CHAPTER 2

State of Human Development– Concept, Methodology and Core Indices

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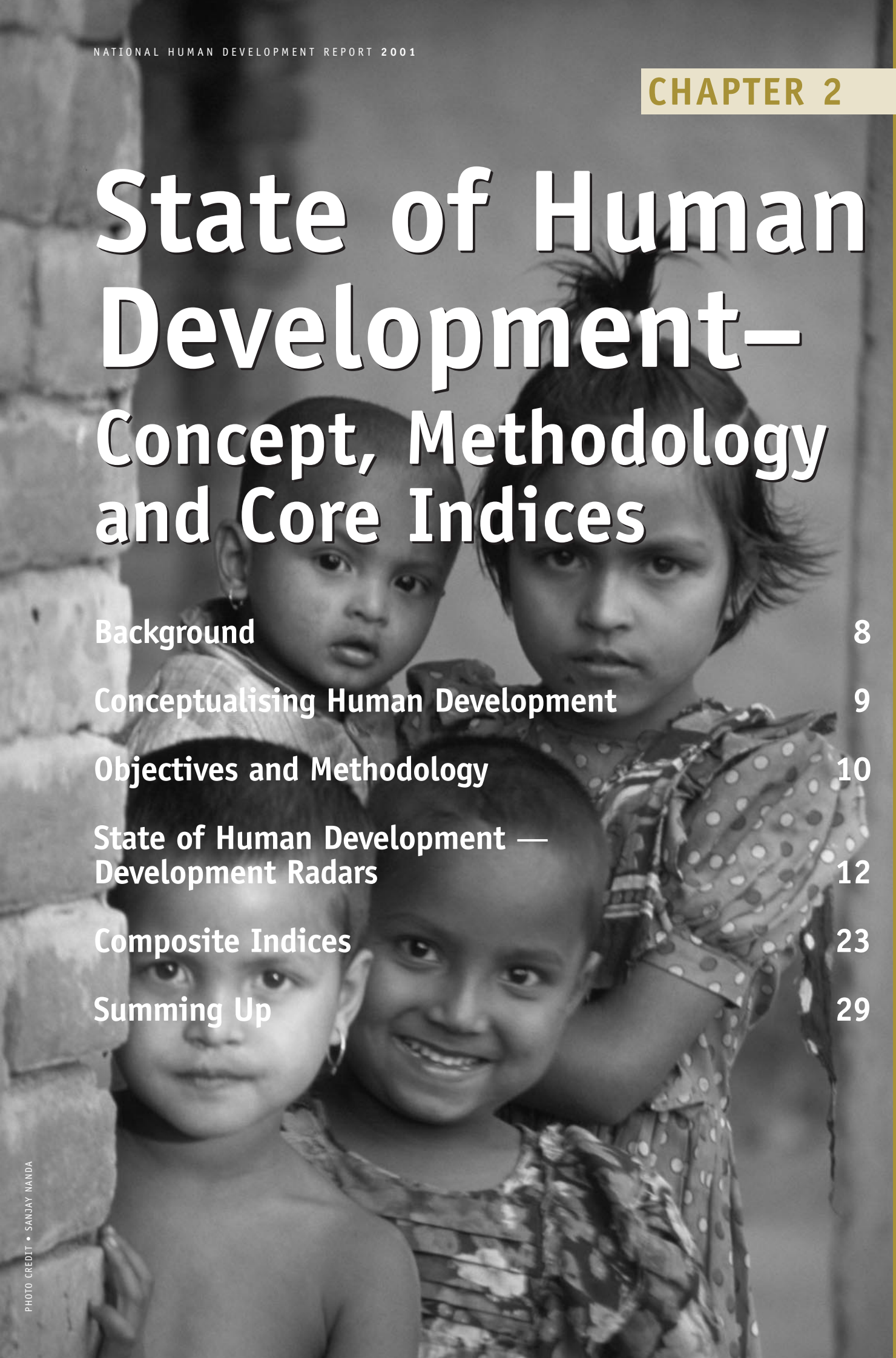

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The last decade of the twentieth century has seen a visible shift in the focus of development planning from a mere expansion of production of goods and services and the consequent growth in per capita income to planning for enhancement of human well-being. The notion of human well-being itself is more broadly conceived to include, not only consumption of goods and services but also the accessibility of all sections of the population, especially the deprived and those who are living below the normative minimal poverty line, to the basic necessities of a productive and socially meaningful life. Such a conceptualisation of well-being encompasses individual attainments in areas of education and knowledge; health and longevity; as well as in the quality of overall social and physical environment of people. A specific focus on these aspects of development is necessary, as experience shows that economic prosperity measured in terms of per capita income does not always ensure enrichment in quality of life reflected in broader dimensions of well-being like in indicators on longevity, literacy or, for that matter, environmental sustainability. Attainments in these dimensions of well-being are desirable in themselves, hence, they are socially valued. They are also desirable because of their instrumental value in sustaining the development process and enlarging available opportunities and choices for people. While equality in development outcomes may not be a feasible goal of equity and social justice, such an approach to human well-being emphasises equality in opportunities for all in the process of development.

Conceptualising Human Development

For over a decade the UNDP, through its global Human Development Reports (HDRs), has been in the forefront of an effort to generate, in the contemporary development discourse, a policy focus on the broader attributes of human well-being. It has defined human development as a process of enlarging people's choices, as well as raising the level of well-being. In principle, these choices can be infinite and vary over time and space. From among these, the HDRs identify the choice to lead a long and healthy life; the choice to acquire knowledge and be educated; and to have access to resources needed for a decent level of living as the three most critical and socially valuable. These choices in the well-being of people are reflected in a range of social outcomes, from among which the reports have focused on indicators on longevity, literacy and per capita income. Longevity and educational attainments are valued ends in themselves. They capture, in some sense, a quantitative, as well as a qualitative aspect of an individual's well-being. At the same time, these outcomes are important for furthering other aspects of well-being. The inclusion of income per capita has been explained as a 'catch-all' variable to incorporate aspects of well-being not captured by indicators reflecting a society's attainments on education, health and longevity of its people.

It is true that the process of realisation of these choices, for individuals, is mediated largely through personal means and access to public provisionings and transfers. However, in most cases the underlying social and political processes are, perhaps, as important for translating the available means to socially desirable outcomes, both at individual and at societal level. It, therefore, becomes necessary to view the process of development in terms of socially desirable outcomes and not merely in terms of material benefits. The conventional measures of well-being, such as GDP or per capita income and even their distributionally sensitive variants are inherently limited in capturing these wider aspects of well-being and the contingent process of development. The GDP or income, in general, is a means, though perhaps the most predominant one in obtaining valued outcomes in the course of development. On the other hand, the human development indicators are more appropriate in capturing desirable 'outcomes' for which the 'means' are ultimately engaged in the process of development. Some of these outcomes are desired because they are 'ends' in themselves and others because they extend opportunities available to people. Such an approach has not only made a useful distinction between means and the ends of development process, thereby highlighting the need to formulate and prescribe appropriate public policy and programmes, but it has also facilitated a move towards a more comprehensive evaluative and monitoring framework to guide the process of social change. It is equally important to recognise that indicators and alternative criteria for evaluating the development process can be meaningful and effective in directing public policy and programmes only when they are rooted in the concerned context and also reflect its social valuation and priorities. For instance, in undertaking comparisons at regional level for a country like India, it may not be appropriate to use the same set of indicators/indices developed for facilitating cross-country comparisons spanning countries from the least developed to the industrially matured economies, as is the case with the UNDP HDRs. Similarly, the approach to

build composite indices has to be different, if the objective is to map, on a set of human development indicators, the progress of a region or a country over time. It is these concerns and the need to build a State level database that has guided the preparation of the Human Development Report for India.

Objectives and Methodology

Following the UNDP's human development framework, the National Human Development Report seeks to put together indicators and composite indices to evaluate development process in terms of 'ex-post outcomes' rather than only in terms of available 'means' or 'inputs'. The Report, recognising the broad based consensus that exists on the three critical dimensions of well-being, focuses on identifying the various contextually relevant indicators on each of them. These dimensions of well-being are related to:

- Longevity — the ability to live long and healthy life;
- Education — the ability to read, write and acquire knowledge; and
- Command over resources — the ability to enjoy a decent standard of living and have a socially meaningful life.

For most individuals the choice to live a healthy life, free from illness and ailments, and of a reasonable life span are critical attributes in the notion of personal well-being. Longevity and a life free of morbidity is, thus, a valued end in itself and moreover, it is crucial for other valued human attainments. Similarly, apart from its intrinsic value, education in the present day context, is perhaps among the most important means for individuals to improve personal endowments, build capability levels, overcome constraints and in the process enlarge their available set of opportunities and choices for a sustained improvement in well-being. It is a critical means to empowerment and to bring about a social, economic and political inclusion of the marginalised segments in the mainstream of society. An individual's command over resources determines his/her sustenance, attainments on other aspects of well-being and the opportunities that these attainments facilitate.

Conglomerative and deprivational perspectives are both essential to assess the process of development adequately.

The various indicators of these attainments and composite indices that they support could capture the process of development and well-being of people from two perspectives. The 'conglomerative perspective' — captures advances made by the society as a whole — and the 'deprivational perspective' assesses status of the deprived in a society. Both these perspectives are needed to adequately understand the process of development in any society. For the Report the compilation of indicators extends beyond the indicators on economic attainment; educational attainment; and health attainment and demographic concerns of the society to indicators on such aspects of the social environment that has a direct bearing on individual and collective well-being. This includes indicators on the state of the elderly; the working children; the disabled; and violence and crime against women. Besides the social context, the physical environment also has a bearing on the well-being of people. At the same time, the development process, as it unfolds, impacts the physical environment one way or the other, almost continuously. Attempt has, therefore, been made to include selected

indicators to briefly highlight aspects of the physical environment having a direct bearing on the well-being of people.

The starting point for this Report has been the preparation of an extensive database. A State level database has been put together covering around 70 distinct indicators, in most cases, in terms of gender and rural-urban break-up and presented in over 150 tables. The entire data set has been compiled for, at least, two points of time, namely for early eighties (covering the period 1981-83), early nineties (covering the period 1991-93) and, where available, for the most recent year (including the available preliminary data from Census 2001). An important concern in building the database has been to also identify indicators that are readily available at sub-State level of disaggregation. This has prompted an extensive use of Census of India data. In addition, data from alternative sources, including the National Sample Survey Organisation (NSSO), National Family Health Surveys (NFHS) and other official and some independent sources has also been used. The data has been presented for all States and Union Territories. This, in some cases, has necessitated recourse to estimating data to fill-up gaps for a few States.

A major objective of the NHDR is to bring about a certain conceptual and methodological consensus on the use of human development approach in the country in general, and the framework for identifying indicators and building composite human development indices at the State level, in particular. It is expected that the present work may guide similar initiatives at sub-State level in future. Specifically, an attempt has been made to map the state of human development by putting together 'outcome' indicators and composite indices that are contextually relevant and reflect the collective social valuation and development priorities of the country. The indicators are seen as tools for guiding public policy and programmes towards the development goals of the society and at the same time provide criteria to evaluate the process of social change. Compilation and the mapping of various indicators have been done in two stages. In the first stage, the relevant indicators on the various dimensions of well-being have been presented. Indicators have been chosen to reflect not only the process of accumulation over time in the attainments on the different aspects of well-being but also, attributes such as sensitivity to tracking changes in well-being of people at more frequent intervals. Thus, for instance, educational attainment of the society is assessed in terms of the overall literacy rate, as well as by indicators based on current school enrolments of children in the age group 6 to 18 years. Similarly, health attainments have been captured in terms of life expectancy at age 1 as well as infant mortality rate.

In India, there is a considerable difference in the level of attainments of people on various aspects of well-being, depending on their place of residence (i.e., whether the area is rural or urban), the sex of the person and the social group or the segment of the population (i.e. Scheduled Castes/Tribes and others) that the person belongs to. In general, most indicators show a lower level of attainments for women and for people residing in rural areas. The attainment levels for the Scheduled Castes and the Scheduled Tribes are also lower than others on the available indicators. This aspect of the development process has been captured both in the individual indicators, as well as in the composite indices. Depending upon the availability of data, for most indicators, the 'Gender Gap' and the 'Rural-

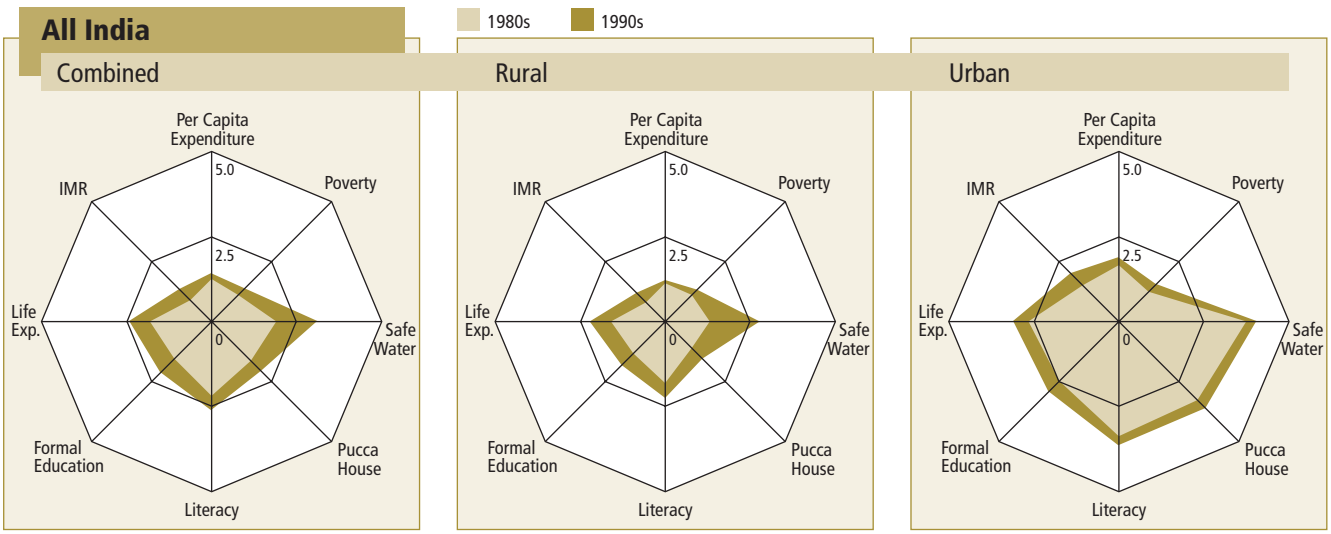
Urban Gap', reflecting the differences in the male-female and the rural-urban attainments respectively have been estimated.

In the second stage, from among these indicators, a core set of composite indices namely, the Human Development Index (HDI) and the Human Poverty Index (HPI), capturing the conglomerative and the deprivational perspective respectively, have been estimated. In addition, a Gender Equality Index (GEI) has been estimated to reflect the relative attainments of women against men.

State of Human Development — Development Radars

It would always be desirable to have a snapshot view of the status of human development in various States while analysing their respective strengths and weaknesses on some relevant human development indicators, as well as identifying areas for concerted policy focus. To meet this objective the NHDR introduces Development Radars. These are diagrammatic representation of progress of States, separately for rural and urban areas, on eight distinct social indicators for two points of time namely, early 1980s and early 1990s. The indicators that have been selected include per capita consumption expenditure, incidence of poverty as captured by the head count ratio, access to safe drinking water, proportion of households with *pucca* houses, literacy rate for the age group 7 years and above, intensity of formal education (indicator based on weighted enrolments in successive classes adjusted for non enrolled children in the age group 6-18 years; more details in chapter 4), life expectancy at age 1 and infant mortality rates. The selection of these indicators has been done with a view to reflect attainments on the three critical dimensions of well-being and at the same time highlight the progress in meeting the basic human needs of accessibility to safe drinking water and shelter.

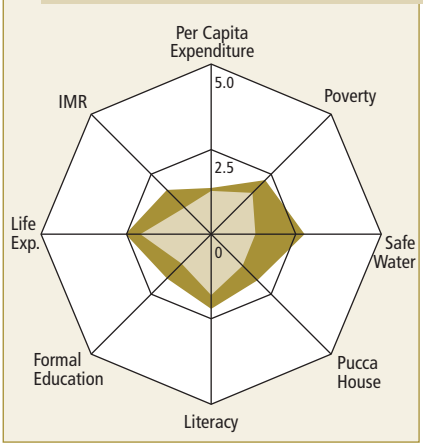
To ensure comparability in attainments on different indicators, the respective magnitudes have been scaled and normalised to take a value on a scale ranging from 0 to 5. As a result, on each indicator including the IMR



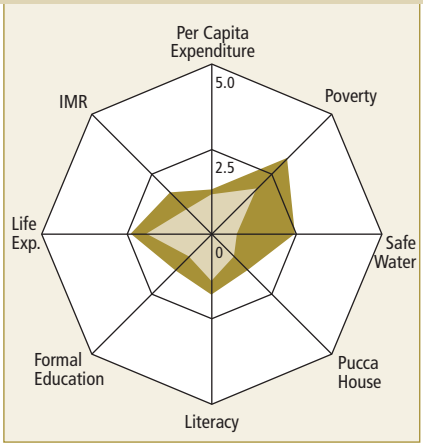
Andhra Pradesh

1980s 1990s

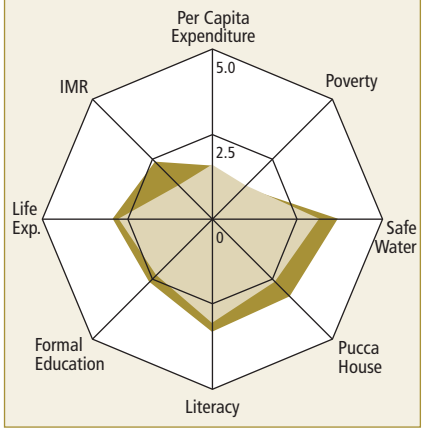
Combined



Rural



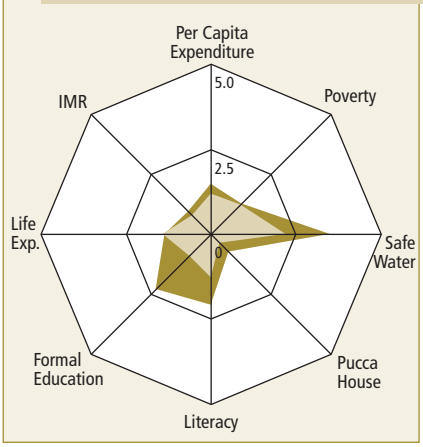
Urban



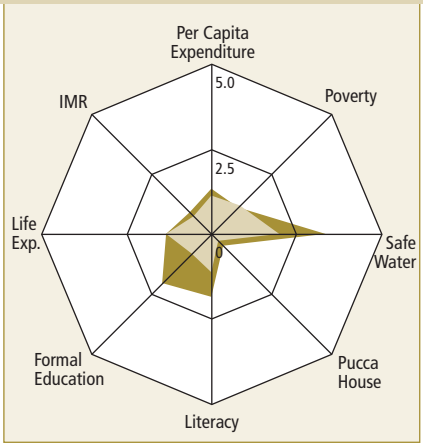
Arunachal Pradesh

1980s 1990s

Combined



Rural



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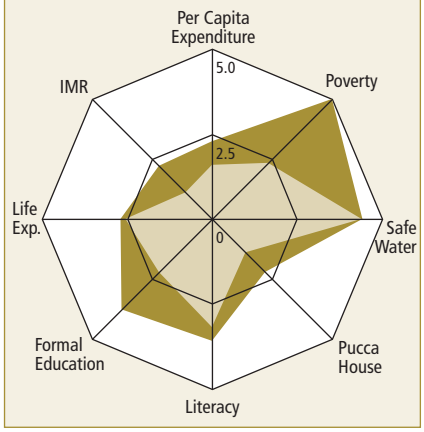
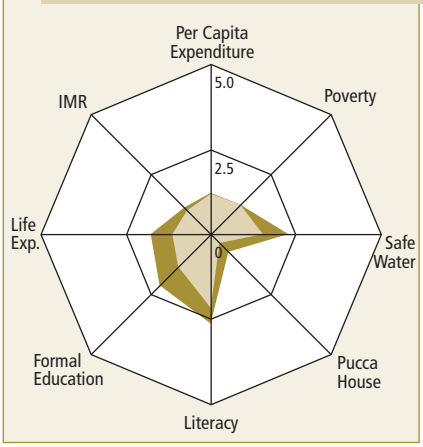


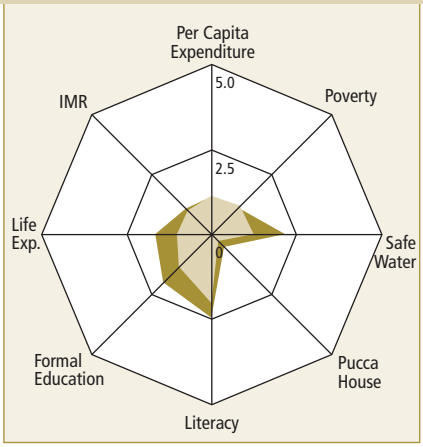
Assam

1980s 1990s

Combined



Rural



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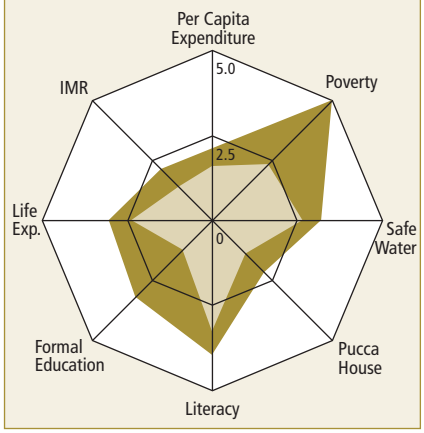
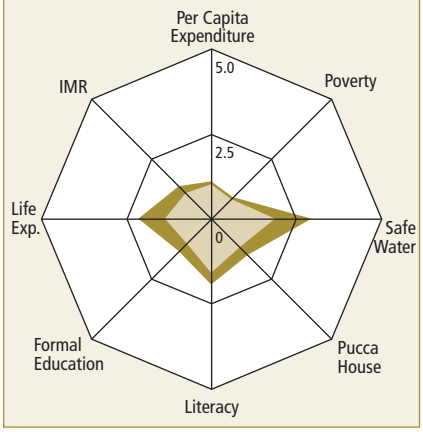


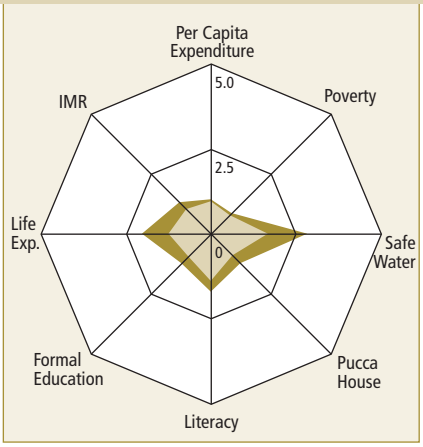
Bihar

1980s 1990s

Combined



Rural



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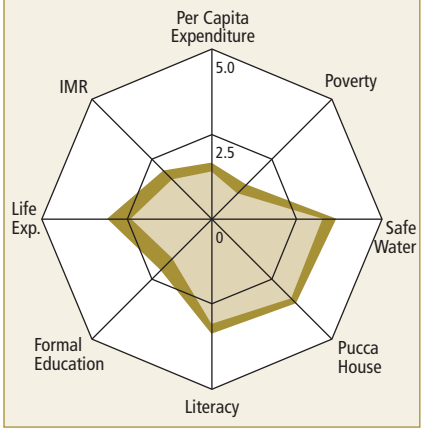
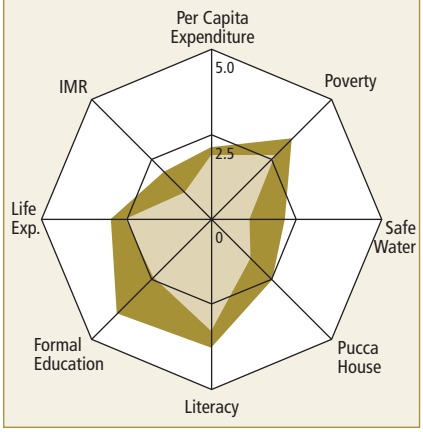


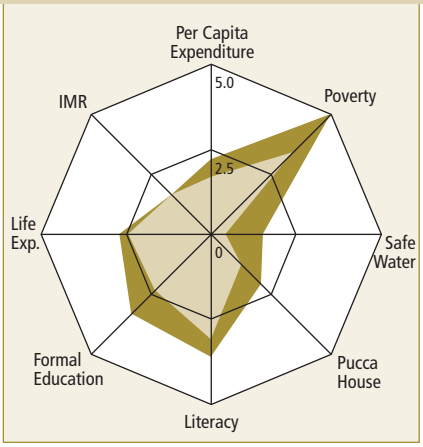
Goa

1980s 1990s

Combined



Rural



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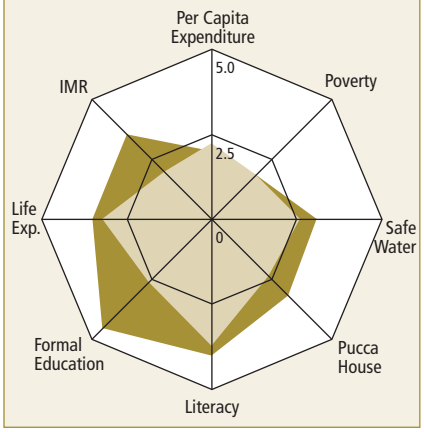
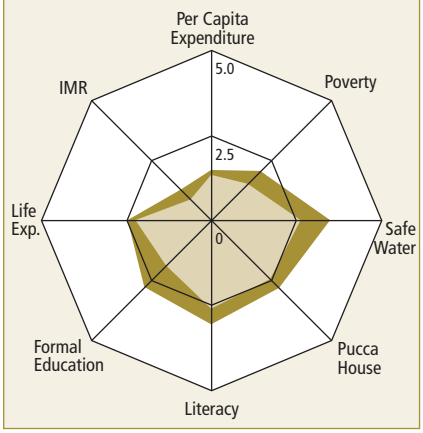


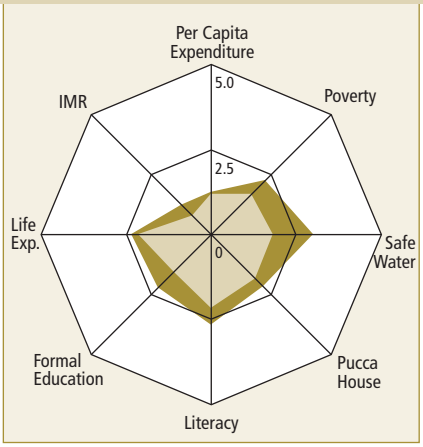
Gujarat

1980s 1990s

Combined



Rural



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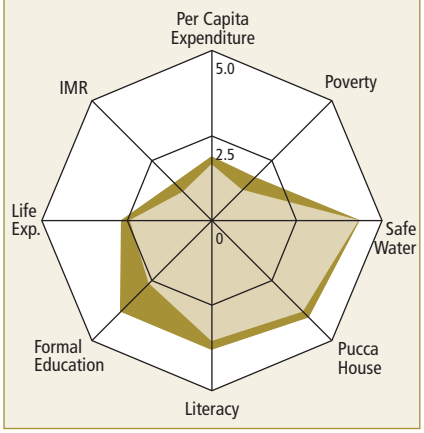
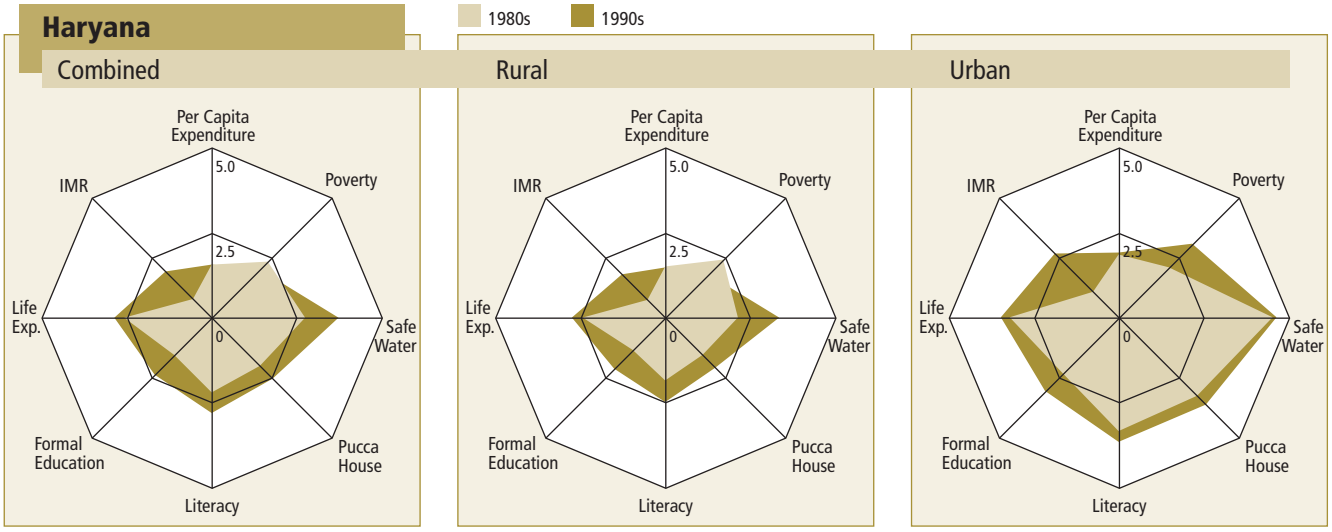
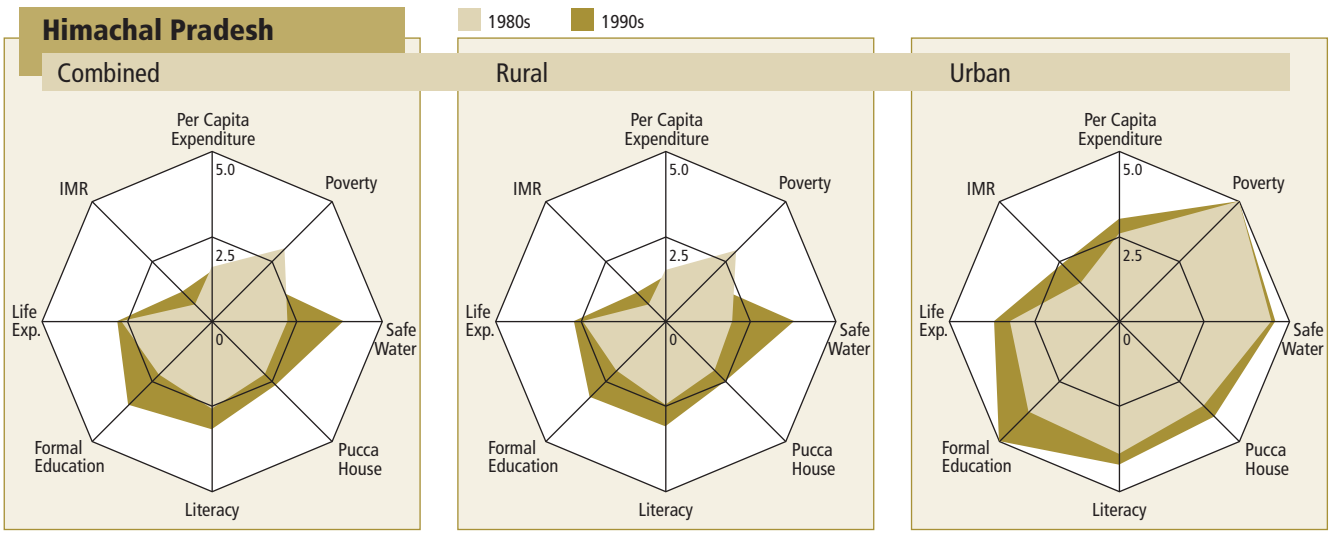
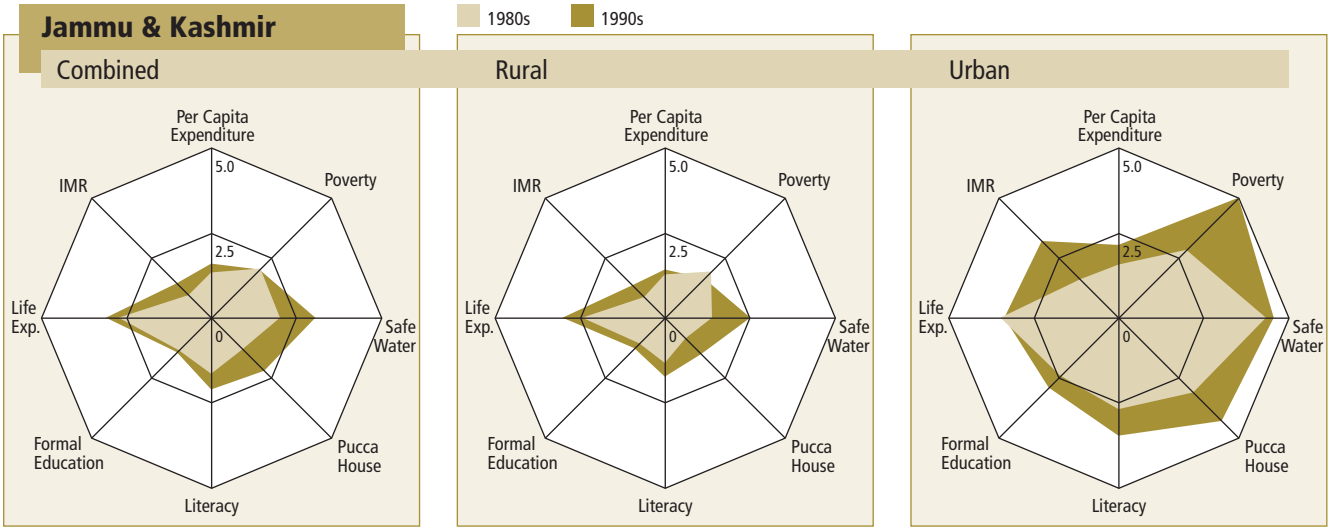




and poverty ratio, where the reciprocal of the indicator has been used, the scaled least achievement corresponds to 0 whereas the best achievement is closer to 5. In undertaking the said scaling procedure, desirable norms had to be adopted for the chosen indicators. In some cases the norms are self-selecting, as for instance, is the case with incidence of poverty or access to safe drinking water or literacy rate and in some others like per capita consumption expenditure or even infant mortality rate, there is an element of value judgment. In such cases the norms have been decided keeping in view attainments of the best performing State on the concerned indicator, the comparable international norms and the consideration of having norms that are relevant for a reasonable span of time starting from the base year 1980 (the norms used have been reported in the Technical Appendix). The indicators included in the diagrams are not weighted unlike the composite indices such as the HDI or the HPI.

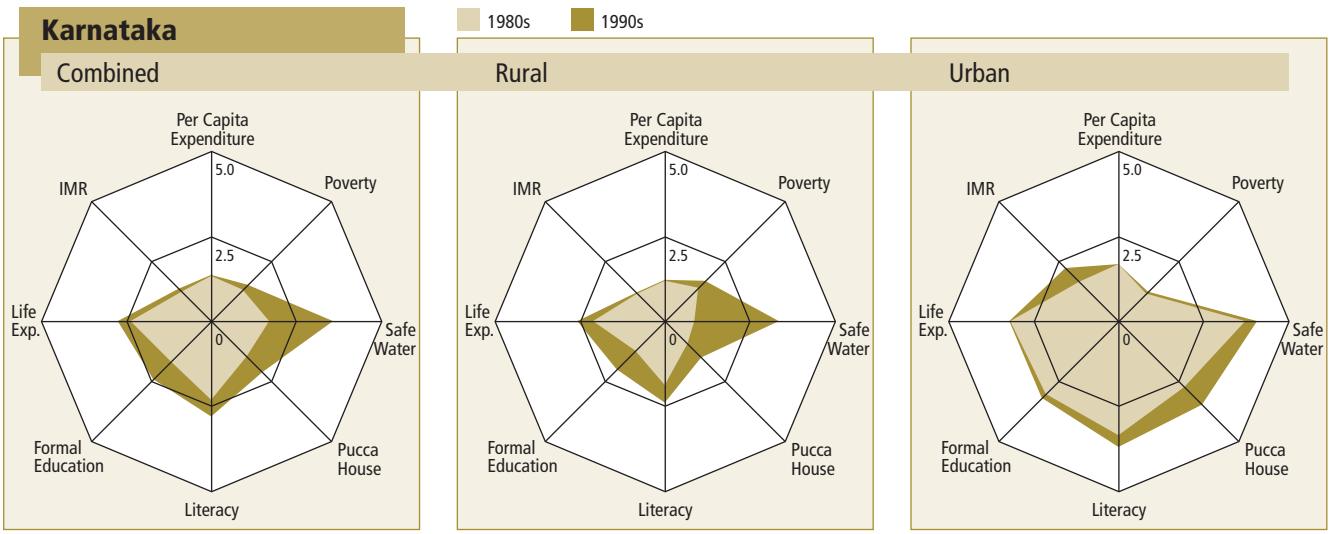
The Development Radars give a snapshot view of the structure, the pace and the gaps in human development across States separately for rural and urban areas. They capture the relative contribution of different dimensions in overall human development. The greater the shaded area of any indicator the better is the attainment on that indicator. Similarly, the more symmetrical the shaded portion of the radar, the more balanced is the attainments on different dimensions of well-being and, hence, development for the concerned State. At the same time, the more is the shaded area





corresponding to the 1990s vis-à-vis the area corresponding to the 1980s, the faster is the pace of human development for the State in the intervening period. Finally, the larger the gap between the periphery — representing the norms — and the shaded areas around the centre, the larger are the gaps on attainments of each indicators and, thus, larger is the distance that the concerned State needs to cover, in order to achieve the desired levels of attainment on the respective indicators.

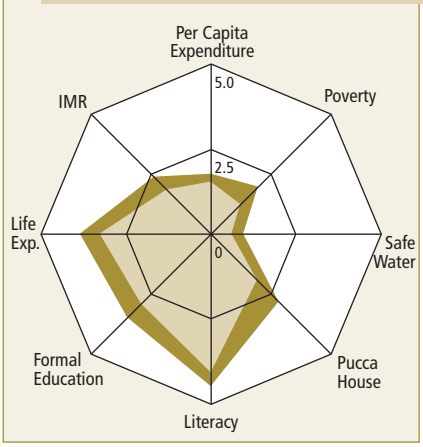
Consider the Development Radar for Andhra Pradesh. On the whole, the attainment on the indicators seems reasonably balanced, though the attainment levels are less than half the norms for most indicators even in the early 1990s. There are marked differences in the rural and urban attainments. Progress in alleviating poverty in rural areas is considerably better than in urban areas. In case of Assam, or even Arunachal Pradesh, the disparities between the rural and urban attainments are quite stark. The urban poverty is nearly alleviated (about 7 per cent only, the scaled maximum in this case corresponds to a poverty incidence of 5 per cent) whereas, in the rural areas it continues to be quite high. The disparity between the rural and urban areas in case of households having *pucca* houses is also significant. In this case, it could partly be on account of definitional problems in the Census definition of a *pucca* house. In rural areas of North East bamboo and wood is an important material in construction of houses, which is, however, not recognised in the definition of a *pucca* house.



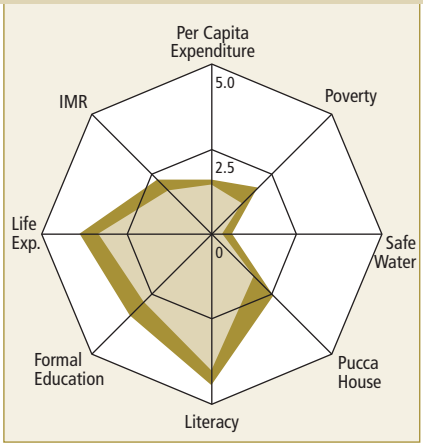
Kerala

1980s 1990s

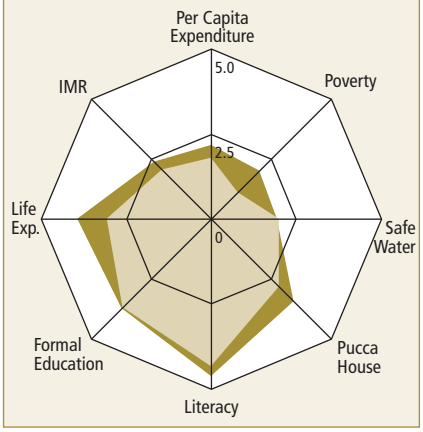
Combined



Rural



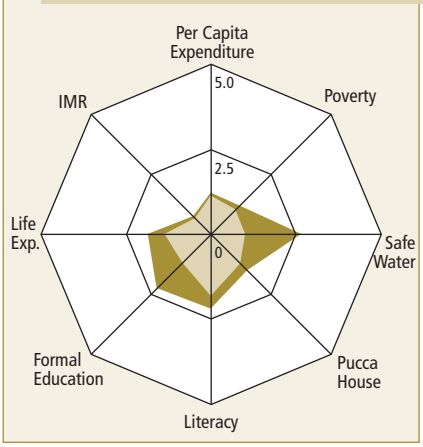
Urban



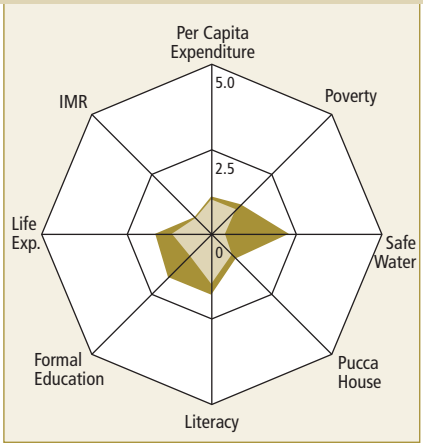
Madhya Pradesh

1980s 1990s

Combined



Rural



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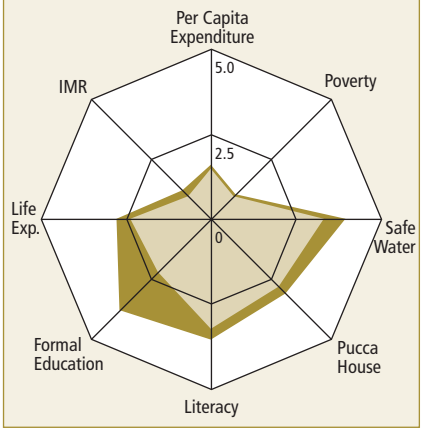
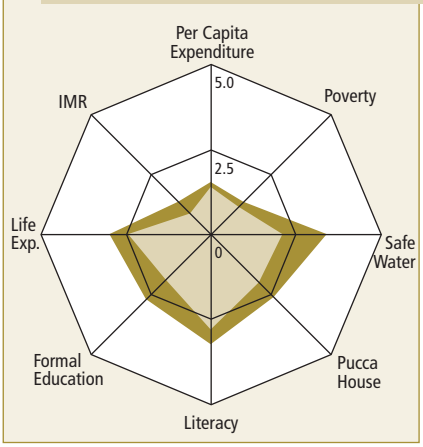


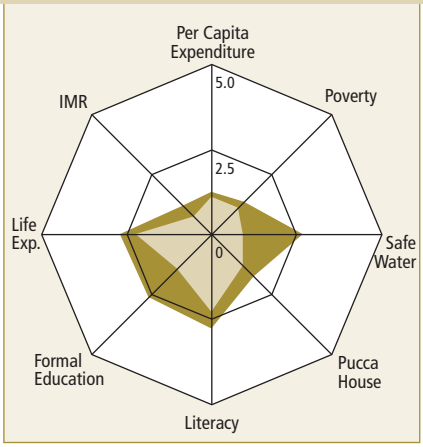
Maharashtra

1980s 1990s

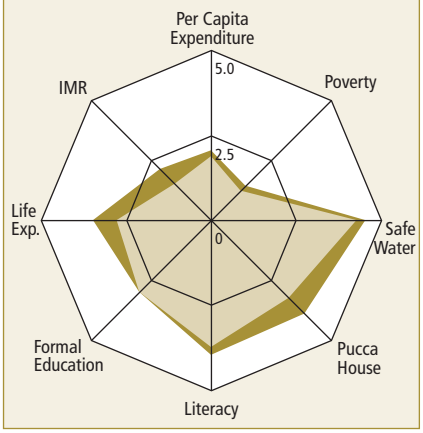
Combined



Rural



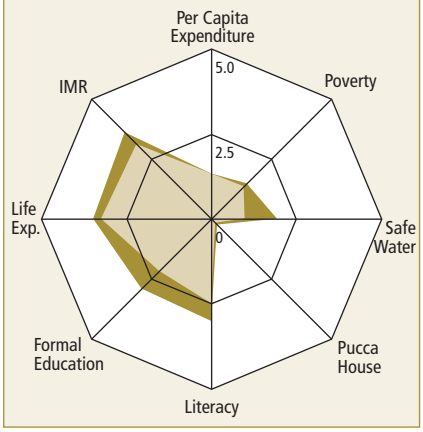
Urban



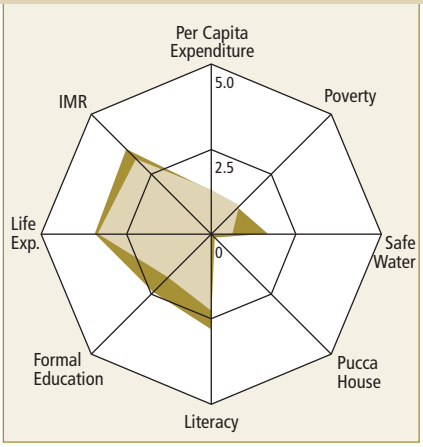
Manipur

1980s 1990s

Combined



Rural



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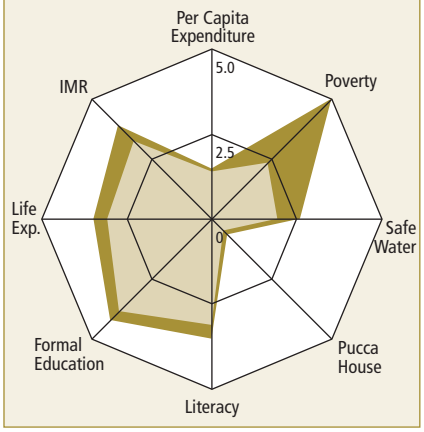
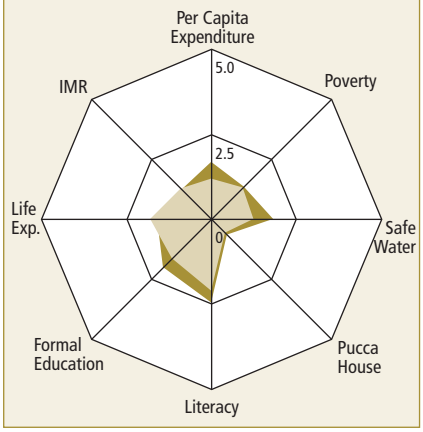


Meghalaya

1980s 1990s

Combined



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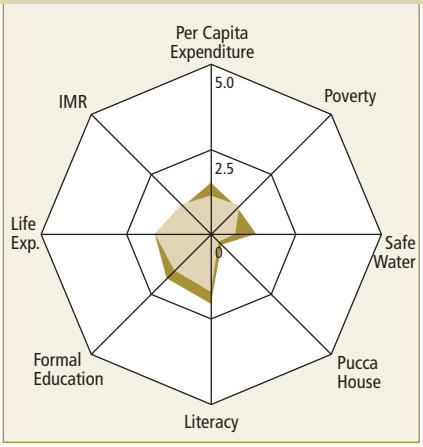

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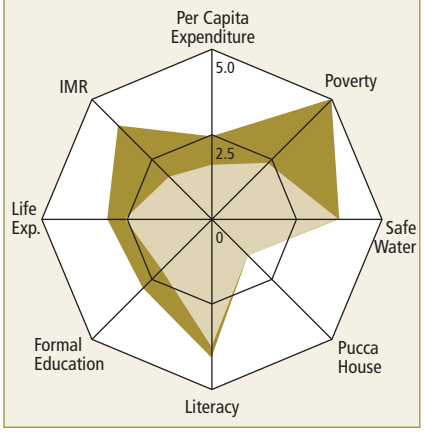
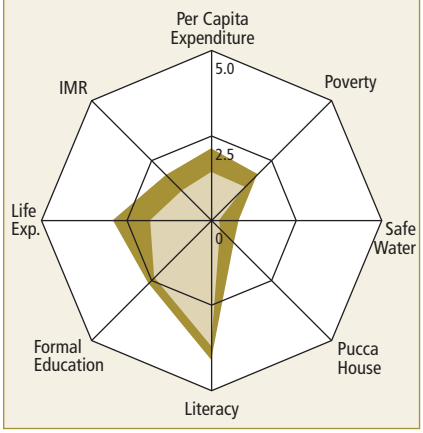


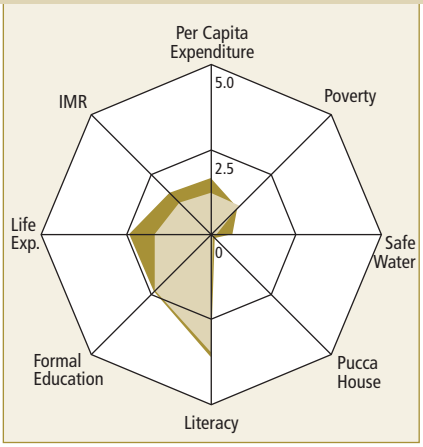
Mizoram

1980s 1990s

Combined



Rural



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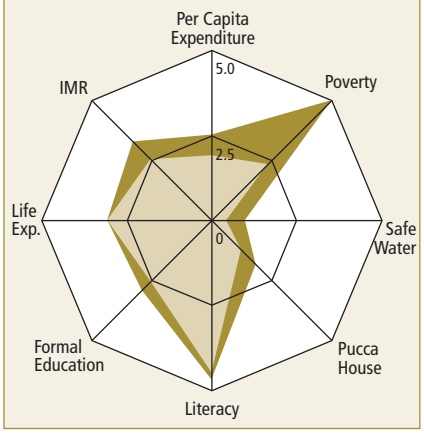
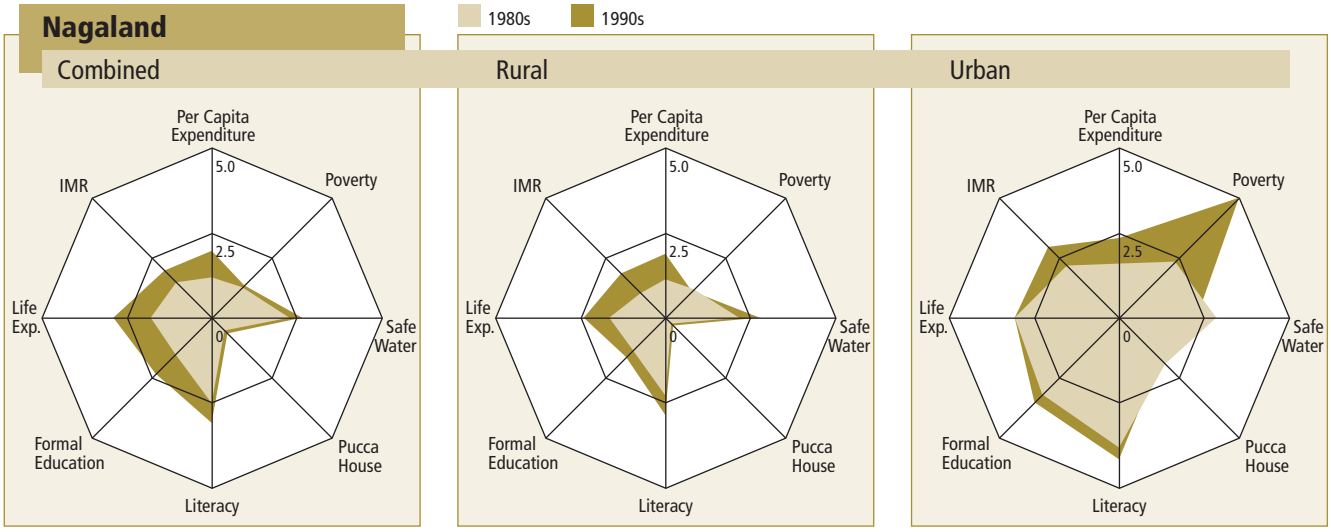
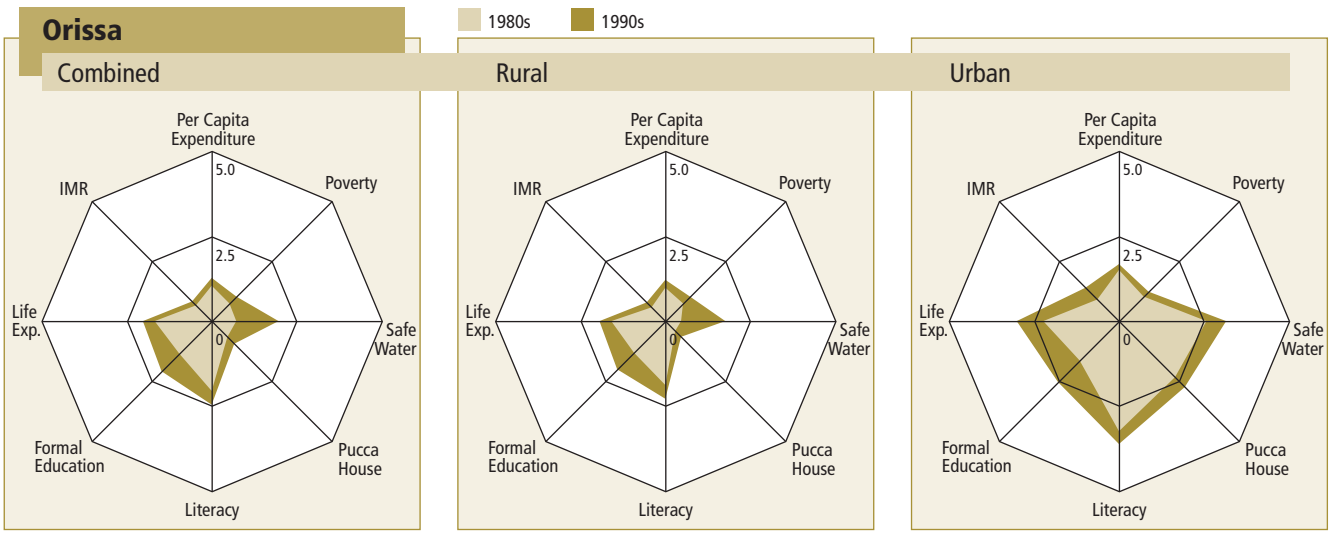


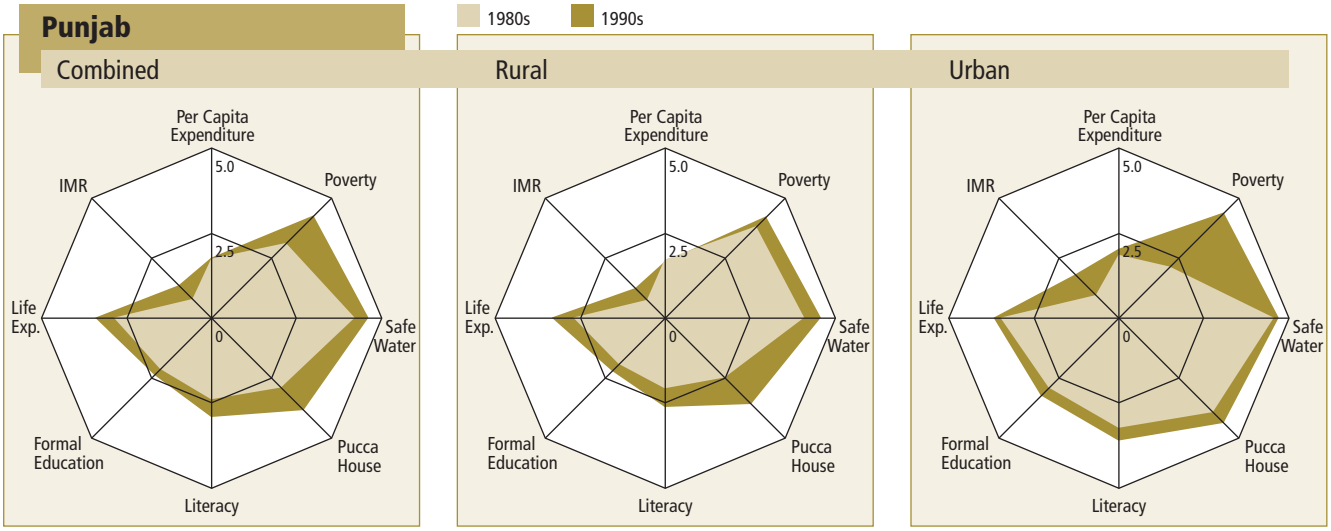


The development radar for Bihar reveals only a marginal progress during the eighties on all eight indicators of human development. In case of rural areas, the attainments are strikingly low, even in the early 1990s. In urban areas, though the status is better, it does not compare favourably with urban areas of other States. Finally, the failure of the education system in the State, even in the urban areas, to retain children for the complete or a substantial duration of the schooling, stands out in terms of low attainments. In addition the pace of progress on the indicator intensity of formal education has been quite slow.

In case of Goa, the human development seems fairly balanced and the State is among the better performers in the country. Attainments on two indicators, however, stand out. It has done well in alleviating rural poverty though hardly any progress has been recorded on this indicator in urban areas. Secondly, the State has shown significant gains in improving its attainments on intensity of formal education, as well as on reducing the IMR, especially in urban areas.

Gujarat also has a reasonably balanced attainment on human development indicators. However, like Jammu and Kashmir, for the period covered in the radar, it has significant rural-urban disparities on indicators capturing education, quality of housing and safe drinking water. For rural Gujarat the progress has been steady on most indicators but improvement in the accessibility to safe drinking water has been significant. In urban areas,

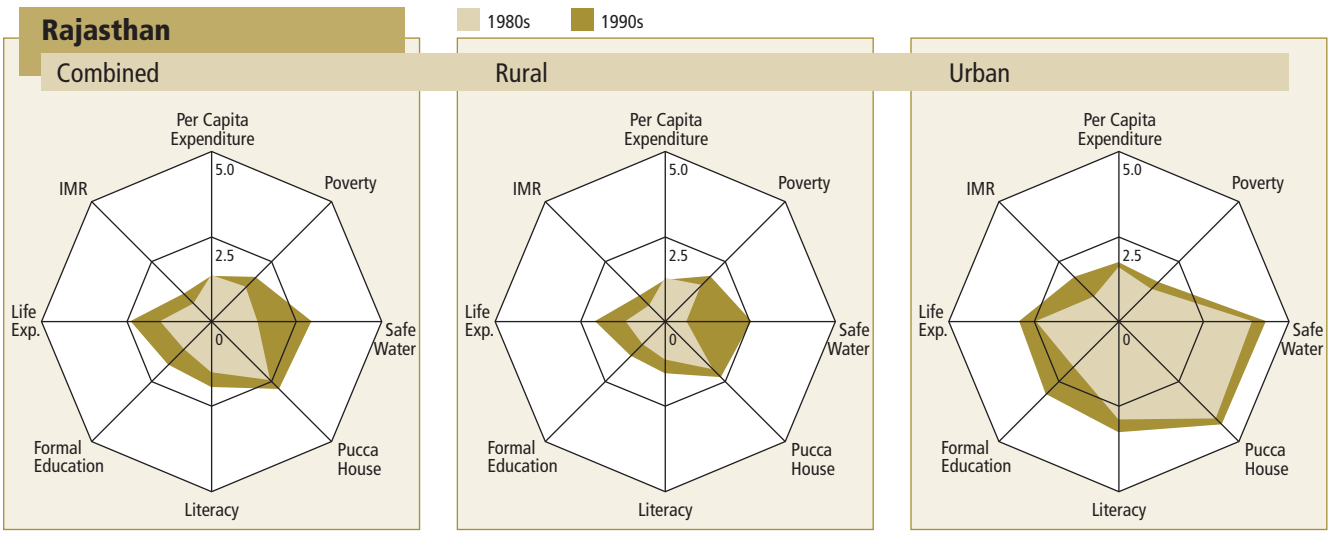




substantial gains have been made in improving performance on formal education. Urban Jammu and Kashmir has recorded significant improvement in all indicators except on life expectancy and, to some extent, on intensity of formal education.

The radar for Haryana reveals a balanced development. However, the fact that there are significant gaps in rural and urban attainments comes out clearly. Urban Haryana shows a significant improvement in reducing IMRs. In case of Himachal Pradesh the progress on most indicators, except the IMR is among the better-off States in the country. On the whole, urban Himachal in particular is perhaps the best performer on the social indicators in the country. For both rural and urban areas, the State has recorded substantial gains in its performance on the indicator intensity of formal education. In case of Karnataka, the pace of improvement during the period has been, by and large, slow on all indicators except in the accessibility of safe drinking water in rural areas and accessibility to *pucca* houses in urban areas.

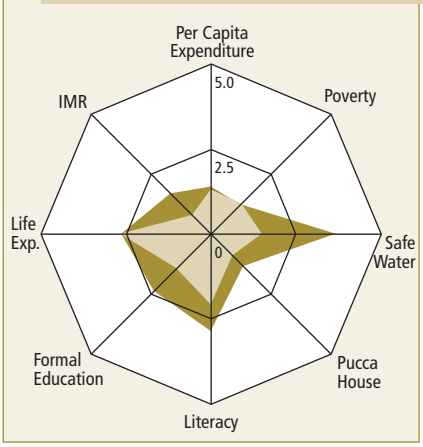
Kerala's impressive achievements on social indicators both in urban, as well as in rural areas come out very clearly in its development radar. It can be seen that rural-urban disparities in most of the indicators are, perhaps, among the least in the country. The State shows poor accessibility to safe drinking water both in rural and urban areas. This, however, is largely on account of definition followed in the Census data. As per the Census convention, only piped water or water drawn from tube wells is considered safe. In case of



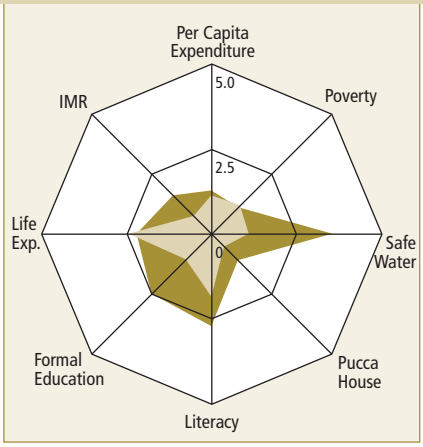
Sikkim

1980s 1990s

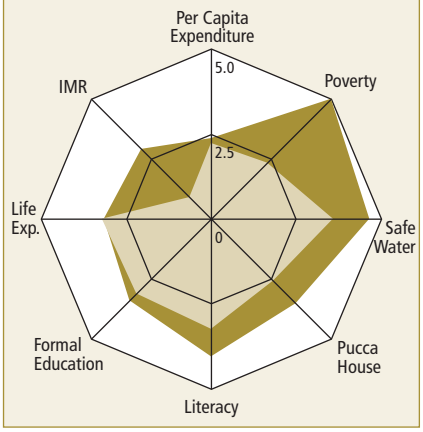
Combined



Rural



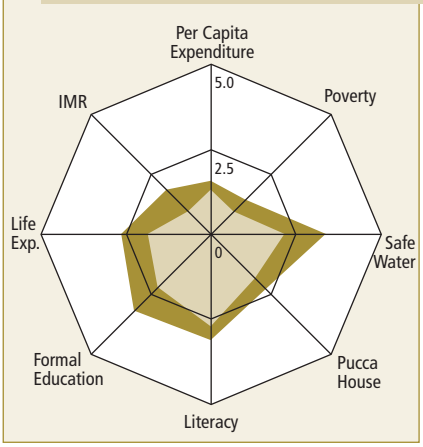
Urban



Tamil Nadu

1980s 1990s

Combined



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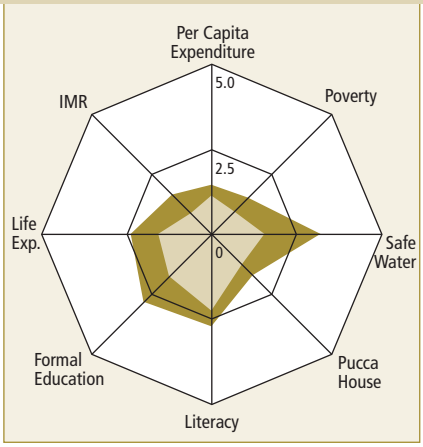

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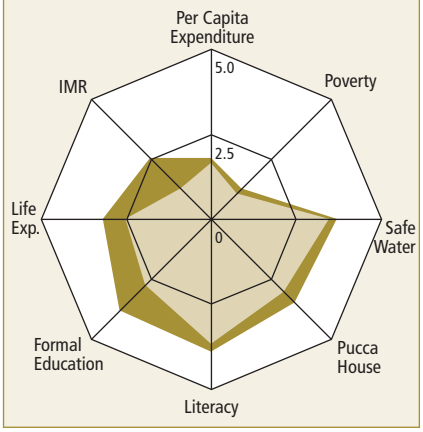
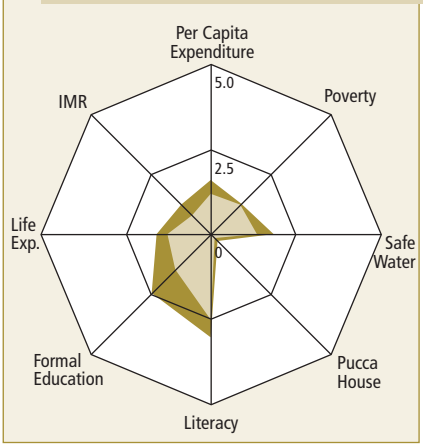


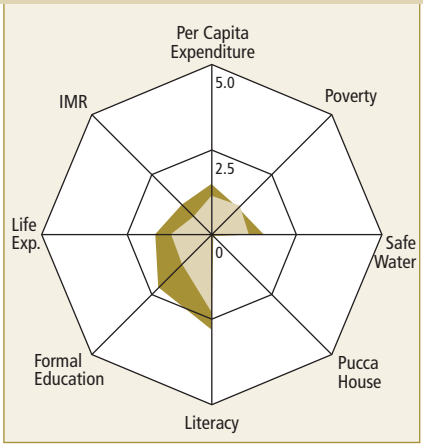
Tripura

1980s 1990s

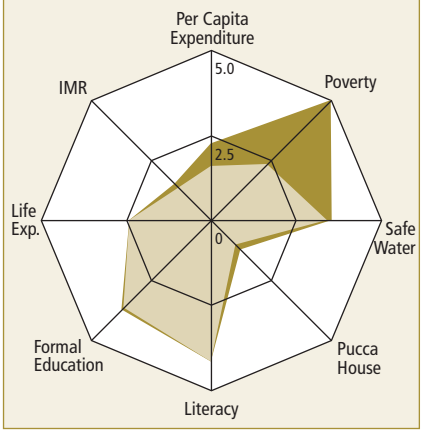
Combined

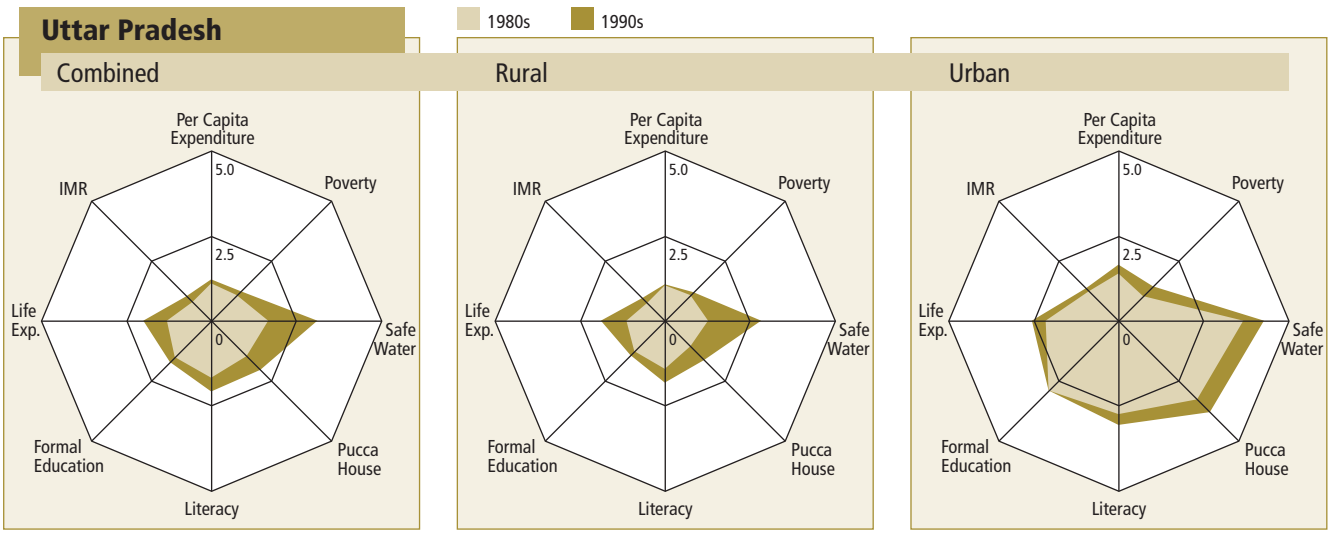


Rural



Urban



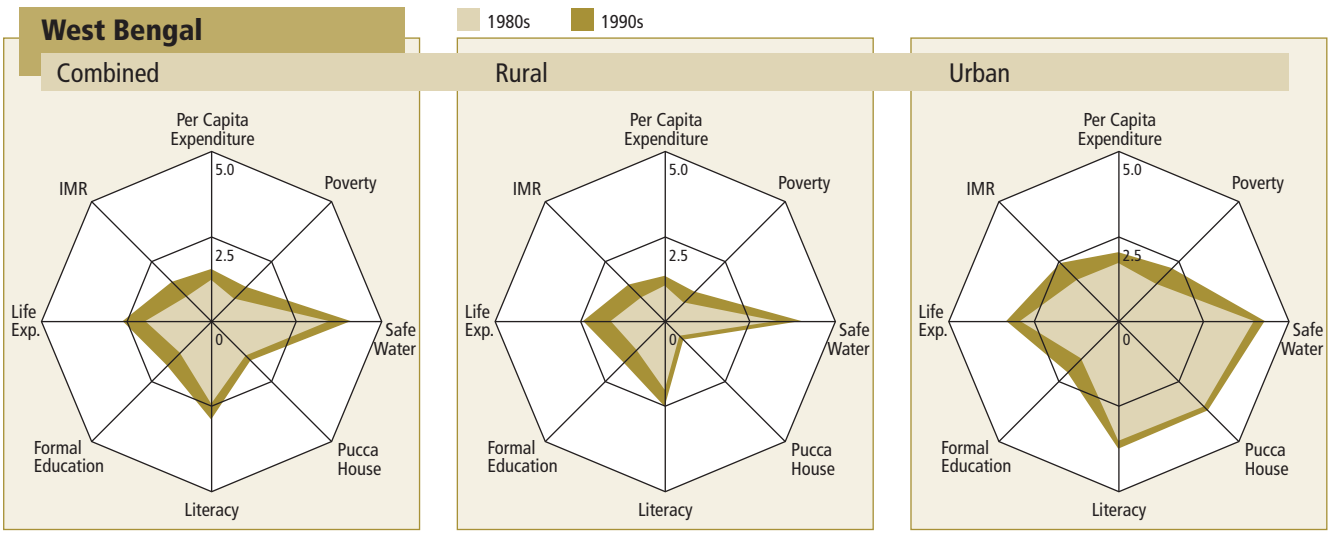


Kerala, particularly in rural areas, people access water mostly from private wells, that have been a source of safe water for many generations.

In case of Madhya Pradesh, the rural-urban disparities on all human development indicators considered in the development radar are quite stark. For rural Madhya Pradesh, the attainment levels are comparable with those of rural Bihar in the eighties, as well as in the nineties. In case of urban areas, during this period, there has been little progress in respect of most indicators, except in the coverage of formal education.

Maharashtra's performance on the lower quadrant social indicators capturing longevity, education and amenities is much better than on indicators like the IMR, consumption expenditure levels and poverty. While rural Maharashtra shows significant improvement in accessibility to safe water and formal education, in case of urban areas the progress is only gradual.

In the North Eastern States of Manipur, Meghalaya, Mizoram, Nagaland, Tripura and in Sikkim, the attainments on shelter and accessibility to safe water are relatively poor and not much progress seems to have taken place in the period for which the radar has been presented. This is also, by and large, true of their urban areas except in case of Sikkim. Urban Sikkim has recorded significant progress during the decade on almost all indicators. Like Assam, the access of the population to *pucca* houses is, perhaps, not appropriately reflected on account of the definition adopted by the Census.



The level of attainments and the general pattern of development for Orissa and Uttar Pradesh is similar to Madhya Pradesh both in rural and urban areas. It is also true of rural Rajasthan. Urban Rajasthan has however, better indicators on amenities and is also showing significant, improvements, much like urban Madhya Pradesh, on access to formal education. In case of Punjab, both in rural and urban areas, the radar reveals a balanced development on most indicators except on the IMR. It shows significant progress in bringing down urban poverty and improving access to *pucca* houses in rural areas. Moreover, rural-urban disparities are among the least in case of Punjab. This is unlike the agriculturally well-developed sister State of Haryana.

The development radars for Tamil Nadu reveal a more balanced development in urban areas than in rural. The progress during the period is significant in rural areas on most indicators except on accessibility to *pucca* houses. In case of urban areas, the improvement is significant in the coverage of formal education and health indicators namely, life expectancy and IMR.

In case of West Bengal, there are considerably large rural-urban disparities on accessibility to *pucca* housing. The coverage of population in terms of accessibility to safe drinking water is nearly same in rural and urban areas. The accessibility to formal education, health indicators and in alleviating poverty, the progress in rural and urban areas has been comparable. On the whole, the attainments in rural West Bengal on almost all indicators included in the radar, even in the early 1990s, is less than half of the norm on each one of them. In urban areas attainments are much better on access to amenities and literacy, though, progress has been slow.

At the national level, it can be seen that attainments in the human development indicators in urban areas are better than rural. The rural-urban gap for most indicators has, however, declined. A substantial gap remains to be covered, more so in the indicators relating to per capita expenditure and poverty.

Composite Indices

As a summary measure, a composite index of diverse indicators, even when it is conceptually and methodologically difficult to put together, is a useful tool in policy planning. It also helps in facilitating comparisons with other composite measures. While building composite indices from among the identified indicators for this Report, a major objective has been to develop a core set of indices that reflect, in some sense, the common concerns, social values and development priorities of all States. In the process it permits a meaningful comparison of the human development status across States. In this context, it was felt necessary to have core indices that are functionally decomposable at

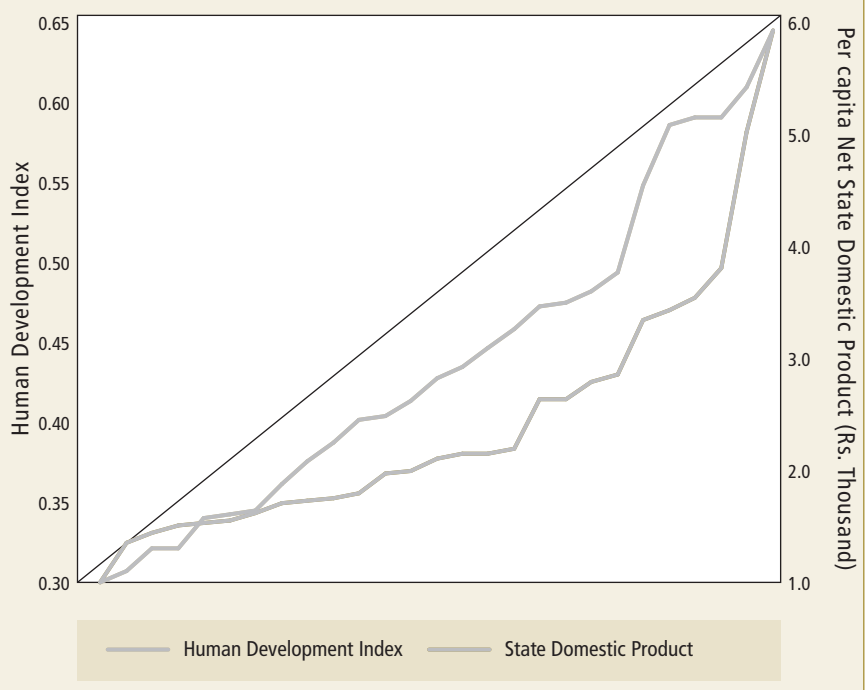
HDI and GEI — Departures from UNDP Indices

UNDP-Indicators	Attainments	NHDR-Indicators
Life Expectancy at Birth	Longevity	Life Expectancy at age 1 and Infant Mortality Rate
Adult Literacy Rate combined with Enrolment ratio	Educational Attainment	Literacy Rate 7+ and Intensity of Formal Education
Real GDP Per Capita in PPP$	Economic Attainment	Per capita real consumption expenditure adjusted for inequality; Worker-population ratio in case of Gender Equality Index

State and sub-State levels. The other concern that had to be reflected in the indices relates to their amenability to inter-temporal and inter-spatial analyses, as well as their sensitivity to tracking developmental changes at more frequent interval of time. The latter implies, making use of such indicators also that are sensitive to capturing changes, for instance, on an annual basis, as against using only those indicators that primarily capture the accumulated attainments on each of the identified dimensions of well-being that is included in the summary measure. Such a consideration is important when the objective is to have composite human development indices where frequent or yearly changes are not on account of changes only in the income variable. This is not the case with the UNDP's HDI, which is presented annually in the HDRs. In their case the yearly changes in the value of the index is mostly on account of changes in the indicator on income per capita. The NHDR, like UNDP, also includes indicators that are sensitive to tracking gradual but continuous changes in such aspects of well-being that have conventionally been captured, largely, through the slow moving indicators like life expectancy at birth or even literacy rates.

While taking note of the social valuation and development priorities of the country, the scaling and weighting of diverse indicators into a composite index has been done keeping in view the objectives for which the composite indices are being built. In scaling the diverse indicators, the main consideration has been 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 values on the scale for each indicator are such that they support inter-temporal comparison for a reasonable period of time starting from 1980. The issue of weights to combine the identified indicators on each of the three dimensions of well-being can be debated. This Report has adopted a predominantly normative approach, as against a purely empirical basis of deriving weights to club different indicators. Conceptually, there are good reasons to suggest that different aspects of well-being have to be co-realisable for an individual to have a meaningful sense of well-being in today's context. It follows that attainments on each aspect of well-being are equally important and hence should be equally weighted. Thus, in both HDI, as well as in HPI composite measures reflecting health, educational and economic attainments/deprivation have been equally weighted. However, within the composite measure on educational, as well as on health attainments, based on a sensitivity analysis, indicators with somewhat distinct attributes have been clubbed using unequal weights so as to reflect appropriately the country's context, development priorities and the desired policy focus. Accordingly, in case of the composite index on health attainment, life expectancy

Human Development Index and Income Across States — 1991



has been given a 65 per cent weight as against only 35 per cent for infant mortality rate. Similarly, in case of the composite index on educational attainment, while literacy rate has been given a weight of 35 per cent, the indicator capturing intensity of formal education (based on current enrolment rates in successive classes at school level) has been assigned 65 per cent. In case of indicator on economic attainment namely, inequality adjusted per capita consumption expenditure, an adjustment for inflation over the period has been made to make it amenable to inter-temporal and inter-spatial comparisons. As a result, the composite indices are capable of tracking development across the States and over the period of time for which they have been estimated.

Human Development Index for India — Combined

States/UTs	1981 Value	1981 Rank	1991 Value	1991 Rank	2001 Value	2001 Rank
Andhra Pradesh	0.298	9	0.377	9	0.416	10
Assam	0.272	10	0.348	10	0.386	14
Bihar	0.237	15	0.308	15	0.367	15
Gujarat	0.360	4	0.431	6	0.479	6
Haryana	0.360	5	0.443	5	0.509	5
Karnataka	0.346	6	0.412	7	0.478	7
Kerala	0.500	1	0.591	1	0.638	1
Madhya Pradesh	0.245	14	0.328	13	0.394	12
Maharashtra	0.363	3	0.452	4	0.523	4
Orissa	0.267	11	0.345	12	0.404	11
Punjab	0.411	2	0.475	2	0.537	2
Rajasthan	0.256	12	0.347	11	0.424	9
Tamil Nadu	0.343	7	0.466	3	0.531	3
Uttar Pradesh	0.255	13	0.314	14	0.388	13
West Bengal	0.305	8	0.404	8	0.472	8
All India	**0.302**		**0.381**		**0.472**	

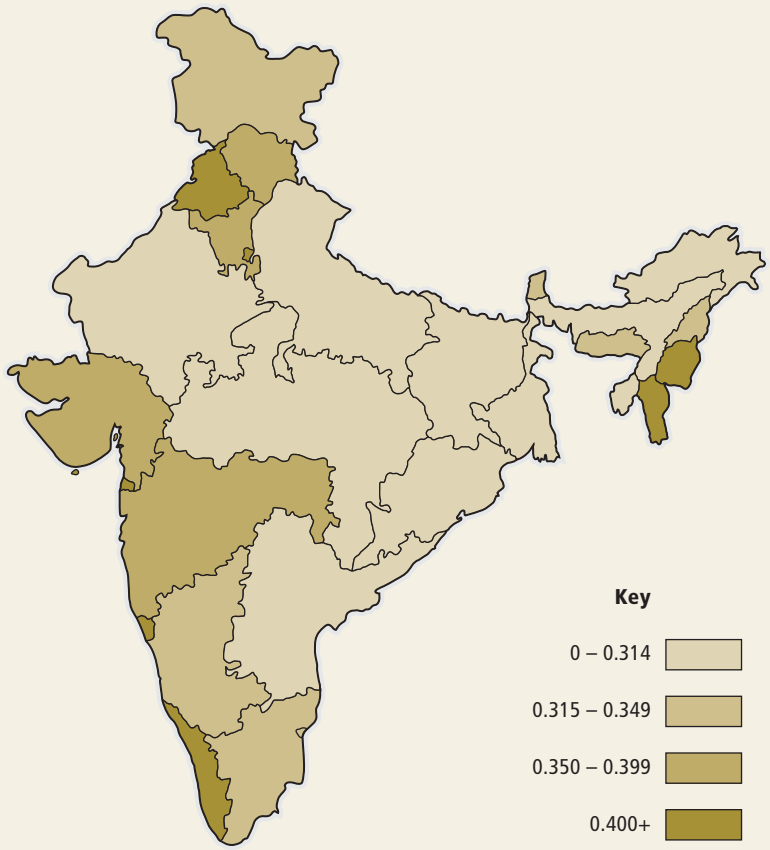
Note *The HDI for 2001 has been estimated only for a few selected States for which some data, including the Census 2001, was available. The assumptions that have been made for HDI 2001 are indicated in the Technical Appendix.*

The HDI has been estimated for all the States/Union Territories, separately for rural and urban areas, for early eighties, using data covering the period 1981 to 1983; for the early nineties, covering the period 1991 to 1993-94; and in case of selected major States for the year 2001, using data for the period 1999-2001. At the national level, HDI, which takes a value between 0 and 1, has improved from 0.302 in 1981 to 0.381 in 1991. The improvement for rural areas is from 0.263 to 0.340 and in case of urban areas, from 0.442 to 0.511. Though the rural-urban gap continues to be significant, it has declined. The ratio of urban to rural HDI has declined from around 1.7 in early eighties to 1.5 in early nineties. At the State level, Chandigarh, Delhi, Kerala, Punjab and Himachal Pradesh were among the States with better HDI at both points of time. States like Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan and Orissa were at the other end. In fact, in the early eighties, these States had HDI close to half that of Kerala. In general, HDI was better for smaller States and Union Territories. The rural-urban gap in the HDI was the least in case of Kerala and the highest for Madhya Pradesh in the early nineties.

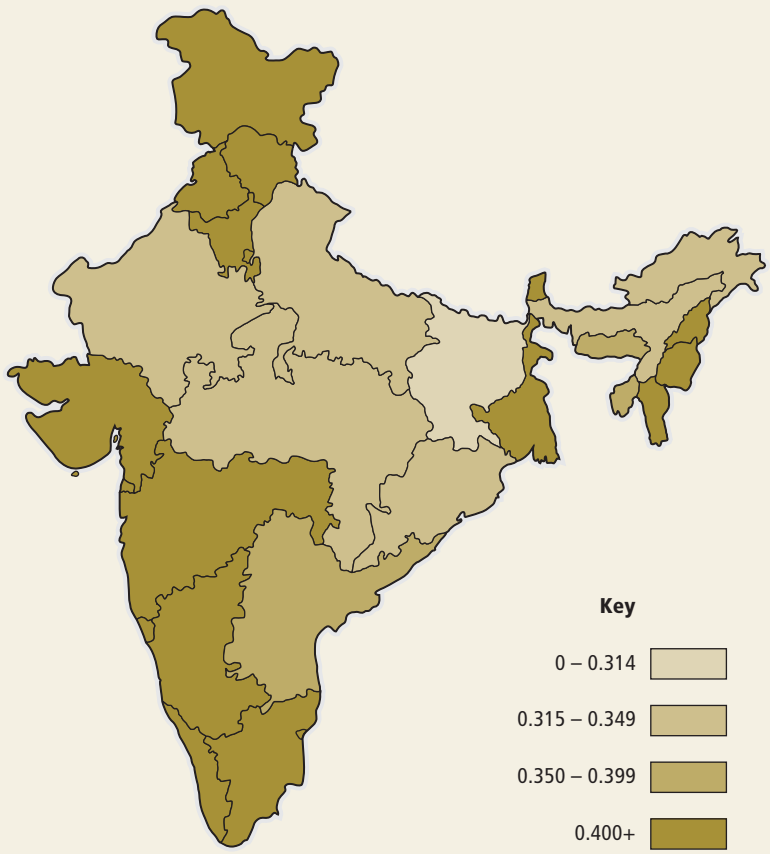
Based on the latest available data the HDI has been estimated for 2001 for selected major States only. At the national level it has increased to 0.470. The HDI varies between 0.638 in case of Kerala and 0.365 in case of Bihar. Among the better-off States, Punjab, Tamil Nadu and Maharashtra had a HDI value of above 0.52. At the other end, States like Uttar Pradesh, Assam and Madhya Pradesh had values less than 0.400. The gap between Kerala and next best State, i.e. Punjab remains quite significant, though it has declined. By and large the States maintained their relative position between 1981 and 2001.

On the whole, while Tamil Nadu, Rajasthan, Madhya Pradesh, West

Human Development Index — 1981



Human Development Index — 1991



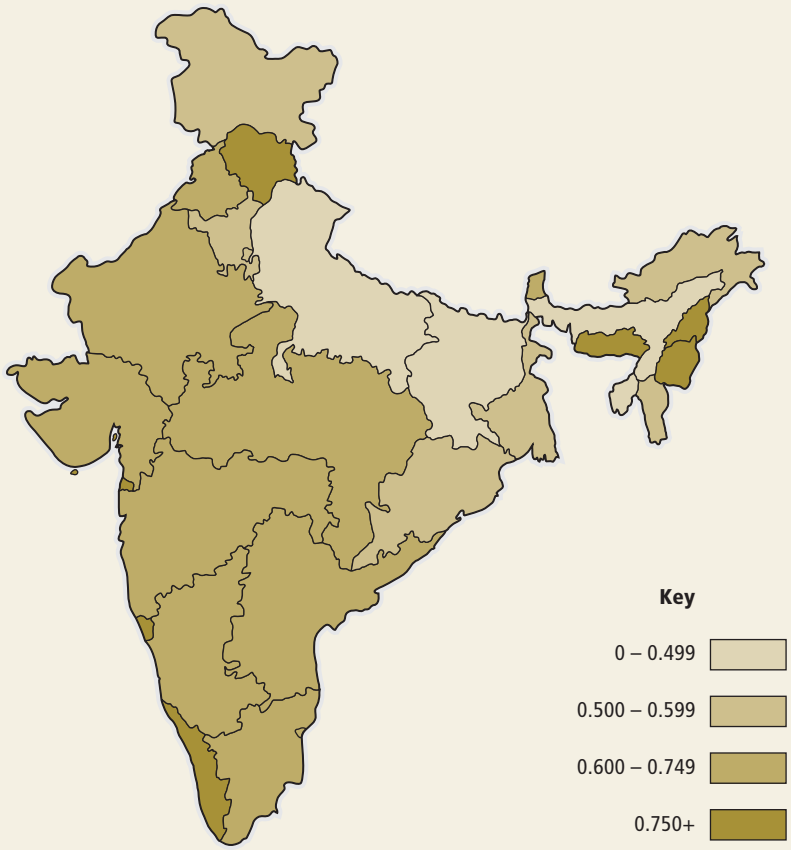
Bengal and Bihar improved their HDI significantly in the eighties, in nineties, the momentum was maintained only in case of Rajasthan, Madhya Pradesh and Uttar Pradesh. Tamil Nadu improved it's ranking by 4 positions from 7 to 3, while Rajasthan from 12 to 9. On the other hand the position of Assam dropped from 10 to 14. Secondly, it turns out that for the economically better off States, as well as for the poor States, attainments on HDI and income levels show a direct correspondence. In other words, the poor States are also the States with relatively poor performance on HDI. Similarly, the economically better-off States are also the ones with relatively better performance on the HDI. However, the relation between the HDI and the level of development does not show any correspondence among the middle-income States in the country. In this category of States, some States like Kerala have high attainments on HDI, at the same time, there are States like Andhra Pradesh or even West Bengal where HDI values are not as high. Thirdly, though at the national level, the economic growth in the nineties was nearly one percentage point higher than the earlier decade, it has, perhaps, resulted in less human development in the nineties. This is primarily on account of performance of the outlier States and slower improvement in human development indicators for States already with higher HDI values. Finally, it turns out that inequality across States on the HDIs is less than the income inequality as captured in the per capita State Domestic Product.

GEI has been estimated to measure the inequality in attainments on human development indicators between females and males. The index has been presented as a ratio of attainments for females

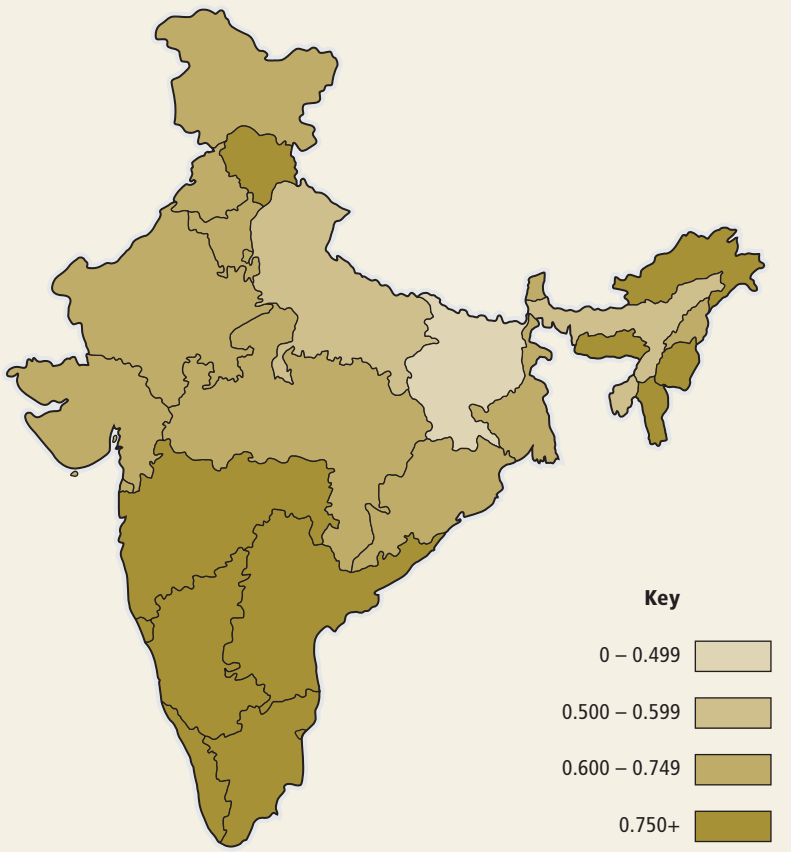
to that of males. Theoretically, the index can take values between zero and infinity, with a value of unity reflecting an absolute equality in the respective attainments of males and females. A value higher than unity would imply that females have better attainments than males. However, in reality, the index is likely to take a value between zero and unity. In estimating the index, the economic attainments for males and females have been captured by taking the respective worker-population ratio, unlike the use of per capita monthly expenditure in the HDI. This has been done, primarily, to avoid taking recourse to apportioning consumption or income, between males and females at the household or at an individual level, using criteria that could always be debated. Moreover, worker-population ratio, particularly for females in a developing society like India is, in some sense, a direct measure of the extent of empowerment that females have in a society. Educational and health attainments have been captured using the same set of indicators as in the case of HDI.

The GEI, at the national level, was 0.620 in the early eighties, improving marginally to 0.676 in the early nineties. At the State level, GEI was the highest for Kerala followed by Manipur, Meghalaya, Himachal Pradesh and Nagaland in the eighties. In the nineties, Himachal Pradesh had the highest GEI, whereas Bihar was at the bottom and had witnessed a decline, in absolute terms, over the earlier period. In general, women were better off in Southern India than in the Indo-Gangetic plain, comprising mainly the States of Bihar and Uttar Pradesh. States that had done well on improving their female literacy levels were also the ones that have substantially improved gender

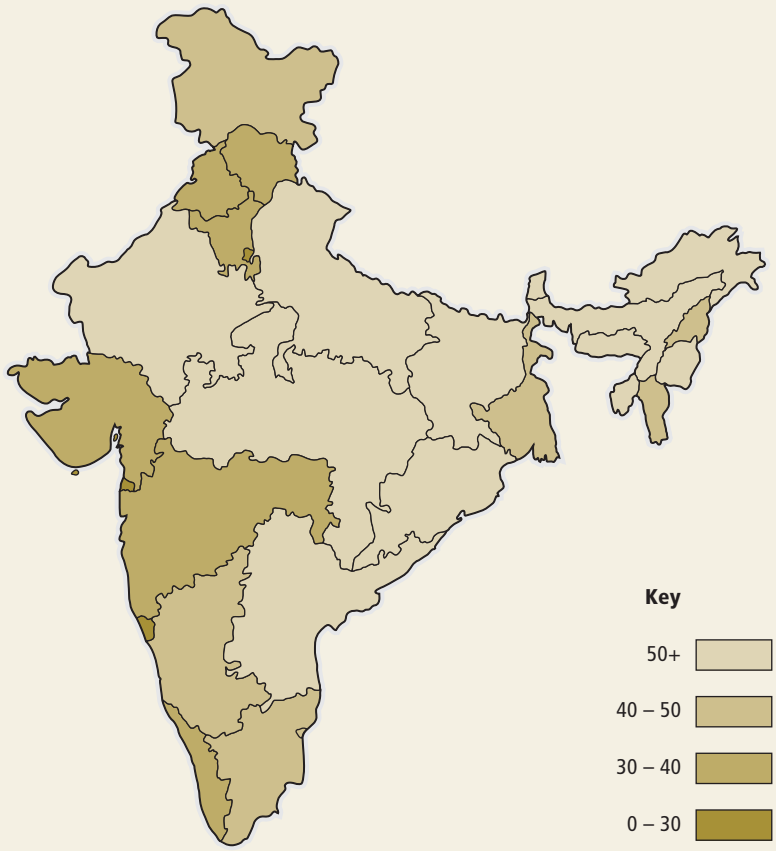
Gender Equality Index — 1981



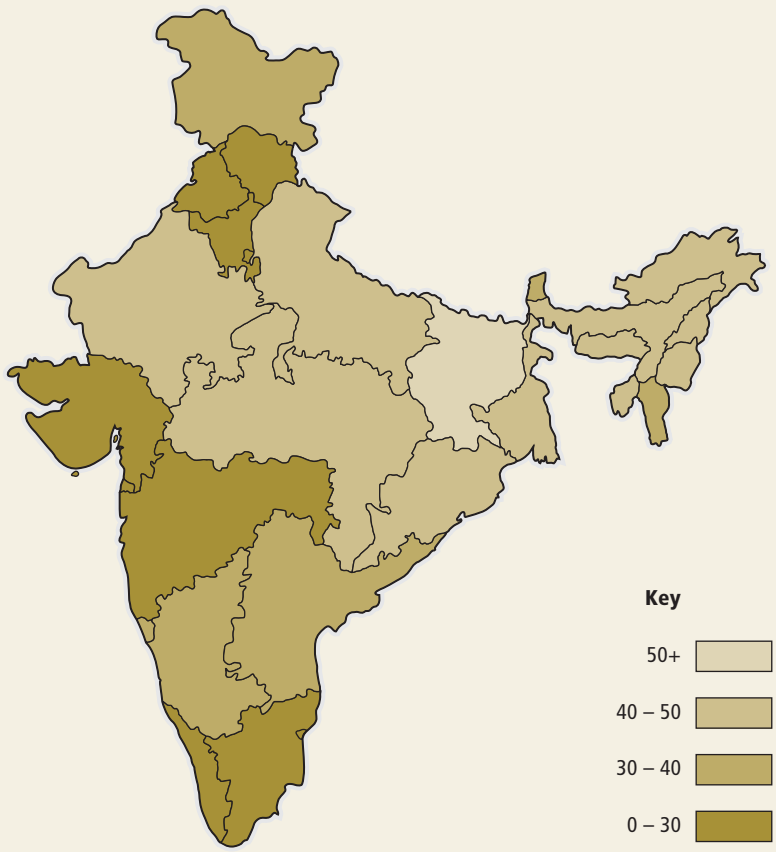
Gender Equality Index — 1991



Human Poverty Index — 1981



Human Poverty Index — 1991



equality. On the whole, gender disparities have declined between the two points of time.

The HPI has been estimated to reflect the deprivational perspective on development. Indicators on three aspects of deprivation have been considered to construct the composite index. Deprivation in health and longevity was captured essentially through the proportion of population not expected to survive to age 40 years. In addition, proportion of population without access to basic medical services; proportion of deliveries not receiving medical attention; and proportion of children not immunised; were also included to reflect deprivation in health attainments. These indicators also reflect the economic inability of people to have access to the said services. Educational deprivation has been captured through illiteracy rates and children in the school going age group not enrolled in schools. For capturing economic deprivation, proportion of population below a poverty line anchored in a food-adequacy norm; proportion of the population living in *kutcha* houses; proportion of population without access to sanitation; proportion of population without access to safe drinking water; and proportion of population without electricity, have been used. While each of the three dimensions of deprivation, namely, educational, health and economic have been given a one-third weight in the composite index, for each of the dimension, the composite measure has been estimated as an average of the relevant indicators (the details are available in the Technical Appendix).

The HPI takes value between 0 and 100 such that a higher deprivation for a State means a value closer to 100. In this case, it

would imply that the entire population of the State is deprived of even the minimal attainments on each of the three dimensions. At the national level, the proportion of the deprived on the HPI was 47.33 per cent in the early eighties. The proportion was significantly higher for rural areas at about 53 per cent, as against about 27 per cent in urban areas. It declined to 39.36 per cent in the early nineties on the comparable HPI, and was a little less on the alternate HPI (with some changes in the included indicators) at 37.42 per cent. The HPI for rural areas, on the comparable index, was about 45 per cent and was less than half at 22 per cent in case of urban areas. Thus, the decline in the rural areas was a litter higher than the decline in urban areas, resulting in a marginal decline in the rural-urban gap.

In comparison to the incidence of poverty on the head-count measure, where the rural-urban ratio for the proportion of people below the poverty line was 1.12 and 1.15 in 1983 and 1993-94 respectively, the rural-urban ratio in case of HPI was a little more than two for these points of time. Given the conceptualisation of the HPI in terms of the broader aspects of deprivation covering accessibility to basic minimum services, such large differences in rural and urban areas imply that the availability of basic amenities that are virtually taken for granted in urban areas are, in fact, quite scarce in rural areas.

The inter-State differences in the HPI are quite striking. It was in the range of 55-60 per cent in the early eighties for the worse off States, namely, Orissa, Bihar, Arunachal Pradesh, Assam and Uttar Pradesh, and between 32-35 per cent in the better off States like Kerala, Punjab and Himachal Pradesh. It was only in the smaller, predominantly, urban areas of Delhi and Chandigarh that had an HPI in the range of 17-20 per cent. The value of HPI in early nineties had declined in all the States. A surprising exception was Goa. The relative positions of different States remained quite similar to the earlier period. The decline in HPI was significant in case of Andhra Pradesh, Arunachal Pradesh, Mizoram, Himachal Pradesh, Tamil Nadu, Maharashtra, Jammu and Kashmir, Karnataka, Kerala and Orissa. In case of Bihar, Uttar Pradesh and Rajasthan, the decline was only marginal. The fact that in early nineties, urban areas in as many as 16 States and Union Territories had HPI lower than States having the least HPI in rural areas shows that deprivation as captured in HPI in rural areas is strikingly more than urban.

Summing Up

The Development Radars, as well as the composite indices are, no doubt, useful tools in policy formulation and mapping progress in human development over time and across States. However, by their very construct, they have a limitation in capturing human development in all its facets. Moreover, even for a relatively homogeneous space such as a country, a region or even a State, there are always local issues and concerns that have a direct bearing on the well-being of people residing in those areas and, therefore, need to be included in any meaningful framework for evaluating development at the said level of analysis. It is essential to look at other indicators, beyond the set of indicators that, for instance, have been

identified for this exercise. This is the area that has been addressed in the following Chapters. Nonetheless, the core composite indices, such as the HDI, HPI or the GEI have a certain universal relevance and are, perhaps, useful from the point of tracking developmental changes at the national level and for facilitating comparisons across States.

While it is possible to have the core set of composite indices at sub-State level, the data requirement is considerable. Most of the data that has been used in building these indices is from the Census of India, which potentially can provide indicators at district level. The variations in qualitative aspects of some indicators across States and regions, however, have to be addressed for building reliable and representative databases. Similarly, in case of the survey-based data there has to be an improvement in terms of coverage, methodology and, in some cases, definitions as well. A part of the problem, for instance, in case of the NSSO data could be solved by pooling national level sample frames with the available sample frames at State level to work out district level estimates of per capita consumption expenditure. The other part relates to synchronising independently carried out surveys and survey schedules of different agencies to check overlap, improve coverage of indicators by efficient use of available resources and in a manner that the data on selected major social indicators is made available at a regular interval of five years in-between two Censuses. This could, then, provide a time-series of social indicators, at a reasonable time-span, for tracking the process of development, facilitating meaningful planning and policy formulation for guiding the process of social change in the desired direction. Finally, there is also scope for improving the coverage and availability of data collected and released by various administrative ministries/agencies.