

Technical Annexure

Note on Methodology and the Indices

The idea of building a public policy effectiveness measure is not an easy one. It raises several issues: how does one measure policy effectiveness, is effectiveness of policy to be seen merely in terms of the outcomes that it supports and the efficiency with which those outcomes are attained, or is it in terms of the quality of process (including participation of the stakeholders, scope of the policy initiative, the extent of political consensus and transparency in the policymaking process) that underpins the formulation and implementation of policy measures. It can also be the case that one begins with a notion of wellbeing that a society aspires for and then assess how the extant policies are working to move the society and its people in the direction of enjoying that wellbeing. This raises the issue of whether a policy effectiveness measure is to be designed purely on normative considerations, or should it be anchored in the prevailing context and evidence as well. Clearly, the notion of policy effectiveness has to do with all these aspects. Indeed, in constructing a quantitative measure for policy effectiveness there has to be a balance struck between the need to reflect the processes underway in the country to meet the overarching objectives of its planned development efforts and assessing them, and relating those with the evolving notion of human wellbeing in the society. The latter is likely to be driven by topical concerns and also have a strong aspirational content.

This report develops a multidimensional and a multi-indicator measure of human wellbeing, namely the Policy Effectiveness Index (PEI), to quantitatively assess public policy effectiveness at state level in India. The first component of the composite measure is the Livelihood Opportunity Index (LOI), which seeks to reflect the notion of livelihood opportunities, or opportunities for productive employment and decent work. The second component is the Social Opportunity Index (SOI) and it relates to wellbeing that comes from an individual's educational

attainments, ability to live a long and healthy life, having a certain living standard and opportunities for a meaningful social life. The third component, Rule of Law Index (RoLI), involves wellbeing that an individual derives from having security of life and property, administration of justice and the legal redress to remedy. The fourth component, Physical Infrastructure Development Index (PIDI), relates to the capacity of a society to provide its citizens access to public goods, including infrastructure related to basic amenities and other aspects of living environment. Each of the component indices has more than one attribute, which is reflected through one or more relevant indicators in the measure (see Figure 1.1, page 4). The nature of public goods provisioning that supports outcomes associated with each of the wellbeing dimensions reflected in the measure provides the indicators going into the different indices.

In formulating these indices, as far as possible, suitable process indicators have been selected. Outcome indicators are included only in the event of non-availability of suitable process indicators (see Chapter 2 for details). Further, despite data limitations, wherever feasible, there is an attempt to address qualitative dimensions of the chosen variables in the construction of the indicators used in various indices. An important consideration for the component indices and indicators selection for each index is that they are not, by and large, significantly correlated with each other. That is indeed the case. The different variables have been suitably transformed so that they all move in the same direction and can be directly related to each other. For instance, instead of infant mortality rate (IMR), it is the scaled inverse of IMR that is considered in the indices. Number of variables going into each component is restricted for the sake of simplicity and manageability of data and is guided by the consideration of their availability at four points of time for the analysis undertaken in this report.

Structure of PEI and Component Indices

The weighting of different component indices in the PEI and the indicators within the component indices is primarily guided by normative considerations. While the component indices in the PEI are equally weighted to reflect equal importance of the four identified dimensions in assessing policy effectiveness for human wellbeing, indicators within component indices are weighted differently to emphasise a higher social valuation of some over others. Further, unlike a linear aggregation across the different dimensions of a composite measure, which implies a perfect substitutability between them, PEI is estimated using a geometric mean of the four component indices. That means an imperfect substitutability across the four dimensions of the PEI, reinforcing the underlying rationale for having these different dimensions in the PEI in the first instance. The same is true for the component indices, their attributes and indicators. Given that the weighted geometric mean is:

$\text{Exp} [(\sum_i W_i \ln X_i) / (\sum_i W_i)]$; or $[X_1 * X_2 * \dots * X_n]^{1/n}$,
where weights W_i are identical

$$\text{PEI} = [\text{LOI} * \text{SOI} * \text{RoLI} * \text{PIDI}] / 4 \dots\dots\dots (1)$$

$$\text{LOI} = \{\text{Exp}[0.3 \ln(\text{EMRTupa}) + 0.4 \ln(\text{UERTcdsIn}) + 0.3 \ln(\text{NAgriWF})]\} / 100 \dots\dots\dots (2)$$

EMRTupa: Employment rate for usual principal activity status, derived from the Workforce Participation Rate (WFPR) and the Labour Force Participation Rate (LFPR) for usual principal activity status for all age groups (comparable series for the age group 15+ years is not available for all the years of analysis). This variable reflects employment in its durable dimension;

UERTcdsIn: Inverse of unemployment rate for current daily status for casual workers (UERcdsca). This variable reflects employment opportunities of a sporadic kind and is a measure of open unemployment and underemployment; and

NAgriWF: Proportion of non-farm employment to the total employment. It is a proxy for a direct measurement of work productivity (wage compensation) and work environment (decent work) in the LOI. For the rural areas the indicator considered is non-farm employment and for urban areas the indicator is employment in industries other than construction (i.e., mining and quarrying, manufacturing and electricity related industries) and services sector (including wholesale/retail trade, transport, storage, financial, insurance and community services).

The coefficient of correlation between the PEI component indices is in the range of 0.47 (RoLI and SOI, 2011) to -0.22 (RoLI and PIDI, 1981). In case of LOI, it ranges from 0.56 (EMRTupa and UERcdsIn, urban 1983) to -0.56 (EMRTupa and NAgriWF, rural 1983).

$$\text{SOI} = \{\text{Exp}[0.3 \ln(\text{EoI}) + 0.3 \ln(\text{HoI}) + 0.4 \ln(\text{RConadj})]\} / 100 \dots\dots\dots (3)$$

EoI: Educational opportunity sub-index;

HoI: Health opportunity sub-index; and

RConadj: Real average monthly per capita expenditure adjusted for inter-personal inequalities. Besides reflecting the command of an individual over resources for meeting other requirements of her wellbeing basket, it influences her opportunities for social participation in a society. For SOI, coefficient of correlation ranges from 0.67 (HoI and RConadj, 1981) to -0.36 (EoI and RConadj, 2011).

$$\text{EoI} = \text{Exp} [0.3 \ln(\text{ScPRto}) + 0.3 \ln(\text{FMLRto}) + 0.4 \ln(\text{InScEdu})] \dots\dots\dots (3a)$$

ScPRto: Number of upper-primary (secondary) schools per thousand population in the age group 9-14 years. It reflects access to schools at the upper-primary level as primary school enrolments have reached near saturation levels;

FMLRto: Female to male literacy ratio in the age group 7 years and above. It reflects gender inequalities in educational attainments and the underlying access to education; and

InScEdu: Intensity of school education, a composite derived indicator that measures progress in the spread of education among school going children through data on school retention. It is based on normatively weighted class-wise enrolments adjusted for out of school children.

$$\text{HoI} = \text{Exp} [0.3 \ln(\text{PbdRto}) + 0.3 \ln(\text{RHPerIn}) + 0.4 \ln(\text{IMRinv})] \dots\dots\dots (3b)$$

PbdRto: Population per bed in government hospitals. This along with the following indicator is included to reflect the public rural healthcare infrastructure, physical as well as human;

RHPerIn: Health staff per rural health centre adjusted by the ratio of doctors serving per Primary Health Centre gives the rural health personnel index; and

IMRinv: Inverse of IMR. As a summary outcome indicator IMR captures outcomes of the health policy measures on the overall health dimension of human wellbeing.

$$\text{RoLI} = \{\text{Exp}[0.3 \ln(\text{PIPopRto}) + 0.4 \ln(\text{CrIndx}) + 0.3 \ln(\text{CsDsRto})]\}/100 \dots\dots\dots (4)$$

PIPopRto: Police personnel per 10,000 population. It is a crude indicator for the law enforcement system at the state level;

CrIndx: Crime Index is a composite (product) of the inverse of the incidence of crime at state level (CrRtInv) captured through the rate of cognizable crime under the Indian Penal Code (IPC) and Special and Local Laws (SLL) per hundred thousand population and the inverse of the incidence of total crime against women in a state, relative to the national average (CrWoInv). For a state with (inverse of) incidence of crime against women higher than the national average, the CrRtInv value for that state is proportionately raised to estimate the crime index for the state; and

CsDsRto: Proportion of cases, IPC and SLL, disposed by the courts. The case disposal ratio reflects the state of legal redress in the country.

$$\text{PIDI} = \{\text{Exp}[0.4 \ln(\text{HhEWT}) + 0.3 \ln(\text{IRdCon}) + 0.3 \ln(\text{HzQlty})]\}/100 \dots\dots\dots (5)$$

HhEWT: Proportion of households with access to electricity, water and toilets. It reflects the concurrent access to all the three at household level, which is vital for human wellbeing;

IRdCon: Index of road connectivity is a composite measure that reflects the quality and the quantity dimensions of road connectivity at state level. It is a product of two indicators namely, proportion of surfaced road to total (RdQlty) for the quality dimension and increase in road coverage per 100 square kilometres (RgRdCv) relative to the national average; and

HzQlty: Proportion of households with pucca houses. Since the state has a role in ensuring housing affordability for most households/individuals through appropriate policy measures and improved housing stock (pucca houses to begin with) is likely to be associated with better habitat and living spaces, it is a proxy indicator for quality of physical environment or habitat, which is an important public good.

For RoLI, coefficient of correlation ranges from 0.29 (PIPopRto and CrIndx, 2001) to -0.41(CrIndx and CsDsRto, 1981) and for PIDI it ranges from 0.71 (1991) to 0.12 (2011) for HhEWT and IRdCon. These correlations reflect extreme values, in general the correlation between indicators/component indices is lower.

Scaling of Indicators

In scaling the diverse indicators, the main consideration is to make attainments on each of them comparable and at the same time ensuring that the selection of end points, i.e., the maximum and the minimum value on the scales, where required, for an indicator are such that they support inter-temporal comparison for a reasonable length of time. However, the use of geometric mean for aggregation makes the maximum value redundant, but minimum values affect the inter-temporal and cross-sectional comparisons. Ideally the natural zeros or subsistence values can be taken as the minimum for relevant indicators (UNDP, HDR 2010 and Alkire and Foster, 2010). The scaling and related assumptions are:

LOI: For UERcdsca minima is capped at 0.75 or 1 for selected states as indicated in the table T2 and T3 to enable the contribution of UERcdsIn to be around 1 in estimating the composite LOI.

SOI: For scaling ScPRto maximum value is 25 per thousand schools. InScEdu is adjusted for out of school children using gross enrolment ratio for classes I-XII and scaled using 10 as the maximum value. IMR is inversed and scaled with min IMR as 10, i.e., 10 is assigned the value 100 and others adjusted accordingly. PbdRto is inversed and scaled with a minimum scaling value of 300, i.e., 300 persons per bed assigned value of 100 and others adjusted accordingly. RConadj is adjusted using the Gini ratio for monthly consumer expenditure and scaled with minimum 0 and maximum 375.

RoLI: PIPopRto is scaled with minimum 5 and maximum 130 per 10,000 population, based on the actual data. CrRtInv is scaled with a crime rate of 40 per hundred thousand population assigned the value of 100 and others adjusted accordingly. In addition, the CrIndx is capped by a rule described in the notes for Table T5.

Finally, in the tables presented in this section, LOI and PIDI have been estimated separately for rural and urban areas, as well as for the combined state level. SOI and RoLI have been estimated only at the (combined) state level.

TABLE T1

Policy Effectiveness Index

State	1981					1991				
	RoLI	PIDI	LOIC	SOI	PEI	RoLI	PIDI	LOIC	SOI	PEI
Andhra Pradesh	0.124	0.173	0.279	0.195	0.185	0.094	0.264	0.327	0.215	0.205
Arunachal Pradesh	0.133	0.133	0.346	0.204	0.188	0.119	0.221	0.513	0.259	0.243
Assam	0.155	0.087	0.347	0.209	0.177	0.190	0.117	0.284	0.219	0.193
Bihar	0.153	0.145	0.273	0.162	0.177	0.181	0.165	0.298	0.163	0.195
Chhattisgarh	—	—	—	—	—	—	—	—	—	—
Goa	0.145	0.218	0.325	0.370	0.248	0.111	0.350	0.297	0.410	0.262
Gujarat	0.119	0.355	0.349	0.252	0.247	0.084	0.479	0.374	0.284	0.255
Haryana	0.154	0.303	0.360	0.203	0.242	0.148	0.406	0.372	0.224	0.266
Himachal Pradesh	0.184	0.141	0.464	0.270	0.239	0.132	0.269	0.531	0.273	0.268
Jammu & Kashmir	0.074	0.228	0.351	0.210	0.188	0.132	0.300	0.525	0.212	0.258
Jharkhand	—	—	—	—	—	—	—	—	—	—
Karnataka	0.118	0.243	0.292	0.252	0.214	0.105	0.328	0.370	0.248	0.237
Kerala	0.144	0.138	0.209	0.301	0.188	0.163	0.216	0.268	0.361	0.242
Madhya Pradesh	0.088	0.187	0.401	0.181	0.186	0.074	0.250	0.368	0.199	0.192
Maharashtra	0.086	0.333	0.302	0.242	0.214	0.074	0.423	0.378	0.298	0.244
Manipur	0.248	0.105	0.765	0.290	0.275	0.248	0.140	0.551	0.322	0.280
Meghalaya	0.270	0.158	0.321	0.276	0.248	0.330	0.194	0.638	0.280	0.327
Mizoram	0.148	0.093	0.629	0.317	0.229	0.213	0.199	0.745	0.399	0.335
Nagaland	0.482	0.103	0.342	0.273	0.261	0.567	0.199	0.534	0.318	0.372
Odisha	0.169	0.077	0.264	0.170	0.155	0.156	0.099	0.295	0.193	0.172
Punjab	0.232	0.405	0.318	0.260	0.297	0.397	0.514	0.496	0.242	0.396
Rajasthan	0.061	0.268	0.405	0.180	0.186	0.066	0.359	0.628	0.202	0.234
Sikkim	0.311	0.096	0.430	0.245	0.237	0.402	0.258	0.832	0.263	0.388
Tamil Nadu	0.104	0.283	0.238	0.223	0.199	0.101	0.352	0.297	0.268	0.231
Tripura	0.210	0.098	0.284	0.239	0.193	0.195	0.181	0.441	0.283	0.257
Uttar Pradesh	0.104	0.205	0.390	0.157	0.190	0.114	0.277	0.422	0.163	0.216
Uttarakhand	—	—	—	—	—	—	—	—	—	—
West Bengal	0.126	0.249	0.237	0.185	0.192	0.158	0.284	0.318	0.227	0.238
Andaman & Nicobar Is..	0.180	0.160	0.334	0.283	0.228	0.145	0.307	0.380	0.399	0.287
Chandigarh	0.165	0.826	0.321	0.404	0.365	0.212	0.916	0.383	0.417	0.420
Dadra & Nagar Haveli	0.198	0.207	0.299	0.179	0.216	0.147	0.280	0.724	0.201	0.278
Daman & Diu	0.210	0.259	0.325	0.243	0.256	0.247	0.407	0.507	0.254	0.337
Delhi	0.088	0.593	0.496	0.346	0.308	0.080	0.766	0.737	0.423	0.372
Lakshadweep	0.480	0.269	0.218	0.275	0.297	0.358	0.251	0.229	0.316	0.284
Puducherry	0.079	0.305	0.240	0.277	0.200	0.075	0.407	0.272	0.353	0.233
India	0.126	0.230	0.295	0.208	0.205	0.115	0.303	0.347	0.225	0.228

Variables PEI: Policy Effectiveness Index

LOIC: Livelihood Opportunity Index Combined

RoLI: Rule of Law Index

SOI: Social Opportunity Index

PIDI: Physical Infrastructure Index

Notes Estimated using different data sources and assumptions to fill data gaps as elaborated in tables on different indices.

... contd.

State	2001					2011				
	RoLI	PIDI	LOIC	SOI	PEI	RoLI	PIDI	LOIC	SOI	PEI
Andhra Pradesh	0.089	0.429	0.305	0.236	0.229	0.084	0.548	0.366	0.309	0.268
Arunachal Pradesh	0.142	0.323	0.517	0.356	0.303	0.158	0.359	0.578	0.432	0.345
Assam	0.166	0.171	0.332	0.248	0.220	0.112	0.247	0.348	0.304	0.232
Bihar	0.081	0.194	0.305	0.168	0.168	0.105	0.262	0.368	0.243	0.223
Chhattisgarh	0.047	0.243	0.277	0.203	0.159	0.103	0.399	0.392	0.244	0.251
Goa	0.283	0.602	0.286	0.391	0.371	0.225	0.676	0.480	0.548	0.447
Gujarat	0.084	0.660	0.429	0.303	0.291	0.081	0.640	0.438	0.378	0.305
Haryana	0.115	0.565	0.395	0.245	0.282	0.135	0.742	0.431	0.293	0.335
Himachal Pradesh	0.139	0.456	0.369	0.303	0.290	0.135	0.711	0.421	0.413	0.359
Jammu & Kashmir	0.191	0.487	0.409	0.236	0.308	0.182	0.473	0.439	0.385	0.347
Jharkhand	0.103	0.151	0.346	0.184	0.178	0.276	0.360	0.362	0.257	0.310
Karnataka	0.148	0.461	0.343	0.278	0.284	0.147	0.588	0.421	0.352	0.337
Kerala	0.102	0.300	0.229	0.405	0.231	0.067	0.474	0.288	0.471	0.256
Madhya Pradesh	0.084	0.322	0.338	0.211	0.210	0.083	0.360	0.329	0.291	0.231
Maharashtra	0.101	0.482	0.314	0.302	0.261	0.109	0.622	0.376	0.379	0.314
Manipur	0.288	0.219	0.540	0.348	0.330	0.209	0.283	0.449	0.435	0.328
Meghalaya	0.295	0.318	0.652	0.322	0.374	0.254	0.336	0.664	0.381	0.383
Mizoram	0.263	0.440	0.654	0.429	0.424	0.357	0.675	0.489	0.502	0.493
Nagaland	0.409	0.241	0.408	0.335	0.341	0.541	0.343	0.247	0.415	0.371
Odisha	0.122	0.160	0.281	0.219	0.186	0.102	0.207	0.331	0.259	0.206
Punjab	0.242	0.699	0.353	0.271	0.357	0.237	0.816	0.399	0.333	0.400
Rajasthan	0.086	0.425	0.400	0.218	0.238	0.085	0.541	0.486	0.278	0.281
Sikkim	0.688	0.514	0.513	0.351	0.503	0.469	0.775	0.595	0.476	0.566
Tamil Nadu	0.111	0.421	0.315	0.291	0.256	0.145	0.567	0.322	0.363	0.313
Tripura	0.325	0.206	0.258	0.272	0.262	0.187	0.416	0.289	0.371	0.302
Uttar Pradesh	0.113	0.382	0.424	0.215	0.250	0.096	0.464	0.403	0.268	0.263
Uttarakhand	0.139	0.447	0.388	0.177	0.255	0.127	0.663	0.413	0.267	0.311
West Bengal	0.094	0.399	0.307	0.235	0.228	0.069	0.540	0.382	0.279	0.251
Andaman & Nicobar Is.	0.172	0.511	0.303	0.446	0.330	0.120	0.596	0.329	0.488	0.327
Chandigarh	0.160	0.895	0.510	0.346	0.399	0.220	0.848	0.521	0.414	0.448
Dadra & Nagar Haveli	0.138	0.556	0.434	0.267	0.307	0.125	0.669	0.445	0.324	0.331
Daman & Diu	0.256	0.657	0.626	0.336	0.434	0.160	0.412	0.544	0.362	0.338
Delhi	0.140	0.831	0.479	0.361	0.377	0.121	0.767	0.613	0.446	0.399
Lakshadweep	0.528	0.246	0.216	0.336	0.311	0.518	0.523	0.290	0.477	0.440
Puducherry	0.172	0.562	0.262	0.362	0.309	0.185	0.677	0.341	0.447	0.372
India	0.115	0.400	0.326	0.244	0.246	0.112	0.500	0.372	0.317	0.285

TABLE T2

Livelihood Opportunity Index – Rural

State	1983							1993-94						
	WFPR	LFPR	EMRTupa	UERcdsca	UERcdsln	NAgrlWF	LOIR	WFPR	LFPR	EMRTupa	UERcdsca	UERcdsln	NAgrlWF	LOIR
Andhra Pradesh	58.51	59.24	98.80	9.20	10.90	20.50	0.26	54.10	54.50	99.30	6.30	15.90	20.90	0.30
Arunachal Pradesh	—	—	—	—	—	—	0.34	45.20	45.70	98.90	1.30	76.90	13.50	0.49
Assam	33.51	34.53	97.10	4.64	21.50	21.80	0.34	30.80	33.20	92.80	7.80	12.80	21.40	0.27
Bihar	38.50	39.25	98.10	8.85	11.30	18.00	0.25	32.60	33.30	97.90	6.00	16.70	16.60	0.28
Chhattisgarh	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Goa	—	—	—	—	—	—	0.32	36.50	41.20	88.60	15.20	6.60	58.50	0.28
Gujarat	34.43	34.85	98.80	4.96	20.10	16.60	0.31	41.50	42.00	98.80	5.60	17.90	23.80	0.33
Haryana	52.34	53.48	97.90	4.94	20.20	26.00	0.35	26.20	27.00	97.00	6.60	15.20	37.50	0.35
Himachal Pradesh	32.25	33.04	97.60	1.50	66.70	14.30	0.47	43.40	44.10	98.40	1.70	58.80	24.40	0.53
Jammu & Kashmir	51.94	52.25	99.40	5.81	17.20	28.30	0.34	30.00	30.40	98.70	1.90	52.60	35.70	0.57
Jharkhand	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Karnataka	35.20	35.67	98.70	7.46	13.40	16.60	0.26	45.60	46.10	98.90	4.40	22.70	19.60	0.34
Kerala	53.83	58.80	91.60	27.77	3.60	44.30	0.20	32.50	35.90	90.50	14.70	6.80	48.00	0.27
Madhya Pradesh	56.09	56.26	99.70	1.94	51.50	10.10	0.39	43.50	43.80	99.30	2.60	38.50	10.90	0.35
Maharashtra	41.14	41.58	98.90	6.74	14.80	14.70	0.26	47.10	47.70	98.70	4.30	23.30	18.10	0.33
Manipur	54.32	54.49	99.70	0.76	132.00	21.80	0.71	33.50	34.10	98.20	1.80	55.60	35.70	0.58
Meghalaya	45.41	45.68	99.40	3.65	27.40	12.00	0.32	55.00	55.10	99.80	0.75	133.30	14.10	0.62
Mizoram	15.63	15.65	99.90	0.75	133.30	10.00	0.56	41.60	42.10	98.80	0.90	111.10	11.40	0.54
Nagaland	—	—	—	—	—	—	0.34	27.70	28.10	98.60	1.70	58.80	29.30	0.56
Odisha	34.65	35.42	97.80	9.82	10.20	21.10	0.25	38.20	39.20	97.40	6.90	14.50	20.20	0.28
Punjab	52.21	53.59	97.40	8.05	12.40	24.80	0.28	30.30	30.80	98.40	2.70	37.00	32.20	0.48
Rajasthan	42.58	42.84	99.40	2.56	39.10	15.00	0.39	41.80	41.90	99.80	1.10	90.90	23.20	0.62
Sikkim	48.58	49.14	98.90	2.43	41.20	21.80	0.44	37.90	38.30	99.00	0.80	125.00	43.20	0.85
Tamil Nadu	35.88	37.64	95.30	19.08	5.20	27.00	0.21	49.50	50.60	97.80	12.20	8.20	30.70	0.26
Tripura	38.85	40.00	97.10	12.64	7.90	45.00	0.28	31.80	32.70	97.20	4.60	21.70	57.10	0.46
Uttar Pradesh	43.30	43.72	99.00	3.08	32.40	18.00	0.38	32.80	33.10	99.10	3.10	32.30	21.80	0.40
Uttarakhand	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	35.13	36.58	96.00	19.08	5.20	28.30	0.21	31.60	32.60	96.90	9.10	11.00	38.30	0.31
Andaman & Nicobar Is.	42.42	44.19	96.00	4.95	20.20	27.00	0.35	35.80	38.00	94.20	5.70	17.50	48.90	0.40
Chandigarh	38.62	40.92	94.40	6.24	16.00	75.00	0.43	36.20	37.30	97.10	6.10	16.40	86.30	0.46
Dadra & Nagar Haveli	65.95	66.47	99.20	10.40	9.60	40.00	0.30	38.20	38.60	99.00	1.30	76.90	46.30	0.71
Daman & Diu	34.22	35.17	97.30	9.28	10.80	47.00	0.32	39.30	39.80	98.70	2.80	35.70	51.20	0.54
Delhi	37.38	38.59	96.90	6.15	16.20	85.00	0.46	39.80	39.80	100.00	1.00	100.00	91.60	0.97
Lakshadweep	—	—	—	—	—	—	0.20	27.00	32.90	82.10	20.10	5.00	63.90	0.25
Puducherry	49.69	51.09	97.30	32.09	3.10	27.00	0.17	38.60	39.60	97.50	23.70	4.20	35.80	0.21
India	45.31	46.19	98.10	8.24	12.10	22.00	0.27	39.00	39.70	98.20	5.60	17.90	23.00	0.32

Variables WFPR: Workforce participation rate for usual principal activity status (durable employment status) for all ages.

LFPR: Labour force participation rate for usual principal activity status for all ages.

EMRTupa: Employment rate for usual principal activity status for all ages.

UERcdsca: Unemployment rate for current daily status for casual workers for all ages.

UERcdsln: Inverse of the UERcdsca.

NAgrlWF: Non-agriculture workforce as a proportion of the total.

LOIR: Livelihood Opportunity Index for rural areas.

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State	2004-05							2009-10						
	WFPR	LFPR	EMRTupa	UERcdsca	UERcdsin	NAGriWF	LOIR	WFPR	LFPR	EMRTupa	UERcdsca	UERcdsin	NAGriWF	LOIR
Andhra Pradesh	52.20	52.90	98.70	10.90	9.20	28.30	0.26	50.40	51.00	98.80	7.50	13.30	31.00	0.31
Arunachal Pradesh	45.60	46.00	99.10	1.40	71.40	18.00	0.52	39.90	40.40	98.80	1.20	83.30	24.50	0.61
Assam	34.00	35.30	96.30	6.50	15.40	28.90	0.32	35.10	36.60	95.90	6.60	15.20	30.50	0.33
Bihar	28.70	29.20	98.30	6.80	14.70	23.40	0.30	27.10	27.70	97.80	5.40	18.50	34.20	0.37
Chhattisgarh	48.00	48.40	99.20	8.20	12.20	14.30	0.24	43.60	43.80	99.50	3.20	31.30	14.80	0.35
Goa	32.20	36.50	88.20	19.20	5.20	66.40	0.26	33.90	35.60	95.20	5.30	18.90	76.20	0.47
Gujarat	45.00	45.40	99.10	4.10	24.40	24.90	0.37	42.10	42.40	99.30	6.00	16.70	23.10	0.31
Haryana	32.20	33.30	96.70	6.20	16.10	45.70	0.38	33.80	34.60	97.70	6.10	16.40	46.00	0.38
Himachal Pradesh	45.30	47.50	95.40	5.70	17.50	34.60	0.36	47.30	48.40	97.70	4.30	23.30	39.40	0.42
Jammu & Kashmir	31.30	32.20	97.20	5.60	17.90	47.10	0.40	29.80	31.20	95.50	4.80	20.80	57.30	0.45
Jharkhand	38.70	39.40	98.20	6.60	15.20	32.60	0.33	31.30	32.70	95.70	7.20	13.90	47.30	0.36
Karnataka	51.80	52.40	98.90	6.70	14.90	18.30	0.28	48.90	49.10	99.60	4.00	25.00	24.30	0.38
Kerala	34.30	40.70	84.30	25.60	3.90	61.90	0.23	35.40	38.90	91.00	17.30	5.80	66.30	0.28
Madhya Pradesh	43.00	43.30	99.30	5.60	17.90	18.00	0.30	41.80	42.10	99.30	6.70	14.90	17.70	0.28
Maharashtra	49.00	49.70	98.60	9.30	10.80	20.30	0.25	46.30	47.00	98.50	6.70	14.90	21.60	0.29
Manipur	38.40	39.10	98.20	1.60	62.50	32.20	0.59	33.90	35.40	95.80	4.10	24.40	44.90	0.44
Meghalaya	51.40	51.60	99.60	0.75	133.30	18.20	0.67	45.40	45.70	99.30	0.90	111.10	28.20	0.71
Mizoram	50.70	50.90	99.60	0.75	133.30	12.60	0.60	48.80	49.50	98.60	1.70	58.80	16.50	0.47
Nagaland	42.50	44.60	95.30	3.20	31.30	22.60	0.40	32.20	38.90	82.80	15.90	6.30	28.00	0.21
Odisha	39.20	41.90	93.60	10.20	9.80	32.80	0.28	37.00	38.30	96.60	8.10	12.30	33.80	0.31
Punjab	30.30	32.20	94.10	9.70	10.30	46.00	0.31	29.30	30.40	96.40	6.20	16.10	48.90	0.39
Rajasthan	38.90	39.50	98.50	4.40	22.70	30.80	0.39	36.50	36.80	99.20	3.10	32.30	36.40	0.47
Sikkim	44.10	45.30	97.40	2.70	37.00	39.50	0.51	43.60	45.60	95.60	4.70	21.30	45.70	0.42
Tamil Nadu	51.30	52.40	97.90	15.10	6.60	34.90	0.25	49.30	50.30	98.00	14.10	7.10	36.00	0.25
Tripura	31.80	36.80	86.40	16.10	6.20	57.30	0.27	33.60	37.90	88.70	14.10	7.10	64.70	0.29
Uttar Pradesh	30.40	30.80	98.70	3.70	27.00	31.40	0.42	29.20	29.60	98.60	5.60	17.90	37.50	0.37
Uttarakhand	39.90	40.70	98.00	4.10	24.40	25.00	0.37	36.20	36.90	98.10	4.50	22.20	34.40	0.40
West Bengal	33.60	34.90	96.30	11.20	8.90	37.60	0.28	35.60	36.60	97.30	7.20	13.90	43.00	0.35
Andaman & Nicobar Is.	36.90	41.10	89.80	13.40	7.50	59.60	0.29	37.90	42.30	89.60	11.90	8.40	57.40	0.30
Chandigarh	38.80	39.90	97.20	3.70	27.00	92.80	0.58	30.10	39.90	75.40	24.80	4.00	97.10	0.25
Dadra & Nagar Haveli	41.00	42.70	96.00	6.00	16.70	59.20	0.41	31.10	32.70	95.10	4.80	20.80	41.10	0.40
Daman & Diu	38.40	39.00	98.50	1.60	62.50	63.10	0.72	41.40	43.10	96.10	4.00	25.00	45.40	0.45
Delhi	30.20	30.80	98.10	1.90	52.60	95.60	0.76	30.10	30.60	98.40	6.50	15.40	99.90	0.47
Lakshadweep	36.30	40.60	89.40	22.50	4.40	62.50	0.24	38.40	44.20	86.90	19.20	5.20	62.70	0.26
Puducherry	43.00	47.40	90.70	27.40	3.60	40.50	0.20	46.80	48.30	96.90	23.70	4.20	54.50	0.23
India	39.10	40.10	97.50	8.20	12.20	29.20	0.30	37.40	38.20	97.90	6.80	14.70	33.30	0.33

- Notes**
- 1 To fill data gaps for NAGriWF 1983, Assam's data used for Manipur and Sikkim's, trend extrapolated for Mizoram, Meghalaya and Tripura; Tamil Nadu for Puducherry, Andaman & Nicobar Is.; other UTs and all India are based on trend; UP based on trend and contiguity (Bihar) consideration.
 - 2 Goa's LOI for 1981 is same as that of Daman & Diu, Assam's LOI has been used for Nagaland and Arunachal Pradesh and Kerala's for Lakshadweep.
 - 3 UERcdsca is capped at 0.75 at the lower end for Mizoram 1983 instead of 0.26, for Meghalaya 1993 instead of 0.40, for Meghalaya 2004 instead of 0.4 and Mizoram 2004 instead of 0.6. For Delhi 1993 it has been taken as 1.0 instead of 0.2.

TABLE T3

Livelihood Opportunity Index – Urban

State	1983							1993-94						
	WFPR	LFPR	EMRTupa	UERcdsca	UERcdsln	NAgrlWF	LOIU	WFPR	LFPR	EMRTupa	UERcdsca	UERcdsln	NAgrlWF	LOIU
Andhra Pradesh	38.26	40.37	94.80	10.73	9.30	77.70	0.35	35.50	36.90	96.20	8.00	12.50	77.00	0.40
Arunachal Pradesh	—	—	—	—	—	—	0.42	32.40	33.30	97.30	2.70	37.00	83.20	0.63
Assam	32.75	34.65	94.50	7.82	12.80	88.40	0.42	31.00	34.30	90.40	9.40	10.60	94.50	0.39
Bihar	32.49	34.23	94.90	6.19	16.10	78.50	0.44	26.10	28.30	92.20	8.70	11.50	87.10	0.39
Chhattisgarh	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Goa	—	—	—	—	—	—	0.33	34.00	38.20	89.00	12.40	8.10	75.00	0.32
Gujarat	35.63	37.41	95.20	6.55	15.30	82.30	0.44	32.30	33.50	96.40	6.00	16.70	87.40	0.46
Haryana	37.07	38.99	95.10	8.57	11.70	82.70	0.39	31.20	32.20	96.90	6.60	15.20	84.70	0.44
Himachal Pradesh	39.75	43.32	91.70	8.84	11.30	84.30	0.39	32.90	34.10	96.50	3.40	29.40	80.00	0.57
Jammu & Kashmir	34.14	35.64	95.80	8.25	12.10	79.20	0.40	29.10	31.50	92.40	8.20	12.20	85.20	0.40
Jharkhand	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Karnataka	38.44	40.72	94.40	9.12	11.00	73.50	0.37	34.10	35.60	95.80	6.30	15.90	78.40	0.44
Kerala	32.69	38.74	84.40	25.99	3.80	73.10	0.24	34.20	38.90	87.90	17.70	5.60	70.30	0.27
Madhya Pradesh	34.55	35.68	96.80	5.34	18.70	71.70	0.46	30.30	32.10	94.40	6.80	14.70	79.10	0.43
Maharashtra	37.10	39.32	94.30	9.70	10.30	82.70	0.37	33.80	35.60	94.90	6.30	15.90	85.90	0.45
Manipur	37.33	37.46	99.60	0.90	111.10	67.00	0.92	29.20	30.70	95.10	4.40	22.70	69.70	0.49
Meghalaya	36.71	40.30	91.10	11.75	8.50	88.40	0.35	34.30	35.00	98.00	2.20	45.50	89.20	0.70
Mizoram	36.84	37.29	98.80	1.17	85.40	53.40	0.78	37.00	37.20	99.50	0.75	133.30	54.30	0.93
Nagaland	45.30	45.46	99.70	11.75	8.50	83.40	0.35	25.70	27.60	93.10	6.90	14.50	86.40	0.43
Odisha	34.93	36.99	94.40	9.61	10.40	76.30	0.37	32.00	34.60	92.50	9.80	10.20	80.00	0.37
Punjab	37.25	39.03	95.40	8.13	12.30	85.00	0.41	31.80	33.00	96.40	4.10	24.40	88.40	0.54
Rajasthan	35.54	36.88	96.40	4.87	20.50	67.20	0.47	30.70	31.20	98.40	2.40	41.70	79.10	0.65
Sikkim	41.83	45.97	91.00	11.51	8.70	88.40	0.35	37.60	38.60	97.40	2.50	40.00	91.50	0.67
Tamil Nadu	39.66	43.10	92.00	15.56	6.40	81.10	0.31	38.40	40.80	94.10	9.70	10.30	81.20	0.37
Tripura	31.81	36.00	88.40	18.08	5.50	88.40	0.29	30.40	33.50	90.70	10.80	9.30	91.40	0.37
Uttar Pradesh	33.35	34.90	95.60	6.56	15.20	78.50	0.43	28.60	29.60	96.60	4.80	20.80	82.60	0.50
Uttarakhand	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	36.15	40.66	88.90	15.06	6.60	92.00	0.32	33.80	37.40	90.40	12.10	8.30	90.10	0.35
Andaman & Nicobar Is.	40.88	45.06	90.70	18.21	5.50	81.10	0.29	34.90	38.80	89.90	11.60	8.60	81.20	0.34
Chandigarh	38.23	42.27	90.40	15.16	6.60	85.00	0.31	41.50	45.00	92.20	10.20	9.80	91.20	0.38
Dadra & Nagar Haveli	—	—	—	—	—	—	0.33	39.90	40.60	98.30	1.20	83.30	72.10	0.84
Daman & Diu	41.31	45.57	90.70	13.31	7.50	82.70	0.33	30.60	32.50	94.20	5.60	17.90	86.60	0.47
Delhi	37.42	38.79	96.50	4.81	20.80	83.50	0.50	34.40	35.00	98.30	2.10	47.60	88.10	0.71
Lakshadweep	—	—	—	—	—	—	0.24	26.20	33.00	79.40	21.90	4.60	46.40	0.22
Puducherry	34.84	38.58	90.30	16.39	6.10	81.10	0.30	31.80	34.20	93.00	14.90	6.70	74.80	0.30
India	36.33	38.67	94.00	10.07	9.90	79.50	0.36	32.70	34.50	94.80	7.40	13.50	82.80	0.42

Variables WFPR: Workforce participation rate for usual principal activity status (durable employment status) for all ages.

LFPR: Labour force participation rate for usual principal activity status for all ages.

EMRTupa: Employment rate for usual principal activity status for all ages.

UERcdsca: Unemployment rate for current daily status for casual workers for all ages.

UERcdsln: Inverse of the UERcdsca.

NAgrlWF: Non-agriculture workforce as a proportion of the total for urban areas includes all those who are employed in manufacturing, electricity, gas & water supply and all services.

LOIU: Livelihood Opportunity Index for urban areas.

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State	2004-05							2009-10						
	WFPR	LFPR	EMRTupa	UERcdsca	UERcdsln	NAGriWF	LOIU	WFPR	LFPR	EMRTupa	UERcdsca	UERcdsln	NAGriWF	LOIU
Andhra Pradesh	38.30	39.90	96.00	7.90	12.70	81.40	0.41	35.80	37.00	96.80	5.50	18.20	82.50	0.47
Arunachal Pradesh	31.70	32.10	98.80	4.70	21.30	80.60	0.50	30.00	31.00	96.80	4.90	20.40	76.60	0.48
Assam	31.50	34.40	91.60	9.00	11.10	90.50	0.39	31.20	33.10	94.30	5.40	18.50	90.70	0.49
Bihar	25.90	27.80	93.20	10.00	10.00	74.30	0.36	24.20	26.10	92.70	8.80	11.40	74.00	0.37
Chhattisgarh	34.60	36.20	95.60	7.10	14.10	76.50	0.42	31.00	32.00	96.90	4.30	23.30	83.50	0.52
Goa	35.60	39.40	90.40	15.20	6.60	80.80	0.31	33.20	34.60	96.00	5.10	19.60	84.10	0.49
Gujarat	36.00	37.10	97.00	4.70	21.30	87.80	0.51	36.10	36.80	98.10	3.10	32.30	88.30	0.61
Haryana	31.00	32.50	95.40	6.90	14.50	85.80	0.44	34.70	35.70	97.20	4.30	23.30	83.60	0.52
Himachal Pradesh	43.50	45.30	96.00	4.90	20.40	71.20	0.47	34.90	36.70	95.10	6.70	14.90	83.90	0.44
Jammu & Kashmir	31.00	32.80	94.50	6.00	16.70	76.70	0.44	32.80	35.10	93.40	7.10	14.10	81.50	0.42
Jharkhand	29.70	32.00	92.80	8.80	11.40	82.10	0.39	28.80	30.90	93.20	9.10	11.00	76.60	0.37
Karnataka	37.80	39.00	96.90	6.00	16.70	82.10	0.46	38.00	39.10	97.20	4.70	21.30	77.90	0.50
Kerala	32.90	41.00	80.20	25.20	4.00	75.60	0.24	34.40	37.50	91.70	14.80	6.80	75.70	0.31
Madhya Pradesh	33.10	34.20	96.80	6.40	15.60	82.20	0.44	31.90	32.90	97.00	5.50	18.20	77.10	0.46
Maharashtra	36.50	38.40	95.10	8.80	11.40	84.40	0.39	36.80	38.20	96.30	5.60	17.90	87.40	0.48
Manipur	30.90	32.90	93.90	6.30	15.90	69.20	0.42	30.60	32.20	95.00	5.10	19.60	72.70	0.47
Meghalaya	36.40	37.90	96.00	3.80	26.30	93.20	0.57	33.20	35.00	94.90	5.50	18.20	84.40	0.47
Mizoram	37.90	38.60	98.20	1.60	62.50	58.90	0.70	39.90	41.10	97.10	3.40	29.40	55.40	0.51
Nagaland	32.20	34.80	92.50	6.40	15.60	87.10	0.45	25.20	28.90	87.20	11.60	8.60	78.00	0.33
Odisha	32.10	37.40	85.80	15.00	6.70	77.00	0.30	33.90	35.40	95.80	6.30	15.90	77.40	0.44
Punjab	34.50	36.50	94.50	7.50	13.30	89.30	0.43	34.40	36.30	94.80	7.10	14.10	82.00	0.42
Rajasthan	31.60	32.70	96.60	6.10	16.40	77.30	0.44	30.20	31.00	97.40	3.90	25.60	80.20	0.54
Sikkim	36.80	38.20	96.30	3.70	27.00	90.10	0.57	39.80	39.90	99.70	1.00	100.00	97.30	0.99
Tamil Nadu	40.90	42.50	96.20	8.60	11.60	84.90	0.40	37.70	39.00	96.70	8.00	12.50	75.90	0.40
Tripura	29.30	40.90	71.60	30.00	3.30	89.30	0.22	32.40	39.10	82.90	18.80	5.30	80.90	0.27
Uttar Pradesh	30.50	31.70	96.20	6.30	15.90	83.60	0.45	28.70	29.60	97.00	4.50	22.20	81.20	0.51
Uttarakhand	31.30	33.20	94.30	6.80	14.70	80.10	0.43	32.20	33.20	97.00	6.20	16.10	83.60	0.45
West Bengal	35.40	38.30	92.40	10.50	9.50	90.80	0.37	35.00	36.80	95.10	6.50	15.40	89.90	0.45
Andaman & Nicobar Is.	36.10	40.50	89.10	13.70	7.30	85.40	0.32	38.20	42.40	90.10	9.80	10.20	86.30	0.37
Chandigarh	34.20	35.60	96.10	5.20	19.20	96.50	0.51	35.20	36.40	96.70	4.60	21.70	90.10	0.52
Dadra & Nagar Haveli	38.90	40.30	96.50	5.10	19.60	90.60	0.50	33.90	35.80	94.70	5.50	18.20	94.70	0.49
Daman & Diu	40.10	41.40	96.90	6.20	16.10	77.80	0.44	34.40	35.30	97.50	2.50	40.00	57.50	0.58
Delhi	32.80	34.70	94.50	6.20	16.10	93.60	0.47	33.10	34.00	97.40	3.20	31.30	96.80	0.62
Lakshadweep	23.20	34.90	66.50	28.20	3.50	64.00	0.20	30.70	35.30	87.00	13.90	7.20	67.10	0.30
Puducherry	33.40	36.50	91.50	16.80	6.00	79.30	0.29	37.70	39.10	96.40	9.00	11.10	84.90	0.39
India	34.60	36.60	94.50	8.30	12.00	84.00	0.40	33.90	35.20	96.30	5.80	17.20	82.70	0.46

- Notes**
- 1 For NAGriWF 1983 urban Assam's data and trend extrapolated for Nagaland, Meghalaya and Sikkim; trend extrapolated for Nagaland, Mizoram and Manipur; Tamil Nadu's data used for Puducherry, Andaman & Nicobar Is.; Maharashtra's data for Daman and Diu, other UTS and all India are based on extrapolated trends; UP is data based on trend and contiguity (Bihar) considerations.
 - 2 Goa LOI for 1981 is the same as Daman and Diu, Assam LOI for Arunachal Pradesh, Kerala LOI for Lakshadweep, Goa, Daman and Diu's LOI for Dadra and Nagar Haveli.
 - 3 UERcdsca for Nagaland is same as Mizoram. UERcdsca is capped at 0.9 at the lower end for Manipur 1983 instead of 0.33, for Mizoram 1993 0.75 instead of 0.40, for Sikkim 2009 1.0 instead of 0.20.

TABLE T4

Social Opportunity Index

State	1981									
	ScPRto	FMLRto	InScEdu	Eol	IMRinv	PbdRto	RHPerIn	Hol	RConadj	SOI
Andhra Pradesh	5.25	51.59	16.12	16.33	11.63	18.98	30.56	18.00	23.69	0.195
Arunachal Pradesh	13.16	39.93	11.64	17.47	9.94	43.78	16.50	18.06	25.00	0.204
Assam	12.87	62.10	17.20	23.18	9.62	14.41	27.24	14.84	25.15	0.209
Bihar	9.20	35.46	13.38	16.02	9.80	9.69	22.91	12.60	19.58	0.162
Chhattisgarh	—	—	—	—	—	—	—	—	—	—
Goa	7.78	72.63	31.36	26.56	42.50	82.68	50.14	54.53	35.41	0.370
Gujarat	24.72	59.05	24.54	32.00	8.85	28.24	32.17	18.46	26.48	0.252
Haryana	4.25	46.02	20.22	16.21	10.10	16.71	22.91	15.02	30.16	0.203
Himachal Pradesh	14.80	58.70	28.38	29.03	10.32	22.43	51.40	21.08	30.77	0.270
Jammu & Kashmir	20.62	44.26	17.30	24.17	9.26	19.76	12.37	12.68	27.71	0.210
Jharkhand	—	—	—	—	—	—	—	—	—	—
Karnataka	19.31	56.48	21.74	27.94	14.71	23.97	43.92	23.64	24.42	0.252
Kerala	5.88	86.23	37.94	27.74	27.78	50.77	44.21	38.27	26.77	0.301
Madhya Pradesh	10.19	49.50	15.25	19.24	7.19	9.61	49.36	13.98	21.09	0.181
Maharashtra	13.79	58.88	24.54	26.84	13.33	33.36	20.93	20.10	25.67	0.242
Manipur	17.14	54.04	27.97	29.42	22.40	26.73	58.71	31.54	26.95	0.290
Meghalaya	21.27	79.68	20.90	31.39	17.52	32.79	15.39	20.34	31.53	0.276
Mizoram	41.08	86.45	30.82	45.78	12.05	39.92	25.69	21.66	31.95	0.317
Nagaland	25.35	68.94	19.70	30.94	14.71	52.15	14.24	21.29	29.88	0.273
Odisha	15.51	44.54	17.41	22.29	7.30	13.08	12.47	10.21	20.23	0.170
Punjab	5.07	71.46	27.94	22.19	12.20	25.50	42.60	22.14	32.92	0.260
Rajasthan	8.88	31.28	15.15	16.04	9.71	14.53	20.56	13.72	24.03	0.180
Sikkim	11.58	51.65	18.91	22.06	17.56	40.58	10.23	19.20	31.68	0.245
Tamil Nadu	6.68	59.41	28.59	23.02	11.24	25.17	38.30	20.68	22.98	0.223
Tripura	7.08	61.82	19.31	20.26	12.82	17.10	45.32	20.41	30.33	0.239
Uttar Pradesh	7.12	36.24	19.94	17.52	6.58	12.33	13.10	9.77	20.76	0.157
Uttarakhand	—	—	—	—	—	—	—	—	—	—
West Bengal	3.03	60.19	16.92	14.78	11.90	26.67	19.09	17.47	22.77	0.185
Andaman & Nicobar Is.	11.65	75.68	25.35	27.88	14.65	94.89	10.50	23.22	33.28	0.283
Chandigarh	3.46	87.86	27.00	20.76	67.90	74.40	23.90	51.02	55.94	0.404
Dadra & Nagar Haveli	20.61	45.64	17.40	24.45	8.55	11.57	13.65	10.77	20.67	0.179
Daman & Diu	7.78	62.68	31.36	25.41	17.91	82.68	1.77	14.16	35.41	0.243
Delhi	3.13	78.95	39.46	22.72	16.22	63.48	100.00	42.16	40.98	0.346
Lakshadweep	6.40	68.10	41.11	27.38	36.98	37.27	8.27	23.65	30.88	0.275
Puducherry	9.49	68.79	33.95	28.63	21.48	100.00	22.09	34.36	22.94	0.277
India	9.74	52.79	20.38	21.73	9.09	20.85	32.81	17.14	23.16	0.208

Variables ScPRto: Number of schools per thousand population (in the age group 9-14 years) scaled.

FMLRto: Female to male literacy ratio for the age group 7+.

InScEdu: Intensity of school education, adjusted for out of school children i.e., Gross Enrolment Ratio for class I-XII, scaled.

Eol: Educational Opportunity Index.

IMRinv: Infant Mortality Index (inverse IMR and scaled).

PbdRto: Population per bed in government hospitals, inverse and scaled.

RHPerIn: Rural health personnel index comprising, health staff per rural health centre (Sub-centre, PHC and CHC) adjusted by the ratio of doctors serving per PHC.

... contd...

State	1991									
	ScPRto	FMLRto	InScEdu	Eol	IMRinv	PbdRto	RHPerIn	Hol	RConadj	SOI
Andhra Pradesh	6.20	60.00	23.60	20.90	14.08	18.61	21.96	17.50	25.60	0.215
Arunachal Pradesh	18.09	57.69	29.40	31.11	16.39	39.74	12.30	19.61	27.92	0.259
Assam	12.26	69.35	27.60	28.53	12.82	17.80	11.08	13.54	25.82	0.219
Bihar	8.96	43.14	17.30	18.68	13.89	10.44	5.16	9.47	22.15	0.163
Chhattisgarh	—	—	—	—	—	—	—	—	—	—
Goa	5.49	79.76	50.90	29.86	50.00	78.33	49.89	57.17	40.56	0.410
Gujarat	26.03	67.12	36.00	39.37	14.49	35.13	17.03	19.84	29.14	0.284
Haryana	4.63	59.42	30.60	21.19	14.08	12.82	25.06	16.27	29.55	0.224
Himachal Pradesh	12.28	69.33	45.20	34.76	14.08	24.79	31.32	21.21	27.42	0.273
Jammu & Kashmir	21.22	53.06	20.10	27.34	14.29	15.33	3.38	9.47	31.97	0.212
Jharkhand	—	—	—	—	—	—	—	—	—	—
Karnataka	21.58	65.67	31.20	34.92	13.70	22.88	16.08	16.77	25.81	0.248
Kerala	6.46	91.49	45.04	31.11	58.82	70.26	25.42	48.24	32.40	0.361
Madhya Pradesh	13.61	49.15	29.30	27.19	9.01	10.76	20.15	12.10	22.81	0.199
Maharashtra	15.94	67.53	35.50	33.86	16.95	45.18	37.81	28.94	27.71	0.298
Manipur	20.67	66.67	37.80	37.39	40.00	24.43	26.23	30.40	30.10	0.322
Meghalaya	21.22	84.91	26.40	35.10	16.95	31.22	10.99	17.88	33.21	0.280
Mizoram	42.70	91.86	33.60	48.82	18.87	48.94	22.88	26.61	46.52	0.399
Nagaland	16.32	80.88	24.40	30.98	19.61	29.59	17.02	21.26	43.77	0.318
Odisha	22.57	55.56	26.90	31.72	8.33	13.38	4.95	8.22	25.30	0.193
Punjab	4.46	75.76	30.90	22.63	17.54	23.01	10.52	16.32	34.32	0.242
Rajasthan	10.62	36.36	23.40	21.07	11.90	14.75	16.57	14.02	25.74	0.202
Sikkim	14.27	71.21	30.70	31.40	22.73	35.17	8.63	19.38	28.88	0.263
Tamil Nadu	6.59	68.92	41.30	27.76	17.24	26.34	34.89	24.19	28.12	0.268
Tripura	10.32	70.42	31.80	28.80	19.61	17.86	41.33	23.84	31.87	0.283
Uttar Pradesh	6.32	43.64	22.40	18.72	10.20	11.57	6.43	9.23	22.65	0.163
Uttarakhand	—	—	—	—	—	—	—	—	—	—
West Bengal	3.88	69.12	24.00	19.09	15.15	25.06	20.22	19.21	29.25	0.227
Andaman & Nicobar Is.	7.80	83.54	45.80	32.25	31.25	75.19	16.87	33.80	53.17	0.399
Chandigarh	2.50	87.80	47.00	23.50	55.56	59.76	21.54	42.73	63.03	0.417
Dadra & Nagar Haveli	17.14	50.00	28.50	28.96	12.35	14.09	11.03	12.42	21.92	0.201
Daman & Diu	5.49	71.08	44.20	27.26	20.41	78.33	1.10	12.73	40.27	0.254
Delhi	3.22	81.71	47.00	24.82	23.26	61.86	55.50	40.49	65.05	0.423
Lakshadweep	5.16	81.11	50.90	29.46	38.46	44.71	5.84	22.86	42.60	0.316
Puducherry	10.44	78.57	49.60	35.68	31.25	100.00	21.83	39.78	31.94	0.353
India	10.75	60.94	27.60	26.38	12.50	22.27	15.32	15.80	26.00	0.225

Variables RConadj: Real average per capita monthly expenditure adjusted for inequality and scaled.

Hol: Health Opportunity Index.

SOI: Social Opportunity Index.

... contd...

State	2001									
	ScPRto	FMLRto	InScEdu	Eol	IMRinv	PbdRto	RHPerIn	Hol	RConadj	SOI
Andhra Pradesh	6.64	71.72	35.85	26.62	15.38	13.79	18.15	15.64	29.32	0.236
Arunachal Pradesh	9.72	68.20	40.99	31.01	27.03	81.74	22.11	35.47	39.71	0.356
Assam	9.64	76.61	38.69	31.30	13.70	16.84	11.39	13.79	32.27	0.248
Bihar	3.52	55.50	18.81	15.74	16.39	9.90	5.90	10.37	25.15	0.168
Chhattisgarh	9.76	67.01	41.44	31.02	11.63	7.98	14.65	11.13	23.30	0.203
Goa	2.80	85.24	34.76	21.37	58.82	74.44	51.77	60.75	44.08	0.391
Gujarat	14.96	72.56	43.98	36.98	16.39	42.31	13.38	20.50	35.11	0.303
Haryana	2.76	71.00	36.05	20.44	15.38	10.97	36.81	18.06	35.40	0.245
Himachal Pradesh	10.04	78.99	47.29	34.65	19.23	27.52	19.48	21.50	35.46	0.303
Jammu & Kashmir	10.96	64.56	38.67	30.90	22.22	11.67	2.56	9.58	38.08	0.236
Jharkhand	4.72	57.76	23.54	19.03	16.39	9.90	5.90	10.37	27.71	0.184
Karnataka	17.80	74.73	42.45	38.75	17.86	22.74	16.45	18.73	29.06	0.278
Kerala	4.00	93.08	45.64	27.23	83.33	92.31	20.47	56.39	42.54	0.405
Madhya Pradesh	12.92	66.12	39.21	32.87	11.63	7.98	14.65	11.13	24.52	0.211
Maharashtra	8.68	77.97	47.74	33.16	21.74	32.61	30.76	27.25	30.31	0.302
Manipur	12.32	75.35	38.02	33.29	71.43	20.07	20.69	33.65	36.78	0.348
Meghalaya	13.04	91.10	33.50	34.08	16.39	27.88	23.74	21.48	41.78	0.322
Mizoram	31.32	95.62	44.33	50.30	35.71	30.67	18.19	27.87	52.67	0.429
Nagaland	6.76	86.37	35.20	28.09	35.70	17.17	8.11	18.37	60.01	0.335
Odisha	10.80	67.03	35.10	29.93	10.99	10.02	19.75	12.75	25.90	0.219
Punjab	3.56	84.22	35.14	22.98	19.61	19.02	20.29	19.63	39.15	0.271
Rajasthan	9.24	57.93	38.13	28.25	12.66	11.58	13.31	12.51	27.26	0.218
Sikkim	7.20	79.43	41.69	29.87	29.41	42.92	47.40	38.01	37.35	0.351
Tamil Nadu	3.88	78.17	44.70	25.39	20.83	26.43	34.36	26.00	34.93	0.291
Tripura	4.12	80.12	38.72	24.59	29.41	15.81	38.86	26.54	29.77	0.272
Uttar Pradesh	12.76	61.35	21.95	25.39	12.20	11.33	9.88	11.20	30.87	0.215
Uttarakhand	3.68	71.60	42.47	23.85	12.20	11.33	9.88	11.20	19.84	0.177
West Bengal	1.00	77.40	35.61	15.39	20.00	20.62	25.62	21.74	34.23	0.235
Andaman & Nicobar Is.	5.68	87.15	43.66	29.14	66.67	55.87	23.72	46.37	59.68	0.446
Chandigarh	0.68	88.77	32.44	13.76	45.45	68.18	15.71	37.33	65.31	0.346
Dadra & Nagar Haveli	10.20	85.55	43.57	34.51	17.86	19.38	14.88	17.33	30.44	0.267
Daman & Diu	3.88	56.52	43.83	22.86	23.26	47.17	19.20	27.15	52.58	0.336
Delhi	1.76	75.62	41.73	19.29	33.33	65.08	55.50	47.48	47.08	0.361
Lakshadweep	1.56	86.97	51.14	21.05	40.00	29.59	16.43	27.98	54.66	0.336
Puducherry	5.60	83.39	43.32	28.54	45.45	87.46	16.98	41.17	39.34	0.362
India	7.04	71.31	34.97	26.77	15.15	20.79	17.13	17.29	29.61	0.244

... contd.

State	2011									
	ScPRto	FMLRto	InScEdu	Eol	IMRinv	PbdRto	RHPerIn	Hol	RConadj	SOI
Andhra Pradesh	13.56	79.06	57.16	40.92	21.74	13.48	30.88	20.93	33.45	0.309
Arunachal Pradesh	47.50	80.84	73.17	66.23	32.68	56.18	13.64	29.58	41.71	0.432
Assam	28.41	85.36	42.33	46.35	17.24	7.67	50.19	18.63	31.99	0.304
Bihar	13.54	72.67	38.66	34.10	20.83	5.35	34.89	16.18	25.70	0.243
Chhattisgarh	38.54	74.39	57.76	55.19	19.61	12.33	12.16	14.78	19.31	0.244
Goa	23.35	88.18	56.50	49.54	100.00	53.67	42.83	64.33	52.38	0.548
Gujarat	50.49	81.08	60.20	62.44	22.73	46.30	10.81	22.51	38.21	0.378
Haryana	9.31	78.20	56.09	36.15	20.83	9.61	31.34	18.67	35.06	0.293
Himachal Pradesh	56.42	84.33	80.44	73.35	25.00	37.08	13.55	23.42	41.17	0.413
Jammu & Kashmir	51.30	74.12	61.54	61.61	23.26	10.66	49.68	23.11	39.61	0.385
Jharkhand	26.52	71.65	48.41	45.46	23.81	5.46	12.70	12.68	28.46	0.257
Karnataka	40.49	82.23	59.76	58.51	26.32	32.86	17.98	25.09	31.08	0.352
Kerala	7.81	95.79	72.17	40.32	76.92	87.98	15.12	49.16	51.32	0.471
Madhya Pradesh	82.38	74.26	67.51	73.74	16.13	12.05	11.14	13.23	26.16	0.291
Maharashtra	17.95	84.03	61.55	46.69	35.71	27.99	35.54	33.15	35.73	0.379
Manipur	20.67	84.60	73.00	52.26	67.11	15.27	58.19	41.24	39.52	0.435
Meghalaya	51.66	95.61	57.18	64.71	19.27	32.86	20.25	22.95	37.47	0.381
Mizoram	87.21	95.39	71.01	82.52	52.08	39.32	14.16	32.39	48.02	0.502
Nagaland	12.37	92.08	37.27	35.12	51.28	29.35	28.52	36.38	51.87	0.415
Odisha	37.85	78.11	52.71	53.70	16.39	11.31	5.46	10.55	29.37	0.259
Punjab	10.70	87.56	62.80	40.80	29.41	16.19	18.70	21.47	39.70	0.333
Rajasthan	31.48	65.41	55.87	49.32	18.18	14.02	13.39	15.34	28.34	0.278
Sikkim	23.18	87.56	58.46	50.00	30.49	76.92	43.46	44.76	47.96	0.476
Tamil Nadu	11.95	85.08	76.31	45.21	41.67	21.57	16.68	25.99	39.47	0.363
Tripura	21.23	90.20	66.73	51.81	24.63	25.45	16.93	22.23	42.41	0.371
Uttar Pradesh	15.89	74.79	61.54	43.47	16.39	8.57	9.72	11.54	35.08	0.268
Uttarakhand	29.40	80.04	60.73	53.07	16.39	25.13	13.72	17.67	21.81	0.267
West Bengal	2.01	86.08	60.30	24.17	32.26	23.38	15.64	23.57	35.28	0.279
Andaman & Nicobar Is.	10.86	90.82	53.67	38.92	32.36	84.99	25.55	40.27	66.70	0.488
Chandigarh	1.48	89.88	46.61	20.16	28.41	62.89	19.47	32.20	85.56	0.414
Dadra & Nagar Haveli	18.00	76.25	57.07	44.04	34.13	24.57	15.96	24.62	31.59	0.324
Daman & Diu	12.36	87.00	48.12	38.23	36.23	24.69	35.48	32.09	38.14	0.362
Delhi	2.60	88.90	75.68	28.90	33.33	76.34	100.00	59.43	49.66	0.446
Lakshadweep	8.14	91.82	61.43	37.80	26.04	75.00	54.76	44.70	59.51	0.477
Puducherry	6.16	88.17	69.83	36.14	62.11	62.11	16.37	41.63	55.35	0.447
India	24.66	79.69	56.95	49.00	21.28	19.84	18.69	20.04	32.13	0.317

TABLE T5

Rule of Law Index

State	1981						1991					
	PIPopRto	CrRtlInv	CrWolInv	CrIndx	CsDsRto	RoLI	PIPopRto	CrRtlInv	CrWolInv	CrIndx	CsDsRto	RoLI
Andhra Pradesh	3.52	6.56	1.13	7.43	87.56	0.124	4.0	3.95	0.92	3.64	79.56	0.094
Arunachal Pradesh	21.52	25.80	0.99	25.41	3.46	0.133	31.2	16.93	0.77	13.08	4.00	0.119
Assam	8.48	16.73	0.99	16.49	26.02	0.155	11.2	22.61	1.23	27.78	19.41	0.190
Bihar	3.52	24.72	2.17	53.59	12.53	0.153	3.2	25.45	3.83	97.60	10.80	0.181
Chhattisgarh	—	—	—	—	—	—	—	—	—	—	—	—
Goa	14.16	9.96	3.25	32.41	5.06	0.145	12.8	7.86	1.20	9.45	11.83	0.111
Gujarat	8.16	5.90	1.30	7.68	31.05	0.119	7.2	5.26	1.05	5.53	16.85	0.084
Haryana	7.12	14.75	1.05	15.54	32.55	0.154	8.8	12.90	1.15	14.80	24.67	0.148
Himachal Pradesh	11.04	20.22	1.39	28.17	17.23	0.184	13.6	15.08	0.79	11.89	14.90	0.132
Jammu & Kashmir	22.8	14.29	0.28	3.97	5.44	0.074	25.6	16.32	0.67	10.95	8.63	0.132
Jharkhand	—	—	—	—	—	—	—	—	—	—	—	—
Karnataka	4.24	3.50	1.76	6.16	77.59	0.118	4.0	3.11	1.73	5.36	68.35	0.105
Kerala	2.88	20.25	2.42	48.97	14.23	0.144	6.4	14.90	2.20	32.78	16.23	0.163
Madhya Pradesh	6.96	5.90	0.70	4.11	30.59	0.088	6.4	6.85	0.45	3.05	28.11	0.074
Maharashtra	8.56	3.19	0.85	2.71	40.19	0.086	8.8	4.56	0.67	3.05	20.71	0.074
Manipur	35.92	14.14	0.72	10.11	56.27	0.248	45.6	12.79	1.05	13.46	30.35	0.248
Meghalaya	24.16	18.66	2.43	45.36	15.03	0.270	28.8	32.87	3.21	90.11	9.89	0.330
Mizoram	36.48	12.07	0.40	4.87	26.63	0.148	46.4	12.40	0.60	7.45	39.99	0.213
Nagaland	91.36	20.22	2.78	56.17	20.75	0.482	100.0	22.64	29.72	100.00	15.07	0.567
Odisha	4.4	21.29	1.82	38.70	21.33	0.169	4.0	23.82	1.72	40.90	16.79	0.156
Punjab	10.16	10.30	2.58	26.59	44.18	0.232	16.0	25.49	5.81	90.96	32.57	0.397
Rajasthan	6.72	12.03	0.71	8.55	3.53	0.061	5.6	10.69	0.63	6.72	7.62	0.066
Sikkim	39.2	15.79	1.41	22.31	38.55	0.311	43.2	20.96	1.69	35.48	44.28	0.402
Tamil Nadu	4.24	2.63	1.62	4.26	83.35	0.104	4.8	2.34	1.79	4.18	69.02	0.101
Tripura	19.76	14.61	1.32	19.25	25.08	0.210	21.6	19.46	0.81	15.81	23.12	0.195
Uttar Pradesh	5.68	12.13	0.82	9.96	20.00	0.104	4.8	12.17	1.01	12.26	24.23	0.114
Uttarakhand	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	6.48	8.82	0.81	7.17	51.63	0.126	4.8	9.33	1.74	16.23	49.83	0.158
Andaman & Nicobar Is.	77.36	3.13	0.81	2.54	57.21	0.180	56.0	4.08	0.62	2.54	38.72	0.145
Chandigarh	34	6.49	1.16	7.50	22.90	0.165	46.4	13.94	0.75	10.52	24.74	0.212
Dadra & Nagar Haveli	7.04	12.47	1.34	16.73	70.01	0.198	8.0	12.39	1.10	13.60	29.74	0.147
Daman & Diu	14.16	10.26	1.34	13.74	55.17	0.210	13.6	17.63	1.92	33.86	29.43	0.247
Delhi	26.96	6.35	0.60	3.82	8.85	0.088	35.2	8.33	0.22	1.84	12.92	0.080
Lakshadweep	51.2	87.53	1.00	87.53	20.14	0.480	44.8	41.00	1.00	41.00	23.84	0.358
Puducherry	15.76	3.26	0.23	0.76	90.00	0.079	15.2	6.88	0.11	0.79	76.36	0.075
India	6.48	7.32	1.00	7.32	50.90	0.126	7.2	6.70	1.00	6.70	37.57	0.115

Variables PIPopRto: Police personal per 10,000 population i.e., police population ratio, scaled.

CrRtlInv: Rate of cognizable crime (IPC and SLL) scaled and inverse.

CrWolInv: Total crime against women, inverse and relative to the national average.

CrIndx: Crime index based on CrRtlInv and CrWolInv.

CsDsRto: Proportion of cases both SLL and IPC disposed by the courts.

RoLI: Rule of Law Index.

...contd.

State	2001						2011					
	PIPopRto	CrRtlnv	CrWolnv	CrIndx	CsDsRto	RoLI	PIPopRto	CrRtlnv	CrWolnv	CrIndx	CsDsRto	RoLI
Andhra Pradesh	4.24	4.58	0.70	3.19	72.28	0.089	4.48	5.27	0.60	3.15	57.97	0.084
Arunachal Pradesh	35.60	19.21	0.77	14.87	5.36	0.142	39.12	20.64	1.17	24.12	3.64	0.158
Assam	12.00	27.75	0.76	21.07	16.81	0.166	9.84	19.61	0.50	9.75	15.32	0.112
Bihar	0.40	30.00	2.10	62.88	10.80	0.081	1.20	28.36	2.10	59.47	9.03	0.105
Chhattisgarh	0.72	5.28	0.62	3.28	49.01	0.047	9.84	3.36	0.97	3.24	50.21	0.103
Goa	17.76	13.46	2.72	36.65	32.11	0.283	25.6	10.77	1.79	19.28	24.18	0.225
Gujarat	5.52	7.57	1.26	9.57	10.61	0.084	5.52	6.98	1.36	9.52	9.68	0.081
Haryana	8.08	12.91	0.73	9.37	21.69	0.115	11.92	12.20	0.82	9.99	22.65	0.135
Himachal Pradesh	12.00	16.15	0.91	14.68	14.96	0.139	13.04	15.20	1.10	16.79	10.41	0.135
Jammu & Kashmir	42.88	18.45	0.64	11.88	15.91	0.191	44.96	20.45	0.67	13.65	10.88	0.182
Jharkhand	0.40	52.65	1.47	77.21	18.34	0.103	9.36	30.56	1.95	59.70	29.02	0.276
Karnataka	3.68	16.33	1.59	25.89	28.00	0.148	5.76	15.33	1.42	21.75	22.48	0.147
Kerala	6.96	9.71	0.80	7.75	21.49	0.102	6.8	3.82	0.63	2.39	25.65	0.067
Madhya Pradesh	8.88	6.76	0.46	3.08	29.98	0.084	4.00	8.50	0.70	5.97	26.72	0.083
Maharashtra	6.88	10.62	1.10	11.70	12.38	0.101	9.04	13.16	1.28	16.88	7.41	0.109
Manipur	44.72	27.94	2.34	65.45	6.20	0.288	66.16	27.23	1.92	52.41	1.92	0.209
Meghalaya	25.28	51.99	3.76	91.91	7.55	0.295	26.48	39.99	1.75	70.10	6.32	0.254
Mizoram	53.28	10.12	0.73	7.44	69.69	0.263	75.68	14.49	1.00	14.43	56.52	0.357
Nagaland	42.56	41.28	9.26	95.65	12.70	0.409	36.4	60.00	7.34	96.81	36.97	0.541
Odisha	3.60	25.76	0.99	25.56	15.34	0.122	4.8	23.41	0.87	20.30	8.74	0.102
Punjab	18.48	18.92	1.41	26.64	27.86	0.242	15.36	20.52	1.77	36.34	20.63	0.237
Rajasthan	4.96	11.97	0.60	7.23	19.09	0.086	4.88	12.46	0.68	8.48	14.91	0.085
Sikkim	56.00	34.51	3.07	90.12	59.02	0.688	54.56	32.56	2.03	65.99	25.57	0.469
Tamil Nadu	6.32	3.51	1.25	4.40	66.32	0.111	6.64	5.05	1.98	10.00	52.49	0.145
Tripura	33.36	43.12	0.91	39.24	24.72	0.325	48.88	24.62	0.44	10.85	14.87	0.187
Uttar Pradesh	3.52	10.13	1.16	11.80	34.06	0.113	3.52	3.45	1.51	5.19	58.61	0.096
Uttarakhand	7.52	7.30	1.18	8.59	49.02	0.139	10.56	2.61	1.51	3.93	73.35	0.127
West Bengal	4.32	2.69	1.65	4.44	55.81	0.094	3.36	26.32	0.66	17.28	4.09	0.069
Andaman & Nicobar Is.	58.72	3.45	1.30	4.47	30.41	0.172	81.12	3.08	0.78	2.39	15.15	0.120
Chandigarh	31.52	8.78	0.67	5.88	31.02	0.160	42.72	10.70	1.15	12.32	24.71	0.220
Dadra & Nagar Haveli	4.40	20.49	1.50	30.83	14.67	0.138	3.12	27.93	2.40	66.97	5.36	0.125
Daman & Diu	7.92	23.73	3.35	79.56	18.22	0.256	7.52	34.22	0.65	22.38	21.86	0.160
Delhi	28.80	8.30	0.70	5.85	21.88	0.140	31.84	12.44	0.59	7.32	8.89	0.121
Lakshadweep	38.48	57.42	6.70	95.70	32.76	0.528	48.72	32.74	13.97	97.15	23.75	0.518
Puducherry	9.20	8.25	1.23	10.12	64.79	0.172	10.64	8.31	2.11	17.52	34.51	0.185
India	6.96	7.68	1.00	7.68	32.19	0.115	6.96	7.24	1.00	7.24	32.10	0.112

- Notes**
- 1 Nagaland 1991 has very low crime against women relative to the national average so its crime index is capped at 100 per cent (100 being equated to 90 and 2 percentage points for every 100 thereafter) instead of 672.75. Following this rule, Meghalaya 1991 crime index has been capped at 90.11 instead of 105.39, Punjab 1991 crime index has been capped at 90.96 instead of 148.07, Nagaland 2001 crime index has been capped at 95.65 instead of 382.43. Meghalaya and Sikkim 2001 have also been capped at 91.91 and 90.12 instead of 195.43 and 105.88 respectively. Lakshadweep 2001 crime index has been capped at 95.70 instead of 384.91, Nagaland 2011 crime index has been capped at 96.81 instead of 440.33, Lakshadweep 2011 crime index has been capped at 97.15 instead of 457.27.
 - 2 Bihar PIPopRto for 2001 has been repeated for Jharkhand 2001.

TABLE T6

Physical Infrastructure Development Index – Rural

State	1981						1991					
	HhEWT	HzQlty	RdQlty	RgRdCv	IRdCon	PIDIR	HhEWT	HzQlty	RdQlty	RgRdCv	IRdCon	PIDIR
Andhra Pradesh	0.85	18.62	45.79	1.0	45.79	0.071	3.30	29.77	47.82	0.970	46.39	0.141
Arunachal Pradesh	14.12	5.75	15.12	1.0	15.12	0.110	18.90	9.76	42.76	0.615	26.28	0.171
Assam	2.08	7.80	8.04	1.0	8.04	0.046	4.50	10.53	9.56	0.895	8.55	0.070
Bihar	1.45	17.77	31.06	1.0	31.06	0.077	2.00	24.07	33.27	0.733	24.38	0.089
Chhattisgarh	—	—	—	—	—	—	—	—	—	—	—	—
Goa	3.23	25.62	40.99	1.0	40.99	0.129	10.20	41.58	59.78	0.669	40.02	0.234
Gujarat	4.17	36.42	68.81	1.0	68.81	0.185	8.80	43.42	85.12	1.061	90.27	0.286
Haryana	1.13	31.09	86.60	1.0	86.60	0.112	5.00	41.46	92.12	0.910	83.83	0.220
Himachal Pradesh	1.11	41.02	17.64	1.0	17.64	0.075	5.30	49.75	44.08	0.976	43.01	0.194
Jammu & Kashmir	0.98	16.58	48.66	1.0	48.66	0.074	4.67	27.51	43.98	0.881	38.74	0.150
Jharkhand	—	—	—	—	—	—	—	—	—	—	—	—
Karnataka	1.19	19.19	55.97	1.0	55.97	0.087	3.70	30.45	63.20	0.910	57.50	0.159
Kerala	1.16	35.07	19.54	1.0	19.54	0.075	3.40	51.56	23.17	0.985	22.81	0.136
Madhya Pradesh	0.74	16.97	48.45	1.0	48.45	0.067	2.10	20.93	53.28	1.030	54.90	0.111
Maharashtra	1.45	25.78	42.50	1.0	42.50	0.095	4.20	35.37	69.91	0.937	65.53	0.181
Manipur	3.50	1.20	31.11	1.0	31.11	0.049	7.50	2.64	27.29	1.043	28.45	0.082
Meghalaya	1.61	7.03	23.65	1.0	23.65	0.056	3.60	9.33	36.62	0.993	36.34	0.096
Mizoram	2.49	1.61	41.22	1.0	41.22	0.051	5.40	2.86	27.59	1.165	32.15	0.076
Nagaland	4.66	4.83	10.33	1.0	10.33	0.060	9.80	6.62	23.43	1.951	45.72	0.138
Odisha	0.33	8.32	10.80	1.0	10.80	0.025	1.00	13.00	6.94	1.262	8.75	0.041
Punjab	5.02	49.59	75.92	1.0	75.92	0.225	13.90	72.14	74.66	0.880	65.70	0.363
Rajasthan	1.50	40.36	50.17	1.0	50.17	0.116	3.70	47.04	48.92	1.454	71.15	0.193
Sikkim	0.71	11.20	94.39	1.0	94.39	0.070	5.40	22.13	69.56	1.330	92.49	0.193
Tamil Nadu	1.54	25.57	75.46	1.0	75.46	0.115	4.00	34.60	64.71	1.230	79.57	0.187
Tripura	7.08	1.43	17.06	1.0	17.06	0.057	12.00	1.91	27.95	1.886	52.70	0.108
Uttar Pradesh	1.21	21.56	40.36	1.0	40.36	0.082	2.90	32.70	46.13	0.997	46.00	0.137
Uttarakhand	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	2.71	11.96	37.63	1.0	37.63	0.093	5.50	15.74	39.71	0.745	29.60	0.125
Andaman & Nicobar Is.	10.85	3.09	44.63	1.0	44.63	0.114	18.70	7.91	93.44	1.046	97.72	0.237
Chandigarh	0.12	60.70	100.00	1.0	100.00	0.058	2.80	58.66	100.00	0.936	93.58	0.200
Dadra & Nagar Haveli	4.84	16.43	84.40	1.0	84.40	0.165	8.90	16.11	92.70	1.095	101.47	0.221
Daman & Diu	1.22	59.15	40.99	1.0	40.99	0.112	6.10	70.22	59.78	0.669	40.02	0.223
Delhi	6.64	67.90	5.13	1.0	5.13	0.123	18.40	86.63	100.00	0.227	22.69	0.312
Lakshadweep	0.87	49.75	50.00	1.0	50.00	0.099	1.90	83.91	75.00	1.000	75.00	0.178
Puducherry	4.08	25.47	50.82	1.0	50.82	0.151	9.00	27.17	61.00	0.895	54.59	0.215
India	1.50	22.53	42.44	1.0	42.44	0.092	3.90	30.59	48.00	1.00	48.00	0.154

Variables HhEWT: Proportion of households with access to electricity, water and toilets.

HzQlty: Proportion of households with pucca houses.

RdQlty: Proportion of surfaced road to total.

RgRdCv: Increase in road coverage per 100 sq. km relative to the national average.

IRdCon: Index of road connectivity.

PIDIR: Physical Infrastructure Development Index Rural.

...contd.

State	2001						2011					
	HhEWT	HZQty	RdQty	RgRdCv	IRdCon	PIDIR	HhEWT	HZQty	RdQty	RgRdCv	IRdCon	PIDIR
Andhra Pradesh	12.84	47.03	59.52	0.986	58.68	0.299	28.36	65.95	63.77	0.840	53.60	0.442
Arunachal Pradesh	25.31	13.43	29.40	1.439	42.30	0.244	32.61	11.57	63.00	0.711	44.79	0.263
Assam	9.73	14.21	7.36	1.408	10.37	0.111	18.03	21.07	13.04	1.392	18.14	0.189
Bihar	2.75	37.23	37.08	0.752	27.90	0.120	4.95	45.04	41.84	1.069	44.72	0.186
Chhattisgarh	3.00	17.03	66.31	0.885	58.71	0.123	10.56	21.14	66.65	1.617	107.75	0.261
Goa	32.24	60.65	68.49	1.122	76.82	0.506	58.08	77.57	69.31	0.734	50.89	0.609
Gujarat	18.57	50.97	91.42	1.454	132.91	0.454	29.69	61.75	92.61	0.715	66.21	0.470
Haryana	22.07	58.23	96.23	0.791	76.12	0.428	50.34	70.89	98.04	0.892	87.44	0.658
Himachal Pradesh	25.20	61.82	46.68	1.049	48.99	0.403	62.42	75.00	67.82	0.952	64.54	0.666
Jammu & Kashmir	22.20	45.64	36.08	1.392	50.21	0.352	29.98	54.25	46.64	0.713	33.23	0.369
Jharkhand	1.96	19.36	34.13	0.752	25.68	0.084	2.93	25.99	65.34	1.401	91.54	0.158
Karnataka	11.48	42.59	68.28	0.950	64.86	0.286	20.89	55.12	62.88	1.184	74.45	0.409
Kerala	9.97	64.56	28.41	0.877	24.92	0.230	24.86	79.24	52.57	0.898	47.23	0.427
Madhya Pradesh	5.94	31.22	44.56	0.885	39.46	0.172	9.32	33.40	58.93	0.824	48.56	0.224
Maharashtra	12.14	40.33	77.54	0.986	76.48	0.302	27.42	53.38	83.02	1.059	87.90	0.475
Manipur	16.05	4.79	24.67	1.451	35.79	0.142	23.20	6.79	39.11	1.024	40.06	0.189
Meghalaya	8.07	14.56	66.24	1.217	80.61	0.192	14.68	21.49	55.64	0.834	46.41	0.232
Mizoram	11.70	32.42	48.35	1.057	51.11	0.247	34.41	43.33	67.66	1.387	93.85	0.498
Nagaland	20.61	9.43	28.58	1.190	34.00	0.189	31.70	11.75	44.35	1.047	46.41	0.264
Odisha	3.05	21.78	17.75	0.981	17.42	0.093	7.76	36.69	18.47	0.699	12.91	0.144
Punjab	38.49	83.33	84.83	0.919	77.98	0.600	67.58	85.76	91.93	0.903	82.98	0.772
Rajasthan	9.10	57.12	63.17	0.958	60.49	0.279	14.42	64.77	80.15	1.111	89.06	0.391
Sikkim	41.10	31.79	76.45	1.020	78.01	0.461	68.80	33.22	88.45	1.520	134.48	0.676
Tamil Nadu	10.41	47.30	73.69	0.660	48.62	0.260	20.71	60.27	81.70	0.754	61.63	0.396
Tripura	20.34	3.99	28.11	0.819	23.01	0.129	40.76	9.31	41.07	1.597	65.60	0.302
Uttar Pradesh	6.96	46.14	61.62	0.969	59.72	0.234	10.02	59.22	78.39	1.052	82.45	0.321
Uttarakhand	22.63	85.14	29.49	0.880	25.95	0.351	47.75	89.60	50.15	0.880	82.45	0.679
West Bengal	11.18	24.86	45.51	1.183	53.82	0.228	25.50	36.03	23.26	2.045	47.56	0.341
Andaman & Nicobar Is.	32.22	19.30	98.55	1.079	106.34	0.395	51.06	36.22	77.67	0.573	44.50	0.442
Chandigarh	67.43	88.68	100.00	1.500	150.00	0.930	86.71	95.80	100.00	1.090	108.99	0.957
Dadra & Nagar Haveli	16.36	33.72	100.00	1.480	147.97	0.394	24.89	38.95	99.75	0.936	93.40	0.423
Daman & Diu	30.57	91.00	72.47	0.900	65.23	0.532	50.44	94.62	100.00	0.451	45.09	0.589
Delhi	50.96	91.46	100.00	0.919	91.89	0.725	69.13	93.62	99.79	0.989	98.66	0.842
Lakshadweep	4.13	93.89	100.00	1.000	100.00	0.274	30.76	95.01	100.00	0.882	88.24	0.592
Puducherry	19.84	37.45	76.47	0.696	53.22	0.323	38.50	58.80	83.94	0.657	55.15	0.487
India	10.17	41.10	53.94	1.000	53.94	0.255	19.24	51.38	59.82	1.001	59.88	0.363

- Notes**
- 1 Uttarakhand RgRdCv for 2001 is same as in 2011, Lakshadweep RdQty for 1981 is taken as 50 per cent and 75 per cent for 1991.
 - 2 Daman & Diu RdQty for 1981 and 1991 is same as Goa, RgRdCv for Chhattisgarh and Jharkhand is based on MP and Bihar for 2001, respectively.
 - 3 Jharkhand data for RdQty for 2001 has been adjusted from 14.13 to 34.13, Chandigarh RgRdCv is capped at 1.5 for 2001 instead of 7.5 in order to keep the overall index just under 1.

TABLE T7

Physical Infrastructure Development Index – Urban

State	1981						1991					
	HhEWT	HzQlty	RdQlty	RgRdCv	IRdCon	PIDIU	HhEWT	HzQlty	RdQlty	RgRdCv	IRdCon	PIDIU
Andhra Pradesh	22.39	52.59	83.19	1.00	83.19	0.429	39.30	64.94	65.77	1.64	107.83	0.618
Arunachal Pradesh	55.52	28.03	99.40	1.00	99.40	0.539	64.50	44.71	75.19	0.78	58.29	0.561
Assam	33.67	36.26	74.39	1.00	74.39	0.437	42.70	43.43	100.00	0.46	46.48	0.440
Bihar	32.09	65.66	78.88	1.00	78.88	0.521	41.20	70.49	68.72	1.04	71.47	0.571
Chhattisgarh	—	—	—	—	—	—	—	—	—	—	—	—
Goa	23.50	47.13	93.27	1.00	93.27	0.438	37.50	63.68	90.45	2.30	208.05	0.735
Gujarat	44.53	75.49	75.90	1.00	75.90	0.612	58.60	81.14	82.36	0.90	74.09	0.693
Haryana	47.31	65.39	89.80	1.00	89.80	0.632	60.40	72.95	84.62	0.98	82.87	0.703
Himachal Pradesh	43.29	70.59	99.59	1.00	99.59	0.644	57.20	79.25	92.40	0.77	71.28	0.674
Jammu & Kashmir	47.36	62.41	99.93	1.00	99.93	0.644	62.58	71.89	100.00	0.67	67.00	0.666
Jharkhand	—	—	—	—	—	—	—	—	—	—	—	—
Karnataka	34.97	54.64	86.19	1.00	86.19	0.524	48.60	69.43	87.62	0.76	66.46	0.594
Kerala	18.39	56.08	69.77	1.00	69.77	0.383	25.50	69.06	93.62	0.96	90.05	0.502
Madhya Pradesh	32.11	56.02	77.17	1.00	77.17	0.494	44.70	62.14	77.66	0.69	53.87	0.522
Maharashtra	62.66	64.63	83.93	1.00	83.93	0.690	58.80	77.81	76.56	0.98	74.71	0.687
Manipur	25.74	9.83	88.35	1.00	88.35	0.279	36.50	12.78	90.49	0.67	61.00	0.311
Meghalaya	59.13	30.67	99.27	1.00	99.27	0.567	61.90	29.99	99.33	0.71	70.92	0.519
Mizoram	5.72	24.28	100.00	1.00	100.00	0.208	16.30	37.09	100.00	1.55	155.24	0.410
Nagaland	29.44	38.32	99.48	1.00	99.48	0.459	33.40	33.82	98.97	0.67	66.57	0.412
Odisha	25.60	46.70	58.63	1.00	58.63	0.393	33.00	54.95	54.13	0.99	53.77	0.445
Punjab	55.92	78.43	86.42	1.00	86.42	0.705	68.80	88.10	68.96	1.42	97.92	0.824
Rajasthan	42.93	80.82	72.85	1.00	72.85	0.608	55.40	86.20	75.76	0.74	56.27	0.636
Sikkim	2.99	51.70	100.00	1.00	100.00	0.201	16.30	70.09	100.00	0.21	21.36	0.274
Tamil Nadu	30.45	60.74	89.15	1.00	89.15	0.517	40.50	69.08	92.08	1.04	95.45	0.615
Tripura	47.26	20.70	90.35	1.00	90.35	0.448	59.20	24.02	90.55	0.71	64.63	0.464
Uttar Pradesh	41.37	65.40	81.10	1.00	81.10	0.581	53.70	75.93	76.92	1.09	83.96	0.681
Uttarakhand	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	47.51	71.37	73.83	1.00	73.83	0.613	57.20	74.19	67.49	1.00	67.71	0.651
Andaman & Nicobar Is.	47.92	6.42	100.00	1.00	100.00	0.327	59.90	17.21	100.00	1.00	100.00	0.481
Chandigarh	75.10	85.92	100.00	1.00	100.00	0.852	77.20	85.61	100.00	7.94	793.64	1.602
Dadra & Nagar Haveli	50.11	46.97	84.40	1.00	84.40	0.575	61.30	69.11	92.70	1.09	101.47	0.739
Daman & Diu	24.17	81.36	93.27	1.00	93.27	0.522	39.60	89.89	90.45	1.00	90.45	0.649
Delhi	52.16	90.05	54.75	1.00	54.75	0.623	62.00	85.50	88.30	1.05	92.88	0.771
Lakshadweep	18.57	74.90	50.00	1.00	50.00	0.380	8.00	92.84	75.00	0.75	56.25	0.300
Puducherry	29.00	49.07	74.35	1.00	74.35	0.450	41.90	56.53	85.24	1.03	88.11	0.573
India	40.15	64.70	77.29	1.00	77.29	0.564	50.50	72.75	77.13	1.00	77.19	0.640

Variables HhEWT: Proportion of household with access to electricity, water and toilets.

HzQlty: Proportion of households with pucca houses.

RdQlty: Proportion of surfaced road to total.

RgRdCv: Increase in road coverage per 100 sq. km relative to the national average.

IRdCon: Index of road connectivity.

PIDIU: Physical Infrastructure Development Index Urban.

...contd.

State	2001						2011					
	HhEWT	HZQty	RdQty	RgRdCv	IRdCon	PIDIU	HhEWT	HZQty	RdQty	RgRdCv	IRdCon	PIDIU
Andhra Pradesh	68.97	78.08	82.30	0.81	66.60	0.708	81.21	87.70	84.499	0.55	46.81	0.704
Arunachal Pradesh	74.93	44.20	100.00	0.77	77.45	0.646	81.18	39.97	100.000	1.75	175.00	0.826
Assam	54.15	52.01	72.08	1.40	101.16	0.645	65.54	59.20	79.253	0.90	71.61	0.653
Bihar	52.89	74.30	77.22	1.04	80.46	0.664	57.45	73.56	60.498	0.87	52.70	0.603
Chhattisgarh	47.74	61.05	75.00	1.84	137.68	0.706	56.85	65.08	80.852	0.58	47.17	0.560
Goa	59.85	79.21	91.42	0.62	56.66	0.640	77.57	88.86	91.444	0.62	57.02	0.737
Gujarat	77.11	87.81	81.18	0.97	79.02	0.808	85.56	91.81	80.258	0.92	73.79	0.836
Haryana	77.11	83.03	79.54	1.29	102.76	0.859	86.34	87.63	70.012	1.23	86.08	0.866
Himachal Pradesh	75.58	85.36	89.82	1.55	139.22	0.942	87.57	92.31	87.686	0.85	74.30	0.847
Jammu & Kashmir	82.70	82.82	98.60	1.03	101.39	0.879	84.10	85.64	99.667	0.96	96.15	0.880
Jharkhand	46.08	74.59	88.00	1.04	91.70	0.654	54.07	76.55	98.189	0.87	85.54	0.689
Karnataka	67.55	77.88	86.13	0.91	78.25	0.737	77.72	84.09	69.627	1.45	100.63	0.860
Kerala	35.35	78.82	75.49	1.23	92.70	0.600	37.44	88.41	83.593	0.64	53.30	0.539
Madhya Pradesh	62.23	71.57	78.84	1.84	144.74	0.836	69.26	75.57	77.962	0.58	45.48	0.627
Maharashtra	55.18	81.63	77.77	0.75	58.69	0.632	68.17	86.50	78.860	0.67	52.78	0.678
Manipur	51.76	19.05	95.04	1.36	129.23	0.505	51.30	28.60	95.214	0.69	65.57	0.463
Meghalaya	64.80	50.12	99.52	0.99	98.43	0.680	75.20	60.66	99.565	0.71	71.00	0.693
Mizoram	46.44	72.98	100.00	1.15	114.77	0.698	74.52	83.09	96.723	0.86	82.78	0.795
Nagaland	37.90	43.58	99.57	1.69	168.39	0.618	49.35	48.53	99.662	0.82	81.33	0.570
Odisha	42.53	63.80	63.06	1.25	79.00	0.578	50.85	72.99	67.395	0.72	48.26	0.558
Punjab	84.65	91.28	71.59	0.78	55.56	0.763	92.13	92.35	83.738	0.64	53.32	0.782
Rajasthan	71.49	90.53	78.36	0.82	64.53	0.744	77.77	92.02	88.782	1.08	96.11	0.872
Sikkim	89.00	79.38	100.00	1.16	115.84	0.931	88.02	82.76	99.107	1.30	128.84	0.969
Tamil Nadu	53.86	74.27	93.71	0.92	85.97	0.682	69.10	81.89	87.633	0.90	79.28	0.758
Tripura	74.16	36.13	93.44	1.10	103.03	0.660	84.21	44.19	89.853	0.70	62.67	0.635
Uttar Pradesh	69.70	82.21	82.89	1.05	87.09	0.783	73.25	84.29	68.491	0.94	64.71	0.736
Uttarakhand	81.92	90.03	80.00	1.05	84.06	0.849	91.03	93.33	80.129	0.94	75.71	0.868
West Bengal	68.86	78.60	74.00	1.10	81.38	0.753	73.83	81.78	70.746	2.10	148.57	0.939
Andaman & Nicobar Is.	74.87	48.34	100.00	1.00	100.00	0.716	85.65	75.87	100.000	1.00	100.00	0.865
Chandigarh	79.36	89.94	100.00	0.78	77.50	0.818	87.13	94.14	100.000	0.64	64.10	0.813
Dadra & Nagar Haveli	75.00	80.95	100.00	1.48	147.97	0.941	80.14	88.77	100.000	0.94	93.64	0.866
Daman & Diu	64.88	95.04	91.34	0.62	56.63	0.698	84.39	97.89	100.000	0.19	19.00	0.564
Delhi	73.70	91.70	90.14	0.88	79.16	0.804	85.75	96.12	70.223	0.73	51.55	0.762
Lakshadweep	3.45	97.30	100.00	0.25	25.00	0.170	19.72	97.47	100.000	0.25	25.00	0.342
Puducherry	60.54	72.72	92.76	1.39	129.00	0.803	78.98	86.44	96.222	0.77	74.21	0.796
India	63.52	79.35	80.54	1.00	80.26	0.728	72.33	84.28	75.155	1.00	75.09	0.766

- Notes**
- 1 For Dadra & Nagar Haveli rural RgRdCV and RdQty have been used for the urban areas as well for all years.
 - 2 For Daman & Diu RdQty for 1981 and 1991 is same as Goa. RgRdCv for 1991 is taken as 1, for 2001 same as Goa and 2011 actual from data.
 - 3 Lakshadweep RdQty for 1981 is taken as 50 per cent and 75 per cent for 1991. For RgRdCv 0.75 for 1991, 0.25 and 0.25 for 2001 and 2011 as 100 per cent surfaced road have been achieved.
 - 4 Chhattisgarh, Jharkhand and Uttarakhand data for RdQty are based on trend from 2011 and the corresponding figures of the mother states. Chhattisgarh, Jharkhand and Uttarakhand data for RgRdCv are based on the corresponding figures of the mother states for both 2001 and 2011.
 - 5 Arunachal Pradesh 2011 RgRdCv capped at 1.75 (3.07), Sikkim 2011 at 1.3 (1.47), West Bengal 2.1 (2.43), Himachal Pradesh 2001 at 1.55 (1.7) and Goa 1991 at 2.3 (2.61).

TABLE T8

Physical Infrastructure Development Index – Combined

State	1981						1991					
	HhEWT	HzQlty	RdQlty	RgRdCv	IRdCon	PIDI	HhEWT	HzQlty	RdQlty	RgRdCv	IRdCon	PIDI
Andhra Pradesh	5.87	26.22	48.15	1.00	48.15	0.173	12.30	38.41	52.71	0.96	50.49	0.264
Arunachal Pradesh	16.83	7.48	17.28	1.00	17.28	0.133	25.70	14.94	43.95	0.61	26.91	0.221
Assam	5.33	10.74	13.49	1.00	13.49	0.087	9.30	14.62	15.33	0.83	12.69	0.117
Bihar	5.28	23.64	34.28	1.00	34.28	0.145	7.10	30.18	36.10	0.76	27.52	0.165
Chhattisgarh	—	—	—	—	—	—	—	—	—	—	—	—
Goa	9.79	32.45	42.53	1.00	42.53	0.218	21.50	50.70	63.45	0.73	46.12	0.350
Gujarat	16.72	48.96	69.95	1.00	69.95	0.355	26.60	56.93	84.69	1.04	88.05	0.479
Haryana	11.24	39.82	87.00	1.00	87.00	0.303	20.30	50.14	91.19	0.91	82.99	0.406
Himachal Pradesh	4.33	43.94	21.75	1.00	21.75	0.141	11.10	53.03	46.28	0.96	44.27	0.269
Jammu & Kashmir	10.75	26.20	54.20	1.00	54.20	0.228	18.47	38.09	58.40	0.78	45.33	0.300
Jharkhand	—	—	—	—	—	—	—	—	—	—	—	—
Karnataka	10.95	29.33	58.34	1.00	58.34	0.243	17.60	42.55	65.04	0.89	58.07	0.328
Kerala	4.39	38.80	22.38	1.00	22.38	0.138	9.00	55.97	27.76	0.97	26.94	0.216
Madhya Pradesh	7.11	25.02	50.58	1.00	50.58	0.187	12.00	30.47	54.69	1.00	54.57	0.250
Maharashtra	22.89	39.63	46.03	1.00	46.03	0.333	25.80	52.20	70.57	0.94	66.23	0.423
Manipur	9.38	3.42	37.13	1.00	37.13	0.105	15.40	5.40	34.45	0.94	32.31	0.140
Meghalaya	12.00	11.29	31.90	1.00	31.90	0.158	14.80	13.30	42.35	0.96	40.61	0.194
Mizoram	3.29	7.30	47.54	1.00	47.54	0.093	10.80	19.10	38.83	1.21	47.08	0.199
Nagaland	8.50	10.18	13.26	1.00	13.26	0.103	15.00	12.62	24.43	1.88	46.02	0.199
Odisha	3.31	13.00	13.82	1.00	13.82	0.077	5.40	18.71	9.72	1.23	11.91	0.099
Punjab	19.11	58.12	76.87	1.00	76.87	0.405	30.50	76.97	78.05	0.88	68.83	0.514
Rajasthan	10.22	49.08	52.95	1.00	52.95	0.268	15.70	56.13	50.95	1.36	69.26	0.359
Sikkim	1.08	18.16	95.38	1.00	95.38	0.096	10.80	26.95	70.70	1.12	79.34	0.258
Tamil Nadu	11.07	36.62	76.34	1.00	76.34	0.283	15.60	45.54	66.42	1.21	80.27	0.352
Tripura	11.49	3.61	21.73	1.00	21.73	0.098	19.60	5.50	29.74	1.79	53.25	0.181
Uttar Pradesh	8.42	29.29	46.78	1.00	46.78	0.205	12.70	41.03	51.98	1.02	53.09	0.277
Uttarakhand	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	14.57	28.40	44.56	1.00	44.56	0.249	20.50	32.61	47.13	0.81	38.18	0.284
Andaman & Nicobar Is.	20.60	4.00	45.39	1.00	45.39	0.160	29.70	10.40	93.44	1.02	94.95	0.307
Chandigarh	70.32	84.42	100.00	1.00	100.00	0.826	68.50	82.49	100.00	1.50	150.00	0.916
Dadra & Nagar Haveli	7.86	18.47	84.40	1.00	84.40	0.207	13.50	20.80	92.70	1.08	99.96	0.280
Daman & Diu	8.65	67.84	42.53	1.00	42.53	0.259	22.40	79.80	63.45	0.73	46.12	0.407
Delhi	48.85	88.73	51.34	1.00	51.34	0.593	58.20	85.60	88.46	1.12	99.01	0.766
Lakshadweep	9.07	61.71	50.00	1.00	50.00	0.269	5.30	88.84	75.00	0.75	56.25	0.251
Puducherry	17.11	37.48	53.37	1.00	53.37	0.305	28.80	44.88	65.96	0.89	58.70	0.407
India	10.51	32.67	45.85	1.00	45.85	0.230	16.10	41.61	51.21	1.00	51.31	0.303

Variables HhEWT: Proportion of household with access to electricity, water and toilets.

HzQlty: Proportion of households with pucca houses.

RdQlty: Proportion of surfaced road to total.

RgRdCv: Increase in road coverage per 100 sq. km relative to the national average.

IRdCon: Index of road connectivity.

PIDI: Physical Infrastructure Development Index for the state as a whole.

...contd.

State	2001						2011					
	HhEWT	HZQty	RdQty	RgRdCv	IRdCon	PIDI	HhEWT	HZQty	RdQty	RgRdCv	IRdCon	PIDI
Andhra Pradesh	26.74	54.72	62.04	1.02	63.25	0.429	45.40	72.96	65.369	0.81	52.95	0.548
Arunachal Pradesh	36.54	20.40	31.04	1.40	43.33	0.323	44.84	18.73	66.509	0.77	51.03	0.359
Assam	16.17	19.69	11.31	1.41	15.99	0.171	25.43	27.01	15.640	1.39	21.68	0.247
Bihar	7.49	40.73	44.23	0.74	32.62	0.194	10.53	48.07	43.782	1.10	48.25	0.262
Chhattisgarh	11.51	25.40	66.31	0.94	62.51	0.243	20.76	30.82	68.193	1.81	123.70	0.399
Goa	45.93	69.85	70.33	1.06	74.30	0.602	70.04	84.50	70.867	0.73	51.47	0.676
Gujarat	41.38	65.33	90.13	1.38	124.46	0.660	54.53	75.12	90.638	0.74	67.35	0.640
Haryana	38.84	65.79	92.69	0.87	80.19	0.565	63.71	77.11	90.347	0.97	87.51	0.742
Himachal Pradesh	31.02	64.54	56.51	0.95	53.96	0.456	65.25	76.94	69.318	1.06	73.64	0.711
Jammu & Kashmir	37.42	55.00	42.50	1.45	61.46	0.487	43.87	62.31	52.550	0.76	39.77	0.473
Jharkhand	11.58	31.40	14.13	0.74	10.42	0.151	15.31	38.22	68.523	1.55	106.32	0.360
Karnataka	30.97	54.86	69.76	0.94	65.75	0.461	43.81	66.80	63.561	1.21	76.78	0.588
Kerala	16.33	68.14	33.05	0.90	29.83	0.300	30.76	83.54	54.845	0.87	47.93	0.474
Madhya Pradesh	20.34	41.55	49.01	0.94	46.20	0.322	24.72	44.23	60.783	0.79	48.27	0.360
Maharashtra	30.36	57.82	77.56	0.96	74.44	0.482	45.91	68.41	82.771	1.02	84.84	0.622
Manipur	25.15	8.42	33.79	1.39	47.13	0.219	32.70	14.16	42.544	1.09	46.53	0.283
Meghalaya	20.30	22.22	69.14	1.19	82.37	0.318	27.73	29.94	59.012	0.82	48.67	0.336
Mizoram	29.32	52.99	58.09	1.08	62.89	0.440	55.49	64.23	71.366	1.29	92.07	0.675
Nagaland	24.09	16.29	30.69	1.16	35.55	0.241	36.78	22.33	45.305	1.06	48.10	0.343
Odisha	8.50	27.58	21.88	0.98	21.51	0.160	14.53	42.39	22.686	0.71	16.19	0.207
Punjab	54.61	86.10	85.73	0.92	79.03	0.699	77.08	88.32	90.996	0.89	81.39	0.816
Rajasthan	23.69	64.94	64.32	0.94	60.60	0.425	29.98	71.46	80.798	1.11	89.74	0.541
Sikkim	47.05	37.71	77.61	1.02	78.85	0.514	74.16	47.04	88.963	1.52	135.15	0.775
Tamil Nadu	28.49	58.52	75.64	0.67	51.00	0.421	44.07	70.71	82.393	0.77	63.50	0.567
Tripura	30.28	9.93	31.29	0.81	25.37	0.206	52.87	19.03	42.056	1.57	66.16	0.416
Uttar Pradesh	19.55	53.38	66.48	1.00	66.55	0.382	24.32	64.90	76.277	1.03	78.69	0.464
Uttarakhand	37.21	86.34	29.49	1.00	29.52	0.447	60.58	90.71	54.110	1.01	54.66	0.663
West Bengal	27.90	40.43	53.57	1.19	63.72	0.399	40.79	50.51	38.613	2.17	83.67	0.540
Andaman & Nicobar Is.	45.88	28.61	98.56	1.07	105.33	0.511	63.78	50.80	83.405	0.77	63.87	0.596
Chandigarh	78.10	89.81	100.00	1.07	106.91	0.895	87.12	94.19	100.000	0.74	73.72	0.848
Dadra & Nagar Haveli	31.28	45.74	100.00	1.46	145.57	0.556	53.36	64.63	99.752	0.94	93.40	0.669
Daman & Diu	42.81	92.44	78.26	1.06	82.67	0.657	77.22	19.79	100.000	0.37	37.26	0.412
Delhi	72.19	91.69	90.26	1.01	90.74	0.831	85.35	96.06	70.703	0.75	53.13	0.767
Lakshadweep	3.84	95.32	100.00	0.75	75.00	0.246	22.32	96.89	100.000	0.88	88.07	0.523
Puducherry	46.46	60.52	80.90	0.83	67.20	0.562	66.20	77.71	87.737	0.69	60.74	0.677
India	25.09	51.80	57.28	1.00	57.45	0.400	36.21	61.90	61.775	1.00	61.97	0.500

- Notes**
- 1 For Lakshadweep RdQty for 1981 is taken as 50 per cent and 75 per cent for 1991 and its RgRdCv 0.75 for 1991, 0.75 for 2001 and actual for 2011 as 100 per cent surfaced road have been achieved.
 - 2 For Daman & Diu RdQty for 1981 and 1991 is same as Goa. RgRdCv for 1991 and 2001 same as Goa and 2011 actual from data.
 - 3 Chhattisgarh, Jharkhand and Uttarakhand data for RgRdCv are based on the corresponding figures of the mother states for 2001.
 - 4 Chandigarh RgRdCv is capped at 1.5 for 2001 instead of 7.23 in order to keep the overall index just under 1.
 - 5 PIDI for the state as a whole is estimated from the data directly and not as a population weighted average of PIDI rural and PIDI urban.

TABLE T9

Livelihood Opportunity Index – Combined

State	1983			1993-94			2004-05			2009-10		
	LOIR	LOIU	LOIC	LOIR	LOIU	LOIC	LOIR	LOIU	LOIC	LOIR	LOIU	LOIC
Andhra Pradesh	0.255	0.353	0.279	0.299	0.398	0.327	0.262	0.406	0.305	0.313	0.473	0.366
Arunachal Pradesh	0.340	0.416	0.346	0.492	0.631	0.513	0.521	0.503	0.517	0.607	0.484	0.578
Assam	0.340	0.416	0.347	0.271	0.389	0.284	0.322	0.392	0.332	0.325	0.486	0.348
Bihar	0.249	0.441	0.273	0.283	0.394	0.298	0.299	0.357	0.305	0.367	0.374	0.368
Chhattisgarh	—	—	—	—	—	—	0.240	0.416	0.277	0.354	0.524	0.392
Goa	0.324	0.326	0.325	0.276	0.324	0.297	0.261	0.306	0.286	0.466	0.489	0.480
Gujarat	0.306	0.438	0.349	0.325	0.464	0.374	0.374	0.513	0.429	0.314	0.609	0.438
Haryana	0.350	0.394	0.360	0.347	0.443	0.372	0.377	0.435	0.395	0.382	0.524	0.431
Himachal Pradesh	0.471	0.387	0.464	0.527	0.567	0.531	0.357	0.472	0.369	0.419	0.437	0.421
Jammu & Kashmir	0.338	0.396	0.351	0.566	0.401	0.525	0.397	0.443	0.409	0.446	0.421	0.439
Jharkhand	—	—	—	—	—	—	0.334	0.386	0.346	0.358	0.374	0.362
Karnataka	0.260	0.370	0.292	0.338	0.439	0.370	0.280	0.456	0.343	0.375	0.495	0.421
Kerala	0.202	0.235	0.209	0.266	0.274	0.268	0.225	0.237	0.229	0.275	0.305	0.288
Madhya Pradesh	0.385	0.459	0.401	0.350	0.426	0.368	0.300	0.444	0.338	0.277	0.463	0.329
Maharashtra	0.261	0.374	0.302	0.333	0.451	0.378	0.253	0.392	0.314	0.294	0.477	0.376
Manipur	0.707	0.924	0.765	0.577	0.489	0.551	0.587	0.421	0.540	0.441	0.466	0.449
Meghalaya	0.315	0.350	0.321	0.623	0.701	0.638	0.672	0.567	0.652	0.712	0.473	0.664
Mizoram	0.562	0.775	0.629	0.542	0.933	0.745	0.602	0.703	0.654	0.469	0.509	0.489
Nagaland	0.340	0.353	0.342	0.557	0.433	0.534	0.396	0.446	0.408	0.213	0.334	0.247
Odisha	0.250	0.367	0.264	0.284	0.367	0.295	0.277	0.299	0.281	0.310	0.438	0.331
Punjab	0.284	0.406	0.318	0.476	0.542	0.496	0.313	0.425	0.353	0.385	0.423	0.399
Rajasthan	0.388	0.466	0.405	0.621	0.654	0.628	0.387	0.444	0.400	0.469	0.539	0.486
Sikkim	0.442	0.353	0.430	0.847	0.670	0.832	0.505	0.568	0.513	0.420	0.991	0.595
Tamil Nadu	0.205	0.306	0.238	0.256	0.372	0.297	0.245	0.398	0.315	0.254	0.397	0.322
Tripura	0.283	0.292	0.284	0.455	0.365	0.441	0.266	0.224	0.258	0.294	0.274	0.289
Uttar Pradesh	0.380	0.432	0.390	0.402	0.499	0.422	0.417	0.449	0.424	0.373	0.510	0.403
Uttarakhand	—	—	—	—	—	—	0.373	0.427	0.388	0.396	0.453	0.413
West Bengal	0.208	0.318	0.237	0.307	0.347	0.318	0.280	0.370	0.307	0.350	0.451	0.382
Andaman & Nicobar Is.	0.352	0.286	0.334	0.395	0.341	0.380	0.294	0.323	0.303	0.304	0.372	0.329
Chandigarh	0.434	0.311	0.321	0.460	0.375	0.383	0.575	0.506	0.510	0.252	0.521	0.521
Dadra & Nagar Haveli	0.297	0.326	0.299	0.71	0.838	0.724	0.412	0.501	0.434	0.403	0.489	0.445
Daman & Diu	0.324	0.326	0.325	0.540	0.472	0.507	0.718	0.443	0.626	0.448	0.583	0.544
Delhi	0.456	0.500	0.496	0.974	0.712	0.737	0.759	0.465	0.479	0.470	0.617	0.613
Lakshadweep	0.202	0.235	0.218	0.248	0.216	0.229	0.242	0.203	0.216	0.256	0.297	0.290
Puducherry	0.167	0.298	0.240	0.206	0.304	0.272	0.197	0.294	0.262	0.233	0.391	0.341
India	0.273	0.364	0.295	0.321	0.418	0.347	0.296	0.400	0.326	0.332	0.462	0.372

Variables LOIR: Livelihood Opportunity Index for rural areas.

LOIU: Livelihood Opportunity Index for urban areas.

LOIC: Livelihood Opportunity Index combined.

- Notes**
- 1 The combined index LOIC has been derived as a weighted average of the rural and the urban population for the relevant NSS year.
 - 2 For Daman & Diu the weighted index uses Goa's rural urban proportions for 1983.