Review of Literature

From labour market outcomes to environmental benefits, the effects of MGNREGA extend much farther; and the studies conducted on it, mostly cover more than one aspect at a time. Thus, it is of great importance to outline the criteria of studies selected for review, in the present context. In this chapter, some crucial research papers and articles are discussed that helped for the better understanding of impact of the scheme on concerned issues. The reviews are divided under three heads; impact on poverty, food security and employment generation, female workforce participation, and targeting errors in the scheme implementation.

There are studies that evaluated impact of the scheme during the initial years of its implementation (Bhatia & Drèze, 2006; Drèze & Oldiges, 2007; Mehrotra, 2008; Drèze & Oldiges, 2009), basically analysing the issues regarding its performance and untapped potential. After the release of NSSO data in year 2009-10, there was data available on pre and post scheme implementation, which was based on nationally representative household survey. So, the studies empirically verified the effect of scheme participation on poverty levels, food security and consumption patterns (Klonner & Oldiges, 2012; Imbert & Papp, 2012; Lagrange & Ravallion, 2012; Kumar & Joshi, 2013; Zimmerman, 2013). Some studies based on micro surveys while several on large but regional surveys, took place after the implementation of the scheme to understand its working and its poverty implications by gathering information on the perspective of MGNREGA workers (Bhatia & Drèze, 2006; Banerjee & Saha, 2010; Drèze & Khera, 2011; Kumar & Murthi, 2011; Jha et al., 2011; Harish et al., 2011; Ahuja et al., 2011; Ravi & Engler, 2013; Deininger & Liu, 2013; Esteves et al., 2013; Kareemulla, 2013; Murgai et al., 2013; Melkamu & Bannor, 2015; Dhanya, 2016; Reddy et al., 2016; Breitkreuz et al., 2017; Merfeld, 2017).
Although the female participation in scheme have been much higher than the one-third threshold mandated in the Act, there have been wide discrepancies among the state-wise performances regarding this particular indicator. There are few studies using NSSO employment unemployment surveys to analyse female participation in MGNREGA works (Azam, 2012; Narayanan & Das, 2014; Dhanya, 2016) and many focused surveys to understand the issues that women face while working under the scheme as well as its importance to them (Khera & Nayak, 2009; Jandu, 2009; Pankaj & Tankha, 2010; Bhattacharyya & Vauquiline, 2013; Narayanan & Das, 2014; Borah & Bordoloi, 2014; Breitkreuz et al., 2017; Bhattacharyya, 2017).

It is of great significance to evaluate whether the scheme is reaching out the poor, in other words, the targeting efficiency of the scheme. The studies analysing targeting efficiency are based on mainly household surveys, namely NSSO and IHDS that evaluate the extent to which the poor has received benefits from the scheme (Dutta et al., 2012; Liu & Barrett, 2012; CAG, 2013; Niehaus & Sukhtankar, 2013; Bhalla, 2016; Economic Survey, 2017; Bhattacharjee, 2017).

To frame objectives and concerned hypotheses, some significant studies are reviewed in the next sections. The research papers and articles that have analysed the issues of poverty, food security, consumption expenditure pattern of participants, female participation and targeting errors in the MGNREGA are discussed below.

2.1 Poverty alleviation and employment generation

In the initial years after implementation of MGNREGA, the studies conducted were based on official data. The analysis on poverty alleviation, particularly, was not possible with the data available at that time because of lack of unit level data on income and consumption expenditure. Also, there had been a dearth of representative surveys evaluating scheme performance during the time period. It was only after the release of 66th round of NSSO data (2009-10) that filled this gap to a huge extent and the schedule of NSSO employment unemployment survey of that year also had some questions on MGNREGA employment. Further, several large and small surveys at national as well as regional level, were conducted, eventually (Khera, 2011). Thus, the empirical studies
analysing impact of MGNREGA on poverty alleviation took place after a gap from the scheme implementation. However, the studies that evaluated performance of the scheme pertain to the immediate years after its roll out using the official data. Some studies have attempted to verify the authenticity of official data and found the data to be overstatement of the facts, as their comparison with household surveys indicated (Himanshu, 2010; Imbert & Papp, 2011; Bhalla, 2011). Some of the empirical studies evaluating the employment and poverty implications of the scheme are as follows.

In one of the first attempts to analyse performance of MGNREGA, Bhatia and Drèze (2006) had found severe regional disparities using primary survey. The study reported the findings of a survey of two districts of Jharkhand, namely Palamu and Latehar conducted in the year 2006. It included the visits to worksites and household surveys. It found that there was lack of awareness among the villagers about the scheme and therefore work demand was not in place. Instead of having a job card, the villagers did not apply for work because of unawareness regarding the job application requirement.

Drèze and Oldiges (2007) analysed the official data regarding performance of the scheme for its very first year, i.e. financial year 2006-07. Since it was the first phase of implementation that covered 200 districts, the study observed huge differences in state-wise performances regarding average number of person days generated as well as proportion of women participation. They found that the eastern and northern states had performed better considering the first indicator that too because of being the early recipients of the scheme. In an extension to their work, in another article Drèze and Oldiges (2009) have presented a comparison of performance of MGNREGA in years 2006-07 and 2007-08. It did not notice much change in the indicators, namely per household workdays generation, women participation and per district expenditure. However, in both of the studies, the authors have been dubious regarding the authenticity of the official data, particularly of some indicators such as number of workdays demanded and provided under the scheme. They suggested that an independent survey for scrutiny of the functioning of MGNREGA is required.

In another review of MGNREGA performance using official data, Mehrotra (2008) found that the average number of workdays generated under the scheme was as low as 43
days a household and suggested that lack of awareness regarding the scheme is one of the main reasons of low employment generation. In addition of it, the performance of states was largely different regarding the number of days generated per household. Also, the study found self-targeting mechanism of the scheme to work well. Out of total poor in the population, 80 percent were SC/STs or OBCs indicating their financial vulnerability. However, among the households participated in MGNREGA, 27 percent were SC households and 32 percent were STs showing its importance to the rural poor.

The scheme eradicates poverty with the ‘self-targeted’ and ‘demand driven’ mechanism. Several studies have used consumption expenditure and income of the scheme participants to evaluate the effect of the scheme on poverty levels. Banerjee and Saha (2010) found in a survey conducted in Chhattisgarh, Jharkhand and Odisha; most sample households reported that had MGNREGA not been implemented in the study areas, most of the households would not have had the capacity to purchase enough food grains. The study was based on field survey of the states of Chhattisgarh, Jharkhand and Odisha, which were identified as the most underdeveloped states on every indicator of development. The districts selected for survey were among the 200 districts covered in the first phase implementation of the scheme and were also influenced by ‘Maoists’. The study reported an increase in overall employment and wage rates, and consequent increase in household income. Compared to 2005-06, in 2008-09 i.e. after the implementation of MGNREGA, the household income increased in the surveyed districts of Chhattisgarh, Jharkhand and Odisha in the range of 16-23 percent, 60-70 percent and 30-40 percent, respectively. Most of the households reported that the income earned from the scheme was mostly used for purchase of foodgrains. Based on the survey observations, the authors have reported the impediments to the implementation of MGNREGA as lack of awareness, delayed wage payments, types of work done under the scheme, among other issues.

Drèze and Khera (2011), found in ‘NREGA survey’ covering ten districts of six states; Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh and Uttar Pradesh, that the scheme is a ‘lifeline for the rural poor’. The survey respondents were randomly selected from one thousand workers employed at one hundred randomly selected MGNREGA worksites. 69
percent of the respondents had reported that the scheme had helped them to avoid hunger and 71 percent said it was very crucial to them. Other than hunger, the authors also found reduced migration among respondents, as a result of MGNREGA work. The scheme participants were from the socio-economically disadvantaged section of the society, as 73 percent of them belonged to SC/ST caste category, 61 percent were illiterate, 81 percent lived in ‘kuccha’ houses and 72 percent had no electricity at home. The survey also found a huge demand for MGNREGA work among respondents. 98 percent of them wanted at least 100 days of work throughout the year. One of the negative outcomes of the scheme reported by survey was lack of awareness about the scheme. Except for Rajasthan, less than half of the respondents knew the provision of 100 days’ work guarantee, minimum wages and payment within 15 days; neither was the work application procedure in place at the sample districts. 71 percent of the respondents said that they did not even know if an application was required to get work under MGNREGA. In addition to this, 57 percent of the respondents in Rajasthan and 44 percent in other states did not possess a job card at the time of survey that gave ample space to make false entries into the job cards.

Kumar and Murthi (2011) found a significant difference in the overall non-food consumption expenditure especially, education, clothing, medical and health, between the participants and non-participants of MGNREGA indicating a rise in living standards of the scheme participants. The Gini coefficient of the income and consumption was almost the same in case of the participants showing vulnerability of their income to the external shocks. The study was based on the survey of 10 villages of Karnataka. The sample size was 250 out of which 201 respondents were scheme beneficiaries and 54 were non beneficiaries. The study also suggested that the variation among the households with respect to income was higher than that of consumption. 55 percent of the scheme beneficiaries in the sample accepted that the scheme had improved the food security by increasing their purchasing power and thereby access to food. The scheme participants reported that it had helped to have food security not only during the workdays but also in the form of savings, when they were unemployed. As par the suggestions to improve the functioning of MGNREGA by the scheme participants, it was indicated that the scheme could be more helpful to had food security if it guaranteed at least 100 days of
employment to every household and provided with food at the workplaces. The scheme participants also suggested that although MGNREGA had helped to increase purchasing power, it could be even more helpful if it provided wages on daily basis, ensured minimum wages and prioritise the poorest people. They were also of the view that the scheme could help arrest distress migration and indebtedness in a better way by providing higher wage rate than the prevailing market wage rate. The authors suggested that the awareness campaigns for MGNREGA could be a crucial tool to reach out the needy. They also suggested for orientation, sensitization programmes and especially panel provisions for violation of MGNREGA laws to curb corruption in the scheme.

The study by Jha, Gaiha and Pandey (2011), was based on primary household data of three Indian states: Rajasthan, Andhra Pradesh (AP) and Maharashtra examining the net income transfers from the scheme. The number of individuals interviewed for Rajasthan, AP and Maharashtra were, respectively, 2664, 2190, and 2270 during 2007-08. The study evaluated the determinants of alternative employment opportunity other than MGNREGA. The authors found gender, age, education, inequality in landholding and distance from market as important factors that determine alternative employment opportunities. They used Stochastic Dominance Comparison of log of per capita monthly expenditure of scheme participants with and without alternative employment option for all the three states. The authors estimated the net transfer benefits under MGNREGA in the form of the scheme earnings net of opportunity cost of time for the individuals. The study found the real income transfer net of opportunity cost of time under the scheme to be quite modest. The real income transfer under the scheme was the highest in Andhra Pradesh, compared to Rajasthan and Maharashtra, as 24.10 percent of villages in this state were found to have a mean real MGNREGA income of Rs. 3730.16.

Another study by Harish et al. (2011) had reported increase in income and number of work days because of MGNREGA participation. The study analysed primary data of Chikmagalur district of Karnataka. Selected sample for survey consisted of 90 MGNREGA beneficiaries and 30 farmers as non-beneficiaries, who did not participate in MGNREGA work. The survey was conducted in the year 2009-10. The study used multiple linear regression analysis and paired t-test to evaluate the impact of MGNREGA.
on employment and income. The study found that after participation in the scheme, there was a 9.04 percent increase in the income of beneficiaries. Out of this total increase in income, 63 percent attributed to agricultural income, 29 percent to non-agricultural income and 8 percent was because of MGNREGA income. It also found a 16 percent increase in the person days worked by respondents during the year. Although the study found positive effect of the scheme on both employment and income levels, it also found a decrease in labour supply for agricultural operations in the study area resulting in decreased acreage under different crops. The authors suggested confining MGNREGA work to off-seasons so that agricultural labour market adjustments are not hindered.

MGNREGA has also provided employment to the resource poor rural people. The study by Ahuja et al. (2011) revealed that MGNREGA provided 18.1 percent of the total employment of households. The study was based on primary data of 120 farm families collected from two districts of Haryana, namely Mewat and Karnal. The districts were selected in a way to see the differential impact of MGNREGA in agriculturally backward and agriculturally advanced areas. Two villages were selected from each district, where the concentration of the issued job-cards and gross cropped area was very high. Out of these four villages, 30 farm families were selected from each village such that 15 out of them had worked under MGNREGA. The study highlighted the employment differential in developed and under-developed areas. It also found that in the agriculturally backward area, participation in economic activities was more for scheme non-participants compared to participants; in the agriculturally developed area, it was just the other way round. In agriculturally backward area, the share of MGNREGA jobs in total employment was 24.6 percent while it was 13.7 percent in the developed area. With the logit model to analyse the determinants of MGNREGA participation, the authors found that farmers with small landholdings and lesser livestock resources were more likely to participate in the scheme indicating that the scheme benefits were reaching out to the poor farm families.

Klonner and Oldiges (2012), evaluating the impact of the scheme on poverty and inequality in rural areas, suggested that it had reduced the poverty gap by approximately one-fifth. The study used consumer expenditure survey data of NSSO from several rounds (61st to 64th); and similar to many other studies exploited the phase-wise roll out
of the scheme. They applied the Difference-in-Differences estimation with district level panel dataset to estimate the welfare effects of MGNREGA. It found that considering the MPCE based Headcount ratio and Poverty gap ratio, the scheme was found to make a positive impact on poverty levels. Studying the trend of food and non-food items break up of MPCE, the study found that the additional consumption induced by MGNREGA participation, increased the non-food consumption rather than on food items.

However, improvements in the agricultural wages are also accredited to the MGNREGA. **Imbert and Papp (2012)** showed that the wage gains from the scheme disproportionately accrue to the poor households. They used expenditure and employment household survey of National Sample Survey and individual level data of 2001 census. The authors used Difference-in-Differences estimation on a panel data set of district level aggregates and exploited the phase-wise roll-out of MGNREGA. They included individuals of 18 to 60 years of age with a maximum education level as secondary from 493 districts of 20 largest states of India with rural population. It attempted to evaluate impact of the scheme on employment, wages and welfare gains to the poor. The study suggested that the scheme participants get benefits of wage increase and also the direct benefits from participating in the scheme. The authors show that the increased wages because of MGNREGA gets redistributed to poorer households to richer households, where net suppliers of labour are the poorer households and net buyers of the labour are richer households. In the form of wage change, in favour of labour suppliers, the authors show that the scheme was also affecting the non-participants positively. They estimated, approximately, 4.5 percent of increase in wage rates during dry agricultural seasons after implementation of the scheme. Further, they also show that the wage rate increase comprised 20 - 60 percent of the total welfare gains from the scheme of households in the lowest three consumption quintiles.

**Lagrange and Ravallion (2012)** argued that consumption expenditure and income both are insufficient measures of poverty. The study considered disutility of work while estimating welfare levels of the poor. The authors estimated household consumption

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3 Dry/Lean agricultural season comprises to the post-harvest months, when no agricultural work is available.
expenditure adjusted for disutility of casual manual labour and called it “adjusted consumption”. To evaluate the impact of MGNREGA, they compared the “adjusted consumption” with “unadjusted consumption”, which allows for effect of disutility of work on performance of the scheme. The study used the employment survey of NSSO 66th round data and a survey data of rural areas of Bihar by World Bank. The Bihar survey had two rounds and was collected for 3,000 randomly chosen households from 150 random villages of Bihar, the poorest state by government official measures. It suggested that although the scheme reached the poorer, the scheme was less effective to increase their welfare. The authors argued that the disutility estimates devalues the scheme benefits among the poor compared to the estimates when the disutility is ignored. These disutility adjusted consumption estimates did not much effect the results for richest 30 percent households; there was a significant difference in targeting performance of the scheme for poorer households.

Ravi and Engler (2013), using a panel data for 1,064 ultra-poor rural households from 198 villages of Medak district in Andhra Pradesh for the years 2007 and 2009, estimated the effect of the scheme on poverty. They used the difference-in-differences and triple difference estimation to find out the effect of the scheme by comparing the consumption expenditure pattern of the ‘stayers households’ and the ‘denied households’. The authors define the households who demanded and received employment in both the survey rounds as ‘stayers households’ and the households who demanded but denied employment under the scheme due to shortage of available work, in either one or both of the rounds, as ‘denied households’. The results of study suggested that the scheme significantly increase the monthly per capita expenditure on food by 9.6 percentages and on non-food items by 23 percentages of the stayers households. The study also reported lesser meals forgone by the households per week indicating improvement in food security. Further, it reported that the scheme had increased the probability of savings by 21 percent and the authors suggested the reason to be provision of payment of MGNREGA wages in bank accounts. The study also reported positive effect of the scheme on physical and mental health indicators, particularly the mental health outcomes of participants had shown significant improvement because of participation in the
Another study by **Kumar and Joshi (2013)** found positive changes as an outcome of MGNREGA participation in the food consumption and nutritional security of rural poor households. The study used 66th round of NSSO unit level data pertaining to the year 2009. Considering only job cards, the authors categorised the sample households into job card holders and non-job card holders; job card holders into job seekers and non-job seekers; and job seekers into beneficiaries and non-beneficiaries. So, they considered those job card holders as beneficiaries, who actually seek work and these households constituted only one third (32.1 percent) of the all India sample. Further, they divided the sub-sample of households into groups on the basis of six regions, six land classes, five occupational categories, four income groups, following the state-wise poverty line defined by Planning Commission, Government of India. The study found the MGNREGA job seekers to be poorer than the non-job seekers. The scheme provided, on an average, 43 days of employment to the job seekers and helped them to increase their expenditure on food consumption and consequently increased their calorie and protein intake to reduce the chances of nutrition deficiency. It found that the expenditure of beneficiaries on non-food items was higher than that of non-beneficiaries. The authors suggested that the scheme had been beneficial for 22.5 percent of rural households and reduced poverty level by 4 percent. A noticeable point out of the findings of this study was that the scheme provided almost equal employment benefits to all categories of households.

**Deininger and Liu (2013)** used a 4,000 household survey panel data from 480 villages of five districts of Andhra Pradesh for before and after MGNREGA implementation rounds. Data was collected at three time points; 2004, 2006 and 2008. They estimated short and medium term effects of the scheme with double and triple difference estimation, and propensity score matching methods. Increase in protein and energy intake in the short run while accumulation of non-financial assets as a medium term effect of MGNREGA was found in the study. In addition to consumption levels, the study also found significant increase in casual labour income of participating households; overall and separately for males and females. As a medium term impact of the scheme, the study
reported increase in agriculture related investments. For all of the three phases of scheme, the probability of investment in land by participants was higher than non-participants as a supporting income increase due to MGNREGA participation.

Esteves et al. (2013) evaluated the socio-economic benefits of the scheme in addition to environmental benefits from MGNREGA. The study was conducted in year 2012-13 and covered four districts of Andhra Pradesh, Karnataka, Madhya Pradesh and Rajasthan. One district from each state and one block from each selected district were chosen for the study. Further, from each block 10 villages were chosen and the selection criterion was the level of implementation of MGNREGA works. The authors estimated impact of MGNREGA on the basis of ‘Livelihood Vulnerability Index’. The indicators of this index were indicators related to agriculture, number of individuals migrating, wage rates, percentage change in number of days of employment, net area irrigated, livestock population, and cropping intensity. With this index they measured a positive impact of the scheme on beneficiary households in the 40 study villages. They found significant increase in net area irrigated, livestock population, reduced migration and the number of days of employment created under the scheme in the study villages. The study concluded that in addition to environmental benefits, the scheme had generated socio-economic benefits too.

The MGNREGA effects are larger than just as a safety net against poverty. Zimmerman (2013), using several rounds of NSSO household level consumer expenditure and employment survey data, show how the scheme had worked more than just affecting the household income and consumption. The author had applied the Regression Discontinuity Design to analyse the MGNREGA effects and found that it had helped the participants to combat negative economic shocks such as in the form of poor rainfall. She estimated effects of the programme for men and women separately. She argued that the scheme is long term, and not short term, intervention to the labour market and the households optimize their time allocation to save themselves from the economic shocks. However, she did not find any significant impact on overall household and per capita expenditures, and on total wages received by the participating households.
Kareemulla et al. (2013) evaluated the poverty and food security effects of MGNREGA. The study used data collected from survey of four Indian states namely, Andhra Pradesh, Karnataka, Rajasthan and Maharashtra during 2008-10. One district from each state, three blocks from each district and further two villages were selected randomly from each of blocks for survey. In all 240 scheme beneficiaries and 288 farmers were interviewed under the survey. It found that MGNREGA income significantly constituted a part of household total income, especially in the dry-land districts.

Murgai, Ravallion and Walle (2013) evaluated the cost effectiveness of MGNREGA in the form of ‘forgone earnings’ of the scheme participants in Bihar. The study used primary data collected in two rounds from the state of Bihar, pertaining to the years 2009 and 2010. It covered 150 villages comprising the sample of 3,000 households as well as around 5,000 individuals in the survey. It suggested that the scheme had less impact on the poverty levels compared to some income transfer scheme even if the targeting factor was ignored.

To analyse the impact of MGNREGA on poverty level of rural households, Desai, Vashishta and Joshi (2015) had used India Human Development Survey data. They estimated MGNREGA income induced consumption by assuming some per capita consumption deciles specific Marginal Propensity to Consume (MPC). Further they compared the household expenditure with and without MGNREGA income induced expenditure and found that the scheme had reduced poverty by 32 percent. The study suggested that in absence of MGNREGA employment, 14 million individuals would have fallen into poverty trap.

Melkamu and Bannor (2015) also found positive effects of MGNREGA on household expenditures. The study used data from survey of 300 households in Northern Rajasthan. The sample was selected from eighteen villages from three districts of Northern Rajasthan. Out of the sample of 300 households, 24 percent were scheme participants while 76 percent were non-participants. Using Propensity Score Matching method, the study compared monthly per capita expenditure (MPCE) of sample households. The Average Treatment Effect on the Treated (ATT) estimate suggested that MPCE of
participating households was higher because of scheme participation. It suggested that participation in the scheme caused an increase of Rs.438.5 per month in the MPCE.

Dhanya (2016) found in the survey of Kerala that the scheme had increased consumption expenditure of participants. The perception of scheme beneficiaries also revealed that there was a positive impact of the scheme on their living standard and consumption pattern. Although the overall consumption expenditure increased because of MGNREGA participation, expenses on food items was affected the most. The study noticed that 90 percent of the respondents opined improvement in living standards as an outcome of MGNREGA participation. 79 percent of the respondents said that the expenditure on food items, particularly on fruits and dairy products had increased with the help of increased income level because of MGNREGA wages. The study suggested that MGNREGA helped to increase income and consequently eradicated poverty. The discussions with the panchayat heads and survey respondents also showed that the scheme reduced poverty by generating additional income.

Reddy et al. (2016) analysed the impact of MGNREGA on income, expenditure and savings pattern of beneficiaries. The study was based on survey data collected from Kalaburagi district of Karnataka state. It covered two fully and two partially implemented MGNREGA villages choosing 30 participants from each village, the total sample size was 120 respondents. They collected data on income, savings and consumption expenditure of the scheme beneficiaries. The data was collected in the agricultural year 2013-14. Using multiple regression analysis, the authors found that MGNREGA fully implemented village farmers earned approximately 74 percent higher income than partially implemented MGNREGA village farmers. The scheme beneficiaries were found to have higher consumption expenditure than non-beneficiaries. The beneficiaries spent more on food items, cloth, education, health, agricultural equipments, non-agricultural equipments and other expenditure in the fully implemented MGNREGA villages. The consumption expenditure of beneficiaries was higher in fully implemented villages than partially implemented MGNREGA villages.

Breitkreuz et al. (2017) used qualitative data collected through focus groups with policy implementers and end users in three agro-biodiversity regions of India, namely, Wayanad.
in Kerala; Kolli Hills in Tamil Nadu; and Jeypore in Odisha. It was a part of a larger agricultural research project: Alleviating Poverty and Malnutrition in Agro-biodiversity Hotspots (APM). The study considered 19 focus groups comprising 219 participants with average of 12 participants per group. It used a semi-structured interview method, a flexible interview method, to gather data on the availability of government schemes to the people in study areas to meet family requirements. The study attempted to compare the experiences of respondents with the claims of relevant national social policies, such as MGNREGA. It found region-wise differences in the experiences of scheme participants. There were deterrents such as low scheme wages compared to market wage rate in Kerala and Tamil Nadu while lack of work availability in Odisha. The study suggested that marginal income created with MGNREGA was not enough to support the families of participating respondents.

As a result of private sector wage rate increase, welfare effect of MGNREGA was estimated in the study by Merfeld (2017). The study used Additional Rural Incomes Survey/Rural Economic Demographic Survey (ARIS/REDS) data of National Council of Applied Economic Research (NCAER). Although with the increase in wages, welfare effects cannot be accurately measured; it can present at least a rough picture of impact on the rural poor. The study found that because of private sector wage rate increase as a consequence of MGNREGA implementation, the per capita income as well as consumption in rural areas had increased.

2.2 Female labourforce participation

2.2.1 Theoretical background

To understand the impact MGNREGA has made on the rural female labourforce participation, it is crucial to discuss the theoretical aspect of female Labourforce Participation Rate (LFPR). In one of the breakthrough studies regarding it, Goldin (1994) found that as countries develop, their female LFPR initially decreases but at a later stage of development, it starts to increase. So, through the economic development of a country, its female labourforce participation is of ‘U-shape’. She empirically verified the
relationship between married women labour force participation and economic development. She used a century long time series data for United States and cross section data of more than one hundred countries, where the former represents history of developed economies. The ‘U-shaped’ labourforce participation of females is explained as the first stage, when income level is too low and agricultural sector dominates the economy, females’ work participation is quite large. In the second stage of economic development, with the manufacturing sector expansion, female work participation decreases because of social customs. She suggested that the social rigidities do not work for women in white collar occupations in contrast to manual labour occupations, where the female participation in work is comparatively more restricted. This is because the female education level affects their labour supply. So, she suggested a relationship between level of education of women and economic development. In the third stage of development, with improved female educational attainment as well, female participation increases and it is reflected by the rising portion of ‘U-shaped’ curve.

Chaudhary and Verik (2014) also confirmed the U-shaped relationship between female labourforce participation and per capita Gross Domestic Product (GDP) and the relationship between these two was very strong as well. The study used cross sectional ILO data on world development indicators and did a cross-sectional robust regression to explain the variables that affect female labourforce participation in the countries throughout the world. Further, using NSSO data, the authors have also done multinomial logit regression and found that in rural India, the illiterate women have higher chances of participation in the workforce compared to literate women. They suggest that there are barriers to rural females’ participation in workforce and the women in the workforce have to face several forms of discrimination in India. The gender gap is significantly large in labour markets, particularly for occupational pattern and wage rates in these occupations.

Regarding the Indian context, Abraham (2013) analysed the reasons for low female LFPR in the country. He used unit level employment unemployment survey data of NSSO from the year 1983 to 2010. Discussing the ‘Defeminization’ trend in the labourforce participation rates, he explained that in the time span of 1983 to 2010, the rural female labourforce participation declined from 25 to 21 percent as compared to the
The case of urban women for whom the rate was constant at 13 percent. It holds even for the states with better gender parity showed with respect to social indicators. The study also found a negative relationship between income level and rural female labourforce participation rates through the time period considered for study. It suggested that for urban female labourforce participation rate, there existed ‘U-shaped’ relationship with level of income; it simply means that the female labourforce was high for low and high income levels while for the middle income level it was low. This U-shaped curve was observed in the study for all of the years from 1983 to 2010 confirming the ‘income effect’ suggested by Goldin (1994). The study supported income effect with another factor, namely domestication of women. It found a positive relationship between income and participation in domestic activities suggesting that with rise in income female labourforce participation decreases and their participation in domestic activities increases for both rural and urban areas. The author confirmed the ‘education effect’, as he found that instead of improvement in the level of education, the withdrawal of women in the 25 plus age group had increased, that too for both rural and urban areas. In rural areas, women working as casual labourers are worse off because if they work on family farm, they do not raise independent income and if they are part of a landless household and work as casual labourer they need to face gender discrimination in various forms. Moreover, the author opined that at a later stage of development, with expansion of services sector and housework supportive services (e.g. child care), women re-enter the workforce. This substitution of unpaid work is termed as ‘substitution effect’.

Sanghi, Srija and Vijay (2015), using the unit level employment unemployment survey data of NSSO from year 1994 to 2012 and performing trend analysis, also reached at similar conclusions. They found the urban female labourforce participation rate to be lower than that in the rural areas, but the declining trend in the latter was more continuous than the former. The authors examined the activity status of the women who were not in the labourforce to understand the reason of their withdrawal from work. Conforming to the findings of Abraham (2013), the study found that the participation of rural women in domestic duties had increased from 56 percent in the year 1994 to 60 percent in 2012 suggesting that females opt out to get into full time domestic duties.
increasingly in rural areas. 74 percent of rural females were in agricultural activities as main occupation and still most of them worked as unpaid helpers rather than as casual labourers. It also confirmed education effect and income effect, as it found that the female labour force participation rate of 80 percent rural women in the age group of 15 to 24 years was only 23 percent. With analysing the female labour force participation by MPCE classes, the authors showed income effect. Drawing conclusions out of the findings, the authors suggest that the reason for withdrawal of women from labour force is more than income and education effect. They argued that it is the dearth of opportunities according to their skill that works as an impediment to participate in economic activities.

**Rangarajan, Iyer and Seema (2011)** analysed employment unemployment surveys of NSSO to evaluate the reasons of withdrawal of women from the labour force. They estimated that in 2009-10, approximately 137 million females opted out of the labour force to obtain education. This figure was comparatively larger than that of males, as 176 million men withdrew from labour force to attend education. It was indicative of a positive education effect, i.e. because of attending education; females withdrew from work that is expected to be gainful in the long run.

The studies discussed above, have pointed at ‘income effect’, ‘education effect’ and ‘substitution effect’ for the falling trend of female LFPR as a general economic phenomenon as well as in the context of India.

**Hartmann (1976)** have discussed in detail about the female labour force marginalisation, patriarchal social norms and consequent occupational segregation in the labour market. She argued that the interaction between capitalism and patriarchy causes the gender based labour division to take place. In the traditional division of labour, women labour is controlled by men and they are at the top of this hierarchical system. The job segregation is formed so that men are superior to women in the labour division. She named performing the domestic duties by women as ‘domestic division of labour’. She argued that this hierarchical labour division favouring men operates as a ‘vicious circle for women’. The female population belonging to the lower segment of class and caste hierarchy are subjected to casualised jobs in the subsistence sector through the process of
job segregation; occupational discrimination, wage discrimination and educational
discrimination (Scott, 1986). In the context of Indian job market, Daymard (2015) and
Sorsa et al. (2015) estimated the determinants of low participation of women and found
strong impact of socio-economic factors. They found that the contribution of women
work is generally marginalized as unpaid work. In the context of India, the percentage of
rural females engaged in domestic duties has increased for the last few years. It is
because of more women in rural areas are participating in the ‘unpaid work’.

2.2.2 Female participation in MGNREGA

After the implementation of the scheme, the rural labour market situation changed
drastically, especially for the rural women. Drèze and Oldiges (2007) termed the scheme
to be a tool to bring in the social change. They used official data for evaluation of
performance of the scheme for the year 2006-07. The study found many states refuting
the one-third threshold norm provided under the Act, such as the states like Jammu and
Kashmir, Himachal Pradesh and Uttar Pradesh. They also mentioned that at most of the
worksites, crèches facility was absent that was one of the main reasons for low female
participation in scheme. The authors, comparing the scheme performance in 2006-07 and
2007-08, found marginal changes regarding women participation in it (Drèze & Oldiges,
2009).

In an extensive field survey of six North Indian states; namely, Bihar, Chhattisgarh,
Jharkhand, Madhya Pradesh, Rajasthan and Uttar Pradesh conducted during May-June
2008, Khera and Nayak (2009) found that the scheme enhanced the economic and social
security of the women working under it. The sample size of the survey was 1,060
MGNREGA workers chosen randomly from 98 on going worksites from 10 sample
districts. The employment opportunities available to women were found to be limited,
seasonal and irregular; such as agricultural labour work. Approximately 50 percent of the
surveyed women said that they would have remained unemployed in case they could not
manage to get work under the scheme. The authors pointed out that the features of
MGNREGA of being locally available government work, socially acceptable and
dignified, and better paid than other works; make it attractive to the rural women.
Discussing several socio-economic benefits of the scheme to rural women, the study found that wages earned by the women participants were kept by them in majority of cases that gave a sense of independence to them. However, they found barriers for women participating in MGNREGA works in their survey. One of the major causes in Uttar Pradesh and Bihar was the social norms against women working outside the home. In four states out of the six states surveyed, the female participation in scheme was comparatively low. One of the reasons suggested by authors was the equal wage rate provision that may make males, at some places, to discourage females to participate so that they remain privileged by higher market wage rate. Moreover, the presence of contractors, that is illegal under the act; works as a deterrent for women to participate in MGNREGA because the study found that at such worksites women faced exploitation.

Jandu (2009) found the scheme to be a powerful tool for financial empowerment and independence of women. The findings of the study suggest that women workers were more confident about their roles as contributors to family expenditure and their work decisions, and that they were also becoming more assertive about their space in the public sphere. However, during the survey it was found that women workers did not generally take part in Gram Sabhas showing their absence in the political decision making.

Pankaj and Tankha (2010) also found that MGNREGA reduced the gender gap in the rural labour market. The study used primary data collected from four districts of Bihar, Jharkhand, Rajasthan and Himachal Pradesh, selecting one from each state during 2008-09. For primary data collection, active worksites, except for Gaya district, were chosen for survey. The sample size was 428 women workers from the four selected districts. The authors explained the empowerment effects generated with MGNREGA as household level and community level effects. The study reported the earnings from scheme participation for the women to constitute an average of 14 percent of total annual household income. In contrast to working at the family farm, the women workers in the scheme earned independent income and 68 percent of them collected their wages at their own. The study confirmed women empowerment through scheme participation, as 71 percent of women in post MGNREGA participation compared to 44 percent of them before participation, used their own wages for personal needs.
Jeyaranjan (2011) attempted to evaluate the reasons of higher female participation in Tamil Nadu. The study was based on survey of a village in Thanjavur district of Tamil Nadu. It found that implementation of the scheme induced the agricultural wages, increased membership of SHGs and microfinance institutions. The study also suggested that with MGNREGA work, the ‘cultural barriers’ to participation of females in physical work had become less rigid in the study area. Apart from the case of women, there were barriers to male participation as well. The males in the higher caste category were not allowed as a cultural barrier to participate in manual labour work.

Azam (2012) found a positive effect of the scheme on labourforce participation, particularly of rural women. The study used the employment unemployment survey quinquennial rounds of NSSO data. Exploiting the phase-wise rollout of MGNREGA, it used Difference-in-Differences estimation considering the phase III districts as control group and, phase I and phase II districts as treatment group of districts. The study found that the proportion of MGNREGA work in total casual work was the highest for females as compared to males, even in the caste category of SC/ST. The scheme helped to arrest the otherwise falling rural labourforce participation. It also found a positive impact of the scheme on overall casual average wage rate, especially in the case of female casual labourers. On comparing the wage rate increase in MGNREGA and non-MGNREGA districts, the study suggested that female casual wage rate increased by approximately 8 percent in the former compared to the latter consequently reducing gender differentials in wage rates.

A study by Dutta, Murgai, Ravallion and Dominique (2012) found that female share on works under MGNREGA to be greater than their share of work in the casual wage labour market across all states. Moreover, at some places it seemed the most important source of employment for female workers.

The study of Bhattacharyya and Vauquiline (2013) was based on the data collected by surveying four areas of Assam; namely, Burka, Chandrapur, Barbhang and Muguriya in the year 2009. The study was based on 16 in-depth interviews of females working under MGNREGA. The findings also support empowerment of women as a consequence of
MGNREGA participation. Scheme participation helped the rural women to support household expenses. The authors’ suggested that the scheme should be a women friendly scheme by restructuring the provisions to support the rural working women. They also pointed out the importance of males’ perception on MGNREGA work.

**Xavier and Margi (2014)** have pointed out the socio economic impact of the scheme on the women of Kalakkanmoi Gram Panchayat of Tamil Nadu. The study used secondary data from official MGNREGA website for the year 2013-14 and primary data collected from the survey of Kalakkanmoi Gram Panchayat of Sivagnaga district of Tamil Nadu during 2013. The sample consisted of randomly selected 120 respondents. The study found that scheme participation increased income and expenditure. It also improved the standard of living among participants, specifically for rural females.

**Borah and Bordoloi (2014)** have confirmed in their study that MGNREGA plays an important role in the lives of rural women. The study was based on a survey of 180 respondents from four randomly selected blocks of Assam. Three villages were selected from each block and 45 respondents from each village, out of which 15 were women, were surveyed. In consensus to other studies, it also found that because of scheme participation, women have been able to support household expenditure. 74 percent of the female respondents in the survey said that they spend their wages earned from MGNREGA work on food and consumer goods. Apart from food items, the female scheme beneficiaries reported spending their wages on children’s education, medical services as well as repayment of debt. However, it pointed out the weaknesses in the implementation of the scheme, namely, absence of crèches, poor worksite facilities, delayed wage payments and lack of awareness.

**Narayanan and Das (2014)** using the 68th round employment unemployment survey (2011-12) of NSSO found that the scheme was performing very well at the national level but a variation in it was observed when reviewed at state levels. With the data, the authors computed ‘rationing rate’, i.e. the proportion of respondents who demanded work but could not get it. The difference in rationing rate was estimated separately for men and women to make a comparison. It found that at national level, the ‘administrative rationing
rate’ was lower for the women workers implicating no evidence of discrimination for rationing. But, the proportion of women demanding work was found to be less than that in the case of men. In some of the states, majority of households sent only the women at home to participate in MGNREGA and there were some states where only males participated from most of the households. The proportion of women participation in the former states was found to be higher and it was lower in the latter states. The study listed a number of reasons for voluntary and involuntary withdrawal of women from MGNREGA work at places. Some field survey inputs revealed that the experiences of female participants of the programme from various states were widely different. The authors suggested that the policy emphasis needs to be different for different states to make the implementation effective.

In a study (Beg, 2014) the assessment was made of female participation under MGNREGA and impact of the scheme on changing unemployment rates. The study based on secondary data concentrates on two states- Bihar and Jharkhand. It found that the share of female workers in total person days declined in Jharkhand state whereas it appreciably increased in Bihar. The total female unemployment rate was recorded higher as compared to their corresponding approaches of the total male workforce. It indicated that MGNREGA failed to create gender equality in the procurement of job opportunities.

A study of two blocks of Garhwal district by Negi and Kumar (2014) compared the performance of MGNREGA in the empowerment of women in two blocks by studying three GPs of both the blocks by using interviews. 97.2 percent women in Beerankhal block and 91.7 percent women in Pauri block said there was increment in their income after participating in MGNREGA. Also the consumption of their family was increasing.

Das (2014) also found positive results of MGNREGA. It suggested that the scheme emerged as a powerful policy platform that synergizes multiple inputs and multiple layered processes towards basic development goals, such as enhancing economic security, promoting gender equity and equitable opportunity to disadvantaged groups.

However, Akhtar et al. (2014) explored both positive and negative impacts of
MGNREGA on women workers in their study. The participation of women in MGNREGA works is much higher in Kerala comparing to other states of India. In Kerala more than half of the population is that of women. In the social development Kerala is acquired much more as compared to other state, while women status has been gone second place which lead to employment discrimination of women in various zones and badly affected women development. But NREGS benefits have not come easily – working hours for women increased; their leisure time vanished; and they had to bear with physical and emotional strains. Eighty-one per cent confessed that they remain emotionally strained while they are working at the worksite and their children were left at home, either unattended or in another’s care. There were also some reports of the continued presence of contractors and harassment of women workers.

Dhanya (2016) used the official data on MGNREGA and NSSO employment unemployment survey 66th and 68th round unit level data in the study. In addition to that the study also used primary data collected from selected panchayats in Kerala. 95 percent of the respondents were females in the survey. It found that because of MGNREGA wages, the female market wage rates were increased with regional discrepancies. However, as a negative impact of high participation of women in the scheme, shortage of female agricultural labourers was found in study. Apart from other benefits, financial inclusion in the form of bank accounts for women was also found in survey.

Differential between the MGNREGA wage rate and market wage rate is the main factor to determine MGNREGA participation. Breitkreuz et al. (2017) found in their study that due to wage rate differentials in Kerala, males and females both stated that they prefer private agricultural work over MGNREGA work while some female participants preferred MGNREGA work because of comparatively less demanding work and working hours that help them to get a better housework as well as wage work balance. In Tamil Nadu, MGNREGA work was primarily taken up by women and men preferred migration over it. In this study area, special attraction of MGNREGA work for women was the presence of childcare centre at worksites. In the third study region, Odisha, MGNREGA wages were equal to private labour market wage rate and the opportunity cost was not a concern for the scheme participants irrespective of their gender. Thus, the opportunity
cost is a main determining factor to take up MGNREGA work; also that decision is not associated with gender of the individual.

**Bhattacharyya (2017)** opined that the scheme has some ‘women-centric approaches’ that helped rural women to improve the employment opportunities available to them and their living standard. Apart from pointing out to the attractions of MGNREGA provisions, the study also highlighted the socio-cultural obstacles regarding its implementation on ground. It was suggested by the study to strengthen the grass-root level institutions like GPs and increasing the level of awareness among the rural women regarding their rights.

### 2.3 Targeting errors and corruption in MGNREGA

The anti-poverty programmes cost high to the exchequer and therefore it is of great importance to estimate the benefits out of it. **Dutta et al. (2012)** have done a macro analysis using household-level data from the 66th round of employment unemployment survey of NSSO for the year 2009-10. The study aimed to analyse the scheme’s ability to reach the rural poor and socially marginalised groups, namely individuals from the backward castes and women. It estimated the performance and reach of the scheme by ‘Demand rate’- defined as proportion of households who wanted work and ‘Rationing rate’- as proportion of households who wanted work but did not get it. Confirming the demand driven and self-targeting mechanism of the scheme, the study found that the work demand under the scheme by the poorer states was higher. But in a paradox, the actual participation rate was not higher in the poorer states where it was required the most. They suggested three reasons for it; (i) poorer states are not much capable of supporting the costs borne by the state and local governments, (ii) Weaker administrative capability and (iii) poor are not empowered in poorer states. But, estimating the participation rate, demand rate and the rationing rate by household quintiles the authors found that demand for MGNREGA work declines in higher consumption quintiles. The study found the participation rate of the poor people to be higher in the scheme.
**Liu and Barrett (2012)** using the 2009-10 NSSO data have described patterns of job-seeking, rationing, and participation in the Mahatma Gandhi National Rural Employment Guarantee Scheme. The study analysed data of 66th round of National Sample Survey; the sample size of the analysis was 58,263 rural households from 27 states. The authors supporting the findings of **Dutta et al. (2012)**, attempt to present more specific results with nonparametric, kernel-weighted, local polynomial smoothening method to estimate and plot the probability of job-seeking, participation, and rationing under the scheme conditional on per capita expenditure. Among the major findings emerged from the analysis most significant one was that the self-targeting design of the MGNREGA leads to greater rates of self-selection into the programme by poorer and disadvantaged households, as reflected in statistically significant negative associations between MGNREGA job-seeking and household per capita expenditures nationally and virtually in every state. The study found that because of the self-selection effects generally dominate the rationing effects; the net result is that MGNREGA targeting is noticeably pro-poor and it especially favours SC/ST households. But the MGNREGA did not perform well in reaching poor female-headed households, due both to self-selection and rationing effects. Male-headed households were more likely to seek and receive jobs under the scheme over most of the per capita expenditure distributions considered in the study.

The report of the **Comptroller and Auditor General (CAG) of India (2013)** had also found several shortcomings in the implementation of the scheme such as; delay in issuing job cards, absence of applicant’s photograph on job cards, non-payment of unemployment allowance, poor record keeping, among others. Even in the case of wage payments; apart from delayed wage payments, the report found the problem of short payments i.e. under-payment. It estimated the amount of underpayments to MGNREGA beneficiaries to be Rs. 27.38 crore. Hinting at the presence of corruption in scheme, the report found tampering in the muster rolls.

**Niehaus and Sukhtankar (2013)** estimated the marginal rate of corruption in MGNREGA in their study. It was based on verification of official data for three districts of Odisha. The surveyed respondents were selected from muster rolls downloadable from
official website of the scheme. The muster rolls comprise details of scheme participants and the works undertaken. The study found that only 821 households out of 1,408 households verified from the muster roll accepted doing work under the scheme. It confirms the doubt raised by earlier studies (Drèze & Oldiges, 2007; Drèze & Oldiges, 2009) regarding the authenticity of official data provided for scheme functioning.

Bhalla (2016) have pointed out the targeting errors in the scheme implementation in his article. The data used in the study was MGNREGA official data from Ministry of Rural Development, NSSO data from the year 2009-10 and IHDS data 2011-12. On crosschecking the official data on MGNREGA with the NSSO data for the year 2009-10, he found 48 percent of the total workdays provided under the scheme to be ‘Ghost’ days i.e. these were not verified by the households. He termed these ghost workdays as ‘leakages’ in implementation of the scheme. Also, analysing the IHDS data, he found that approximately 75 per cent of benefits from scheme participation was received by non-poor. He had estimated a marginal reduction of 1.1 percent in poverty rates as after the inception of MGNREGA. The study concluded that targeting of the scheme have been very poor during the time period concerned.

Economic Survey (2017) elaborated the targeting errors in the scheme under three heads, namely, leakages from system, incidence of targeting error and exclusion error. The study analysed IHDS round two data as well as NSSO data pertaining to the year 2011. It found that 60 percent of individuals in the highest income strata received MGNREGA income while 40 percent of individuals in the lowest income strata did not even have a job card. It reported that exclusion error, i.e. the share of targeted group not receiving benefits was 65 percent and inclusion error i.e. benefits received by the non-poor was 43 percent.

Bhattacharjee (2017) argued that MGNREGA have not made much difference to the rural poverty in India. The author has also made a point that the utilisation of MGNREGA fund differs widely from state to state because under the new provisions, scheme budget is channelized through state budget and direct transfers. He opined that the scheme was just a temporary solution to the problem of poverty and thus a ‘poorly targeted scheme for distribution of doles’.
2.3.1 The Aadhaar system and targeting efficiency

To overhaul the poor and corrupt targeting system, the government introduced biometric identification for participation and wage payments. The Aadhaar enabled payments system was initiated on a pilot basis in the state of Jharkhand in year 2012. Bhatti, Drèze and Khera (2012) attempted to analyse the efficiency of this pilot project. It was based on the interview of 42 workers out of 50 total workers at five worksites who were covered under the experimental roll out of Aadhaar payments system in Ratu Block of Ranchi District, Jharkhand. It was found that some of the workers faced problems in getting their wage by this system. 12 respondents reported the issue of ‘fingerprint recognition’; some did not have Aadhaar number while others did not have any Aadhaar enabled bank account. The authors argued that this system is of limited help for sorting out delays in wage payments because payments delay occurs much before the banking system work takes place in the scheme mechanism. They suggested that the Aadhaar system can be useful to take attendance of government employees and that will be more fruitful in arresting corruption.

To evaluate the effectiveness of Aadhaar based payment system, Muralidharan, Niehaus and Sukhtankar (2016) conducted a large experimental study in collaboration with the government of Andhra Pradesh covering around 19 million people. The study suggested that after implementation of biometric payments, the leakages out of the system had reduced by 12.7 percentage points. It also reported a significant decrease in the occurrence of ‘Quasi-ghost beneficiaries’4. The study found that proportion of households, who participated in MGNREGA work increased by 7.1 percentage points after implementing the biometric identification. In addition to it, the authors reported that the access to scheme participation did not get hurt after getting the new payments system. In another study (Muralidharan et al., 2017), using the same dataset, the authors found that post ‘smartcard’ or Aadhaar enabled payments implementation; the income of household increased by 12.7 percentages. On the implications of this increase in income,

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4 The authors defined ‘Quasi-ghost beneficiaries’ as the case where officials claim wages against the name of some beneficiary, who neither worked nor received the payment.
they suggested that it accounted for approximately 5 percentage point decrease in poverty level.

It is claimed by the government that inclusion of Aadhaar to identify participants of the scheme will help reduce targeting errors in the system. However, Sabhikhi (2017) argued that the Aadhaar seeded identification system under MGNREGA, in spite of reducing corruption, will make it difficult for the poor to get work under the scheme. The author also mentioned example of errors in Aadhaar seeded bank account payment system and consequent protest for delayed wage payment in Kisko block of Lohardaga district of Jharkhand.

2.4 Research gaps

On the basis of the literature reviewed so far, it is found that although there have been various studies for impact evaluation of the scheme using primary data, there is still a dearth of studies that are based on the field surveys of lesser developed states. Most of the surveys conducted so far pertain to developed states, especially Andhra Pradesh. It is already evident from studies that the state is one of the better performers regarding MGNREGA. The findings cannot be generalized because the effects of the scheme in less developed states cannot be assumed to be the same.

In order to analyse the effects of scheme participation on consumption expenditure and employment situation of rural households, studies have used NSSO data mainly. Most of the studies empirically evaluate the district level data and exploit the phase-wise roll out of the scheme. However, for macro level analysis, household level and individual level data is more suitable than the district level averages.

The studies reviewed have found that MGNREGA is crucial for many of the non-poor households also. Therefore, the effect of the scheme on poor as well as non-poor households should be evaluated because the scheme is important to both of them; and very few of the studies have estimated the impact on non-poor households particularly.
Although the targeting efficiency of the scheme is very crucial to verify, there have been limited studies attempting to verify the targeting efficiency of MGNREGA using nationally representative dataset.

### 2.5 Relevance of the study

This study contributes to the already wide literature available on MGNREGA in three ways. *First*, it draws a macro picture of impact of the scheme on rural India, separately on poor as well as non-poor households, as none of the studies reviewed so far attempted to evaluate the impact on both poor and non-poor households. In addition to it, the study uses nationally representative household and individual level data from India Human Development Survey (IHDS) for macro-level analysis of the consumption expenditure and employment. IHDS is a longitudinal and nationally representative survey. The first round of IHDS was conducted during 2004-05 and the second round, covering 83 percent respondents of first round, was conducted during 2011-12. As MGNREGA was implemented in 2006, the IHDS-I represents the situation pre-MGNREGA and IHDS-II for post-MGNREGA of the same households. The panel nature of IHDS data allows for a more precise analysis than the NSSO data because the latter is not a unit level panel dataset.

*Second*, it also analyses both consumption expenditure and female participation in district Allahabad of UP with survey data. Thus, the study highlights issues and challenges regarding the scheme performance in a poorer performer state, UP. The performance of the scheme is evidently not uniform in all the states because of the implementation efficacy differences. Therefore, it is required to analyse the impact of the scheme on poverty levels of comparatively under-developed states too. The present study fills some gap in this regard because it uses primary data of Allahabad district of UP to evaluate the impact of the scheme on consumption expenditure pattern and employment situation of rural households.

*Third*, using IHDS nationally representative data, this study contributes to the
comparatively limited literature on targeting efficiency evaluation of the scheme. This study evaluates the likelihood of participation of poor households as well as the comparative analysis of per capita benefits received under the scheme by poor and non-poor households.