

## Policy Implementation and Impact Review: A Case of MGNREGA in India

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Doi:10.5901/mjss.2013.v4n13p367

### Abstract

*Amid rising concerns of fiscal deficit and defying the advocates of rural-urban migration, the Union government of India has remained committed to its flagship social program known as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Launched in the year 2006, it is the largest social scheme of its kind anywhere in the world. In the financial year 2012-13 alone, more than 48 million people were provided employment under the scheme. While the scheme has shown positive results in many districts of the country, it is also facing its share of challenges on economic, managerial and political fronts. Qualitative measure gives a better insight into the success of social schemes like MGNREGA. However we should also have a comprehensive quantitative measure for the same. In this paper, we develop a methodology to measure the success of implementation of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in different states of India and also look at some of the factors correlated to the comparative success of states. We also discuss some of the key features of the scheme from the point of view of policy making decisions.*

**Keywords:** Policy; Government; Employment; Poverty; Wages; Development; Rural

### 1. Introduction

Amid rising concerns of fiscal deficit and defying the advocates of rural-urban migration, the Union government of India has remained committed to its flagship social program known as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Launched in the year 2006, it is the largest social scheme of its kind anywhere in the world. In the financial year 2012-13 alone, more than 48 million people were provided employment under the scheme. While the scheme has shown positive results in many districts of the country, it is also facing its share of challenges on economic, managerial and political fronts.

Qualitative measure gives a better insight into the success of social schemes like MGNREGS. However we should also have a comprehensive quantitative measure for the same. In this paper, we develop a methodology to measure the success of implementation of Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) in different states of India and also look at some of the factors correlated to the comparative success of states. We also discuss some of the key features of the scheme from the point of view of policy making decisions.

### 2. The Act

#### 2.1 National Rural Employment Guarantee Act, 2005

*'An Act to provide for the enhancement of livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work and for matters connected therewith or incidental thereto' ( Gazette of India, September 07, 2005)*

Providing wage employment opportunity and creating sustainable rural livelihoods, supporting creation of durable assets, decentralization of power, social and gender equity, controlling distress migration and natural resource management are considered as integral part and objectives of MGNREGA. Unlike earlier employment schemes of the government, MGNREGA provides 'guarantee' of employment.

The agricultural season lasts around 250 days in the country, so the act has provision to provide up to 100 days of

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unskilled manual labor work on demand. The Act covered 200 districts in its first phase, launched on February 2, 2006, and was extended to 130 additional districts in the year 2007-2008. The scheme was extended to all the rural areas in India from April 1, 2008.

As per the act, State governments are responsible for providing the work under the scheme. Central government provides 100% funding for the wages for unskilled manual work and 75% of material cost which includes payment to semi-skilled and skilled workers. Rest is borne by the state government. Employment must be provided within 15 days of application, failing which unemployment allowance is paid to the person demanding the work. 100% cost of unemployment allowance is on state government. Wage payments are made through bank accounts or post office savings account, leading to greater transparency. Use of machinery or contractors on MGNREGA work sites is not allowed. The work must be provided within 5km of the residence of the household demanding work; else travelling allowance is paid separately. The act also has provision for the minimum wages to be paid. Further, at least one-third of the beneficiaries of MGNREGA should be women. Employment is provided only to the job card holders.

Few studies (The Economic Times report, March 15 2009) have criticized MGNREGA on the grounds that it discourages labor mobility and argue that migration. However, from the point of view of policy decision, the key features of MGNREGA reveal that it is meant to tackle underemployment as it guarantees employment up to 100 days only. Further, this 100 days bracket is meant to ensure that the scheme does not hamper availability of labor for agricultural sector in India. Further the popular theories on migration, like *The Todaro model of migration* (Harris, John R. & Todaro, Michael P., 1970) or the *Dual sector model* (W.A Lewis) reveal that rural-urban migration is because of the disequilibrium in the society. In a country with socio-economic condition like India, it is imperative for the Government to focus on curbing distress migration and focus on creating employment opportunities in the rural areas.

### 3. A look at Country Level Data for MGNREGS (Financial Year 2008-09 to 2012-13)

The data has been taken from DMU report available at official website of NREGA (<http://nrega.nic.in/netnrega/home.aspx>).

Figure I: Total expenditure on MGNREGS

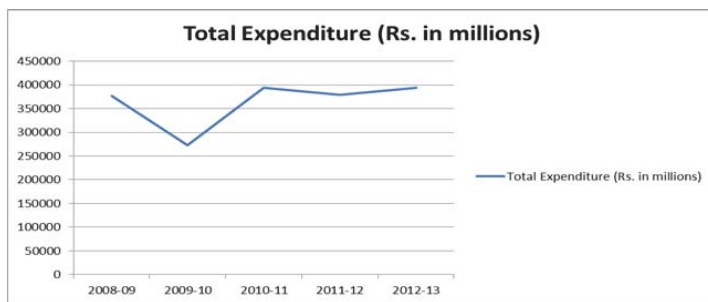


Figure II: Total number of households provided employment

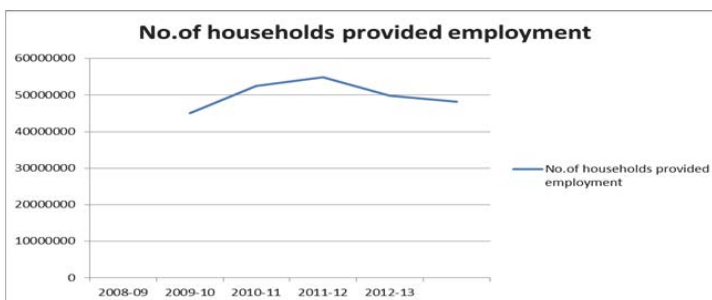
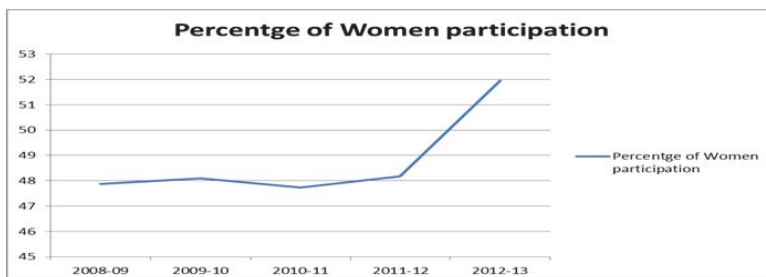


Figure III: percentage of women participation



#### 4. Methodology to Measure the Comparative Success of Implementation of MGNREGA

The success of social schemes like MGNREGA is better gauged qualitatively. However, we should also have a quantitative measure for its success. A study titled *MGNREGA Implementation: A Cross-State Comparison(2012\** discusses a measure of implementation success of MGNREGA taking 'Average Person-Days Worked per Rural Household', 'wage levels' and 'women inclusion' as success indicators. The above mentioned paper does not take into account the quality of assets being created through MGNREGA in the measure of success of implementation. Also, taking figures for the average person days worked per rural household in absolute terms has limitations and this variable parameter if adjusted will yield better results. For example, in the financial year 2012-13, *average person days of work* provided per household in Jharkhand and Uttrakhand was 39.5 and 39.96 respectively. It is important to note that although the two numbers are similar in absolute terms but they reflect different degrees of success/failure of the states to provide employment.

The quality of assets being created to boost the rural infrastructure has been a key concern in the implementation of this program and also a major cause of criticism. There is a ban on the use of machinery and contractors at the MGNREGA work sites and most of the work is done using shovels. The goal is to generate as much employment as required.

In this section, we will develop a methodology to measure the success of MGNREGA in quantitative terms. Any measure of the success of this social scheme must relate to its objectives. Creating wage employment opportunities and sustainable rural livelihood, creation of durable assets in rural areas, decentralization of power, social and gender equity, natural resource management and controlling distress migration are considered integral part of this program.

We will use the parameters below to develop a quantitative measure of the implementation success of MGNREGA. The data for analysis in this section has been taken from DMU report available at official website of NREGA (<http://nrega.nic.in/netnrega/home.aspx>).

1. Ratio of number of households provided employment to the number of households who demanded employment.
2. Average person days of work provided per household. However, we will not use absolute numbers directly but rather develop a relative percentile which also captures the demand of work to some extent. MGNREGA is demand based. It may have happened that people didn't demand employment under the act for the full 100 days. A study by UNDP([www.business-standard.com](http://www.business-standard.com) ; 2013) showed that 42% households that sought employment under MGNREGA and on whose land work was undertaken, did not come back to work on MGNREGA, implying that they improved materially and did not need it anymore.

Hence the deviation of average person days of work provided from 100 reflects different levels of success/failure of the states to provide employment. It is expected and also assumed that in the states with greater rate of poverty, greater percentage of people provided employment under the scheme would be willing to work for 100 days. For example, consider the scenario below of two states.

States	% of rural population below poverty line(2009-10; Tendulkar's methodology)	Average person days of work provided per household under MGNREGA(2012-13)
Jharkhand	41.6	39.5
Uttrakhand	14.9	39.96

Considering poverty rate, this method partially captures both the supply side i.e. ability of a state to provide full 100 days of employment under MGNREGA and also demand side of the work. So, Uttarakhand outperforms Jharkhand, by the parameter of average person days of work provided per household although the absolute number of person days is similar for both the states. For details of derivation, please refer to Appendix.

3. Percentage of women participation: This captures the success of the scheme in terms of gender equity.
4. Expenditure on wages per household employed.
5. The quality of assets created. This is difficult to measure based on secondary data available. The type of works undertaken varies from water conservation, flood control, drought proofing to micro irrigation works, land development, fisheries and construction of roads. Since the use of machinery and contractors is not allowed at MGNREGA work sites and the shelf of projects is generally made for one year, quality of assets can be measured to some extent by the total person days deployed per work taken up. This measure of the quality of assets created neglects the productivity of workers. It has other limitations also. However, it can be used as a variable in measuring the overall success of MGNREGA.

For the purpose of this study, we have considered top 25 states of India based on the number of people provided employment under MGNREGA. Using the cumulative score based on all the five parameters listed above, we get the ranking of the states as shown in Table I for the financial year 2012-2013. For details of the method used, please refer to Appendix.

**Table I:** Ranks of states based on the comparative success of implementation of MGNREGA

Rank	States
1	Tripura
2	Tamil Nadu
3	Meghalaya
4	Mizoram
5	Nagaland
6	Andhra Pradesh
7	Himachal Pradesh
7	Rajasthan
9	Uttarakhand
10	Haryana
11	Kerala
12	Manipur
13	Punjab
14	Chhattisgarh
15	Madhya Pradesh
16	Karnataka
17	Gujarat
18	West Bengal
19	Jharkhand
20	Bihar
20	Maharashtra
22	Jammu And Kashmir
23	Assam
24	Odisha
25	Uttar Pradesh

As a matter of perception in India, Rajasthan, Andhra Pradesh and Tamil Nadu are the states considered to have implemented MGNREGA well, while Uttar Pradesh, Bihar and Orissa are known to have struggled. Such perceptions however are not backed by a single comprehensive measure of success or any quantitative measurement tool.

The methodology used in this paper to measure the implementation success of MGNREGA gives expected results of the performance rankings of states.

#### 4.1 Spearman's rank correlation coefficient

States	MGNREGA Performance Rank (R1)	Poverty rank(R2), (derived from Table II)	d=(R2-R1)	d <sup>2</sup>	Literacy rank(R3)	d= R3-R1	d <sup>2</sup>
Andhra Pradesh	6	11	5	25	22	16	256
Assam	23	20	-3	9	17	-6	36
Bihar	20	24	4	16	25	5	25
Chhattisgarh	14	25	11	121	18	4	16
Gujarat	17	14	-3	9	10	-7	49
Haryana	10	7	-3	9	13	3	9
Himachal Pradesh	7.5	2	-5.5	30.25	4	-3.5	12.25
Jammu and Kashmir	22	1	-21	441	21	-1	1
Jharkhand	19	21	2	4	23	4	16
Karnataka	16	12	-4	16	14	-2	4
Kerala	11	3	-8	64	1	-10	100
Madhya Pradesh	15	22	7	49	19	4	16
Maharashtra	20	16	-4	16	5	-15	225
Manipur	12	23	11	121	8	-4	16
Meghalaya	3	6	3	9	15	12	144
Mizoram	4	17	13	169	2	-2	4
Nagaland	5	8	3	9	7	2	4
Odisha	24	18	-6	36	16	-8	64
Punjab	13	4	-9	81	12	-1	1
Rajasthan	7.5	13	5.5	30.25	24	16.5	272.25
Tamil Nadu	2	10	8	64	6	4	16
Tripura	1	9	8	64	3	2	4
Uttar Pradesh	25	19	-6	36	20	-5	25
Uttarakhand	9	5	-4	16	9	0	0
West Bengal	18	15	-3	9	11	-7	49
			sum of d <sup>2</sup>	1453.5		sum of d <sup>2</sup>	1364.5
			n	25		n	25
			n3	15625		n3	15625
			n3-n	15600		n3-n	15600
			<b>r</b>	<b>0.4409615</b>		<b>r</b>	<b>0.4751923</b>

The above correlation(r) is found to be significant at 5% level (i.e. there is more than 95% chance that the relationship is significant and not random). Hence there's a positive correlation between MGNREGA performance of a state and its poverty ranks and literacy levels.

#### 5. Conclusion

Amid rising concerns of fiscal deficit and defying the advocates of rural-urban migration, the Union government of India has remained committed to its flagship social program known as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Launched in the year 2006, it is the largest social scheme of its kind anywhere in the world. In the financial year 2012-13 alone, more than 48 million people were provided employment under the scheme. While the scheme has shown positive results in many districts of the country, it is also facing its share of challenges on economic, managerial and political fronts.

In this paper, we developed a methodology to measure the success of MGNREGA in quantitative terms using the five parameters, namely, *Ratio of number of households provided employment to the number of households who demanded employment, Average person days of work provided per household, Percentage of women participation, Expenditure on wages per household employed, and the quality of assets created under the scheme.*

As a matter of perception in India, Rajasthan, Andhra Pradesh and Tamil Nadu are the states considered to have implemented MGNREGA well, while Uttar Pradesh, Bihar and Orissa are known to have struggled. The methodology

used in this paper to measure the implementation success of MGNREGA gives expected results of the performance rankings of states. Also, a positive correlation was found between MGNREGA performance of a state and its poverty ranks and literacy levels. This correlation links the success of implementation of social schemes like MGNREGA with the capacity of the states as the poverty levels are indicative of the ability of the government in the area of policy making and implementation. The correlation also reveals that greater literacy levels are positively correlated with MGNREGA performance of state. Greater literacy levels lead to greater awareness levels and hence more rural people of such states are expected to exercise their right to work as enshrined in the act.

## References

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## Appendix

**Table II:** Ranking of states based on average person days of work provided per household

States	% of rural population below poverty line (Tendulkar's methodology,2009-10)	Average persondays of work provided per household(P2)	Score to be used for ranking parameter P2	Rank of states based on P2 score alone	Percentile
Andhra Pradesh	22.8	49.61	2.175877193	10	62.50%
Assam	39.9	25.44	0.637593985	25	0.00%
Bihar	55.3	43.32	0.783363472	22	12.50%
Chhattisgarh	56.1	45.04	0.80285205	21	16.60%
Gujarat	26.7	41.31	1.547191011	16	37.50%
Haryana	18.6	43.57	2.342473118	9	66.60%
Himachal Pradesh	9.1	48.67	5.348351648	2	95.80%
Jammu And Kashmir	8.1	48.93	6.040740741	1	100.00%
Jharkhand	41.6	39.5	0.949519231	18	29.10%
Karnataka	26.1	46.48	1.780842912	15	41.60%
Kerala	12	54.83	4.569166667	3	91.60%
Madhya Pradesh	42	36.1	0.85952381	20	20.80%
Maharashtra	29.5	52.66	1.785084746	14	45.80%
Manipur	47.4	37.13	0.783333333	23	8.30%
Meghalaya	15.3	44.77	2.926143791	5	83.30%
Mizoram	31.1	73.24	2.354983923	8	70.80%
Nagaland	19.3	35.1	1.81865285	13	50.00%
Odisha	39.2	34.11	0.870153061	19	25.00%
Punjab	14.6	27.08	1.854794521	12	54.10%
Rajasthan	26.4	51.9	1.965909091	11	58.30%
Tamil Nadu	21.2	57.82	2.727358491	6	79.10%
Tripura	19.8	86.78	4.382828283	4	87.50%
Uttar Pradesh	39.4	28.2	0.715736041	24	4.10%
Uttarakhand	14.9	39.96	2.681879195	7	75.00%
West Bengal	28.8	33.66	1.16875	17	33.30%

**Table III:** Ranking of states based on average wages per household

States	No. of households provided employment	Expenditure on Wages (Rs. In lakhs)	Wages per household (Rs. In lakhs) ;P4	Rank based on parameter P4 alone	Percentile
Andhra Pradesh	5506369	335056.21	0.060848848	12	54.10%
Assam	1217074	50385.2	0.041398633	22	12.50%
Bihar	1908553	162216.38	0.084994433	4	87.50%
Chhattisgarh	2626054	115934.25	0.044147702	19	25.00%
Gujarat	678040	47886.09	0.070624285	6	79.10%
Haryana	290849	14225.69	0.048910913	17	33.30%
Himachal Pradesh	491848	27769.08	0.056458662	15	41.60%
Jammu and Kashmir	492191	23727.39	0.048207688	18	29.10%
Jharkhand	1394426	85807.14	0.061535815	11	58.30%
Karnataka	1337882	157562.9	0.117770401	1	100.00%
Kerala	1525486	63676.86	0.041742015	20	20.80%
Madhya Pradesh	3080587	214931.93	0.069769797	7	75.00%
Maharashtra	1548667	26886.88	0.017361305	25	0.00%
Manipur	427856	27477.17	0.064220602	10	62.50%
Meghalaya	300297	19925.71	0.066353344	8	70.80%
Mizoram	173967	19239.94	0.110595343	2	95.80%
Nagaland	375740	34396.65	0.091543754	3	91.60%
Odisha	1598097	93293.05	0.058377589	14	45.80%
Punjab	234838	9765.26	0.041582964	21	16.60%
Rajasthan	4201386	227202.51	0.05407799	16	37.50%
Tamil Nadu	7054997	221453.08	0.031389536	23	8.30%
Tripura	596465	38450.11	0.064463313	9	66.60%
Uttar Pradesh	4880862	351965.3	0.072111299	5	83.30%
Uttarakhand	401748	23467.83	0.058414304	13	50.00%
West Bengal	5693870	165658.08	0.02909411	24	4.10%

**Table IV:** Ranking of states based on percentage of women beneficiaries under MGNREGS

States	% Age of Women participation(P3)	Rank based on parameter P3 alone	Percentile
Andhra Pradesh	58.07	5	83.30%
Assam	26.01	21	16.60%
Bihar	30.46	20	20.80%
Chhattisgarh	46.93	6	79.10%
Gujarat	42.8	11	58.30%
Haryana	39.88	15	41.60%
Himachal Pradesh	60.63	4	87.50%
Jammu And Kashmir	20.5	24	4.10%
Jharkhand	32.64	19	25.00%
Karnataka	46.25	8	70.80%
Kerala	92.99	1	100.00%
Madhya Pradesh	42.47	12	54.10%
Maharashtra	44.48	10	62.50%
Manipur	36.17	16	37.50%
Meghalaya	41.93	13	50.00%
Mizoram	23.52	23	8.30%
Nagaland	25.17	22	12.50%
Odisha	35.96	17	33.30%
Punjab	46.67	7	75.00%
Rajasthan	68.99	3	91.60%
Tamil Nadu	74.17	2	95.80%
Tripura	41.09	14	45.80%

Uttar Pradesh	19.67	25	0.00%
Uttarakhand	45.99	9	66.60%
West Bengal	33.61	18	29.10%

**Table V:** Ranking of states based on Ratio of number of households provided employment to the number of households who demanded employment

States	No. of households who demanded employment	No. of households provided employment	Ratio of number of households provided employment to the number of households who demanded employment (P1)	Rank based on parameter P1 alone	Percentile
Andhra Pradesh	5506369	5506369	1	1	100.00%
Assam	1229450	1217074	0.98993371	8	70.80%
Bihar	2075513	1908553	0.919557237	20	20.80%
Chhattisgarh	2726377	2626054	0.963202815	15	41.60%
Gujarat	749978	678040	0.904079853	24	4.10%
Haryana	299339	290849	0.971637508	13	50.00%
Himachal Pradesh	541472	491848	0.908353525	22	12.50%
Jammu And Kashmir	528748	492191	0.930861204	18	29.10%
Jharkhand	1412272	1394426	0.987363624	10	62.50%
Karnataka	1470650	1337882	0.909721552	21	16.60%
Kerala	1693885	1525486	0.90058416	25	0.00%
Madhya Pradesh	3109868	3080587	0.990584488	7	75.00%
Maharashtra	1581989	1548667	0.978936642	12	54.10%
Manipur	444894	427856	0.961703237	16	37.50%
Meghalaya	303447	300297	0.989619275	9	66.60%
Mizoram	174782	173967	0.995337048	3	91.60%
Nagaland	377615	375740	0.995034625	4	87.50%
Odisha	1766554	1598097	0.9046409	23	8.30%
Punjab	242965	234838	0.966550738	14	45.80%
Rajasthan	4536095	4201386	0.926212083	19	25.00%
Tamil Nadu	7098688	7054997	0.993845201	5	83.30%
Tripura	597416	596465	0.998408144	2	95.80%
Uttar Pradesh	5219398	4880862	0.93513888	17	33.30%
Uttarakhand	407845	401748	0.985050693	11	58.30%
West Bengal	5746064	5693870	0.990916565	6	79.10%

**Table VI:** Ranking of states based on household employed per work

States	No. of households provided employment	Total Works Taken up	Households employed per work(P5)	Rank based on parameter P5 alone	Percentile
Andhra Pradesh	5506369	4599698	1.197115332	25	0.00%
Assam	1217074	73801	16.49129416	3	91.60%
Bihar	1908553	332177	5.745590453	18	29.10%
Chhattisgarh	2626054	219751	11.95013447	10	62.50%
Gujarat	678040	115531	5.868900988	15	41.60%
Haryana	290849	21286	13.66386357	8	70.80%
Himachal Pradesh	491848	93394	5.266376855	20	20.80%
Jammu And Kashmir	492191	129105	3.812331048	23	8.30%
Jharkhand	1394426	239144	5.830905229	16	37.50%
Karnataka	1337882	406812	3.288698465	24	4.10%
Kerala	1525486	209930	7.266641261	12	54.10%
Madhya Pradesh	3080587	649266	4.744722502	21	16.60%
Maharashtra	1548667	397147	3.899480545	22	12.50%
Manipur	427856	14796	28.9170046	2	95.80%



Meghalaya	300297	19083	15.73636221	4	87.50%
Mizoram	173967	12119	14.35489727	5	83.30%
Nagaland	375740	27187	13.82057601	7	75.00%
Odisha	1598097	227095	7.037129836	13	50.00%
Punjab	234838	16730	14.03693963	6	79.10%
Rajasthan	4201386	417300	10.06802301	11	58.30%
Tamil Nadu	7054997	134238	52.55588581	1	100.00%
Tripura	596465	97713	6.104254296	14	45.80%
Uttar Pradesh	4880862	904930	5.393634867	19	25.00%
Uttarakhand	401748	69374	5.791045637	17	33.30%
West Bengal	5693870	421381	13.51240326	9	66.60%

**Table VII:** Ranking of states based on the cumulative score of all the five parameters

States	P1 rank	P2 rank	P3 rank	P4 rank	P5 rank	Rank based on cumulative score of all the 5 parameters
Andhra Pradesh	1	10	5	12	25	6
Assam	8	25	21	22	3	23
Bihar	20	22	20	4	18	20
Chhattisgarh	15	21	6	19	10	14
Gujarat	24	16	11	6	15	17
Haryana	13	9	15	17	8	10
Himachal Pradesh	22	2	4	15	20	7
Jammu And Kashmir	18	1	24	18	23	22
Jharkhand	10	18	19	11	16	19
Karnataka	21	15	8	1	24	16
Kerala	25	3	1	20	12	11
Madhya Pradesh	7	20	12	7	21	15
Maharashtra	12	14	10	25	22	20
Manipur	16	23	16	10	2	12
Meghalaya	9	5	13	8	4	3
Mizoram	3	8	23	2	5	4
Nagaland	4	13	22	3	7	5
Odisha	23	19	17	14	13	24
Punjab	14	12	7	21	6	13
Rajasthan	19	11	3	16	11	7
Tamil Nadu	5	6	2	23	1	2
Tripura	2	4	14	9	14	1
Uttar Pradesh	17	24	25	5	19	25
Uttarakhand	11	7	9	13	17	9
West Bengal	6	17	18	24	9	18