phase from 2008-09.
1.2.5 Works /Activities under NREGS

The NREGS focuses on the following works. The order of priority of works to be taken up for execution is decided by the gram Panchayat.

1) Water conservation and water harvesting including contour trenches, contour bunds, boulder checks, gabion structures, underground dykes, earthen dams, stop dams and springshed development;

2) Drought proofing including afforestation and the tree plantation;

3) Irrigation canals including micro and minor irrigation works;

4) Provision of irrigation facility, dug out farm pond, horticulture, plantation, farm bunding and land development on land or homestead owned by job card holders belonging to the SC and the ST or BPL families or the beneficiaries of land reforms or the beneficiaries under the Indira Awas Yojana or that of the small or marginal farmers or the beneficiaries under the ST and Other Traditional Forest Dwellers Act, 2006. Such beneficiaries of NREGS work on the scheme undertaken on their land or homestead.

5) Renovation of traditional water bodies including desilting of tanks;

6) Land development;

7) Flood control and protection works including drainage in water logged areas including deepening and repairing of flood channels, chaur renovation, construction of storm water drains for coastal protection including culverts and roads within a village;
8) Construction of Bharat Nirman Rajib Gandhi Sewa Kendra as Knowledge Resource Centre at the Block level and as Gram Panchayat Bhawan at the Gram Panchayat level;

9) Agriculture related works such as NADEP composting, vermi-composting, and liquid bio-mamures;

10) Livestock related works such as poultry shelter, goat shelter, construction of pucca floor, urine tank and fodder trough for cattle, azolla as cattle-feed supplement;

11) Fisheries related works such as fisheries in seasonal water bodies on public property;

12) Works in coastal areas such as fish drying yards, belt vegetation;

13) Rural drinking water related works such as soak pits, recharge pits;

14) Rural sanitation related works such as individual household latrines, school toilet units, anganwadi toilets, solid and liquid waste management.

Thus, the thrust areas under NREGS are the development of infrastructure, agriculture and allied activities, removal of poverty, human development, afforestation, flood control and environmental protection.

1.2.6 Paradigm Shift from Wage Employment Programmes

NREGS marks a paradigm shift from earlier labour intensive wage employment programmes. The significant aspects of this paradigm shift are:

1) It provides right-based framework for wage employment. Employment depends on the job seeker exercising the choice to apply for registration, obtain a job card and seek employment for the time and duration that the job seeker wants.
2) There is a 15 day time limit for fulfilling the legal guarantee of providing wage employment.

3) The legal guarantee of providing employment in time bound manner is strengthened by the provision of unemployment allowance under NREGS.

4) Unlike the earlier wage employment programmes that were allocation based, NREGS is demand driven.

Table 1.1 sums up the basic differences between NREGS and other employment programmes introduced prior to the NREGS.

**Table 1.1 Differences between NREGS and Other Employment Schemes**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Other Employment Programmes</th>
<th>NREGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>Programme</td>
<td>Programme based on statute</td>
</tr>
<tr>
<td>Focus</td>
<td>Infrastructure</td>
<td>Employment generation and infrastructure.</td>
</tr>
<tr>
<td>Process</td>
<td>Supply driven. Works opened by implementing agencies and then labour is engaged.</td>
<td>Demand driven. Applications by job seekers for job card and employment. Then works are opened.</td>
</tr>
<tr>
<td>Labour</td>
<td>Anyone can be engaged as labour.</td>
<td>Only job card holders can be engaged as labour.</td>
</tr>
<tr>
<td>Time frame</td>
<td>None</td>
<td>Employment within 15 days of demand. Payment within 15 days of work.</td>
</tr>
<tr>
<td>Duration of employment</td>
<td>Dependent on duration of work by implementing agency</td>
<td>Legal guarantee of as many days of employment as a job card holder demand for subject to maximum 100 days in a year</td>
</tr>
<tr>
<td>Nature of works</td>
<td>Any work. No 60:40 ratio of wage-material</td>
<td>60:40 ratios of wages and material. Permissible works under NREGS.</td>
</tr>
<tr>
<td>Unemployment allowance</td>
<td>No unemployment allowance when work is not available</td>
<td>Unemployment allowance if the govt. is unable to offer job within 15 days of demand for employment.</td>
</tr>
</tbody>
</table>

Source: MoRD (2008)
Figure 1.1 Construction of Road under NREGS in Badri-Chandrapur G.P.

Source: Field Survey
1.2.7 Implementing Agencies of NREGS

The NREGS is a job guarantee programme based on the NREGA and implemented by the state govt. The main implementing agencies of the scheme as per the NREGS are:

The Gram Panchayat is the most important agency for executing works. A minimum of 50 percent of the works in terms of costs are executed by the Gram Panchayat.

The other implementing agencies are Intermediate and District Panchayats, line departments of the Government. Public Sector Undertakings of the Central and State Governments, Cooperative Societies with a majority shareholding of the Central and State Governments and reputed NGOs with a proven track record of performance. Self Help Groups (SHGs) are also considered as possible implementing agencies. (NREGA operational Guide line-2008 3rd ed.)

However, in Assam, the implementing agencies other then the Gram Panchayat are the Anchalik Panchayat (Intermediate Panchayat).

1.2.8 Poverty in India and NREGS

Poverty is the direct opposite of adequacy and sufficiency. If a person is unable to fulfill his basic day to day needs, his income is inadequate, then they are called to be poor. In general, it is argued that poverty is a multidimensional problems, not only an income one, but from the various factors. UNO has recognized poverty as a global problem and set one of the most important Millennium Development Goals (MDG) to eradicate extreme poverty and hunger from the world.
Development economics offered little direction in regard to employment strategies and the institutional aspects of implementation. In the 1980s, basic needs approach as strategies for reducing poverty was practiced – at best – parallel to growth-oriented concepts, or were even seen as competing with them (Streeten 1981). However, since the mid-1980s, it has been recognised more and widely in literature of development economics that (i) employment generation is vital to eradication of poverty and that (ii) policy action towards the objective of poverty removal takes into consideration macroeconomic relationships, microeconomic allocation of resources, technology, and a range of institutional conditions (Todaro 1989). Emphasis was given on employment in the development strategy debate, within the context of analysis of the food and agriculture sector's contribution in the development process (Mellor 1986). Many countries including India experiencing structural adjustment programme increased their employment programs for poverty reduction without much initial involvement of the international institutions i.e. the IMF and the World Bank directing the SAP. This changed only to a limited extent in the early 1990s, when the long-term potential for reducing poverty through employment programme became more widely recognised. It needs to be mentioned that wage employment programmes in general started as a relief works designed for the poor in emergency situations caused by natural disasters or economic depressions and crisis. These programmes are now recognised in the literature as a modern instrument of general development policy, as they have shown remarkable potential to reduce poverty as part of mainstream economic policy (Tinbergen 1994). That is, these programmes are recognised as an instrument that promotes planned use of surplus labour for
promoting pro-poor growth leading to sustainable development. Thus, employment is described as the most important link between economic growth and poverty reduction.

Having discussed the concept of poverty and the place of employment towards the objective of poverty reduction, we now demonstrate the potential of NREGS in poverty reduction in India which is the greatest challenge to the country today.

If poverty line of 1.25 USD determined by the World Bank is taken as a poverty line, then 455 million people are the poor in India (Himanshu, 2008). In absolute numbers this is not much lower than the figures thirty years ago, yet the proportion of the poor to the population has steadily come down from 55% in the early seventies to 28% in 2005. In 2012, the Planning Commission released new poverty line for the determination of poverty estimates in India. The new poverty line fixed Rs. 22.42 and Rs. 28.65 in rural and urban areas, respectively, as the poverty line. According to the most recent poverty line of the Planning Commission, the all-India HCR has declined by 7.3 percentage points from 37.2% in 2004-05 to 29.8% in 2009-10, with rural poverty declining by 8.0 percentage points from 41.8% to 33.8% and urban poverty declining by 4.8 percentage points from 25.7% to 20.9%. Poverty ratio in Himachal Pradesh, Madhya Pradesh, Maharashtra, Orissa, Sikkim, Tamil Nadu, Karnataka and Uttarakhand has declined by about 10 percentage points and more. In Assam, Meghalaya, Manipur, Mizoram and Nagaland, poverty in 2009-10 has increased. Some of the bigger states such as Bihar, Chhattisgarh and Uttar Pradesh have shown only marginal decline in poverty ratio, particularly in rural areas.
However India is still facing a high incidence of poverty which is a matter of concern despite the fact that poverty has reduced as per the Planning Commission as a result of policy action in the development planning of India. Even after completion of eleven five year plans, India with all its technological achievement and advancement in information technology has not been able to alleviate poverty. According to the United Nations Millennium Development Goals Report 2011, India has failed absolutely in fields of sanitation, employment, maternal mortality, child nutrition, gender equality and carbon dioxide emissions, According to the United Nations Report 2011 about 25,000 people die every day of hunger or hunger-related causes. Unfortunately, it is children who die most often. Around 852 million people, out of 6.35 billion in the world are undernourished due to extreme poverty.

The main cause of the high incidence of rural poverty is the excessive dependence on agriculture. This also affects urban poverty as most poor households in the urban areas are migrants from rural areas with stagnating farming incomes. Agriculture provides employment to around 60% of labour force in India as per 2011 census; it still contributes 14.36 percent to the country’s GDP. Average annual growth of real per capita income has increased from 3.59 per cent in 1990s to 5.48 per cent in 2000s whereas average annual growth of agriculture and allied activities has fallen from 3.35 per cent to 2.61 per cent during the same periods (Economic Survey of India, 2010-11). By 2008, per capita food grain availability has fallen to lower than that in the 1990s. Thus; low productivity is a challenge to

\[^1\] Uma Kapila (2009): Indian Economy Performance and Policies
India's agriculture today. The major reasons for low agricultural productivity in India are the dependence on nature and poor maintenance of irrigation.

Despite unprecedented growth rates of almost 9% in recent years (since 2003 onwards), the manufacturing sector has not generated enough employment opportunities to absorb the underemployed workforce and its share in total employment is still lower than 20% (Ministry of Finance, 2008). Meanwhile, the creation of new jobs in the agricultural sector has slowed down considerably, from 1.8% annually between 1983 and 1994 to 0.4% between 1994 and 2005 (Planning Commission, 2008). It may be mentioned here that in developing countries like India, along with the increasing growth rate, there are evidences of failure in regard to meet even the minimum needs of a large mass of poor people and the gross inequalities in the distribution of economic and social benefits. Unequal distribution of income and food created imbalance in the development process.

The growth models state that overall economic growth, while benefiting the rich primarily, would allow trickle down of its fruits to the poor. But this has not happened due to much stress on modern sector and non agricultural pursuits which have enhanced rural poverty in India in recent times.

As the labour force continues to raise, the earning opportunities become more acute not only for the landless, who always lacked the possibility of subsistence farming, but gets worse also for those owning land. Their available land plots reduce from generation to generation and the share of landowning farmers holding less than 1 hectare of land has risen from 56% in 1982 to 70% today (Planning Commission, 2008). As a result, landowners, in order to increase their incomes, have increasingly become the landless in seeking wage labour. Since the low-
skilled labour force is widely barred from the formal sector, this intensifies the
c ompetition for informal jobs, thereby weakening the bargaining power of job
seekers and abetting precarious employment without steady and reliable income
flows or basic labour protection (Dey, 2009).

The planning commission reported a fall in employment growth from 2.04 per
c ent during 1983-94 to 0.98 per cent during 2000-2008. Even though this was
accompanied by a deceleration in the rate of growth of the labour force from 2.29
per cent in 1987-94 to 1.03 per cent in 2003-2008, unemployment has grown since
labour force growth exceeds the growth of employment.

Poverty eradication is considered an integral component towards the objective of
sustainable development. Thus, reduction of poverty in India is vital for the
attainment of international goals. Thus, providing income earning opportunities
through wage employment like NREGS or self employment for poor women and
men like SHG-Bank Linkage Programme is vital to raising incomes and remove
poverty. The idea underlying the employment generation programmes is to tackle
the rural poverty by endowing the poor with productive assets so that they are
assured of a regular stream of employment and income in raising themselves
above the poverty line. NREGS provide job card holders with new, and often
improved, sources of income. Poor households possess few assets of their own.
Instead, the most abundant resource the poor have at their disposal is their labour
(Islam 2004, Squire 1993). The NREGS as a labour-intensive wage employment
programme has both transfer benefits and stabilisation benefits, decreasing the
risk of unemployment and consequent consumption shortfalls among the poor. In
this way, NREGS is directly linked to poverty reduction.
Figure 1.2 Promises of NREGS

Source: Swami Nathan (2010)

The figure 1.2 given above indicates how NREGS could be seen to make a dent on rural poverty in the country as a whole.

1.2.9 Linking NREGS with Agricultural Development and Climate Change

The primary objective of NREGS is poverty alleviation. Another objective is stated as creation of durable assets and strengthening the livelihood resource base of the rural poor. Thus, NREGS links two of the most burning problems India faces today: namely poverty and climate change. The linkage is stated through
environmental services which are provided by rural households when they engage in permissible works under NREGS.

Climate change is the major prime environmental issue of the world today. It is a growing problem with economic, health and safety, food production, security and other dimensions. It is defined as a change in climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (United Nations Framework Convention on Climate Change, 1992).

India is particularly concerned about climate change due to the importance of climate-sensitive sectors – namely agriculture, forestry and fisheries (Chatterjee et al. 2005) – and also because around two-thirds of the population are rural and depend on climate sensitive natural resources (National Communication on Climate Change, 2004). Agriculture including forestry and fishing contributes to 14.36 percent of India’s GDP (Source: Economic Survey, 2011-12) and sustains the livelihoods of nearly 60 percent of the population. Although, it is affecting every country, it is likely to have disproportionate impact on millions of poor rural people in India. The livelihood of the rural poor are directly dependent on environmental resources-land, water and forests, and are vulnerable to climate change. Climate change can only worsen the vulnerabilities of the rural poor. The vulnerability to climate change of the poor may worsen in terms of inadequate water availability due to a decrease in rainfall in certain areas of the country and pressure on agriculture and food security. As natural environment deteriorate due to climate change, subsistence will worsen further. Due to lack of the institutional
capacity and low income, the rural poor is incompetent to resist the impact of climate change with particular implications for women, who are often responsible for collecting environmental goods like fire wood and water and for nurturing fields.

Although, as per the World Bank estimates, agriculture and deforestation account for 26 to 35 per cent of greenhouse gas emissions, yet agriculture and forestry can also play a key role in addressing climate change. Afforestation and reforestation, soil conservation, rainwater harvesting, replenishment of the ground water through digging up of the percolator water tanks, better land management practices, agro-forestry, and better livestock management practices can all contribute significantly to mitigate climate change through reducing carbon emissions.

One way to provide livelihood security in the region facing climate change is to guarantee employment through govt. sponsored schemes. Srivastava and Sasikumar (2003) argue that in rain fed areas the scope for an employment guarantee scheme linked with the need for the building of physical and social infrastructure should be explored. The NREGS as a govt. sponsored employment guarantee scheme through its listed activities, comprising the above content, can contribute significantly towards capacity building of the rural people to resist the harmful impacts of climate change. Defined works under NREGS can significantly change the environment through rejuvenation of the natural resource base. Water conservation, land development, solid and liquid waste management, renovation of traditional water bodies, flood control and afforestation through NREGS can provide ground-water recharge services, enhanced soil fertility ,
increased biomass and can supplement income of the rural people. These in turn, can generate global benefits such as adaptation to and mitigation of climate change and biodiversity conservation.

1.2.10 The General Case for an Employment Guarantee Scheme like NREGS in India

While employment generation are increasingly recognized as being central to poverty removal, employment generation only through market-driven mechanisms is a challenge even in the era of globalization, financial and trade liberalization, technical change and economic reform. However, in addition to the effects of the recent crises on food and fuel emerging evidence suggests that some trends, if not tackled, are likely to increase the weakness of systems in India already suffering from the fuel crises and food shortage. The WEF Global Risk Report (2010) recognizes fiscal crises and unemployment, underinvestment in infrastructure and chronic disease among the pivotal areas of risk. Large levels of inequality in income also make a challenge to programmes to poverty removal.

Because there is employment guarantee programme and social security schemes in India, large social assistance programmes including a directed approach to employment generation and improvement in the conditions to sustain the livelihoods of the poor are attracting attention to tackle crises—which, as mentioned above, some economists consider will be increasingly regular—and to make the process and outcomes of growth more inclusive.

There is strong reason to support a transition toward a more comprehensive, long-term approach to public employment guarantee programmes like NREGS to
strengthen govt. capacities to implement programmes. Experience from developing countries as mentioned in the introduction suggests that an appropriate framework in this regard is one where the govt. not only establishes a longer-term development planning framework, but also takes on the role of an 'Employer of Last Resort' (ELR).

Further, although the case for the govt. to take employment programme has been made mostly for industrial countries like U.S.A. and the U.K. in times of economic crises, there are now arguments that employment guarantee programme would in fact have a much stronger effect on the low-income, 'labour surplus' economy of India where the poor could facilitate to alleviate lack of infrastructure, goods and services through work. Mitchell and Wray (1998, 2005) proposed using the analogy of a buffer stock to understand the role played by the govt. when it acts as an ELR and guarantees a job to everyone willing and able to work at a given wage. Economic theory states that during periods of economic growth, the private sector will hire people from the sector of unemployed at a higher wage. During downturns, though, the government can enforce the minimum wage by maintaining the buffer stock and therefore raising the wage currently being earned by the working poor in the informal sector. In this way, it can provide a floor for securing a minimum standard of living even as it helps to maintain overall wage and price stability.

While there is a strong case for supporting direct employment creation as the National Rural Employment Guarantee Scheme (NREGS) in India expresses, employment guarantee can have powerful ramifications for financing frameworks, for accountability mechanisms and participatory engagement, as well as for
longer-term planning and capacity development necessary for the implementation of an EG approach (Sharma, 2010).

Thus, the NREGS has implications for sustainable livelihood and well-developed rural infrastructure in the agriculture dominated, labour surplus economy of India. The scheme has multi-faceted economic, social and regional benefits to India as under-

1) **Economic Advantages of NREGS**

   (i) NREGS can have a relatively quick impact on unemployment, especially in lean season and poverty in rural areas. Since NREGS reduces 'involuntary seasonal unemployment' and out migration it can be called as an achievement.

   (ii) It is social protection potentially enhancing the political and social acceptability of the plan and the identification of problems for further interventions.

   (iii) Since poverty is multidimensional, the employment guarantee programme can help to identify other problems at the household level under the disguise of unemployment and poverty and it can support in the design of complementary programmes.

   (iv) It can integrate socially excluded groups like SC, ST, and Women etc. on more equal terms. Setting provisions for inclusion of socially excluded groups in the projects, the programme is superior to other types of social programmes.
(v) It can contribute to solving poverty at the household level through the income earned as well as through the provision of assets that beneficiaries can both create and access.

2) Social Advantages

(i) NREGS promotes human capital at the individual, local, and national levels. The longer the period of unemployment, the lower the chances of a low skilled unemployed individual finding employment. Their participation into NREGS ‘that involves unskilled manual work is an efficient way of avoiding the deterioration of human capital.

(ii) It involves beneficiaries in plans and projects. The beneficiaries of the programme, some of them who have been unemployed for the lean period due to scarcity of other employment opportunities, can be involved in the development of plans designed at the grassroots level, which helps to re-establish social links and networks that are weakened by unemployment and exclusion.

3) Local, Regional and Countrywide Advantages of NREGS

(i) NREGS is a counter cyclical policy that can help reduce the negative impact of the business cycle, as well as other effects like climatic problems, external shocks, etc. at the local level.

(ii) It improves local infrastructure—rural connectivity, irrigation, sanitation etc. and services for the poor- irrigation facilities for beneficiary farmers can help to encourage agricultural production.
(iii) It generates multiplier and accelerator effects for local development.

By enhancing demand at the local level, it can help recover local activities. It can interact with the productive sectors to create stable, good employment and foster the development of productive infrastructure.

(iv) Large scale employment programme like NREGS and social programmes can also act as stabilisers at the macro level.

1.2.11 Rationale of Employment Guarantee Programmes like NREGS

A majority of the working population in rural areas of India depend mainly on the wages they earn through unskilled, casual, manual labour. They are often on minimum levels of subsistence, and are vulnerable to the possibility of sinking from transient to chronic poverty. Inadequate labour demand or unpredictable crises that may be general in nature, like natural disaster or personal like ill-health, all adversely impact their employment opportunities.

In the context of poverty & unemployment, NREGS has been designed and implemented in India since 2006. The labour intensive employment guarantee programme typically provides unskilled manual workers with short-term employment on public works such as, irrigation infrastructure, reforestation, soil conservation, road construction etc.

The rationale for NREGS rests on some basic considerations. First, the programme provides income to poor households during lean season when other employment opportunities are scarce and also facilitate consumption and asset acquisition. In India with high unemployment rates, transfer benefits from
employment guarantee programmes like NREGS can prevent poverty from worsening, particularly during lean season. Durable assets that the programme may create have the potential to generate second-round employment benefits as needed infrastructure is developed.

1.3 STATEMENT OF THE PROBLEM

India has a long history of practising employment generation schemes mainly designed to alleviate poverty which has been one of the objectives of the country’s long term development planning since independence. The rationale of such schemes is that they (the employment generation schemes) enhance the welfare of the people who participate in the schemes.

However, the welfare enhancing schemes as practiced in India are grouped as (i) self targeting schemes and (ii) universal schemes. As far as India is concerned, the first instance of a govt. sponsored wage employment programme in the country can be traced back to 1961, when the Rural Works Program (RWP) was initiated in selected districts to provide employment to the poor in the lean season. Ever since the introduction of the first wage employment programme in 1961, a series of wage employment programmes have been practiced from time to time in India. The major programmes were, - the Crash Scheme for Rural Employment (CSRE) and Food for Work Program (FFW) in the 1970s, followed by the first all India wage employment programs viz. the National Rural Employment Programme (NREP) and the Rural Landless Labor Employment Guarantee Programme (RLEG) in the 1980s and the Jawahar Rozgar Yojana (JRY), the Employment Assurance Scheme (EAS), and the Jawahar Gram Samridhi Yojana (JGSY) which
was revamped as JRY in the 1990s. In 2001 another programme viz. Sampurna Grameen Rozgar Yojana (SGRY) was introduced by merging the ongoing programmes of EAS and JGSY. No doubt the poverty removal cum employment generation schemes strengthened the rural infrastructure base on the one hand and benefited the participants on the other in India. Reviews of these programmes, however, had shown several perpetual weaknesses: they include

1) Low programme coverage;

2) More than 50 per cent beneficiaries not from most needy group;

3) Bureaucracy dominated planning; little participation of community in planning;

4) Work to women lower than stipulated norm of 30 per cent;

5) only 16-29 days employment provided to household;

6) Assets created not durable; and

7) Corruption (ARC 2006).

Redefining the concept of public employment as legal guarantee and with realisation of the weaknesses of earlier schemes, the government of India introduced NREGS for the rural areas with an aim to reduce poverty and unemployment among the rural weak. Against this background, the NREGS appears to be a promising policy in the context of the wide spread rural poverty and growing unemployment in the rural areas through "workfare" approach. The scheme may be classified as a self-selected workfare programme and based on the available statistics it is the world’s largest self-targeting programme. It has been
hailed by Amartya Sen as, “a unique event in the pro-poor strategies in the world, as no country in the world has ever given a right (a constitutionally obligatory mandate!) of this kind to such a large section of the population” (cited in Hirway, 2007).

The Cachar district which is the area of the study is faced by various problems of development. The prime problem in Barak Valley which comprised of Cachar, Hailakandi and Karimganj in general and in Cachar district in particular is the lack of the well developed infrastructure. The inadequate infrastructural facilities discourage investment and hence growth of employment opportunities in the Barak Valley. As a result, Barak Valley is backward having large scale unemployment—both seasonal unemployment and disguised unemployment in existence. The industrial and agricultural backwardness of Barak Valley driven by inadequate infrastructure can be held responsible for large scale unemployment in the Barak Valley.

Against this background, NREGS can be a good policy to mitigate the problem of seasonal and disguised unemployment by providing 100 days of wage employment during the lean season in the Barak Valley in general and in the Cachar district in particular. However, the local newspapers reported implementation constraints in the Barak Valley. The non-availability of work under the scheme and the non-payment of unemployment allowance when work is not available are reported from some areas of the region. Thus, despite having prospect of generating employment opportunities, effective implementation appears to be a major problem as far as NREGS and livelihood security are
concerned in the district. Keeping in view the importance of NREGS as a generator of livelihood security during the non-availability of works in the rural areas, the present study mainly investigates into the impact assessment of NREGS based on job card holders and the problem of implementation of the scheme in Cachar.

1.4 PROFILE OF THE REGION

1.4.1 Geographical Features

1.4.1.1 Location and Boundary

The district of Cachar is located in the southern part of Assam and is one of the oldest districts of the state. The total area of the district is 3,786 sq. The district constitutes 4.83 percent of the total geographical area of Assam. The district is located in the latitude 92° 24' N and 93° 15' E and longitudes 24° 24' N and 25° 8' N. It is bounded on the north by Barail and Jayantia Hill ranges, on the south by the state of Mizoram, on the west by sister districts Hailakandi and Karimganj. In the east, the district is bounded by Manipur.

1.4.1.2 Physiography

Cachar has an undulating topography characterised by hills, hillocks (tillah), wide plains and low lying water logged areas locally known as beels. The topography of the district varies from small hillocks to plain areas and low lying areas as beels, etc. Crops cannot be grown in more than 20 percent of geographical areas of the district during April to September due to water stagnation. On the other hand due to lack of rain from November to April, most of the cultivable land remains fallow during the period.
1.4.1.3 Climate

The climate of Cachar is subtropical, warm and humid. The region owes high rainfall mainly to south-west monsoon which usually operates for a longer spell in North Eastern Region compared to other parts of India. The monsoon rain normally starts from early June and continued to October. Even pre-monsoon heavy showers in late March and April are not uncommon. During the summer months, temperature generally varies between $25^\circ$ and $40^\circ$ Celsius while during the winter season the temperature ranges between $10^\circ$ and $25^\circ$ Celsius. The humidity remains high throughout the year with minor recess during the months of March and April. The relative humidity varies from 58 percent to 91 percent.

1.4.1.4 Land and Soil

Total geographical area of the district (in hectares) is 377610. As per land utilisation statistics of the district, net shown area is 125000 ha which about 33.10% of the total geographical area is. About 1,43,270 hectares are under fallow land and 41,701 hectares are under barren land. The soils of Cachar district originated from Shillong plateau and other surrounding hills to a large extent and the river Barak has also contribution to it. The soils are formed from the sedimentary rocks like sand stone, shale and sandy shale. The major soil types prevailing in the district are old reverine alluvium, old mountain alluvium, non-laterised red soil, laterised red soil and peat soil. The soil is highly porous and therefore, lacks moisture retention capacity and is susceptible to erosion.
1.4.1.5 River System

The main river of the Barak Valley Zone of Assam is the river Barak which flows in an east-west direction in the valley originating from Naga and Manipur hill range through the central Cachar and the northern most part of Hailakandi and Karimganj districts.

The river Barak branches into the Surma and the Kushiyara near Bhanga of Karmijanj district while the Surma enters into Bangladesh, the Kushiyara flows along the northern boundary of the Karimganj district. The two rivers demarcate the indo-Bangladesh border up to their points of entry into Bangladesh.

The river Barak has its tributaries from both north and south. Jiri, a right bank tributary of the river originating from Manipur joins Barak at the eastern border. The other right bank tributaries namely Chiri, Madhura and Jatinga originating from the hills of North Cachar flow towards South while the left bank tributaries of the Barak namely, Sonai and Ghagra originating from the hills of Mizoram flow northwards into the Barak in Cachar district. The other left bank tributaries--Katakhal and Dhaleswari originating from the hills of Mizoram flow northwards into the Barak in Hailakandi district.

1.4.1.6 Agro Climate Situation

Among the 15 agro-climatic regions of the country, categorised/identified on the basis of homogeneity in agro-characteristics, Cachar falls in the Barak Valley zone. This zone comprises 8.9% of the state area and 11.7% of the state population. The agro climatic conditions of the district are conducive for various agricultural activities. The agro-climatic condition of the district is congenial for
development of many of the plantation crops viz., tea, rubber, cashew, coffee, areca nut, coconut and also aromatic plant like Patchouli. Apart from the tea gardens located at the hill slopes, the entire zone is growing rice as major crops occupying about 93% of the net crop area. The climate is subtropical, warm & humid during the summer (July / August) and the lowest temperature is generally recorded during December- January. The Humidity ranges from 65-70%, during winter to 85-90% during rainy season. Maximum rainfall is observed from May to August.

**Fig.1.3 Map of Cachar District of Assam**

Source: www.mapsofindia.com
1.4.2 Administrative Division

Administratively the district is now divided into two subdivisions viz. Silchar (Sadar) and Lakhipur. The district head quarter of Cachar is Silchar. There are five revenue circles and fifteen community development blocks (CD) in the district.

Table 1.2 Revenue Circles and Blocks in Cachar district

<table>
<thead>
<tr>
<th>Name of Revenue Circles</th>
<th>Name of Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Katigora</td>
<td>Katigora</td>
</tr>
<tr>
<td></td>
<td>Borikhola</td>
</tr>
<tr>
<td></td>
<td>Kalain</td>
</tr>
<tr>
<td></td>
<td>Salchakra</td>
</tr>
<tr>
<td>Silchar</td>
<td>Salchakra</td>
</tr>
<tr>
<td></td>
<td>Borikhola</td>
</tr>
<tr>
<td></td>
<td>Silchar</td>
</tr>
<tr>
<td></td>
<td>Udharbond</td>
</tr>
<tr>
<td></td>
<td>Tapang</td>
</tr>
<tr>
<td></td>
<td>Sonai</td>
</tr>
<tr>
<td></td>
<td>Borjalenga</td>
</tr>
<tr>
<td></td>
<td>Narsingpur</td>
</tr>
<tr>
<td>Udharbond</td>
<td>Udharbond</td>
</tr>
<tr>
<td>Sonai</td>
<td>Silchar</td>
</tr>
<tr>
<td></td>
<td>Sonai</td>
</tr>
<tr>
<td></td>
<td>Narsingpur</td>
</tr>
<tr>
<td></td>
<td>Palonghat</td>
</tr>
<tr>
<td></td>
<td>Banskandi</td>
</tr>
<tr>
<td></td>
<td>Binnakandi</td>
</tr>
<tr>
<td>Lakhipur</td>
<td>Banskandi</td>
</tr>
<tr>
<td></td>
<td>Rajabazar</td>
</tr>
<tr>
<td></td>
<td>Lakhipur</td>
</tr>
<tr>
<td></td>
<td>Binnakandi</td>
</tr>
</tbody>
</table>

Source: www.icssr.org/cachar

1.4.3 Demographic Features

1.4.3.1 Growth in Population

Population of Cachar as per 2001 census was 14,41,921 which stood at , 17,36,319 in 2011 of which male and female were 8,86,616 and 8,49,703
respectively. There was change of 20.17 percent in the population compared to population as per 2001. In the previous census of India 2001, Cachar District recorded increase of 18.89 percent to its population compared to 1991. Cachar District population constituted 5.57 percent of total Assam population in 2011.

1.4.3.2 Density, Sex Ratio and Literacy Rate

The data suggest a density of 459 in 2011 compared to 394 of 2001. Average literacy rate of Cachar in 2011 were 80.36 compared to 67.82 percent of 2001. If things are looked out at gender wise, male and female literacy were 85.85 percent and 74.62 percent respectively. For 2001 census, same figures stood at 75.73 percent and 59.41 percent in Cachar District. Total literate in Cachar District were 1,196,892 of which male and female were 652,827 and 544,065 respectively. With regards to Sex Ratio in Cachar, it stood at 958 per 1000 male compared to 2001 census figure of 945. The average national sex ratio in India is 940 as per latest reports of Census 2011 Directorate.

1.4.4 Education

The educational attainment status in the district as per the Seventh All-India Educational Survey, 2007, shows that of the total enrolled students in the Classes I-V, proportion of girl students is 47 percent. The data on GER in the district reveals that rural enrolment ratios are higher than the urban areas. However, the enrolment ratios for girls at the upper primary stages are higher than that of the boys particularly in the urban areas.
1.4.5 Health

The infant mortality rate in the district which stands at 97 per thousand live births and is higher than the State average of 92 per while crude birth rate (per 1000) was 32.61 in the district. The availability of beds in hospitals of Cachar (per 15000 population) was 6.93 in 2003 (Assam Human Development Report, 2003).

1.4.6 Natural Resources

The types of land available in the district are classified as: medium land- 69048 hectares, high land-11642 hectares, low land-19512 hectares, very low land-10792 hectares and beel area –4735 hectares.

The district has a total forest cover of 2225 sq.km area which is 58.77 percent of its total geographical area as per the estimates of Forest Survey of India. The dense forest cover in the district is 45 percent while 55 percent of the forest cover is under open forest.

1.4.7 Animal resources

Animal keeping is one of the major components in the existing farming system of Cachar district. Agro-climatic situation is suitable for rearing of cows, buffaloes, sheep, goats, pig, duck and poultry. Cattle have been reared in almost all the rural household, especially for milk and draft purpose. Production of organic fertilizer in terms of cow dung, animal litter is also another principal reason for rearing livestock. Rearing of goats and sheep are preferred by some rural marginal farmers living in high land and tillah land. Poultry keeping in the backward marginal and landless farmers is always considered highly profitable. Commercial broiler farming has gained a new momentum among the unemployed entrepreneur
because of its early return and huge marketing potential. Pig rearing plays an important role due to its market potential of pork mostly among the tribal.

1.4.8 Human Development

Human development index (HDI) in Cachar was 0.402 in 2003. This indicates that the district is lagging behind human development. However, the district ranked 8 in HDI, 2003 among the 27 districts of Assam. The dismal picture towards human development in the district is also reflected in the Gender Related Development Index (GDI), 2003 of the district which was almost identical to the district's HDI (0.409). This indicates gender inequality in the district with a GDI rank of 14 in Assam in 2003 (Assam Human Development Report, 2003).

1.4.9 Economy

1.4.9.1 Agriculture

The economy of Cachar district is basically agrarian in nature with about 80 percent of the population dependent on agriculture. Paddy is the major crop. Other important crops include oil seeds, pulses, cash crop like jute, vegetables etc. The agro climatic conditions of the district are conducive for various agricultural activities. Agriculture in the district is characterized by over dependence on rainfall, predominance of seasonal crops and traditional methods of cultivation. The gross cropped area in the district is 146219 hectares while the net sown area is 115489 hectares; the cropping intensity in the district is 126 percent. The district has a total of 2, 07,119 numbers of farm families and majority of them are landless and marginal farmers. Only about two percent of the net cropped area is
revealed the following profile with regard to the agriculture of the district:

1) Average land holding size (in hectares) in 1991 was 2.09.
2) The Gini coefficient of operational holding in 1991 was 0.543.
3) Cropping intensity in 1999 was 122.
4) The per capita forest area in 1999 was as low as 0.1.

1.4.9.2 Industry

The viable industries in the district based on local resources like cane, bamboo, pineapple & other agro based and fruit processing industries have potential for
growth. The total industrial area in the district is spread across 38.68 acres of land.

1.4.9.3 Employment:

1) Work Force Participation Rate

The work force participation rate in the district is estimated to be 32.23 percent
(MoMA, GOI). The male work participation rate (49.05 percent) is higher than
female work participation rate (14.43 percent). Of the total work force 78 percent
are main workers and 22 percent are marginal workers. Of the total main workers
86 percent are males and only 14 percent are females. Proportionately more
females are engaged as marginal workers (46 percent).

The work force participation rate for rural areas was 32.33% via--a-- vis the urban
work force participation rate of 31.22% denoting slight higher work force
participation in rural areas in comparison to the urban areas of the district in 2001.
These data make an interesting implication that there is no much difference
between the rural areas and urban areas of Cachar district in terms of availability of employment opportunities.

The occupational classification of workers in the district shows that 60.33 percent of the workers are classified in other workers category. Cultivators comprise only 23.04 percent of the work force and agricultural labourers comprise 13.44 percent which shows that farm activities in the district have poor absorption capacity.

2) Sectoral Composition of Employment

Around 69% of total employment in Cachar in 1991 came from the primary sector followed by secondary sector (only 6.4%) and tertiary sector (24.2%). This indicates the dominance of the primary activities in the agriculture based economy of Cachar in providing livelihood to its population. However, the share of female workers in total employment in the district in 2001 was 20.48%.

1.4.9.4 Unemployment Scenario in the District

As per Economic Survey of Assam 2003-2004, the number of registered job seekers in the district increased from 44882 at the end of December 2001 to 63293 at the end of December 2002.

1.4.9.5 Gross District Domestic Product (GDDP)

Total GDDP of Cachar for 1997-98 at current price was Rs 117528 lakhs. Per Capita Gross District Domestic Product of the district for the same period was Rs. 8523 (Source: Statistical Hand Book of Assam 2004).
1.4.9.6 Infrastructure

1) Roads

Availability and access to infrastructure is one of the major inducing factors for economic and social growths across space and communities. The transport connectivity of the district comprises of roads, railway and air services. The total road length in the district is 951.64 km, of which only 25.65 percent is surfaced. The district has a total of 75 km of state highways besides 707 km of rural roads. The total road length of the national highways in the district is 77.14 kilometers. Three national highways viz. NH-44, NH-53 and NH-54 pass through Cachar.

The road density in the district which was 25.5 km. per sq. km area in 1996 has decreased to 23 km per sq. km. in 2006. This indicates that access and availability to good road connectivity in the district is not only low but has worsened over the years. As per the estimates of 2001 census only 39 percent of the villages have paved approach road and 37 percent of the villages have bus connectivity which indicates that 61-63 percent of the villages have no availability or access to faster modes of transportation in the district.

2) Railway and Water transport

The nearest railway station to the district headquarter of Cachar is Silchar. The Lumding Badarpur section of NF railway is the most vital link of Cachar, Mizoram and Tripura with the rest of the country. The total railway route length in the district is 201 kilometers of BG route length from Lumding to Silchar and 215 kilometers of meter gauge route length from Lumding to Silchar.
The district has no steamer service as there is no demand for the same. However ferry services are available. The district also has air connectivity and the airport is located at a distance of 30 km away from Silchar, the district headquarters.

3) Power and energy

Next to transport and communication power is the other basic infrastructure which is essential for economic growth. Of the total villages in the district 90 percent are reported to have power supply (Statistical handbook Assam, 2006) with domestic connection for lighting available in all the electrified villages. Consumption of electricity for commercial and industrial purpose is not available while only one percent of the villages have electricity connection for agricultural use. The district has a total demand of 34 mw of power of which 23 mw is available.

**Table 1.3 Cachar District at a Glance**

<table>
<thead>
<tr>
<th></th>
<th>Area in Sq. Km.</th>
<th>3,786 Sq. Km.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Longitude</td>
<td>Longitude 92 Degree 24' E and 93 Degree 15' E</td>
</tr>
<tr>
<td>3.</td>
<td>Latitude</td>
<td>24 Degree 22' N and 25 Degree 8' N</td>
</tr>
<tr>
<td>4.</td>
<td>Total Population (Census 2011)</td>
<td>17,36,319</td>
</tr>
<tr>
<td>a)</td>
<td>Total Male Population (Census 2011)</td>
<td>8,86,616</td>
</tr>
<tr>
<td>b)</td>
<td>Total Female Population (Census 2011)</td>
<td>8,49,703</td>
</tr>
<tr>
<td>c)</td>
<td>Schedule Caste (in %)(Census 2001)</td>
<td>14.70%</td>
</tr>
<tr>
<td>d)</td>
<td>Schedule Tribes (in %)(Census 2001)</td>
<td>1.36%</td>
</tr>
<tr>
<td>e)</td>
<td>Density per Sq. Km(Census 2011)</td>
<td>459 /Sq. Km</td>
</tr>
<tr>
<td>5.</td>
<td>No. of Sub Division</td>
<td>2 Nos.</td>
</tr>
<tr>
<td>6.</td>
<td>No. of Revenue Circle</td>
<td>5 Nos.</td>
</tr>
<tr>
<td>7.</td>
<td>No. of Villages (Revenue)</td>
<td>895 Nos.</td>
</tr>
<tr>
<td>8.</td>
<td>No. of Development Blocks</td>
<td>15 Nos.</td>
</tr>
</tbody>
</table>

Source: www.cachar.nic.in
1.5 RELEVANCE OF THE STUDY

The NREGS is the landmark labour intensive wage employment programme in Indian history of employment generation programmes after independence. Being a demand driver programme in nature, this scheme for the first time brings the role of the govt. as employer of the last resort within the reach of the beneficiaries themselves. Moreover, for the first time, it provides for mechanisms for penalising the govt. if it fails to provide employment within the stipulated period. Therefore, the success of NREGS is as much a hope for those civil society activists fighting for the rights for the poor as it is a critique of the developmentalist state in case it fails to deliver.

Since its inception on February 2, 2006, NREGS has completed six years of its operation in India. With these six years of implementation, there are variations in the level of implementation across states. Some states have successfully implemented the scheme whereas many other states are lagging (As per data posted on the NREGA, website,). Thus, a study of the implementation of this scheme is of great relevance. In the context of Cachar district, the NREGS has the potential to transform the rural economy but implementation of the scheme as per the prescribed norms is reportedly faced with problems in the district.

An investigation into the factors that can explain this in this particular case study would be of much academic interest and bear much relevance for poverty alleviation and employment generation in rural areas. Therefore, an assessment of NREGS in Cachar district has implications for further interventions.
Govt. data show that the performance of this scheme is impressive (www.nrega.nic.in). However, according to the experts of this scheme, the accuracy of the official figures is an open question, which calls for urgent scrutiny. In this regard, independent surveys of the scheme would be very useful. Thus, a comprehensive independent survey is relevant to find out where the money is going and what the programme is achieving.

In view of this, a study of the performance of NREGS in Cachar district--- having large scale unemployment, high density of population and other backwardness--- is of great relevance. It is also relevant on the ground that the alternative source of employment in Cachar district is very narrow as industrial development- both large, medium and small- is quite insignificant in this region.

The agricultural sector of Cachar is characterised by both disguised unemployment and seasonal unemployment due to high pressure of population on agriculture, small holdings and scarcity of employment during the lean season. As a result, there is migration of low skilled labours from one village to another, from countryside to towns within the district during the lean season and migration of youths to other states of India like Maharashtra, Karnataka and Kerala for sustainable livelihood. Thus, the NREGS with providing legal guarantee of minimum 100 days of employment in a financial year when other employment opportunities are scarce can address the issues of inter district and interstate migration in Cachar. The present study also focuses on whether the NREGS has provided employment during the lean season and hence has helped in stopping migration in Cachar.
1.6 OBJECTIVES OF THE STUDY

1) To study the socio-economic impact of NREGS in Cachar district.

2) To study the problem of implementation and administrative inefficiency in implementing the NREGS, if any.

3) To study the level of information of job card holders about the provisions of NREGS.

4) To study the aspect of out migration of labours in the context of NREGS in the district of Cachar.

5) To study the seasonal trend in NREGS employment.

1.7 HYPOTHESIS OF THE STUDY

The following hypotheses have been formulated in this particular study.

1) $H_01$: The job cardholders do not find any problem in getting the job.

2) $H_02$: Operation of this scheme has not resulted in significant change in the welfare of households in terms of calorie intake and asset acquisition.

3) $H_03$: NREGS does not help to stop out migration from the villages.

1.8 METHODOLOGY

Data Collected

The study is based on both primary and secondary data. Information relating to number of job card holders who completed less than 50 days of employment and number of job card holders who have completed 100 days of employment since its inception in Cachar (NREGS was introduced in Cachar in the financial year 2007-2008) have been collected from secondary sources. The reference period is 2007-08 to 2009-10. In this particular study, benefits of this scheme have been analysed
based on job cardholders who have completed 100 days of employment and the problems have been analysed based on job card holders who have completed less than 50 days of employment in the scheme during the reference period. Block wise details of households completing 100 days of employment between the financial years 2007-08 and 2009-10 in Cachar district have been shown in table 1.4.

Table 1.4 Block wise Details of Households completing 100 Days of Employment (2007-08 to 2009-10)

<table>
<thead>
<tr>
<th>Name of the Block</th>
<th>No. of Job Card Holders</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007-08</td>
<td>2008-09</td>
<td>2009-10</td>
<td>Total</td>
</tr>
<tr>
<td>Banskandi</td>
<td>0</td>
<td>167</td>
<td>0</td>
<td>167</td>
</tr>
<tr>
<td>Binnakandi</td>
<td>0</td>
<td>329</td>
<td>0</td>
<td>329</td>
</tr>
<tr>
<td>Borjalenga</td>
<td>20</td>
<td>404</td>
<td>146</td>
<td>570</td>
</tr>
<tr>
<td>Borkhola</td>
<td>50</td>
<td>61</td>
<td>207</td>
<td>318</td>
</tr>
<tr>
<td>Kalain</td>
<td>0</td>
<td>1562</td>
<td>2</td>
<td>1564</td>
</tr>
<tr>
<td>Katigora</td>
<td>0</td>
<td>158</td>
<td>74</td>
<td>232</td>
</tr>
<tr>
<td>Lakhipur</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Narsingpur</td>
<td>0</td>
<td>350</td>
<td>86</td>
<td>436</td>
</tr>
<tr>
<td>Palonghat</td>
<td>0</td>
<td>76</td>
<td>2</td>
<td>78</td>
</tr>
<tr>
<td>Rajabazar</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Salchakra</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Silchar</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Sonai</td>
<td>0</td>
<td>478</td>
<td>13</td>
<td>491</td>
</tr>
<tr>
<td>Tapang</td>
<td>0</td>
<td>371</td>
<td>71</td>
<td>442</td>
</tr>
<tr>
<td>Udharbong</td>
<td>0</td>
<td>35</td>
<td>140</td>
<td>175</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>3991</td>
<td>751</td>
<td>4812</td>
</tr>
</tbody>
</table>

Source: MIS, Silchar

**Sampling Design**

The study covered 5% of the job-card holders who have completed 100 days of employment between 2007-08 and 2009-10. Thus, Sample size for this group in
the study is 240 (table-1.5). In order to know the impact of the scheme on welfare of the job card holders getting 100 days of work and information relating to problems faced by job card holders in getting jobs under the NREGS, another 80 households (3 from Banskandi, 5 from Binnakandi, 9 from Borjalenga, 5 from Borkhola, 26 from Kalain, 4 from Katigora, 7 from Narsingpur, 1 from Palonghat, 8 from Sonai, 8 from Tapang and 3 from Udharbond) completing less than 50 days of employment (control group) were selected randomly taking 3:1 as the ratio of 100 days completing households to non-100 days completing households in the samples of each of the blocks surveyed.

Table 1.5 Sample Size for Households Completing 100 Days of Employment (2007-08 to 2009-10)

<table>
<thead>
<tr>
<th>Name of the Block</th>
<th>Sample Size (based on 5% of total population)</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banskandi</td>
<td></td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Binnakandi</td>
<td></td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Borjalenga</td>
<td></td>
<td>1</td>
<td>20</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Borkhola</td>
<td></td>
<td>3</td>
<td>3</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Kalain</td>
<td></td>
<td>0</td>
<td>78</td>
<td>0</td>
<td>78</td>
</tr>
<tr>
<td>Katigora</td>
<td></td>
<td>0</td>
<td>8</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Lakhipur</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Narsingpur</td>
<td></td>
<td>0</td>
<td>18</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>Palonghat</td>
<td></td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Rajabazar</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Salchapra</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Silchar</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sonai</td>
<td></td>
<td>0</td>
<td>24</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>Tapang</td>
<td></td>
<td>0</td>
<td>19</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>Udharbond</td>
<td></td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>4</td>
<td>200</td>
<td>37</td>
<td>241</td>
</tr>
</tbody>
</table>
Methods and Tools

Given the survey questions, data availability, cost, time constraints, and district circumstances, this study uses some combination of appropriate methodologies, both quantitative and qualitative. The study makes estimation of the economic impact of the scheme on the households by comparing change in calorie intake and asset acquisition of the households completing 100 days of employment with that of the less than 50 days completing households. In doing so, the outcomes selected for evaluating NREGS impact in Cachar district are household calorie intake and asset acquisition. In order to estimate change in calorie intake, daily quantity of consumption of the essential commodities - rice, dal, potatoes, vegetables, spinach, fish etc. were collected from both the treatment group (households completing 100 days) and the control group (completing less than 50 days of employment) by applying recall method. This apart, each household’s score in asset acquisition has been estimated based on the information of assets acquired after completing 100 days of works under NREGS. The maximum score in this regard is 5 (Bicycle, radio, television, fan, and mobile phone are the assets on which points in each household has been awarded). Each household has been awarded 1 for acquiring each asset and 0 otherwise. Then, Change in the household calorie intake of the treatment group and control group before and after the NREGS have been measured by the difference method

\[ d = X - Y \]  

(1)

Where

\( X \) = Household Calorie Intake after the NREGS

\( Y \) = Household Calorie Intake before the NREGS

\( d \) = Change in Household Calorie Intake
Regression Models

The study analyses socio-economic impact of NREGS on rural households participating in the scheme in Cachar district. In doing so, it makes comparison of household welfare between 100 days completing and less than 50 days completing households in terms of calorie and asset acquisition. Household welfare is defined as a household’s command over market and non-market goods and services at the household level (Ravallion 1996). Existing literature involves the household welfare as either a direct measure of household income or of consumption (Datt and Jolliffe 1999, Glewwe 1991), a binary dependent variable indicating a household’s position above or below a poverty line (Grootaert 1997), or some other measure of welfare such as the poverty gap (Appleton 2001).

In this study we have taken calorie and asset acquisition as measures of household welfare in order to capture welfare effect of the scheme in Cachar district. The reason behind taking calorie and asset acquisition as measures of household welfare is that calorie intake and asset acquisition are smoothed over time. In other words, calorie intake and asset acquisition are directly related to welfare. In order to measure the welfare impact of NREGS, we applied multiple regressions in advanced statistical packages like SPSS 17 and STATA 11. In this regard, we tested the following hypotheses:-

- $H_02$: Operation of this scheme has not resulted in significant change in the welfare of households in terms of calorie intake and asset acquisition.

- $H_03$: NREGS does not help to stop out migration from the villages.
The regression analysis made in this study are based on field survey of 320 households conducted in Cachar district of which 240 are randomly selected 100 days completing households of NREGS and the remaining are randomly selected households completing less than 50 days of employment of NREGS.

In order to measure the impact of NREGS in terms of calorie intake on welfare of households, we formulated linear regression models for households completing 100 days of employment and households completing less than 50 days of employment separately as specified below (regression results and discussion are given in chapter III):

**Model 1**

\[ Y_i = \alpha_i + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \epsilon_i \]

\[ i=1,2,3,\ldots,240 \text{ as we covered 240 households completing 100 days of employment } \]

Where, \( Y \) is the change in per capita calorie intake of NREGS households completing 100 days of employment; \( X_1 \) is the change in per capita income; \( X_2 \) is the change in household size; \( X_3 \) is the change in education; \( X_4 \) is the change in out migration; \( X_5 \) is the change in loan and \( \epsilon_i \) is the random error term. \( \alpha, \beta_1, \beta_2, \beta_3, \beta_4 \& \beta_5 \) are regression coefficients.

**Model 2**

\[ Y_j = \alpha_j + \beta_1 X_{1j} + \beta_2 X_{2j} + \beta_3 X_{3j} + \beta_4 X_{4j} + \beta_5 X_{5j} + \epsilon_j \]

\[ j=1,2,3,\ldots,80 \text{ as we covered 80 households completing less than 50 days of employment } \]

.................(3)
Where, \( Y \) is the change in per capita calorie intake of NREGS households completing less than 50 days of employment, and other notations used here indicate same meaning as mentioned above in equation (2) for 100 days completing households.

Likewise, we ran regressions taking household asset score as dependent variable in measuring the effect of NREGS in terms of asset acquisition. The models estimated are:

**Model 3**

\[
Y_i = \alpha_i + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \varepsilon_i \\
\text{i=1,2,3,……..240} \quad \text{............... (4)}
\]

Where, \( Y_i \) is the change in asset acquisition score of NREGS households completing 100 days of employment; and other notations indicate same meaning as mentioned above in equation (2).

**Model 4**

\[
Y_j = \alpha_j + \beta_1 X_{1j} + \beta_2 X_{2j} + \beta_3 X_{3j} + \beta_4 X_{4j} + \beta_5 X_{5j} + \varepsilon_j \\
\text{j=1,2,3,……..80} \quad \text{............... (5)}
\]

Where, \( Y_j \) is the change in asset acquisition score of NREGS households completing less than 50 days of employment; and other notations indicate same meaning as mentioned above in equation (2).

Apart from the regression models as specified above, we use composite index for measuring the extent of the effect of NREGS on household welfare. Here unobserved component model is used to determine the weights (Kaufmann, Kraay
and Zoido-Lobaton, 1999) that are be associated with the two welfare indicators viz. calorie intake and asset acquisition. Using this method, the weight \( w_i \) corresponding to change in per capita calorie intake (\( i=1 \)) and change in asset acquisition (\( i=2 \)) is given by

\[
w_1 = \frac{\text{varpci}^{-1}}{1 + \text{varpci}^{-1} + \text{vara}^{-1}} \quad \text{(6)} \quad \text{and} \quad w_2 = \frac{\text{vara}^{-1}}{1 + \text{varpci}^{-1} + \text{vara}^{-1}} \quad \text{(7)}
\]

The weight is a decreasing function of the variance of the indicators. Thus, the indicators with less precision (more variance) lower will be the weight assigned to the indicator (Nardo et al, 2005).

The formula for composite index is given by

\[
CI_i = w_1 x_i + w_2 y_i \quad \text{(8)} \quad \text{for} \quad i=1, 2, \ldots, 240 \quad \text{and}
\]

\[
CI_j = w_1 X_j + w_2 Y_j \quad \text{(9)} \quad \text{for} \quad j=1, 2, \ldots, 80
\]

Where, CI is the composite index; \( x \) is the per capita calorie intake and \( y \) is the asset acquisition score.

In order to make more insight into the welfare aspect of NREGS, We applied regression taking the composite index as dependent variable and per capita income, family size, education, migration and loan as regressors. The models estimated are:

**Model 5**

\[
CI_i = \alpha_i + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \beta_4 X_{i4} + \beta_5 X_{i5} + \epsilon_i \quad \text{for} \quad i=1, 2, \ldots, 240 \quad \text{(10)}
\]
Chapter I

CI$_i$ is the composite index for households completing 100 days of employment and other notations indicate same meaning as mentioned above in equation (2).

**Model 6**

\[ CI_j = \alpha_i + \beta_1 X_{ij} + \beta_2 X_{2ij} + \beta_3 X_{3ij} + \beta_4 X_{4ij} + \beta_5 X_{5ij} + \varepsilon_i \]
\[ j=1, 2, \ldots, 80 \] .......................... (11)

CI$_j$ is the composite index for households completing less than 50 days of employment and other notations indicate same meaning as mentioned above in equation (2).

However, one of the objectives of NREGS is to reduce migration by providing livelihood safety net to the rural poor during the lean season. The scheme is treated as an initiative to reduce migration. The Cachar district finds migration of workers from village to village and from its countryside to Silchar city. Most of these migrants are daily workers or rickshaw pullers. We used Logit regression of change in out migration as dependent variable (response variable) and change in per capita income and proportion of employed household members in NREGS out of total household employed members for households completing 100 days of employment in order to test whether the scheme is helpful in stopping out migration.

**Model 7**

The Logit model specified in this study in order to analyse household’s decision about whether or not to migrate after NREGS is expressed as

\[ L_i = \ln \left( \frac{P_i}{1-P_i} \right) = \alpha_i + \beta_1 X_{1i} + \beta_2 X_{2i} + \varepsilon_i \]
\[ i=1, 2, \ldots, 240 \] .......................... (12)
Where \( L \) is the logit --- the log of the odds ratio \( \left( \frac{P_i}{1-P_i} \right) \) for migration; \( P_i \) is the probability for migration that \( y=1 \), \( X_1 \) is the change in per capita income; \( X_2 \) is the proportion of employed family members in NREGS out of total employed in the household, \( \beta_1 \) and \( \beta_2 \) are slope coefficients, \( \alpha \) is the intercept term and \( \epsilon_i \) is the random error term.

In logit regression model of migration as specified above, each \( \beta \) value in the model shows partial slope coefficients and measures the change in the value of the explanatory variables i.e. \( \beta_1 \) and \( \beta_2 \) measures the change in the Logit due to change \( X_1 \) and \( X_2 \) respectively.

The calorie intake has been calculated based on household daily consumption of commodities like rice, dal, potatoes, vegetables, fish, milk and meat. We applied the recall method to quantify daily consumption of these commodities. Then based on the Standard Indian Calorie Chart, the calorie intake has been calculated by multiplying calorie per 100 gram of each of the commodities with quantity consumed. Besides, per capita calorie intake, we take asset acquisition as outcome variable in measuring the effect of NREGS on household welfare. Asset acquisition is defined as net addition to assets like radio, bicycle, fan, television and mobile phone after NREGS. We assign 1 for possessing each asset selected and 0 for not possessing before and after NREGS. Based on household asset acquisition before and after NREGS, We derived the net addition in asset acquisition for each household. Based on information relating to income and household size before and after NREGS, we worked out change in per capita income and change in household size of each household interviewed. Education
level of each household has been evaluated in terms of values assigned for various levels of education—0 for illiterate household member; 1 for below 5th standard; 2 for 5th to 8th standard; 3 for 8th to 10 standard; 4 for H.S. and 5 for graduation. Then we take the highest score assigned for education in each household before and after NREGS in order to estimate the change in education. Change in out migration has been worked out with value 1 for migration of any adult member and 0 if no member of the household migrated before and after NREGS. Change in loan represents change in the amount of loan outstanding after NREGS.

The first null hypothesis has been tested on the basis of tabular analysis. Based on the OLS estimates, our second null hypothesis that operation of this scheme has not resulted in significant change in the welfare of households in terms of calorie intake and asset acquisition has been tested. And based on the Logit regression of out migration, the third null hypothesis has been tested.