

# Interstate Comparative Study of MGNREGA



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## Abstract

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is one of the landmark social safety net schemes implemented by the Government of India keeping in mind that "The soul of India lives in its villages" (Gandhi). The Act aims at not only providing employment but also regenerate the rural sector by improving the social and environmental infrastructure and thus enhancing agricultural productivity. MGNREGA is generating multiple environmental and socio-economic benefits and thus paving the way for attaining the 17 SDGs by 2030 in rural India. This study illustrates the variation in the performance and implementation of MGNREGA across the Indian states (zone wise) for 2016-17 (using correlation analysis, scatter plots and regression analysis through R studio) by using the data from the official MGNREGA website ([www.nrega.nic.in](http://www.nrega.nic.in)). Further, this paper also attempts to form a composite performance index (CPI) by using the UNDP's Human Development Index construction method, for ranking the states according to their performance. The insights thus gained can be used to identify policy options for reforming the administrative process of MGNREGA implementation in the states which are lagging behind the national average by targeting on their individual regional problems.

**Keywords:** MGNREGA, Social Safety Net, Variation across States, Composite Performance Index, Policy Options, Individual Regional Problem.

## Introduction

The national rural employment scheme (NREGA renamed as MGNREGA, i.e., Mahatma Gandhi National Rural Employment Guarantee Act) enacted by the Government of India in September 2005, is one of the most indigenous initiatives in the field of public policy and the largest ever public employment program envisaged in human history. The scheme was initially initiated in 200 districts and was later expanded to other districts as well. Going by the name of the act one may take it to be a scheme for providing employment to rural people but it's much beyond that which is evident through various features and guidelines prescribed to be followed under the act – like proportion of 60:40 for wage and physical material costs should be maintained, providing 100 days of employment in a financial year, at least one-third of the wage earners should be women, creation of durable assets, strengthening natural resource management, provision of crèches for children accompanying women workers, employment should be provided within five kilometers and there are many others. Thus, besides providing employment MGNREGA reinforces the rural sector by improving socio-economic conditions, infrastructure and augmenting the agricultural productivity (Desai, Vashishtha, & Joshi, 2015).

A major chunk of the population of rural India are involved in agricultural sector and are dependent on it, thus huge amount of money has been invested to boost this sector. MGNREGA because of being an Act has stringent regulatory framework supporting it which helps make it more accountable and transparent. MGNREGA is generating multiple environmental and socio-economic benefits and thus paving the way for attaining the 17 SDGs by 2030 in rural India (Bhat, Gandhi, Rural, & Bhat, 2015). But the problem here arises is that of unequal level of performance of MGNREGA across the states of the country which can be attributed to not only the corruption existing among the bureaucracy because of which the intended benefits are not percolating to the intended beneficiaries but also the existence of diversity among the states on the basis of social,

cultural, political and economic setup which makes one policy prescription work equally for all the states with individual problems difficult.

**Objectives of the Study**

1. To study the performance of MGNREGA in the country
2. To study the variation in the performance of MGNREGA across the Indian states for 2016-17
3. To study the factors responsible for the variation in the performance across the Indian states

**Method**

The study is based on secondary data which has been collected from publication of various bodies like research investigators, technical journals and various necessary websites like MGNREGA official website, open Government of India data platform (<https://data.gov.in>), Ministry of Statistics and Scheme Implementation (MOSPI), periodicals like MGNREGA SAMEEKSHA (Ministry of Rural Development, Government of India, 2012) and (Nations & Scheme, 2014), bank reports etc. Collected data has been tabulated in systematic way and treated with different statistical methods – index creation by UNDP’s

method, correlation analysis, scatter plots and regression analysis using R- studio, so that certain pattern or relation can be derived.

**Limitations**

1. The interstate comparison has been done only for the year 2016-17.
2. Performance of MGNREGA in the union territories has been excluded from the study.
3. The factors influencing the performance of the scheme have been chosen arbitrarily. There may be several other factors involved in augmenting the performance.

**Quantitative and Qualitative Analysis**

Besides the analysis of national performance of MGNREGA, we will also be analyzing the actual performance by different states in India and also identifying the crucial factors responsible for the difference among the states.

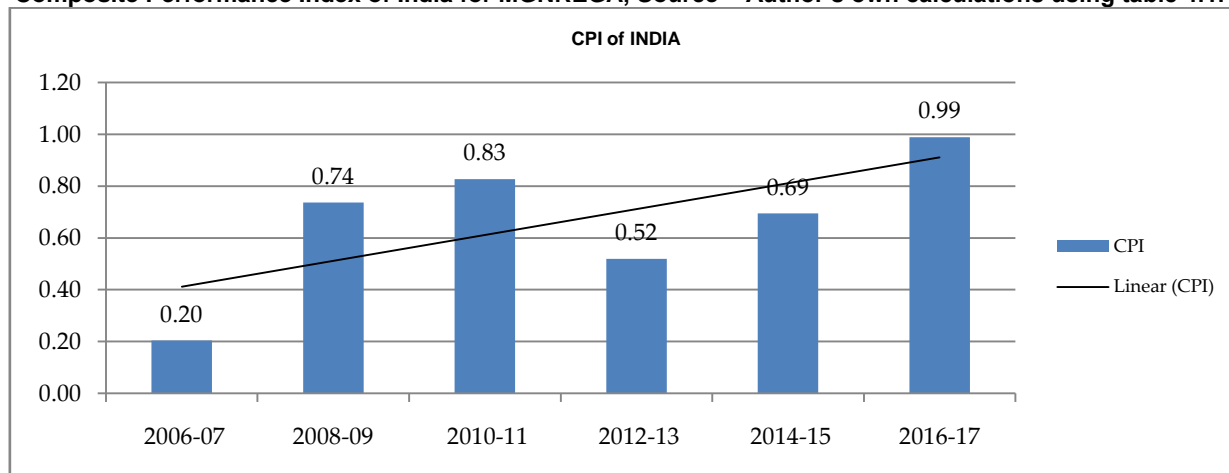
**Overall Performance in India since 2006**

|  | FY 2006-07 | FY 2008-09 | FY 2010-11 | FY 2012-13 | FY 2014-15 | FY 2016-17 |
|--|------------|------------|------------|------------|------------|------------|
| No. of HH provided employment [ in crores]                 | 2.10       | 4.51       | 5.49       | 4.98       | 4.14       | 5.12       |
| Women person days [as % of total persondays]               | 40%        | 48%        | 48%        | 51.2%      | 54.9%      | 56.2%      |
| % utilization of fund [total expenditure/total allocation] | 73%        | 73%        | 73%        | 88%        | 95.8%      | 101%       |
| No. of HH who availed 100 days of employment [ in lakhs]   | NA         | 65.21      | 55.61      | 13.65      | 24.92      | 39.91      |
| completed works/total no. of works taken up [ in %]        | 46%        | 44%        | 51%        | 24%        | 30%        | 39%        |
| CPI  | 0.21       | 0.74       | 0.83       | 0.52       | 0.69       | 0.99       |

**Source** – compiled by the author from (“Mahatma Gandhi National Rural Employment Gurantee Act,” n.d.) [www.nrega.nic.in](http://www.nrega.nic.in) and MGNREGA\_SAMEEKSHA

**Figure**

**Composite Performance Index of India for MGNREGA, Source – Author’s own calculations using table 4.1.1**



In the above table composite performance index (CPI) has been constructed (method under construction of CPI) using the above mentioned factors in table. So since 2006 the performance of the

scheme has been continuously increasing till 2010-11 after which we can see a significant drop. But from 2014-15 an improvement can be seen in the

performance from a low of 0.52 in 2012-13 to 0.69 in 2014-15 and to 0.99 in 2016-17.

### Zone Wise Performance in India via Composite Performance Index (CPI)

In order to get a deeper picture of performance of MGNREGA we can divide the entire country into six zones and for each zone we will be analyzing the performance of the states by calculating their composite performance index and ranking the states according to the index and thus identify the lowest and highest performing states in each zone.

### Construction of Composite Performance Index

There has been a dearth felt since a long time for the availability of some common index or indicator by which the performance of MGNREGA can be measured across the states. Several studies in their suggestions have signalled the MoRD towards the creation of a composite index to facilitate inter-state comparisons (Bonner et al., 2012). A similar index was used in 'A cross District Analysis of Performance of MGNREGA in Himachal Pradesh' by Dr. Satinder Singh Randhawa to measure the difference in performances of different districts of Himachal Pradesh (Randhawa, 2014). So, an attempt has been made to develop an indicator (Composite Performance Index) to facilitate easy comparative study of states in terms of their performance under same dimensions. This index has been created by using the Human Development Index (HDI) as created by the UNDP ("Human Development Index: Construction of HDI (With Example)," n.d.).

For the index first we will form individual indices based on some important factors which are – Percentage of work completed to works taken up, that is, rate of work completion, Women persondays out of total (in %), Utilization of funds (in %) and Average days of employment provided per household. These

factors covers the main objectives of MGNREGA for which it was initially started and thus reflects the true spirit of MGNREGA, i.e., employment generation is indicated by average days of employment provided per household, creation of sustainable assets indicated by percentage of work completed to works taken up, empowerment of women indicated by women persondays and strengthening of rural sector indicated by proper utilization of the allocated funds. All these factors will be taken for the year 2016-17 to study the variation over time across the states.

On the basis of the above mentioned factors three individual indices will be formed namely –

1. PIP (Performance Index with respect to Average days of employment provided per household)
2. PIW (Performance Index with respect to Percentage of work completed to works taken up)
3. PIF (Performance Index with respect to Utilization of funds)
4. PIWE (Performance Index with respect to Women Employment)

The calculation of these four indices is done by using the formula - For eg. - PIP = ((value observed – lowest value)/(highest value – lowest value))

We can calculate the Composite Performance Index by adding the four indicators according to their weightage which in this case will be 25% weightage to each of the indicators, that is -  
 $CPI = (1/4 * PIP) + (1/4 * PIW) + (1/4 * PIF) + (1/4 * PIWE)$ .

Then on the basis of the CPI the states will be ranked to identify the best and worst performing states in each zone. Note– all data is sourced from nrega.nic.in and ("State/ UT-wise Physical Outcomes under MGNREGA from 2010-11 to 2015-16 | Open Government Data (OGD) Platform India," n.d.)

### North zone

| Sr. no. | Name of States   | Avg. days of emp. Per HH | PIP  | work completed to taken (%) | PIW  | Women persondays out of total (%) | PIWE | Utilization of (%) | PIF  | CPI  | RAN K |
|---------|------------------|--------------------------|------|-----------------------------|------|-----------------------------------|------|--------------------|------|------|-------|
| 1       | Haryana          | 30.21                    | 0.04 | 33                          | 0.00 | 45.62                             | 0.54 | 100.23             | 0.12 | 0.17 | 6     |
| 2       | Punjab           | 29.41                    | 0.00 | 47                          | 1.00 | 59.97                             | 0.95 | 103.05             | 0.24 | 0.55 | 3     |
| 3       | Uttar Pradesh    | 31.45                    | 0.10 | 43                          | 0.71 | 33.20                             | 0.18 | 106                | 0.38 | 0.34 | 4     |
| 4       | Uttarakhand      | 43.49                    | 0.66 | 40                          | 0.50 | 53.97                             | 0.78 | 120.02             | 1.00 | 0.73 | 1     |
| 5       | Himachal Pradesh | 44.74                    | 0.72 | 38                          | 0.36 | 61.80                             | 1.00 | 114.28             | 0.74 | 0.70 | 2     |
| 6       | J& K             | 50.83                    | 1.00 | 37                          | 0.29 | 26.83                             | 0.00 | 97.57              | 0.00 | 0.32 | 5     |
|         | Average          | 38.36                    | 0.42 | 40                          | 0.48 | 46.90                             | 0.57 | 106.86             | 0.41 | 0.47 |       |

So in terms of PIP the worst performing state is Punjab and the best state is Jammu & Kashmir. In terms of PIW, the worst performance is that of Haryana while the best is Punjab. Jammu & Kashmir performs the worst in PIWE and PIF. Himachal Pradesh performs the best in PIWE and Uttarakhand performs the best in PIF. So overall, according to the composite performance index (CPI) the best

performing state is Uttarakhand followed closely by Himachal Pradesh while the worst performing states are Haryana and Jammu & Kashmir. We can clearly witness the existing diversity among the states as some states fare well in one factor while others in other factors.

**South Zone**

| Sr No | Name of States | Avg. days of empPer HH | PIP  | work completed to taken up (%) | PIW  | Women person-days out of total (%) | PIWE | Utilization of funds (%) | PIF  | CPI  | RANK |
|-------|----------------|------------------------|------|--------------------------------|------|------------------------------------|------|--------------------------|------|------|------|
| 1     | Andhra Pradesh | 51.67                  | 0.43 | 61                             | 0.74 | 58.15                              | 0.25 | 106.98                   | 0.42 | 0.46 | 3    |
| 2     | Karnataka      | 50.27                  | 0.37 | 36                             | 0.00 | 47.21                              | 0.00 | 123.55                   | 0.73 | 0.28 | 4    |
| 3     | Kerala         | 46.97                  | 0.22 | 70                             | 1.00 | 91.08                              | 1.00 | 137.7                    | 1.00 | 0.80 | 1    |
| 4     | Tamil Nadu     | 63.87                  | 1.00 | 47                             | 0.32 | 85.68                              | 0.88 | 94.57                    | 0.19 | 0.60 | 2    |
| 5     | Telangana      | 42.28                  | 0.00 | 56                             | 0.59 | 59.8                               | 0.29 | 84.6                     | 0.00 | 0.22 | 5    |
|       | <b>Average</b> | 51.0                   | 0.40 | 54.00                          | 0.53 | 68.38                              | 0.48 | 109.48                   | 0.47 | 0.47 |      |

As we can see from the above table, Karnataka performs the worst in PIP and PIF while Karnataka performs the worst in PIW and PIWE. Tamil Nadu performs the best in PIP while Kerala performs the best in rest of the three factors. So

overall, according to the composite performance index (CPI) the best performing state is Kerala followed closely by Tamil Nadu while the worst performing state is Telangana followed by Karnataka.

**West Zone**

| Sr. no | Name of States | Avg. days of emp. Per HH | PIP  | Work completed to taken up (%) | PIW  | Women persondays out of total (%) | PIWE | Utilization of funds (%) | PIF  | CPI  | Rank |
|--------|----------------|--------------------------|------|--------------------------------|------|-----------------------------------|------|--------------------------|------|------|------|
| 1      | Gujarat        | 37.86                    | 0.51 | 44                             | 1.00 | 45.46                             | 0.02 | 82.71                    | 0.00 | 0.38 | 3    |
| 2      | Rajasthan      | 56.03                    | 1.00 | 22                             | 0.00 | 67.03                             | 0.67 | 95.74                    | 1.00 | 0.67 | 1    |
| 3      | Maharashtra    | 49.46                    | 0.82 | 22                             | 0.00 | 44.87                             | 0.00 | 87.52                    | 0.37 | 0.30 | 4    |
| 4      | Goa            | 18.69                    | 0.00 | 36                             | 0.64 | 77.79                             | 1.00 | 85.18                    | 0.19 | 0.46 | 2    |
|        | <b>Average</b> | 40.51                    | 0.58 | 31                             | 0.41 | 58.79                             | 0.42 | 87.79                    | 0.39 | 0.45 |      |

As we can see from the above table, Goa performs the worst in PIP while Rajasthan and Maharashtra performs the worst in PIW. Further, Maharashtra fares worst in PIWE as well while Gujarat performs worst in PIF. So overall, according

to the composite performance index (CPI) the best performing state is Rajasthan while the worst performing state is Maharashtra followed by Gujarat.

**East Zone**

| Sr. No | Name of States | Avg. days of emp Per HH | PIP  | Work completed to taken up (%) | PIW  | Women persondays out of total (%) | PIWE | Utilization of funds (%) | PIF  | CPI  | RANK |
|--------|----------------|-------------------------|------|--------------------------------|------|-----------------------------------|------|--------------------------|------|------|------|
| 1      | Bihar          | 37.4                    | 0.00 | 15                             | 0.00 | 43.76                             | 0.75 | 111.38                   | 1.00 | 0.44 | 4    |
| 2      | Jharkhand      | 40.6                    | 1.00 | 32                             | 1.00 | 35.72                             | 0.00 | 85.18                    | 0.00 | 0.50 | 3    |
| 3      | Orissa         | 38.1                    | 0.22 | 28                             | 0.76 | 39.82                             | 0.38 | 103.35                   | 0.69 | 0.51 | 2    |
| 4      | West Bengal    | 40.44                   | 0.95 | 24                             | 0.53 | 46.46                             | 1.00 | 105.38                   | 0.77 | 0.81 | 1    |
|        | <b>Average</b> | 39.14                   | 0.54 | 24.75                          | 0.57 | 41.44                             | 0.53 | 101.32                   | 0.62 | 0.57 |      |

As we can see from the above table, Bihar performs the worst in PIP and PIW while Jharkhand performs the worst in PIWE and PIF. So overall, according to the composite performance index (CPI) the best performing state is West Bengal while the worst performing state is Bihar. In terms of PIP, PIW and PIWE in total two states are lower than the

average for the respective indices. In case of PIF only one state, that is, Jharkhand is below the average. Thus, we can sum up saying that Jharkhand being on third rank performs worst in PIWE and PIF but performs the best in PIP and PIW. While Bihar on fourth rank performs the best in PIF.

**North East Zone**

| Sr.no | Name of States    | Avg. days of emp. Per HH | PIP         | work completed to taken up | PIW         | Women persondays out of total (%) | PIWE        | Utilizati-on of funds | PIF         | CPI         | Rank |
|-------|-------------------|--------------------------|-------------|----------------------------|-------------|-----------------------------------|-------------|-----------------------|-------------|-------------|------|
| 1     | Arunachal Pradesh | 42.08                    | 0.29        | 62                         | 0.72        | 34.10                             | 0.23        | 92.57                 | 0.69        | 0.48        | 7    |
| 2     | Assam             | 29.72                    | 0.10        | 13                         | 0.00        | 36.45                             | 0.35        | 72.76                 | 0.00        | 0.11        | 8    |
| 3     | Meghalaya         | 68.16                    | 0.68        | 51                         | 0.56        | 44.28                             | 0.75        | 93.78                 | 0.73        | 0.68        | 4    |
| 4     | Nagaland          | 69.49                    | 0.71        | 81                         | 1.00        | 29.68                             | 0.00        | 91.53                 | 0.65        | 0.59        | 5    |
| 5     | Manipur           | 23.08                    | 0.00        | 63                         | 0.74        | 41.74                             | 0.62        | 90.2                  | 0.61        | 0.49        | 6    |
| 6     | Tripura           | 79.79                    | 0.86        | 65                         | 0.76        | 49.05                             | 1.00        | 101.58                | 1.00        | 0.91        | 1    |
| 7     | Mizoram           | 88.9                     | 1.00        | 69                         | 0.82        | 35.26                             | 0.29        | 99.9                  | 0.94        | 0.76        | 2    |
| 8     | Sikkim            | 67.72                    | 0.68        | 32                         | 0.28        | 47.88                             | 0.94        | 99.07                 | 0.91        | 0.70        | 3    |
|       | <b>Average</b>    | <b>58.62</b>             | <b>0.54</b> | <b>54.50</b>               | <b>0.61</b> | <b>39.81</b>                      | <b>0.52</b> | <b>92.67</b>          | <b>0.69</b> | <b>0.59</b> |      |

As we can see from the above table, Manipur performs the worst in PIP, Assam performs the worst in in PIW and PIF and Nagaland performs the worst in

PIWE. So overall, according to the composite performance index (CPI) the best performing state is Tripura while the worst performing state is Assam.

**Central Zone**

| Sr. No | Name of States | Avg. days of emp. Per HH | PIP        | work completed to taken up | PIW        | Women persondays out of total (%) | PIWE       | Utilization of funds | PIF        | CPI        | RANK |
|--------|----------------|--------------------------|------------|----------------------------|------------|-----------------------------------|------------|----------------------|------------|------------|------|
| 1      | Madhya Pradesh | 40.34                    | 0.00       | 28                         | 0.00       | 41.30                             | 0.00       | 99.54                | 0.00       | 0.00       | 2    |
| 2      | Chhattisgarh   | 41.55                    | 1.00       | 31                         | 1.00       | 49.31                             | 1.00       | 103.48               | 1.00       | 1.00       | 1    |
|        | <b>Average</b> | <b>40.95</b>             | <b>0.5</b> | <b>29.5</b>                | <b>0.5</b> | <b>45.305</b>                     | <b>0.5</b> | <b>101.51</b>        | <b>0.5</b> | <b>0.5</b> |      |

As we can see from the above table, Madhya Pradesh performs the worst in all the factors as compared to Chhattisgarh thus in this zone Chhattisgarh has performed better than Madhya Pradesh.

**Ranking of all the States according to CPI**

Now we can extend the result to study the overall performance of all the states taken together

and thus rank the states according to the CPI which is calculated on the basis of the different parameters set for assessing the success of the scheme. " Note -final ranking is done on the basis of CPI but state's rank for each indices have also been included. Also, for states with same CPI, same ranks have been given . Thus, total ranks for 29 states comes out to be just 22.

| Name of States    | Rank according to PIP | Rank according to PIW | Rank according to PIWE | Rank according to PIF | CPI  | Rank |
|-------------------|-----------------------|-----------------------|------------------------|-----------------------|------|------|
| Kerala            | 12                    | 2                     | 1                      | 1                     | 0.81 | 1    |
| Tripura           | 2                     | 4                     | 11                     | 12                    | 0.61 | 2    |
| Tamil Nadu        | 6                     | 10                    | 2                      | 19                    | 0.6  | 3    |
| Mizoram           | 1                     | 3                     | 25                     | 14                    | 0.59 | 4    |
| Andhra Pradesh    | 8                     | 7                     | 8                      | 6                     | 0.55 | 5    |
| Nagaland          | 3                     | 1                     | 28                     | 22                    | 0.51 | 6    |
| Himachal Pradesh  | 13                    | 15                    | 5                      | 4                     | 0.48 | 7    |
| Uttarakhand       | 17                    | 17                    | 9                      | 3                     | 0.48 | 7    |
| Karnataka         | 10                    | 17                    | 13                     | 2                     | 0.47 | 8    |
| Meghalaya         | 4                     | 9                     | 18                     | 20                    | 0.46 | 8    |
| Sikkim            | 5                     | 20                    | 12                     | 16                    | 0.43 | 10   |
| Telangana         | 15                    | 8                     | 7                      | 27                    | 0.42 | 11   |
| Rajasthan         | 7                     | 26                    | 4                      | 18                    | 0.41 | 12   |
| Punjab            | 27                    | 10                    | 6                      | 11                    | 0.41 | 12   |
| Arunachal Pradesh | 16                    | 6                     | 26                     | 21                    | 0.37 | 13   |
| Chhattisgarh      | 17                    | 22                    | 10                     | 9                     | 0.35 | 13   |

|                  |    |    |    |    |      |    |
|------------------|----|----|----|----|------|----|
| Goa              | 29 | 17 | 3  | 25 | 0.33 | 14 |
| Manipur          | 28 | 5  | 20 | 23 | 0.32 | 15 |
| West Bengal      | 19 | 25 | 14 | 8  | 0.32 | 16 |
| Uttar Pradesh    | 24 | 13 | 27 | 7  | 0.31 | 17 |
| J& K             | 9  | 16 | 29 | 17 | 0.3  | 18 |
| Haryana          | 25 | 19 | 15 | 13 | 0.29 | 18 |
| Gujarat          | 22 | 12 | 16 | 28 | 0.29 | 19 |
| Orissa           | 21 | 23 | 22 | 10 | 0.29 | 19 |
| Madhya Pradesh   | 20 | 23 | 21 | 15 | 0.29 | 19 |
| Bihar            | 23 | 28 | 19 | 5  | 0.29 | 19 |
| Maharashtra      | 11 | 26 | 17 | 24 | 0.27 | 19 |
| Jharkhand        | 18 | 20 | 24 | 25 | 0.23 | 21 |
| Assam            | 26 | 29 | 23 | 29 | 0.08 | 22 |
| National Average |    |    |    |    | 0.40 |    |

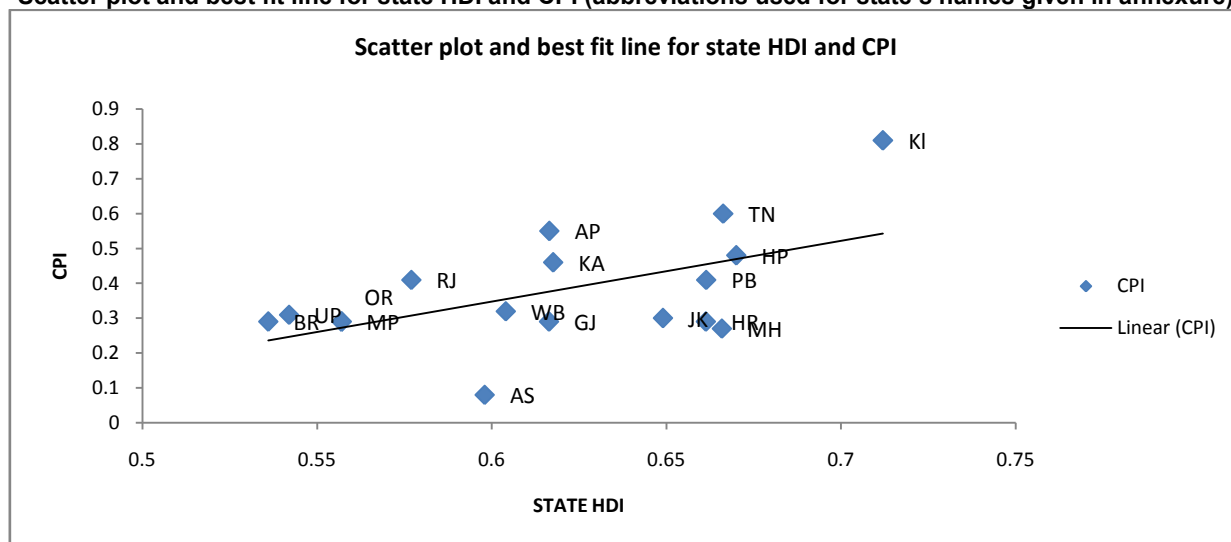
Some surprising results arises from the above ranking. States perform very well in some parameters but drop down to very low levels in other parameters. Thus, for 2016-17 Kerala is at the first position with composite performance index of 0.81 because of its good performance in PIW, PIF and PIWE but it lags behind to position 12 in PIP. The next state to follow is Tripura at much lower composite performance index of 0.61 because of its low performance in PIWE and PIF, and then the following states differ marginally in their composite performance index but with huge variation in ranking according to the rest of the parameters except Assam which is on the last position and with very low index of 0.08 and with low performance in almost all the parameters. The national average of CPI is 0.40 and the states

lagging behind the national average are highlighted in the above table. As evident from above the north eastern and southern states on a general note have got better performance as compared to the other zones of India.

#### Factors Influencing the Performance of the States State's Development Level

For measuring the state's development level state HDI (*India Human Development Report 2011 (Towards Social Inclusion)*, n.d.) has been considered for each state. As computed from the correlation table, CPI and HDI have a correlation of 0.55 which denotes moderate positive linear correlation. Thus, we can conclude that CPI can said to be moderately affected by the development levels of the state.

Figure  
Scatter plot and best fit line for state HDI and CPI (abbreviations used for state's names given in annexure)



As evident from the scatter plot, there is not a perfect one-to-one relationship between CPI and HDI but we can conclude that to some extent CPI is affected by HDI of the states as the maximum of the points lie close to the positive linear trend line. This can be further verified by regression analysis as well run on R studio as correlation does not imply causation. So the regression equation was found as –  $CPI = -1.0939 + 2.3875 HDI$  which means that for one unit of change in HDI, CPI increases by 2.3875 units. R square is 0.6449 which means that 64.49 percent of

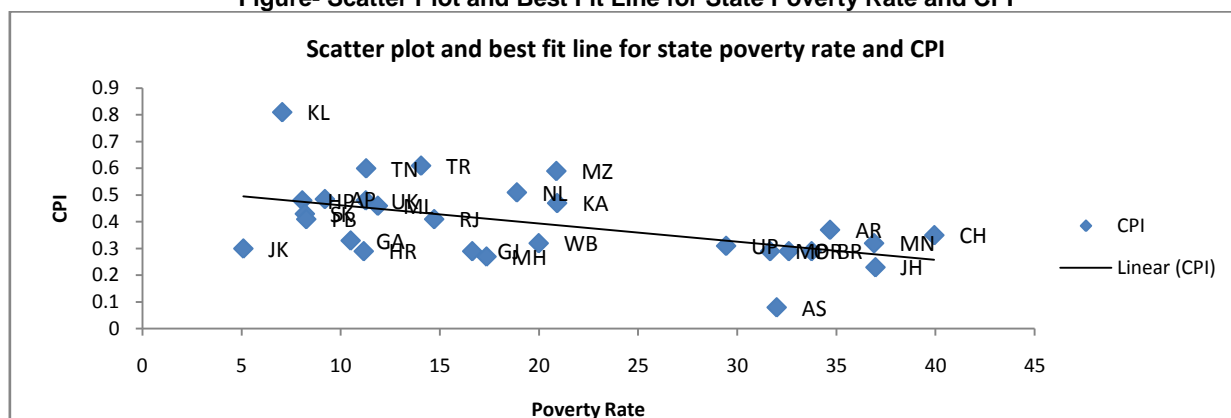
variation in CPI across the states can be explained by their HDI levels. Since the p-value is less than 0.05 so we can reject the null hypothesis and conclude that there is a significant relationship between the two variables. Therefore, on a general note, states with higher development levels may have better performance because of better state machinery and ability of the state government to implement such large scale schemes effectively.

**Poverty Level in the State**

It can be assumed in this that higher the poverty levels more is the demand for MGNREGA employment for poverty alleviation but in addition it also means that the state machinery is less capable of the proper and efficient implementation of the scheme. For measuring the state's poverty level, the poverty rate that is percentage of people below the poverty line as released by the annual report by RBI

in 2013 (Table 162, Number and Percentage of Population Below Poverty Line, 2013) has been considered. As computed from the correlation table, CPI and poverty rate have a correlation of -0.52 which denotes moderate negative linear correlation. Thus we can conclude that, CPI is moderately affected by the poverty levels of the state but there exists some exceptions.

**Figure- Scatter Plot and Best Fit Line for State Poverty Rate and CPI**



As evident from the scatter plot, there is a negative relation between the poverty rate of the states and their respective CPI, that is, the higher is the poverty rate of the state the lower is their performance in MGNREGA probably because of state machinery being less capable of the proper and efficient implementation of the scheme due to high demand and lesser supply of works. Though it's not a perfect one-to-one relationship but we can conclude that to some extent CPI is affected by poverty rate of the states as the maximum of the points lie close to the linear trend line except some outliers. This can be further verified by regression analysis as well. So the regression equation was found as  $CPI = 0.526648 - 0.006727 \text{ poverty rate}$  which means that for one unit of change in poverty rate, CPI decreases by 0.006727 units. R square is 0.3262 which means that 32.62 percent of variation in CPI across the states can be explained by their poverty levels. Since the p-value is less than 0.05 so we can reject the null hypothesis and conclude that there is a significant relationship between the two variables. Thus, poverty rate affects the CPI across the states by only some extent which is contrary to the moderately strong results of the correlation (-0.52) and scatter plot analysis.

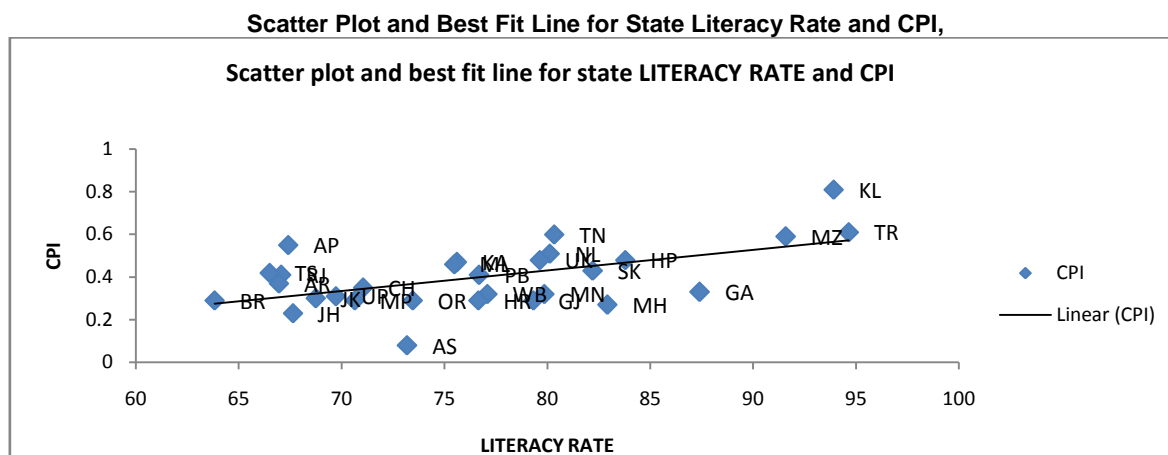
**Note**

MGNREGA being demand driven scheme should be less in demand in states with high HDI and high in demand in poor states. But as the above analysis shows, it is clearly evident that this scheme is working as a supply driven scheme because of which in poor states there is a demand supply mismatch leading to poor performances.

**Literacy level in the State**

Higher literacy means higher awareness thus leading people to voice their demand for work and also resent against any violations of the guidelines laid down under MGNREGA thus resulting in an effective implementation of the scheme. It will also lead to improved administration among the lower government officials who are the most important key in successful implementation of the scheme. For measuring the state's literacy level, the literacy rate in each state as released by the census 2011 (Census 2011, Chapter 6 (State of Literacy), p.14, n.d.) has been considered. As computed from the correlation table, CPI and literacy rate have a correlation of 0.55 which denotes moderate positive linear correlation. Thus we can conclude that CPI is moderately affected by the literacy levels of the state.

Figure



As evident from the scatter plot, there is a positive relation between the literacy rate of the states and their respective CPI, that is, the higher is the literacy rate of the state the higher is their performance in MGNREGA probably because higher literacy means higher awareness regarding their right to work under decent wages thus increasing the demand for work. Though it's not a perfect one-to-one relationship as there exists many outliers. The results can be further verified by regression analysis as well. So the regression equation was found as –  $CPI = -0.9564 + 0.01773 \text{ literacy rate}$  which means that for one unit of change in literacy rate, CPI increases by 0.01773 units. R square is 0.9262 which means that 92.62 percent of variation in CPI across the states can be explained by their literacy levels. Since the p-value is less than 0.05 so we can reject the null hypothesis and conclude that there is a significant relationship between the two variables. Thus, literacy rate significantly affects the CPI across the states.

**Corruption Level in the State**

States with high incidence of corruption will lead to less effective implementation of the scheme because of leakages in the system from high bureaucratic levels to low local government levels due to which the benefits will not reach the intended beneficiaries thus leading to low performance and failure of the scheme's objectives. For measuring the state's corruption level data has been taken from CMS-ICS 2017 report (Services & View, 2017). As computed from the correlation table above, CPI and corruption level have a correlation of -0.18 which denotes very weak negative linear correlation. The correlation is very weak because of the non-availability of accurate data from credible sources on corruption level for all the states. Note – For this the regression analysis is not done due to the lack of sufficient data for all the states.

**Other Factors**

Some other factors influencing MGNREGA can be - states with high operational capacity- in terms of its ability to reach out to people, economic, organizational and human resource capability, and

high commitment- in terms of planning, implementation, sanctioning and continuous efforts, tends to perform better than the states with low capacity and commitment towards the scheme. Local power relations, caste related politics and societal constraints also play an important role. For the factors like operational capacity and commitment we can take the example of Chhattisgarh which despite having low economic and organizational capacity has done well as compared to richer states like Maharashtra and Gujarat because of its commitment which has promoted civil society involvement thus leading to higher public awareness. Moreover, if we take the example of Bihar, its low performance can be attributed to the failure of institutional setup at panchayat level, cultural bindings on women and caste related politics.

**Interpretation**

In zone wise performance in northern zone the best performing state is Uttarakhand while the worst is Haryana for 2016-17. Similarly for south, Kerala is the best, Telangana is the worst; for west Rajasthan is the best and Maharashtra is the worst; for east West Bengal is the best while Bihar is the worst, for north east Tripura is the best and Assam is the worst and lastly for central zone Chhattisgarh is a better performer than Madhya Pradesh. After the zone wise performance, the study was extended to all the states taken together and thus ranked according to their performance.

Some surprising results arises from the above ranking. States perform very well in some parameters but drop down to very low levels in other parameters. The national average of CPI is 0.40 and the states lagging behind the national average have been highlighted in the table. As evident from the above analysis the north eastern and southern states on a general note have got better performance as compared to the other zones of India. There can be various factors- social, cultural, economic, institutional and structural, accounted for the above heterogeneous performance across the Indian states, in terms of the effective implementation of the



scheme. Some of these factors considered for their possible impact on MGNREGA are state's development level, poverty level, literacy level, and corruption level. Out of these, state's development level, poverty level and literacy level plays an important role in the performance of the states under MGNREGA but poverty rate impacts CPI only to some extent and corruption level's impact on CPI were found to be low probably because of the lack of a credible corruption levels data for all the states.

#### **Areas of development and Suggestions**

CAG (2007) report was among the firsts to discover major deficiencies in the implementation of MGNREGA. The most recent is an audit exercise piloted in 2017 by the rural development ministry named as the Common Review Mission (CRM) ("MGNREGA audit: Low wages, delayed payments among biggest problems," n.d.), which has found several anomalies in the implementation of MGNREGA. Although recent efforts by the government like Aadhar linking, Electronic fund management system (eFMS), geo-tagging etc. has improved the timely wage payment statistics. It was also found that the actual average wage rate existing in the states was lower than the mandated rates. Next, MGNREGA which was formulated to be demand-driven has become supply-driven. The finding also suggests that there is unawareness among the people regarding their right to demand work. Moreover, the states were having below the average work completion rate. Besides these, lack of transparency in allocation of works, irregularities in measurement of work, ineffective grievance redressal mechanism, poor quality of assets, lack of adequate worksite facilities and lack of technical capacity with gram panchayats were some of the other shortcomings found by the study.

Currently, the government is making efforts to correct these shortcomings. Focus has been placed on simplification and strengthening of procedures. Shortage of funding problem is to be solved at the Centre level as this is a central scheme, the state governments are not supposed to shell out money out of their budget. Moreover the monitoring and auditing system has to be strengthened further especially at the local levels to ensure effective implementation of the scheme. More transparency and accountability should be enforced about the work being undertaken, muster rolls verification, registrations being done; social audits findings and financial resource management should be involved in the scheme. All the works under MGNREGA must be pre planned with a definite deadline for completion. ("What Ails MGNREGA?—It's Complicated!," n.d.) Guidelines laid in the act like 100 days of employment per house, worksite facilities, one third of women workers etc. should be ensured strictly. Wage rate paid to the workers should be indexed according to the rate of inflation existing. Workers should be empowered by making them aware of their rights, promoting their participation and by enhancing their skill sets by developing their knowledge levels, literacy skills, organizing workers, and enhancing social security

levels of workers. The efforts of Opening of the savings accounts of workers' in banks and post offices needs to be escalated to bring more of the workers under the financial ambit and to encourage them to save. The workers should be included in the life and health insurance net as well to improve their security in case of a contingency. MGNREGA can be strengthened further by linking it with other rural development schemes so that together their synergies will pave the way for achieving the SDG's in rural India. Besides these, there is also a need to improve the operational capacity at the gram panchayat level through clear distribution of roles and responsibilities and capacity building of all the agencies involved, as GP's are often found to be inadequate in terms of resources and skilled staff.

There is a current need that the poorly governed states – Assam, Jharkhand, Bihar etc. ought to learn from the better governed states – Kerala, Mizoram, Tamil Nadu etc. in terms of better financial management, technological infrastructure, effective monitoring and grievance redressal systems. Currently the issue brought to the forefront is the delay in the financial audit reports to be submitted by the states to the Centre ("States asked to complete NREGA FY17 audit by September - The Economic Times," n.d.) because of which several states are not getting the funds on time thus are not being able to timely wage payments. Like Bihar got its funding in March, 2017 for the year 2016-17 because of late submission of financial audit report. Besides this the states should focus on their individual and regional problems like – Bihar and U.P. with low levels of HDI, Assam, Chhattisgarh and Jharkhand with high levels of poverty rates, again Bihar and Jharkhand with low levels of literacy and Karnataka and Andhra Pradesh with high levels of corruption- to remove these barriers which are hampering MGNREGA from fully achieving its objectives.

#### **Conclusion**

MGNREGA is a bottom-up, demand driven, people centered unique large scale employment generation scheme (Bhattacharyya, 2013) which has till now issued 12.67 crores of job cards since 2006 and has achieved unprecedented amount of success in some states by not only bringing the people above poverty line and ensuring a financial support for their family to improve the livelihood and the economic status of rural people but also strengthening the rural sector by improving socio-economic conditions, infrastructure, environmental resources and thus enhancing the agricultural productivity. But the problem arises due to lack of simultaneous growth in all states. In a country like India with huge cultural, economic, political, environmental and social diversities there is a need to understand the complexity existing among the regional, state and national level dynamics. It is known that MGNREGA has a huge potential only if it is implemented accurately and efficiently across all the states with all their diversities in totality. Since its implementation, it has changed the face of the rural labour market. There is no doubt that some states like Kerala, Tamil Nadu,

Andhra Pradesh to name a few have benefitted tremendously by implementing this scheme accurately and plugging any leakages by ensuring consistent social audits and monitoring. But some states like Bihar, Jharkhand, Assam which are in dire need of poverty alleviation still are far lagging behind the national average and thus have fared very poorly. India should optimize its synergies by working on the suggested areas of development and thus should try not to miss the opportunity of demonstrating to the world that the world's largest democracy cares for all the sections of its society especially the underprivileged and the vulnerable and thus is marching ahead on the path of overall sustainable development and the creation of a welfare state in the true sense.

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**Appendix**

| <b>Name of States</b> | <b>Abbreviation</b> | <b>Name of States</b> | <b>Abbreviation</b> | <b>Name of States</b> | <b>Abbreviation</b> |
|-----------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|
| Kerala                | KL                  | Meghalaya             | ML                  | Uttar Pradesh         | UP                  |
| Tripura               | TR                  | Sikkim                | SK                  | J& K                  | JK                  |
| Tamil Nadu            | TN                  | Telangana             | TS                  | Haryana               | HR                  |
| Mizoram               | MZ                  | Rajasthan             | RJ                  | Gujarat               | GJ                  |
| Andhra Pradesh        | AP                  | Punjab                | PB                  | Orissa                | OR                  |
| Arunachal Pradesh     | AR                  | Nagaland              | NL                  | Madhya Pradesh        | MP                  |
| Chhattisgarh          | CH                  | Himachal Pradesh      | HP                  | Bihar                 | BR                  |
| Goa                   | GA                  | Uttarakhand           | UK                  | Maharashtra           | MH                  |
| Manipur               | MN                  | Karnataka             | KA                  | Jharkhand             | JH                  |
| West Bengal           | WB                  | Assam                 | AS                  | Madhya Pradesh        | MP                  |