

Karnataka State Planning Board

KARNATAKA

A Vision for Development



DECEMBER 2008

Preface

Every State requires a vision and a clear concept of where to go and how to get there. A State vision document tries to bring out the aspirations of its people for a better future. The formulation of a vision requires an understanding of the preceding development trajectory of the State, an analysis of what it wants for and from its people and resources in the years to come and the possible ways to achieve them, as well as the anticipated challenges that need to be overcome while traversing the desired path.

While articulating the purpose of a vision, the report on India Vision 2020 had said that “a vision is neither a prediction of what will actually occur, nor simply a wish list of desirable but unattainable ends. Rather, it is a statement of what we believe is possible for our nation to achieve, provided we are able to fully mobilise all our available resources, generate the requisite will and make the required effort”. A State vision assumes importance in understanding the shared goals of its people, bringing about an alignment in their combined efforts and realising optimal synergies in their action. The vision should enable the State to ensure farmers, workers, entrepreneurs, scientists and others to find their due space by following an inclusive growth process leading to a prosperous and equitable Karnataka.

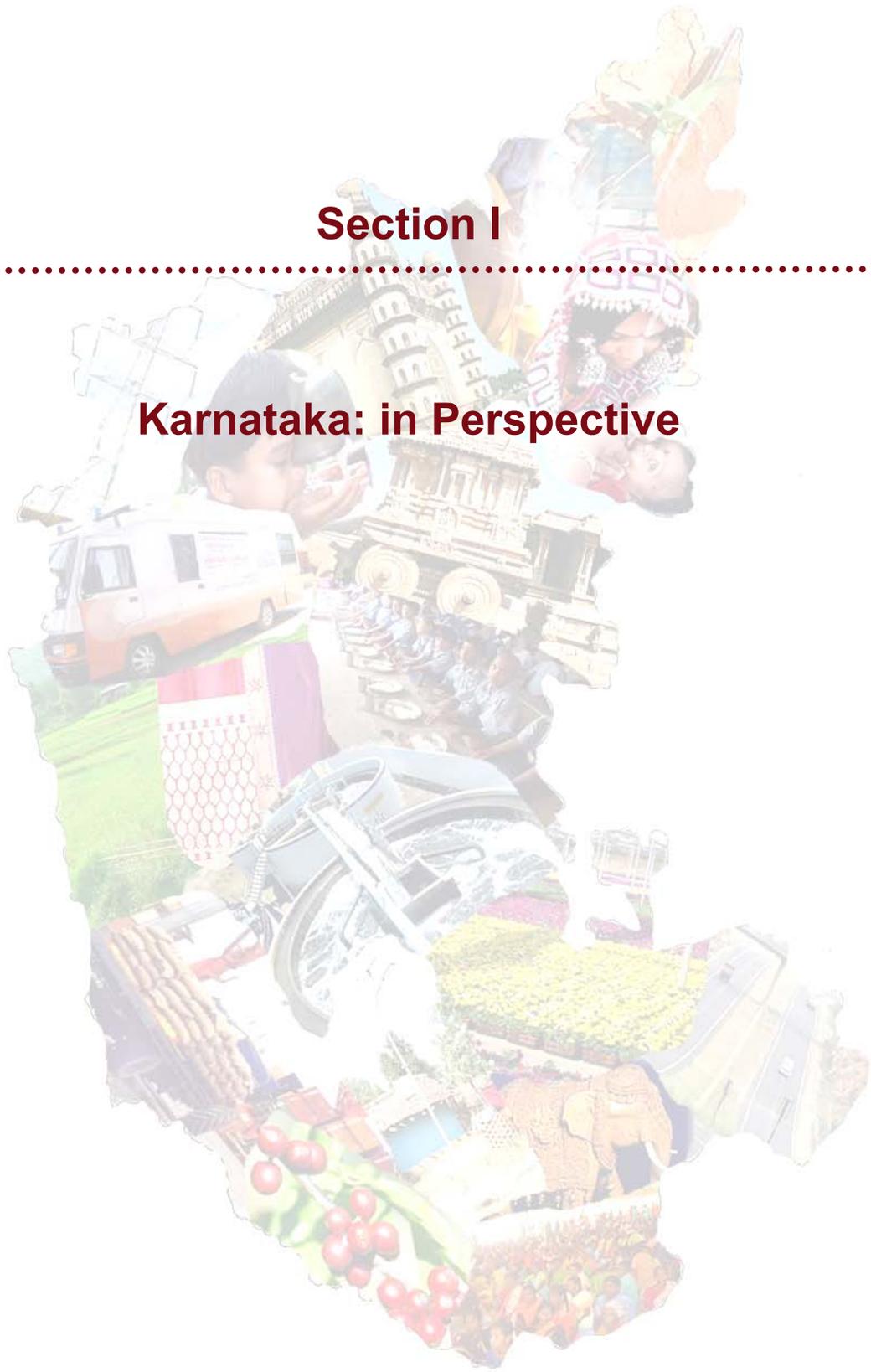
This document is an attempt to chart out a long term development plan for the State of Karnataka. It is structured in the following three parts. The first section profiles the various dimensions of Karnataka’s development including its demography, economy, human development, sectoral composition of GSDP and other parameters. The second part analyses the development imperatives for the State in light of its achievements till date and the impending challenges. We take a development perspective which is centred on building capabilities and enhancing substantive freedoms of people. The final section of the document unfolds the vision for the State and the key transformations which will enable the State in achieving the various aspects of this vision.

Table of contents

KARNATAKA: IN PERSPECTIVE	1
DEVELOPMENT IMPERATIVES IN KARNATAKA.....	11
A VISION FOR DEVELOPMENT OF KARNATAKA....	18
ANNEXURE.....	61

Section I

Karnataka: in Perspective



Karnataka: in Perspective

Karnataka Fact File	
Parameter	Value
Area	191,791 Sq km
Districts	29
Taluks	176
Villages	27,481
Towns	270
Population (est.)	5.75 Cr (2008)
Rural	64%
Urban	36%
SC	16.2%
ST	6.55%
Minorities	16.1%

Source: Census of India 2001; Directorate of Economics and Statistics, GoK

1. Karnataka, earlier known as Mysore, came into being on November 1st, 1956, with the merger of five different provinces where Kannada was the main language. It currently has 29 revenue districts, 176 blocks and 27,481 villages. The State was carved out of two districts and one taluk of the former Madras Presidency; four districts of the erstwhile Bombay State; three districts of the erstwhile princely State of Hyderabad; the former Part C State of Coorg and nine districts of the former princely State of Mysore. As a consequence of the amalgamation of regions of varying levels of socio-economic development and different political and administrative structures, the modern State has inherited a legacy of regional and developmental imbalances.

Demographic highlights

2. Karnataka is India's eighth largest State in terms of geographical size. Its share of 5.31% of the nation's total population in 1991 has reduced to around 5% in 2008. The State's decadal growth rate of population has also been declining, though it is higher than neighbouring States. Population density at 275 per sq km is relatively low compared to other States. The share of the State's rural population is estimated to have declined from 69% in 1991 to about 64% in 2008. According to population projections by the Census Commissioner of India, this share is likely to further reduce to around 58% by 2026, by when the total population is likely to be 6.69 crore. Rural population is expected to increase marginally from 3.67 crore currently, to 3.86 crore in 2026, whereas a significant growth is expected in the urban population, which is likely to reach 2.82 crore in 2026 from the current 2.08 croreⁱ. This creates a huge challenge for provision of housing and basic services in urban areas.

Key Demographic & Health data		
Indicator	KAR	IND
Pop. Gr. Rate in % (1991-2001) ^a	17.5	21.5
Sex Ratio ^a	965	933
Literacy - male ^a	76.1	75.2
Literacy - female ^a	56.9	53.7
Total Fertility Rate ^c	2.08	2.7
Crude Birth Rate ^b	20.1	23.5
Crude Death Rate ^b	7.1	7.5
Life expectancy (male) ^d	62.8	61.6
Life expectancy (female) ^d	66.2	63.3
Infant mortality rate ^b	48	57
Maternal mortality rate ^e	228	301
Under 5 mortality rate ^c	54.7	74.3
Anaemia (6-35 mths) ^c	83%	79%

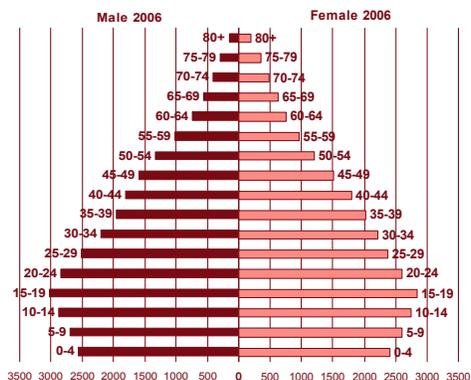
Source: a) Census of India 2001; b) SRS 2006, c) NFHS III, 2005-06; d) Registrar General of India 2001; e) SRS 2001-03

3. The crude birth rate in Karnataka has reduced from 40.8 per 1000 population in 1951 to 20.1ⁱⁱ. The crude death rate is 7.1 per 1000 population. Total fertility rate in the State has reduced to 2.08 in 2005-06 as per the National Family Health Survey (NFHS) III and is on course to reach the 11th Plan target of 1.8 by 2012. The State has also seen consistent improvement in life expectancy at birth. From 49.7 years for males and 50.6 years for females in 1971,

An estimated 4 lakh people are expected to enter the workforce each year up to 2026

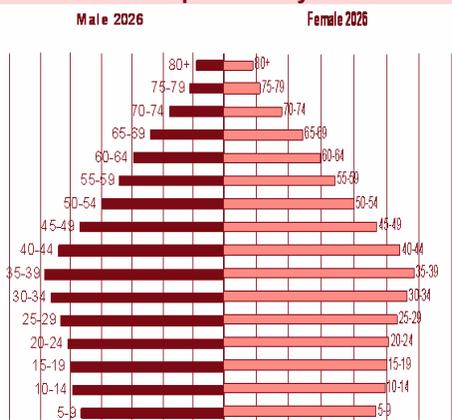
the figures now stand at 62.8 years and 66.2 years respectively. These trends of demographic transition show healthy signs of population dynamics moving towards sustainability based on carrying capacity of the State. However, it still lags behind its neighbouring States along most of these parameters, and also shows significant variations across its regions, which need to be addressed.

Karnataka Population Pyramid 2006



4. The population pyramids given alongside depict the male and female population (in thousands) by age groups in 2006 and 2026. There are three key inferences that can be drawn from the figures:

Karnataka Population Pyramid 2026



Source: Population Projections For India And States 2001-2026, Office Of The Registrar General & Census Commissioner, India

Population growth is being contained: There is both an absolute and a relative decline in the 0-9 age-group from 1991 (1.08 crore forming 24% of total population) to 2006 (1.02 crore; 18%) Trends indicate that population in this age-group will continue to reduce to around 88.9 lakh (13% of total estimated population) in 2026. This implies reducing pressure on infrastructure for the 0-9 age-group such as primary education and childcare facilities. Greater emphasis can be laid on improving the quality and outcomes in these services.

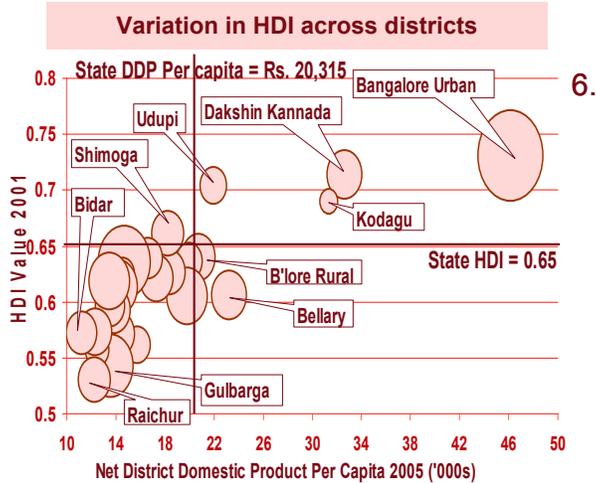
Potential to benefit from demographic dividend: The working population (15-59 age group) is set to increase by 0.77 crore (3.58 crore to 4.35 crore) between 2006 and 2026, which means an average of 4 lakh new entrants to the workforce each year up to 2026. This requires a significant increase in employment opportunities. Appropriate education and skill development of the workforce is essential to increase 'employability' and reap benefits from this demographic dividend. Providing appropriate and adequate employment opportunities and accelerating the pace of job creation are essential.

Significant ageing of population: The median age of population is expected to rise from 23.4 year in 2001 to 33.4 year in 2026. In the same period, the 60+ population is expected to rise significantly from 38.4 lakh (7.3% of total population) to 96.8 lakh (14.5% of total population). Coping with an increased dependent population would require increased provision for social security, safety nets and geriatric healthcare.

Human and Gender Development

5. As per the National Human Development Report 2001, Karnataka ranks seventh among major Indian

Since 1991, Karnataka has maintained 7th rank in HDI among major Indian States



Source: Karnataka Human Development Report, 2005; Directorate of Economics and Statistics, GoK.

States on human development index (HDI). The State's HDI has improved from 0.54 in 1991 to 0.65 in 2001ⁱⁱⁱ. At an international level, this means that Karnataka's position among nations, at around 120, is marginally better than India at 127. According to the UN classification, Karnataka can be considered to have "Medium Human Development".

6. Within the State, however, the variance between districts is wide – Raichur with a HDI of 0.547 being the lowest, and Bangalore Urban with a HDI of 0.753 being the highest. While there is, in general, a positive relation between income and HDI, districts such as Udupi and Shimoga have achieved higher HDI values with relatively lower incomes, whereas other districts such as Bellary and Bangalore Rural have low HDI levels but relatively higher incomes. Disparities can also be observed across communities with HDI (in 2004) for SCs (0.575) and STs (0.539) much lower than the State average. These regional and social disparities in human development are a cause of major concern for the State.

7. The Gender Development Index (GDI) depicts the inequalities between men and women to attain a long and healthy life, appropriate education and a decent standard of living. The GDI of Karnataka at 0.637 (2001) is higher than the all-India value of 0.609, and has improved from 0.525 in 1991. The State ranks sixth among the major States on GDI. However, gender disparities in the form of adverse sex ratio, wage differentials and various health and education dimensions are still prevalent in the State.

Poverty and Disparities

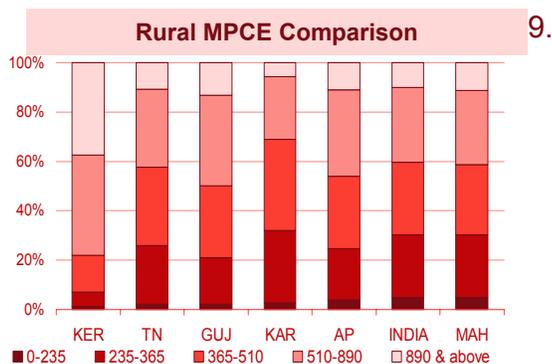
Significant poverty levels

Poverty is a deprivation of basic capabilities rather than merely low income [and, therefore] enhancement of substantive freedoms, which provide people with capabilities to choose a life they have reason to value should be the main objective and primary means of development"

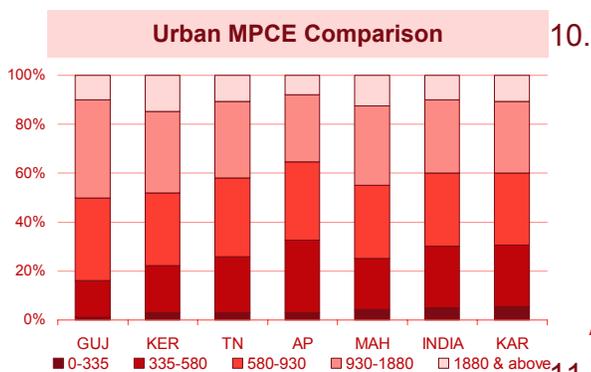
Prof. Amartya Sen

8. One of the chief goals of human development is equitable development across all sections of society to enable people to live a life free of poverty with adequate living standards. It is necessary to ensure that poverty alleviation takes place along with economic growth. It has received special policy focus among the international development goals. The first goal specified in the UN's Millennium Development Goals (MDGs) is 'to eradicate extreme poverty and hunger'. In 2004-05, the poverty headcount ratio (HCR) in rural Karnataka was 20.8%, and in urban Karnataka, it was much higher at 32.6%. The combined HCR for Karnataka

Urban poverty ratio of 32.6% in Karnataka is much higher than the all India urban poverty ratio of 25.7%



Source: NSSO 61st Round Employment & Unemployment Situation in India, 2004-05



Source: NSSO 61st Round Employment & Unemployment Situation in India, 2004-05

stood at 25%^{iv}. It is to be noted that HCR in urban Karnataka is much higher than all its neighbouring States, as well as the country average, which is a cause for concern, especially in the context of the rapid urbanisation the State is going through.

Low level of consumption expenditure

9. The level of Monthly Per capita Consumer Expenditure (MPCE) of the population reveals that there exists extreme poverty in both rural and urban areas of the State. If we look at the number of rural households with MPCE of less than Rs. 365, Karnataka fares worse than other comparable States as well as the national average. It indicates that over 30% of the rural population, i.e., **more than 1 crore persons in rural Karnataka live on less than Rs.12 per person per day**. Spending levels are low across all MPCE classes. Rural Karnataka also has the lowest percentage (5.7%) of households with an MPCE of above Rs. 890 amongst compared States.

10. In urban Karnataka, the situation is not much better as the State has the highest share of urban households with MPCE of less than Rs. 335, and the second highest percentage (after Andhra Pradesh) of urban households with MPCE of less than Rs. 580. This indicates that around **30% of urban population, i.e. around 60 lakh persons live on less than Rs 19 per person per day**.

Poor performance in poverty reduction

11. The State has seen erratic and inconsistent performance in its poverty reduction performance. While it was ranked 13th in terms of rural MPCE during the 51st round of NSSO (1994-95), it rose to 6th during the 56th round (2000-2001). It has again fallen to 13th in the 60th round (2003-04). **The number of persons in the bottom 4 MPCE classes are estimated to have actually increased from 1.97 crore in 1994 to 2.61 crore in 2006** (between the NSSO 50th and 61st rounds). While poverty HCR has dropped from nearly 50.5% in 1972-73 to around 25% in 2004-05, this decrease is lower than that achieved by other States such as Andhra Pradesh, Gujarat, and Kerala. The 10th Plan target for the State was to reduce the HCR from around 27% to 7.85% and number of poor to 45 lakhs by 2007^v. However, in 2004-05, it still stood at 25%, with the number of poor being 138.89 lakhs^{vi}.

Urban-Rural Disparity

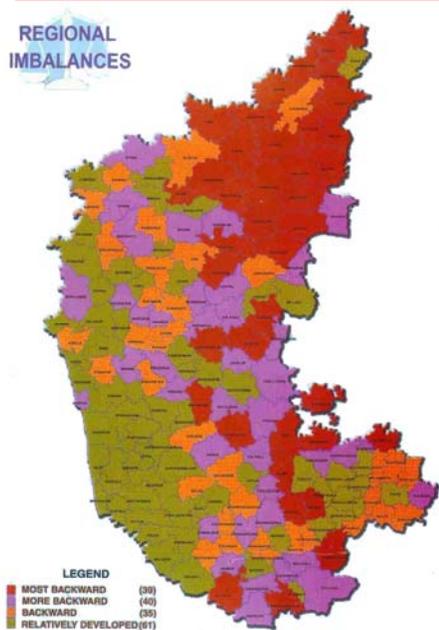
Indicator	Rural	Urban
Casual Labour Wages ^a	Rs 46.6	Rs 74.2
Regular Wages ^a	Rs 98.1	Rs 205.3
MPCE ^a	Rs 573	Rs 1,154
Poverty Rate 2004-05 ^b	20.8%	32.6%
Literacy (7+) ^c	59.6%	81%
HH with toilets ^c	17.4%	75.2%
HH with Electricity ^c	72%	90.5%

Source: a) 62nd round of NSSO; b) Planning Commission, GoI; c) Census of India 2001

Urban-Rural disparity

12. The State is witness to a widening rural urban divide on various aspects (see table). The average MPCE of urban Karnataka is more than double that of rural Karnataka. A large proportion of the rural workforce is engaged as casual labour and earns minimal wages and is largely dependent on agriculture for employment and income. There also exist wide disparities in wages, education and health indicators and access to basic services.

Block classification by backwardness



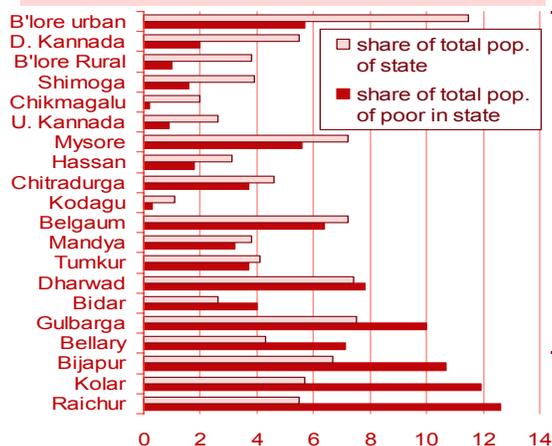
Source: Nanjundappa Committee Report (2002)

Regional disparity

13. The High Powered Committee for Removal of Regional Imbalances headed by Dr. D.M. Nanjundappa researched this issue and constructed a Comprehensive Composite Development Index (CCDI). As per this index, taluks (blocks) in North Karnataka lagged behind those in South Karnataka. 114 out of 175 taluks in Karnataka were declared backward, of which 59 were from North Karnataka. In a further sub-classification, 26 out of the 39 “most backward” taluks were from North Karnataka.

14. The disparity between taluks highlighted by the CCDI, persists in terms of the **Human Development Index (HDI)** also. 7 out of 8 districts having HDI lower than India’s HDI level of 0.621 are in North Karnataka, whereas all 7 districts having HDI greater than the State average of 0.65 are in South or Coastal Karnataka. In terms of **basic infrastructure**, overall performance of the State is poor – only 35% households had access to all the three basic services, i.e., safe drinking water, electricity and toilets as per Census 2001. Even within this, 8 out of 9 worst performing districts were in North Karnataka.

Poverty share across districts



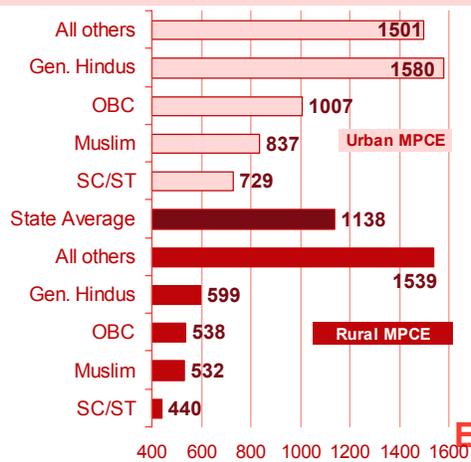
Source: Murgai et al, Measuring Poverty in Karnataka EPW. 2003

15. There are significant disparities even in the incidence of poverty across the State as shown in the adjoining figure. Raichur has only 5.5% of the State’s population, but is home to 12.6% of the State’s poor. In Raichur and Kolar, the poverty ratio is over 40%. This is in sharp contrast to districts like Chikmagalur and Kodagu where poverty ratios are very low at 2.3% and 4.9% respectively^{vii}.

Social disparity

16. Deprived groups have exhibited lower social and economic indicators including levels of consumption. This is evident from the figure below that breaks down the MPCE of the State by urban and rural

Disparity across social groups



Source: Rajinder Sachar Committee report 2006

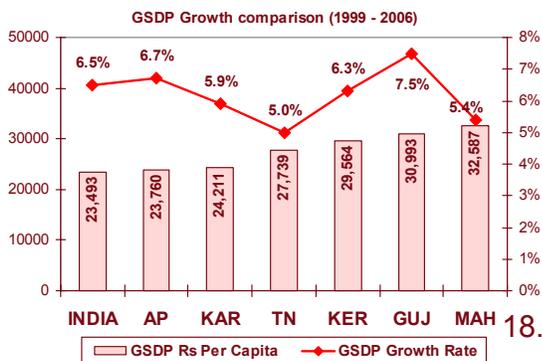
social groups. It is evident that the extent of deprivation of SC/STs, OBCs and Muslims is acute in the State. **The HDI for the SCs and STs in 2001 was close to the State's HDI in 1991 (0.541).** Urban poverty level of SC/STs and Muslims is very high at 54% and 49% respectively when compared to the State urban HCR of 32.7%. Rural and urban SC/ST women have a literacy rate of 35% and 59%, far short of the State's level of 48% and 74% respectively. Such discrepancy exists along health indicators also. In effect, the human development status of these backward groups is about a decade behind the rest of the State.

Economy and Employment

State Income

17. The GSDP for Karnataka in 2006-07 was Rs. 1,94,008 crore (at current prices) as against Rs. 37,18,000 crore for India, which makes it 5.2% of the country's GDP. Karnataka has had moderate growth rates in its State income. In the period 1999-2006, Karnataka had a GSDP growth rate of 5.9% making it fourth amongst compared States (see figure) and lesser than India's GDP growth of 6.5%. The State's real income growth, which struggled to cross beyond 4% till the early 1990s has now reached nearly 6%. As seen in the adjoining figure, Karnataka has lower per capita GSDP than most comparable States - it is only marginally higher than India average.

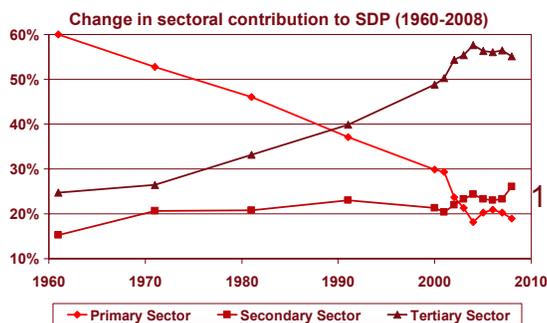
GSDP per cap. - growth comparison



Source: Central Statistics Organisation; GSDP per capita figures for 2006 (at constant 1999-00 prices); GSDP growth for 1999-2006.

18. The character of the State's economy has changed drastically over the years. When the State was formed in 1956, its economy was predominantly agrarian, but this has now altered. The primary sector, which contributed about 60% of the GSDP in 1960- 61 comprised only about 18.9% in 2006-07. In the same period, the share of secondary sector increased from 15.2% to 26%. The share of the tertiary sector has more than doubled from 24.8% to 55.1%. The service sector boom since the 1990s has boosted the State's economic growth. The manufacturing sector which lagged behind for some time has grown well, though in relative terms, it has remained steady.

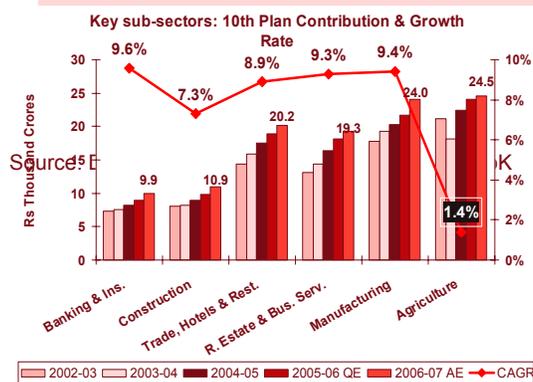
Structural Change in Economy



Source: Directorate of Economics and Statistics, GoK

19. Among sub-sectors of the economy during the 10th Plan, **agriculture continues to be the largest sub-sector in terms of contribution, but at 1.4%, it had the lowest growth rate.** Manufacturing has shown the 2nd highest growth of 9.4% and is showing

Growth in key sub-sectors -10th plan



Source: Directorate of Economics and Statistics, GoK

resurgence. Banking & Insurance has grown fastest at 9.6%, while Real estate & Business Services grew at a healthy 9.3% during the 10th Plan period.

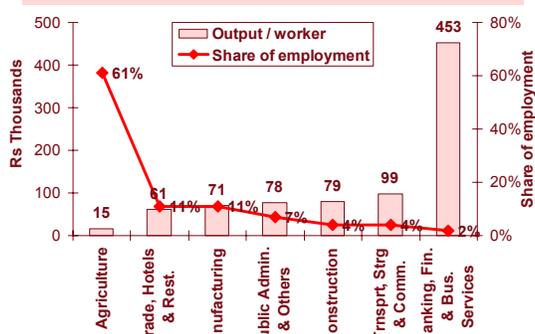
Employment^{viii}

20. In 2005, 63% of Karnataka’s total population was in the working age group of 15-59 years, which is higher than the all-India average of 59%. With the organised sector having a share of 8% of total employment, it is the unorganised sector that is key to providing livelihood in the State. Key issues in employment in the State are summarised below.

Sectoral misalignment between economy and employment

21. While employment in agriculture hardly decreased from 65% to 61% (1993-2005) GSDP contribution halved from 36% to 18%. Industry and Services provide employment to around 17.4% and 22% of the workers respectively. Output per worker in agriculture (Rs 15,000 at 1999-00 prices) in the State is the lowest compared to other sectors, and across comparable States. This is a major problem since agriculture is the livelihood of most workers of the State, and has seen sluggish growth. The rapidly declining share of agriculture in the economy and its poor growth prospects indicate its inability to absorb the growing workforce and provide productive opportunities or higher incomes. This means that the already high disparity between workers in agriculture and other sectors may increase further.

Output / worker across sub-sectors



Source: CSO for GSDP 2004-05 (at constant 1999-00 prices); NSSO 61st round for employment share

Marginalisation/ Feminisation of labour

22. As per Census 2001, the proportion of main workers was 82.4%, down from 91.5% in 1991; the remaining 17.6% were marginal workers. The increase in marginal workforce is predominantly due to the marginalisation of the female workforce, with number of marginal female workers rising from 14.6 lakh to 28.3 lakh in the period 1991-2001. Marginal workers constitute 34% of the total female workforce (highest among the southern States) as against 8.8% for male workers (whose number stands at 13.4 lakh). Around 76% marginal cultivators in the State are female, and 73% marginal agricultural labourers are female.

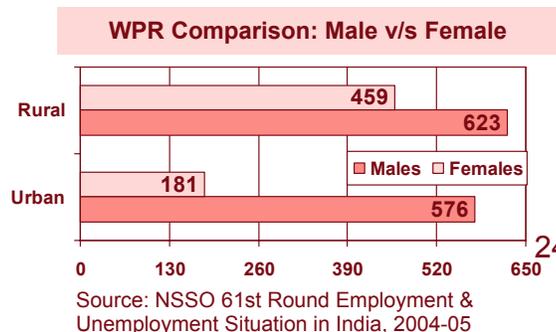
Main & Marginal Workers: 1991-2001

Workers in lakhs		MAIN			MARGINAL		
		Tot.	Cul	AL	Tot.	Cul	AL
1991	M	123	46	25	1	NA	NA
	F	50	14	25	15	NA	NA
	T	173	60	50	16	NA	NA
2001	M	138	47	20	13	2	7
	F	56	15	18	28	5	18
	T	194	62	38	42	7	25

Source: Census 2001; M-Male; F-Female; T-Total; Cul-Cultivators; AL- Agricultural Labourers

Gender disparities in wages and employment

23. There are gender and wage gaps in employment as shown by the Worker Population Ratio^{ix} (see



adjoining graph). Average daily wage for casual workers of age 15-59 year in both urban and rural areas were low. While wages for men and women were Rs. 55.26 and Rs 33.85 in rural areas, wage disparity increased in urban areas with an amount of Rs 84.25 for men and Rs 38.83 for women^x.

24. According to the 61st round of NSSO survey (2004-05), the **unemployment rate for both rural and urban Karnataka is the lowest amongst neighbouring States**. However, the unemployment rates for educated females of age above 15 years, at 13.2% (in rural areas) and 17.7% (in urban areas), is higher than neighbouring States (except Kerala). Corresponding figures for rural and urban males show low values of 3.9% and 3.4% respectively. This indicates significant challenges faced by educated women in securing employment in the State.

Existence of Child labour

25. Child labour remains a persistent problem, especially in rural areas, with the number of working children per 1000 children in the age group of 10–14 years in rural Karnataka (at WPR of 111 per 1000) being higher than the national average (at WPR of 71) or in its urban areas (with WPR of 20)^{xi}.

Key issues concerning growth & employment

26. An analysis of the growth and employment in the four key sub-sectors of the State's economy in the period 1993-2005 is presented in the table below. Some of the key issues are further highlighted.

Sub-Sector	Agriculture	Manufacturing	Trade, Hotels & Restaurants	Banking & Ins., Real Estate, Fin. & Business Services
Employment Share	60.80%	10.60%	10.70%	2.00%
GSDP Share	18.50%	19.40%	14.40%	16.50%
Employment Growth Rate	1.20%	1.60%	5.70%	6.90%
GSDP Growth Rate	0.80%	7.70%	9.60%	10.30%
Employment Elasticity	1.53	0.21	0.59	0.67
Contribution to Employment Growth	41.10%	9.70%	27.60%	5.90%
Contribution to GSDP Growth	2.90%	20.80%	17.60%	20.80%

Source: CSO for GSDP; NSSO for employment; (Data for the period 1993-94 to 2004-05)

27. **Agriculture:** It exhibits low growth of 0.8% but is absorbing a large amount of labour as it still employs about 61% of the workers. This implies a decline in output per worker and falling labour productivity.
28. **Manufacturing:** It has shown a healthy growth of 7.7%, but is not absorbing commensurate workforce.

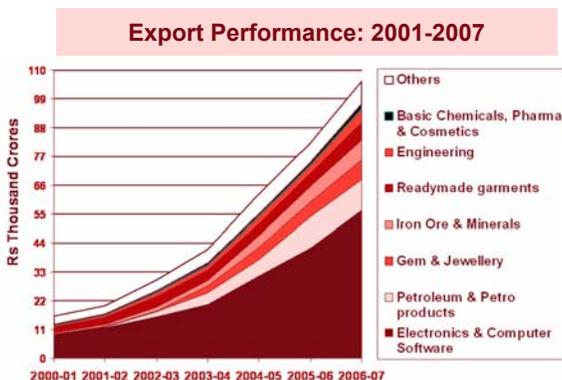
The low employment elasticity of 0.21 is a concern in this sector that needs to be addressed.

29. **Trade, Hotels & Restaurants:** This is a high growth sector which is also absorbing a good amount of labour. Its productivity is increasing and this sector seems to show well-aligned growth.
30. **Banking and Insurance, Real estate, Finance & Business Services:** This is a high growth sector but, expectedly, has a low employment share of around 2%. Though it has a limited impact on employment in the State, it has a significantly high impact on growth.

During the 10th Plan, the state witnessed an export growth at a CAGR of 39%

Export performance

31. During the 10th plan period, the total exports from Karnataka have grown from Rs. 20,144 crore (2001-02) to Rs. 1,05,850 crore (2006-07) at a CAGR of 39%. This growth is depicted in the adjoining graph. Electronics and computer software exports have grown at a CAGR of 37% with the total exports reaching Rs 56,478 crore in 2006-07. This sector constituted 53% of the total exports from the State. 36% of the total Indian exports in this sector were from Karnataka, establishing the State's leadership. However, the State's export performance is not limited to Information Technology alone. During the 10th Plan, petroleum and petro-product exports of Rs 36,087 crore (CAGR =113%) and gems and jewellery exports of Rs 21,095 crore (CAGR=94%) from the State saw very high growth rates. The other major exports from the State during the 10th Plan were iron ore and minerals (Rs 21,299 crore; CAGR=60%), readymade garments (Rs. 24,291 crore; CAGR=19%) and engineering goods (Rs. 15,083 crore; CAGR=39%).



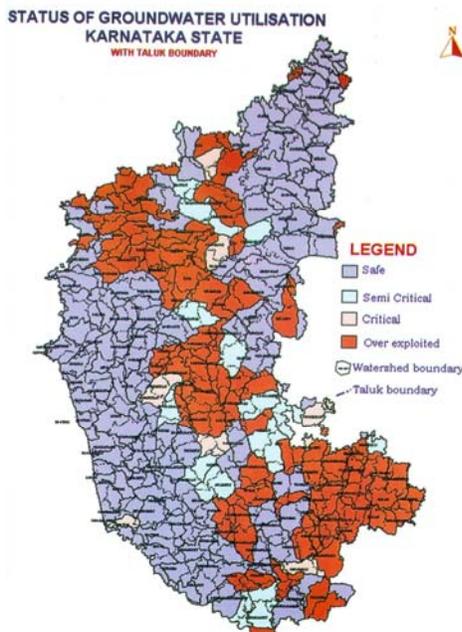
Source: Visveshwaraiah Industrial Trade Centre, GoK

Natural Resources

32. Karnataka is blessed with rich and diverse natural resources. 60% of the Western Ghats run through the State, showcasing immense natural beauty. Around 30.7 lakh hectare (16.1% of the State's geographical area) is covered by forests^{xii}. The State is home to world-famous sandalwood and rosewood trees, hosts 5 National Parks and 21 Sanctuaries and ranks 4th among all States in respect of area under tree cover^{xiii}. However, the Western Ghats have now been classified among the world's critical bio-diversity hot-spots – a bio-

Nearly 70% of the states geographical area falls under 'arid' and 'semi arid' climatic zones, where rainfall is scanty and average temperature is high

Due to overexploitation, the groundwater balance available for future development has fallen from 9.7 lakh HAM in 1992 to 6.5 lakh HAM in 2004

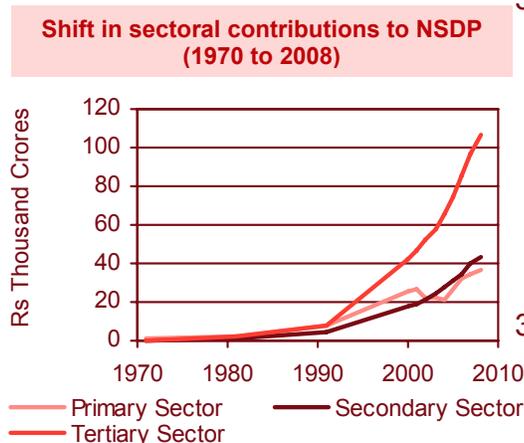


Source: Department of Mines and Geology, GoK

geographic region with a significant reservoir of biodiversity that is threatened with destruction.

33. The occurrence and distribution of rainfall in the State is highly erratic and varies from a low of 569 mm in the northern plateau region (drought prone districts of Bijapur, Raichur and Bellary) to as high as 4029 mm in the coastal region. Though the normal annual rainfall in the State is 1138 mm, received over 55 days, about 2/3rd of the State's geographical area receives less than 750 mm of rainfall^{xiv}.
34. With over 10 lakh wells, the increase in bore wells and overdraft has led to rapidly falling groundwater levels. The total replenishable groundwater resources has reduced from 16.3 lakh hectare metres (HAM) in 1992 to 15.3 lakh HAM in 2004, with the draft of groundwater increasing from 4.1 lakh HAM to 10.7 lakh HAM during the same period^{xv}. Ground water sources that include open wells and bore wells have emerged as the largest source of irrigation in the State irrigating 45% of the net irrigated area. In about 124 taluks ground water exploitation levels are above 70%, including 22 taluks that have reached critical levels of groundwater exploitation. Unless arrested, continued use of groundwater will have severe impact on the environmental and ecological balance of the regions.
35. The State has seven river systems and the total annual availability of water from these basins is 7663 TMC. Of this, the ultimate economically utilisable water potential for irrigation in the State is around 1695 TMC^{xvi}. The west flowing rivers account for 58% of this average annual availability but almost 80% of the water from these rivers is not utilisable for irrigation due to topographical and environmental constraints. In addition, Karnataka has 36,700 tanks with a total atchkat area of 4 lakh hectare. The State also has about 1100 other minor surface irrigation structures that include barrages, bridge cum barrages, anicuts and pickups, lift irrigation schemes etc.
36. The major minerals available in the State are iron ore, gold, manganese, limestone, dolomite silver and shale. There are around 235 mines in the State. During the 10th Plan period Karnataka exported iron ore and minerals worth Rs 21,299 crore, growing at a CAGR of more than 60%^{xvii}.

Development imperatives in Karnataka



Source: Directorate of Economics and Statistics, GoK

37. A look at Karnataka’s development trajectory in the past few decades shows that its economy has grown at around 6%. There has been a sectoral shift in terms of its composition, with the tertiary sector overtaking the primary sector as the major contributor to economy around the year 1990 (see figure). However, Karnataka’s economic growth is not translating into a commensurate improvement in poverty reduction.

38. In this section, we briefly analyse Karnataka’s existing development model from a human development perspective to outline the principal issues that require attention for a broad-based and inclusive growth in the State.

Human Development

Human development looks at poverty as a deprivation of basic capabilities

39. In recent times, the concept of human development has found growing acceptance in national and international policy circles. Contrary to a predominant occupation with economic growth of nation-states that earlier theories of development emphasised, the focus here is on building capacities and creating societies where individual potential can be realised. According to noted welfare-economist Amartya Sen^{xviii}, development has to be concerned with advancing human well-being and human freedoms. This conception of development looks at poverty as ‘a deprivation of basic capabilities rather than merely low income’ and, therefore, argues in favour of enhancement of substantive freedoms, which provide an individual with the capabilities to choose a life she/he has reason to value, as the main objective and primary means of development. Substantive freedoms are seen as constituting – the opportunity/capability to achieve, the scope for autonomy in individual choices and immunity from interference by others^{xix}.

40. Human development can therefore be looked upon as **“the process of enhancing individual and collective quality of life in a manner that satisfies basic needs (as a minimum), is environmentally, socially and economically sustainable and is empowering in the sense that the people concerned have a substantial degree of control over the process through access to the means of social power”^{xx}**. According to the UNDP, the idea of human development embodies the objective of

expanding the range of people’s choices and creating an enabling environment for people to attain important capabilities of leading a long, healthy and creative life, to participate in decision making, with a focus on poor and the marginalized.

Economic Growth and Poverty Reduction

Growth and equality in East Asian development

East Asia and to a lesser degree Southeast Asia adopted an essentially common core of policies and institutions, including at an early stage emphasizing agricultural development and education until the take-off point was reached and then gradually opening up their economies by encouraging trade and capital inflows to acquire state of the art technology while maintaining macroeconomic stability.

The economies of East Asia were able to achieve rapid growth without an increase in inequality during the late 20th century. High rates of growth provided resources that could be used to promote equality, while high degree of equality helped sustain the high rates of growth.

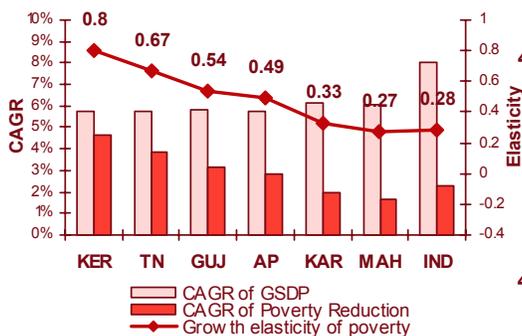
Source: Stiglitz 1996, Thorbecke and Wan Jr. 2004

41. From a human development viewpoint, the nature and composition of economic growth is as important as the aggregate growth in incomes of nation-states. This is because aggregate income growth figures do not explicitly reveal which people have been better or worse-off. When capability enhancements of people is the principal objective desired to be achieved through development policy, the starting point has to be people, especially those whose freedom to choose a life that they would value, is compromised because they remain trapped in various manifestations of poverty – economic, social and political.

Growth-Inequality-Poverty

42. The relationship between inequality, poverty and growth has been the centre of several research studies, though a definitive clarity is still elusive. A recent body of research explains a somewhat evident yet novel policy conclusion: **“the rapid elimination of absolute poverty, under all forms, is a meaningful goal for development”** and to achieve this goal a “strong, country specific combination of growth and distribution policies” is needed^{xxi}. It is suggested that poverty can be reduced by increasing income (growth) or a better distribution (inequality). Instead of focusing on growth alone to reduce poverty, **policy makers must focus on both reducing inequality and enhancing growth at the same time**. All this underscores the centrality of growth that is both sustained and inclusive.

Growth elasticity of poverty (1983-84 to 2004-05)



Source: Central Statistical Organisation; Planning Commission. Gol

43. Some successful economies of East Asia, (see box), were able to achieve rapid growth without increase in inequality in the late 20th century. High rates of growth provided resources that were used to promote equality, while high degree of equality helped sustain the high rates of growth.

44. The reality of how Karnataka has fared in terms of poverty reduction highlights the problems inherent in aggregate growth policies. Even though the GSDP has grown at a CAGR of 6% between 1983-84 and

2004-05, poverty has reduced at a CAGR of 2%, indicating a growth elasticity of poverty of 0.33 for Karnataka. This, while being close to the country's average at 0.28, is lower than neighbouring States like Kerala (0.80) and Tamil Nadu (0.67). These States have been more successful in integrating economic growth with faster reduction in poverty. It is also important to note that according to NSSO surveys, the absolute number of persons in the bottom four MPCE classes in the State, has actually grown from around 1.97 crore in 1993-94 to 2.39 crore in 2005-06

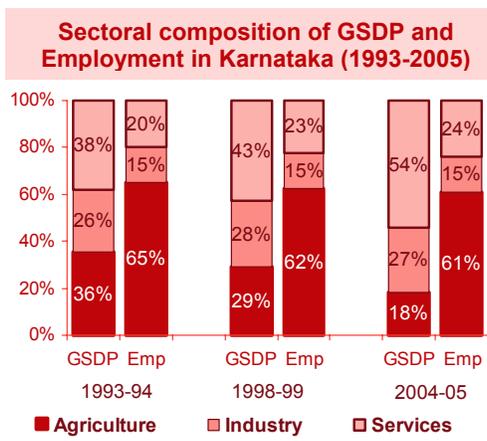
Growth-Employment-Poverty

Capability enhancement of poor is required to integrate them into the workings of an expanding economy

45. It is argued that the starting point for any programme of sustained poverty reduction must be the expansion of an economy's production potential, as determined by the growth of its labour force, accumulation of human and physical capital, and technological progress^{xxii}. Only such an expansion can create the basis for sustained increase in the incomes of everyone, including the poor. For a while, of course, redistribution of existing income can help alleviate poverty to some extent; and to the extent that this is possible without seriously compromising the growth potential of the economy, redistributive measures should certainly be undertaken. But it is reasonably clear that **sustained increase in the income of the poor must be underpinned by sustained growth of potential output.**
46. Given any shift in the production potential, the next parameter that has a bearing on the income of poor is the employment potential, which reflects the extent to which growth in output expands the scope for improving the quantity and quality of employment. The greater the expansion of employment potential, the greater the opportunity for reducing underemployment and raising the returns to labour – the two proximate causes of poverty (ibid.). The growth elasticity of employment potential is, therefore, an important intermediate variable that shapes the extent to which growth of the overall economy translates into higher incomes of the poor.
47. A high elasticity of employment, however, does not necessarily entail higher incomes of the poor. All it does is to allow the working population as a whole to reduce their unemployment and underemployment and raise their returns to labour. There remains the question whether the poor are able to take this

opportunity or whether it is grabbed mainly by the non poor workers, or even whether the opportunities are seized at all. Much depends on whether the poor possess the capabilities that will enable them to integrate fully into the workings of an expanding economy. These capabilities are primarily at the level of skill and associated endowments of the poor and whether they are consistent with the requirements of increased employment opportunities.

48. Most of the poor in traditionally agrarian societies, such as Karnataka's, are employed in the primary sector and unless their existing skills are upgraded through adequate training, their employability in other productive sectors would not be possible. Alongside improvements in skill-sets, there are other important issues such as proximity to new centres of employment, that require attention if the poor are to exploit the benefits of a high growth elasticity of employment potential. In their absence, this high elasticity translates to increasing inequalities and manifestation of regional and other social dimensions (e.g., feminisation) of poverty.



Source: CSO for GSDP; NSSO 50th and 61st round

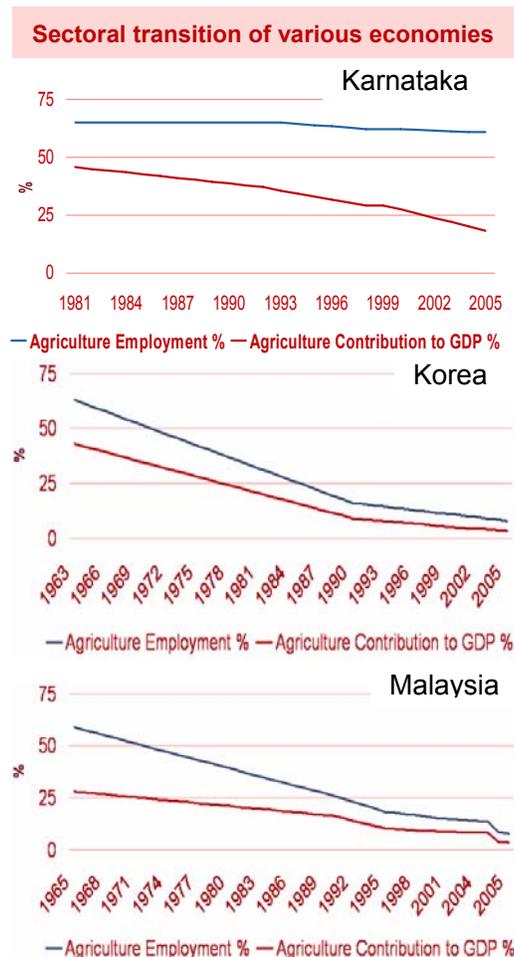
Karnataka's predicament

49. While Karnataka's GSDP has grown at a decent rate of 6% between 1983-84 and 2004-05, this has not translated into an equally impressive growth in its employment potential. While the share of the State's income has been shifting rapidly away from agriculture, the employment potential of the growing industries and services sectors has not been impressive (see adjoining figure). Employment in agriculture hardly decreased from 65% to 61% in the period 1993 to 2005, whereas its GSDP contribution halved from 36% to 18%. This means that a disproportionately high number of workers in the State depend on this sector for their livelihood. This is indicative of issues such as underemployment and low returns to labour for a large proportion of the labour force of the State.

50. Moreover, agricultural productivity in Karnataka has not seen any appreciable improvements (almost one-fourth of the total cultivable area in Karnataka is under ragi, bajra and jowar but, increase in their yields over the past 50 years has been at a CAGR of only 0.6%, 1.1% and 1.8% respectively) which has contributed to a low growth rate of agricultural sector

in the preceding decade (0.8% between 1993-93 and 2004-05).

51. Increasing workforce in agriculture has also led to fragmentation and reduction of individual land holdings to below economical size. **Around 70% of rural households in the State have land holdings of less than 1 hectare (ha)**^{xxiii}. The average size of operational holdings has nearly halved from 3.20 ha in 1970-71 to 1.63 ha in 2005-06^{xxiv}. Moreover, close to half of the landholdings are marginal with an average size of 0.45 ha and their uneconomical size has adverse effects on land productivity. Movement of workers out of agriculture into more productive sectors will help ease pressure on land, improve overall productivity, and increase incomes for those remaining in the sector.

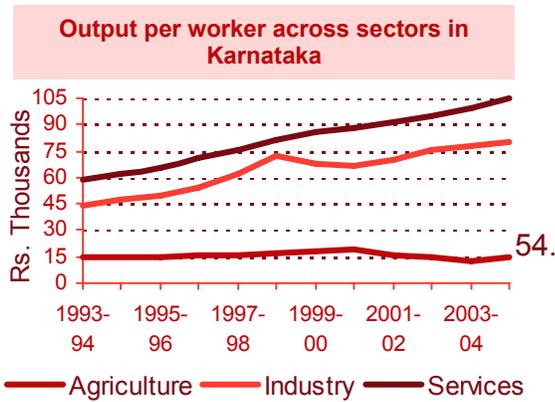


Source: World Bank, Bank of Korea, Govt. of Malaysia; CSO and NSSO

52. The misalignment between agricultural output and employment is contributing to stagnant, and in certain cases, declining real incomes for a significant proportion of the State’s workforce and is a major cause of its poor performance in poverty reduction. Countries like Korea and Malaysia also had a predominantly agricultural economy and employment in the 1960s: Korea’s agriculture contributed to 43% of the GDP and 63% of employment in 1963, these have declined to 3.4% and 7.9% respectively in 2005; similarly Malaysia’s agriculture contributed to 28% of the GDP and 59% of employment in 1965, and they have declined to 8.2% and 13.3% respectively in 2005. These countries have rapidly been able to align their employment structures to the shifting nature of GDP composition through policies for equitable distribution of growth including thrust on universal literacy and skill development of the workforce, female education, reduction in poverty etc. and this is what the State should aspire for.

Sectoral perspectives of Karnataka’s development

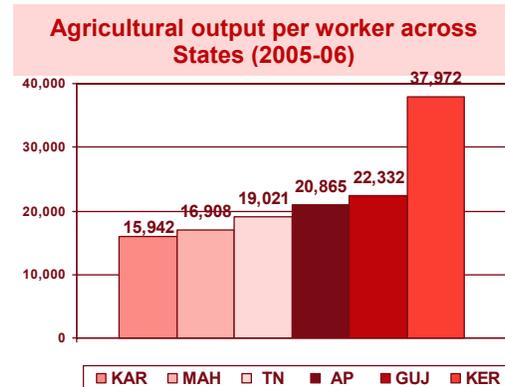
53. The misalignment of sectoral output and employment in Karnataka has led to a skewed pattern of growth where a large proportion of the workforce has not been able to experience an appreciable rise in their real incomes for the last two decades. This translates to their continuing entrapment in poverty and the consequent deprivation, poor social mobility and low quality of life. On the other hand, people associated with the growing industry and services sectors have been



Source: CSO for GSDP (at 1999-00 constant prices), NSSO for employment

able to significantly enhance their incomes and able to afford a better life over these years. This conflicting trend in growth patterns of different sections has contributed to increasing disparities in the State which is evident from the way output per worker has changed in the various sectors.

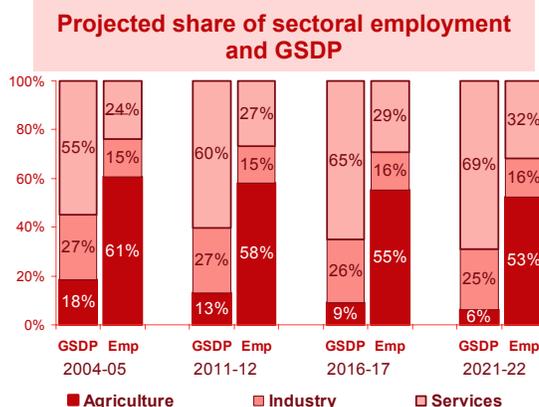
54. While output per worker in agriculture changed from Rs. 14,600 in 1993-94 to Rs. 15,000 in 2004-05 (at 1999-00 prices), it grew at a much faster rate in services – from Rs. 58,500 to Rs. 1,05,000 (see adjoining figure). This means that the **ratio of output per worker in services to agriculture has increased from 4.0 to 7.0 during the last decade.** If the existing trends in sectoral growth and employment absorption continue, this ratio will increase further to over 16 during the 13th Plan period (2017-22) and disparities in the State's workforce will worsen (refer Table 1 in Annexure).



Source: CSO for GSDP, NSSO for Employment

55. Not only is the agricultural output per worker in Karnataka low when compared to its service sector, it is also the lowest amongst other comparable States (see adjoining figure on agricultural output per worker across States).

56. A projection of the sectoral shares of employment and economic output reveals that the misalignment of output and employment continues to intensify if current trends continue. At the end of 13th plan (2022), agriculture will employ around 53% of the State's workers, but contribute merely 6% of the GSDP (see adjoining figure). This means that more than half of State's workforce will continue to get low and reducing returns to labour and they will not be able to participate in the State's economic growth and progress. This must be recognised and addressed at the earliest.



Assumption: Trends for growth in GSDP and employment to follow trends of past 12 years

57. **The primary focus of development policy in Karnataka, therefore, has to be on balanced growth ensuring better sectoral output employment ratio.** This requires creation of employment opportunities in the non-farm sector – both in industry and services that are more productive and offer higher returns to labour. This further requires that an enabling environment in terms of infrastructure availability, policy and procedures is made available for the growing sectors in industry and services so that they have incentives in enhancing their employment base. To enable the poor to benefit from this opportunity, a renewed

thrust on availability of appropriate facilities for healthcare and education for relevant skill development will be needed. Moreover, in order to make the opportunities accessible to all, the human development indicators of women and other vulnerable groups in the society have to be brought on par with rest of the population.

58. Various scenarios have been worked out in Tables 1(a) and 1(b) of the Annexure to show how the output per worker in agriculture and services would vary based on respective sectoral growth rates and shares of employment. The State will have to adopt a development trajectory which involves significant alignment in its employment structure to arrest growing disparities amongst its people dependent on various sectors for livelihood.
59. With these key development imperatives in Karnataka as the founding block, the next section spells out the major elements of a Vision for the State's transformation.

Section III

A Vision for Development of Karnataka

Sarve bhavantu sukhinah | Sarve santu
nirāmayāh

Sarve bhadrāni paśyantu | Mā kaścit dukha
bhāgbhavet ||

Happiness be unto all
Perfect health be unto all
May all see what is good
May all be free from suffering



A Vision for Development of Karnataka

Why have a vision?

“I would however, place a far bigger importance on another connectivity effort ... Connectivity of the Hearts and Minds of one billion Indians. No nation has ever attained greatness without first attaining success in the awakening and organising of the whole strength of its people”

***Shri Atal Bihari Vajpayee,
Former Prime Minister of India, Jan 2002***

60. A vision for Karnataka is a useful starting point and foundation for contemplating future possibilities and its destiny as a State. It can further serve to identify and illumine the broad lines of policy and strategy by which the State can emerge as a more prosperous and more equitable society in the coming years. But, most importantly, an inclusive and shared vision can connect the people of the State into achieving “unity of minds, unity of purpose and unity in action.”

61. Based on a perspective view of the social, economic and historical foundations of the State , the following are identified as core elements for achieving the vision of a peaceful and prosperous Karnataka:

Core Elements of Karnataka’s Vision 2020

- **Ensure safety and security of all citizens and uphold peace and communal harmony in the State**
- **Eliminate poverty and deprivation at all levels and achieve Millennium Development Goals (MDGs)* by 2015**
- **Enhance human capabilities to promote equitable growth covering all sections of people and regions of the State**
- **Make Karnataka a globally competitive destination and a leader among Indian States**
- **Institutionalise good governance across the State through enhanced transparency, accountability and participation**

* See Annexure for brief on MDGs

How to achieve the vision?

62. Twelve key “transformations” are identified which will predicate future policy and strategic imperatives that should drive Karnataka towards actualising the aforesaid vision.

Twelve key areas of transformation to achieve Vision 2020

1. Increase **rural incomes** through greater viability of agriculture and allied activities
2. Focus on **job-oriented growth** through concomitant **skill development** of the workforce
3. Develop the state as a vibrant **knowledge society**
4. Improve access and availability of quality **healthcare** for all
5. Achieve a sustainable and orderly process of **industrialisation and urbanisation**
6. Enhance opportunities and **empower women** across economic, social and political spheres
7. Bridge the gap between **socially backward and vulnerable groups** and the rest of the people
8. Improve **energy availability** and **develop infrastructure** to boost productive potential of economy
9. Preserve and promote Karnataka’s rich **cultural heritage**
10. Ensure sustainability of the state’s **environment and natural resources**
11. Build and sustain **Bangalore’s** global leadership in science, technology and knowledge based industries
12. **Improve governance** through wider participation and deep democratic **decentralisation**

“Karnataka is a safe and peaceful State in the Indian map. This atmosphere has to be complemented with creative tasks and mission, to empower the people of Karnataka for economic prosperity”

***Dr. A.P.J. Abdul Kalam,
Former President of India, Nov 2005***

63. In an address to members of the Karnataka Legislative Assembly in 2005, the then President of India, Dr. A.P.J. Abdul Kalam highlighted the following focus areas for the State's overall development, derived from an analysis using the Development Radar approach of Planning Commission, Govt. of India.

- Eradication of poverty to 0%,
 - Increase in per capita incomes and expenditure,
 - Provisioning of safe water for all citizens,
 - Improvements in literacy, formal education and life expectancy,
 - Reduction in infant mortality rate and
 - Pucca houses for a large proportion of the population.
- These have been included in the transformations proposed.

1. Increase rural incomes through greater viability of agriculture and allied activities

“There is a strong correlation between agrarian prosperity & demand for manufactured goods and modern services across the country. This visible correlation tells us that the route to sustaining high economy-wide growth rates has to be through accelerated agricultural development”

**Dr. Manmohan Singh,
Prime Minister of India, Oct 2006**

Improve overall viability of agriculture

64. Over the past few years, agriculture and allied activities have increasingly become unviable as an occupation, especially for the small and marginal farmers in rain-fed areas of Karnataka. Together with marginal agricultural labourers, they constitute almost 40% of the State’s rural workforce and so it is crucial to initiate steps that improve the economic status of this section of the State’s society. The problems may be attributable to a wide range of causes, but the end result is that there are large tracts where farmers seem to be in acute distress. The deficits which need to be bridged are public investment and credit investment, the infrastructure deficit, the market economy deficit and the knowledge deficit.

65. The challenges in agriculture are complex and the focus therefore needs to be on an inter-sectoral approach. The basic strategy for agricultural development must be based on improving the real incomes and quality of life of the farming community. The following steps will be taken to rejuvenate agriculture:

(i) The prescriptions of the State Agriculture Policy and Karnataka State Agriculture Mission to revitalise the agriculture sector will be followed vigorously.

(ii) The State will focus on bridging yield gaps by enhancing productivity through appropriate investments in R&D. Steps will be taken to encourage the practice of organic farming within the State.

(iii) Institutional arrangements for capacity building at all levels will be improved through adoption of demand-based extension services with involvement of community and private organizations.

(iv) A conducive environment to enable better price discovery and mechanisms to reduce risk will help farmers to plan their activities in a better way. They will be assured further by improved functioning of agriculture markets through efficient intermediation.

Low and stagnant agricultural yields in Karnataka

Karnataka’s yield in total food grains at 1577 kg/ha in 2005-06 was lower than the India average at 1708 kg/ha. The neighbouring Andhra Pradesh had a relatively much higher yield at 2356 kg/ha.

Yields of most coarse cereals in the state have almost remained stagnant. For example, the yields of ragi, bajra and jowar, which occupy almost one-fourth of the total sown area, have increased at a meagre CAGR of 0.6%, 1.1% and 1.8% respectively in the past 50 years.



Source: World Development Report 2008

(v) The State will focus on development of appropriate infrastructure – both for linking terminal market to production centres and augmenting storage and processing capacities for farm produce across the State to reduce wastage and facilitate value addition for agriculture, horticulture, dairy and marine produce. The State will evolve a logistics model that reaches out to the potential in rural areas, delivers goods and services there in a cost effective manner and provides cost effective access for rural produce to urban markets.

Sustainable and efficient utilisation of water resources

Participatory Watershed Management

Ralegan Siddhi village in Ahmadnagar district of Maharashtra typified rainfed agriculture. With an annual rainfall range of 50-700mm, it was an archetypal drought prone area. Groundwater table was below 20m, only 20 ha of land was irrigated and over 70% of the households were living below the poverty line. PWSM was initiated by involving the entire community and utmost importance was given to renovation, resurrection and management of four watersheds in the village. The process involved a judicious mix of mechanical and vegetative structures, drainage system, trenches, check dams, drainage plugs, percolation tanks and reforestation by planting over 5 lakh saplings. Voluntary labour by the villagers stood out as the major factor in the process of rainwater harvesting. As a cumulative result of all this, groundwater was recharged to a substantial extent and was available throughout the year at 6.5m depth and irrigation potential increased manifolds to 2800 ha.

Source : FAO

66. To improve efficiency in water use, the focus needs to shift from yield per acre to yield per unit of water consumed. The State's ultimate irrigation potential from surface water is 45 lakh ha of which a cumulative potential of 73% has already been created. However, there exists a large gap between the potential created and the potential utilised, for which a greater attention will be given to farm end factors involving proper field/distribution channels, levelling of land, maintenance of minor canals and channels. The State will focus on improving irrigation management through better governance and involvement of stakeholders. To achieve this, appropriate policies and legal and institutional frameworks for empowerment of water user associations will be developed and a reorientation in outlook of government agencies towards more decentralised management of irrigation systems will be brought about.
67. The rapidly falling groundwater levels have become a major cause of concern for the State. The State has been contemplating improved regulation and a draft Groundwater Regulation bill is under review. Meanwhile, the Planning Commission has come out with guidelines to address critical issues in groundwater abstraction and recharge. The State will respond to this critical issue with up-to-date and appropriate measures. The State will also adopt comprehensive watershed management and rainwater harvesting strategies to improve productivity of rain-fed areas.
68. To face the challenge of inadequate water resources, the State will adopt integrated water resources management in an interdisciplinary, holistic and consensual manner. In this direction, the

Over 76% of the state's net sown area needs watershed treatment

Karnataka's Jal Nirmal Project

The Jal Nirmal Project follows a demand responsive participatory approach and strengthens the decentralisation process by empowering the lowest level Panchayat Raj Institutions (PRIs). The community assumes control of the planning, implementation and operation & maintenance of the water supply and sanitation facilities in rural areas. The PRIs provide a politically, legally and institutionally supportive environment to implement the reform process. Emphasis on devolution of responsibilities to grass root level under the project is resulting in creation of sustainable community based water supply systems in 11 districts in the northern areas of the state.

Source : <http://www.jalnirmal.org/>

State will urge every PRI and ULB to come forward with a water conservation strategy. They, too, must engage in ground water recharge and the renovation and maintenance of existing water bodies.

Improve quality of rural infrastructure

69. The lack of access to basic services and infrastructure in rural areas points to a need for massive intervention by the State. The State will, therefore, focus on an all-round improvement in its rural infrastructure. Investments for adequate availability and improved delivery of all basic services such as housing, safe drinking water, sanitation and electricity in rural areas as well as for improved road and communication infrastructure for better linkages with urban areas will be mobilized.

70. The last Census survey reported that almost two-thirds of rural houses in Karnataka are not in a 'good' condition and so financial and technical assistance for improving availability and quality of rural housing will be increased. It is important to ensure that all persons get safe and potable water for drinking from surface water sources. The State's Jal Nirmal programme has yielded good results in ensuring availability of drinking water for 700 gram panchayats spread over 11 districts and this model will be extended to cover all areas where quality and quantity of water supply is still a concern. Open air defecation and improper drainage arrangements are responsible for spread of many diseases in rural areas. Under the Total Sanitation Campaign, some districts have been able to achieve good progress in providing household latrines and the experience gained from these successful implementations will be expanded to all the other areas of the State.

Better employment alignment and opportunities

71. To redress the misalignment between output and employment across various sectors of the State economy, it is necessary to ensure that agriculture again becomes an economically viable activity with improved income prospects. At the same time dependence on agriculture will have to be reduced by a shift to non farm employment in rural areas. Many nations in the world have been able to improve the income and living standard of their people by ensuring shift in their labour force from agriculture to more productive sectors through appropriately designed policy interventions. The State will ensure

that appropriate measures are taken to encourage the labour force in agriculture to move up the value chain through adequate provision of alternate employment opportunities and development of their capabilities.

72. The State will ensure that employment opportunities are created in labour-intensive sectors of industry and services to facilitate the transition of 2-3 lakh persons every year for the next 15 years. By 2020, only about 35-40% of the total workforce will remain in agriculture as opposed to over 61% today. In this regard, Micro, Small and Medium Enterprises will be promoted since they play an important role in ensuring that the processes of economic growth is employment friendly and reduces regional imbalances.
73. This will ensure that the trend of growing disparities gets reversed and the State moves towards more equitable distribution of incomes and wealth.

Targets for 2020

Indicator	Current level	Goal (for 2020)
% of workers employed in Agriculture	61%	35-40%
Output per worker in agriculture (in Rs @1999-00 prices)	15000	37000
Agricultural Growth Rate	0.8% (1993-2005)	3 - 4%
Developmental expenditure in Agriculture as a share of Agricultural GSDP	≈8%	12-16% (as per Planning Commission recommendation)
Yield of coarse cereals (kg/ha)	1277	3500 (Growth at 5% from high of 1699 kg/ha in 05-06)
No. of farm schools (as per recommendations of the National Commission on Farmers)	≈40	All gram panchayats (≈5628)
No. of Agriculture Technology Management Agency (as per recommendation of National Commission on Farmers)	9	One for each district
Cold storage capacity ('000 MT)	250	4800 (to store 33% of horticultural and 10% of all other farm produce)
Milk processing capacity ('000 litres per day)	4200	10000 (benchmark with GUJ and MAH)
Achievement of ultimate irrigation potential	49% (≈30 lakh ha out of 61 lakh ha)	>90%
Rural Poverty Level	20.8% (2004-05)	<5%
'Good' condition houses in rural areas (as per Census classification)	36.15% (2001)	75%
Rural habitations with access to adequate quantity (55 lpcd) of potable water	27% (2001)	100%
Rural households with latrines	≈17% (2001)	100%

2. Focus on job-oriented growth through concomitant skill development of the workforce

Only 8% of the population reaching 18 years enroll for skill development courses in Karnataka

74. One of the greatest challenges facing the country and the State is the challenge of building capabilities of its population. Educated, skilled, healthy and empowered people are an asset to the State. Therefore, the challenge is to ensure that every citizen of the State is an asset and can participate productively in the growth process of its economy.
75. A large proportion of the State's workforce continues to remain in traditional and low-productive sectors and this translates into low income and slow reduction in poverty levels. In order that the poor are able to enhance their capability and benefit from emerging opportunities, they will have to possess appropriate skills and competencies. A skilled workforce and higher labour productivity will propel growth rates in respective sectors. The State will formulate its own employment policy to facilitate generation of adequate employment opportunities through an appropriate policy framework.
76. As per 61st Round of NSSO survey, only 3% of rural population and 16% of the urban population have a degree, diploma or a certification in Karnataka. This means that large proportion of the State's population has not pursued higher education, nor have they been formally certified for a skill. The State will, therefore, be required to undertake massive efforts for skill development of its workforce through involvement of all sections of the society. Realising this, the State has already set up a Skill Commission aimed at empowering all individuals through improved skills, knowledge and internationally recognized qualifications to enhance their access to productive employment opportunities.

Education system to reflect changing employment demands

77. The change in Karnataka's demographic profile will lead to an increase of around 45 lakh people in the workforce in twelve years from 2008 to 2020. This increase in workforce, along with the need to move a significant proportion of the existing workforce up the value chain will require creation of substantial employment opportunities in the more productive sectors of industry and services, and reduce the dependency on agriculture.

An estimated 1150 new skill development institutes will be required over the next 10 years

Upgradation of ITIs through Public Private Partnerships (PPP)

In the Budget Speech 2007-08 Union Finance Minister announced a scheme for upgradation of 1396 Government ITIs into centres of excellence in specific trades and skills through PPP. For each ITI to be covered under this Scheme, one Industry Partner will be associated to lead the process of upgradation in the ITI. The Industry Partner will be identified by the State Government in consultation with Industry Associations. An Institute Management Committee (IMC) will be constituted / reconstituted for each selected ITI. The IMC will be converted by the State Government into a Society under relevant Societies Registration Act. The IMC will be entrusted with the responsibility of managing the affairs of the ITI under the Scheme.

Source: <http://www.dget.nic.in>

Construction Industry Development Council (CIDC)

CIDC has been set up jointly by the Planning Commission, Government of India and the Indian construction industry. It is the representative organization of the Indian construction industry and seeks to further its collective interests. CIDC provides excellent HRD programs for the construction industry. It has established 17 training centres across the country with adequate facilities and they offer various programmes and courses for training construction workers. It has been identified as the nodal agency for certification of construction workers. It has also influenced government agencies to include favourable clauses related to skill development of workers in their bid documents.

Source : <http://www.cidc.in/>

78. Karnataka has a good education base at the primary level and has almost achieved the targets of universal primary education. The State will now endeavour to universalise secondary education and introduce skill development courses within the secondary curriculum. Schools will be equipped with the requisite resources for enabling them to impart good quality skill training.

79. New polytechnics, ITIs and vocational education institutes in the State will be set up and the capacity of existing institutes will be augmented and the curriculum aligned with the requirements of the State's industries.

80. The State will vigorously follow the contours set by the National Skill Development Mission, which aims at expanding the public sector infrastructure for skill development and its concomitant utilisation, by exploring possibilities of partnering with private agencies for ITIs, polytechnics and vocational training centres.

Creating institutional mechanisms for skill development

81. Through a close coordination with private and community organizations, growth sectors, new employment opportunities and skill deficit and requirement will be identified for different regions in the State.

82. The government will facilitate active industry participation in course designs and resource mobilizations through promoting enabling institutions like the Construction Industry Development Council. The State will also set-up a Council for Vocational Education and Research for regional mapping of demand and supply of available and projected skills and aligning training institutes to area specific industry and services clusters.

83. The State will ensure that all its key departments explicitly focus on the various dimensions of employment – new employment creation, skill deficit, training etc. while formulating their schemes and plans.

84. To address the concerns of lost incomes during the training duration, the State will institute scholarships for needy students who take up skill development courses at the secondary or post-secondary levels. Students from farming background

will be particularly incentivised to take up such courses.

85. Efforts will also be taken to align the State's skill development programme with the objectives of Government of India's Skill Development Initiative Scheme which is based on Modular Employable Skills and aims to provide certifications in one of the 200 identified employable skills.

Targets for 2020

Indicator	Current level	Goal (for 2020)
Proportion of students in the 16-18 age-group receiving skill training through ITI/ Polytechnics, VET and Modular Employable Skills	8-10%	45%
Proportion of students in 14-16 age-group receiving skill training during secondary education	Currently not in curriculum	15%
Access to skill training institutes	No norms exist	100%
Literacy Rate	67%	100%
No. of skill training institutes in state	≈1500	2700

3. Develop the State as a vibrant knowledge society

“Real education has to draw out the best from the boys and girls to be educated. This can never be done by packing ill-assorted and unwanted information into the heads of the pupils. It becomes a dead weight crushing all originality in them and turning them into mere automata.”

Mahatma Gandhi

86. Karnataka has been home to many reputed institutions of higher education and research. In the past few decades, the State has also created a niche for itself in knowledge intensive sectors such as space technology, electronics and computer software, biotechnology etc. The State needs to build on these capabilities to sustain and enhance its competitive advantage. To be a centre of learning, expand the frontiers of knowledge and usher in a vibrant knowledge society, however, would also require an effective application of knowledge in sectors like health, agriculture, rural development, small scale industries etc. for improvements in overall quality of its people’s lives. The State has already constituted the Karnataka Knowledge Commission with an overall mandate to build excellence in its entire education system with thrust on improvements in quality and relevance of content and delivery at all levels.

Focus on improving quality in school education

87. The State realises that a school is a microcosm of a larger society, since our future is mirrored in today’s classrooms. The State has already ensured physical access to schools and given the demographic transition underway in the State, the focus now has to be more on improving the quality of education. Improvement in the standards of teaching and learning particularly with regard to Kannada, English, Maths and Science subjects will be emphasised. The State will work towards augmenting and orienting the existing curriculum, pedagogy and evaluation methods in its schools.

88. School curriculum will be suitably modified to include locally relevant content that children better relate to and make the learning process more enjoyable (see box on ‘Nali kali’). Course design will be such as to orient students towards independent and continuous learning. Further, care will be taken to ensure school curriculum does not reinforce existing social inequities based on gender, caste and religion. Activity-based learning will be encouraged where children learn to apply what they learn. Adequate attention on physical education and sports will also be provided from the school level. Guidelines will be issued to SCERT to bring about

Nali Kali (joyful learning) in Karnataka

The Nali Kali approach to learning was introduced in H.D. Kote taluk in Karnataka in 1995, inspired by rural schools run by the Rishi Valley Rural Education Centre, Andhra Pradesh. It is a system of ‘competency based learning’ inclusive of activities which facilitate art and craftwork, puppet shows, story telling, etc. The learning method is such that the child is able to independently trace his/ her progress in the subject and choose his/ her activity. As the child completes an activity, he/ she himself plots the progress in the learning chart. In this learning process, the teacher plays the facilitator to the child.

Nali Kali is today used for teaching class I and II in about 14,000 schools in Karnataka. This teaching system is likely to be extended to class III and IV as well.

these modifications in the school curriculum. DIETs and SDMCs will be involved to design locally relevant components.

89. A relevant curricular design at the school level will ensure an early exposure of children to diverse bodies of knowledge in health and hygiene, agriculture and small-scale industries and crafts etc. This will lay the foundation for greater dissemination and application of knowledge across various sections of the State's society.
90. Appropriate pedagogical adjustments will be made to ensure that children look up to teachers as 'facilitators' and mentors rather than as mere 'instructors'. Teacher training systems will be strengthened by capacity creation in the DIETs and use of Information and Communication technologies. The National Curriculum Framework 2005 has expressed concern with the present method of treating examination results as the sole criterion for judging quality. It recommends a shift from the existing system where the child is perceived as a 'receiver' of information to one where he/ she can 'construct' knowledge. A process for continuous evaluation will be instituted and evaluation systems will be suitably modified to encourage independent thinking rather than rote-memorising. Wherever required, recent advances in technology will be leveraged to augment traditional teaching methods.
91. Focus will also be on improving the quality of school infrastructure through involvement of private and community organizations.

European Credit Transfer and Accumulation System (ECTS)

Introduced in 1989, ECTS is a student-centred system based on the student workload required to achieve the objectives of a study programme. These objectives are specified in terms of learning outcomes and competences acquired. ECTS facilitates mobility and academic recognition, helps universities organise their study programmes and can be used across a variety of programmes and modes of delivery. ECTS has made higher education more attractive for students.

Some salient features of ECTS :

- Credits are allocated to all components of a study programme (e.g. modules, courses, placements, dissertation work, etc.) and reflect the quantity of work each component required to achieve and its specific learning outcomes.
- Credits in ECTS can only be obtained after successful completion of the work required and appropriate assessment of the learning outcomes achieved.
- Student workload in ECTS consists of the time required to complete all learning activities like, attending lectures, seminars, independent and private study, preparation of projects and examinations.
- Performance of the student is documented by a local/national grade. The ECTS grading scale ranks the students on a statistical basis.

Thrust on enriching higher education

92. It is essential that students in universities are exposed to various fields of study. Such education will give them new perspectives and will influence the way they perceive issues. However, even with the availability of different courses of study, there would be little cross learning if not facilitated by the structure of programmes offered by the universities. To facilitate cross learning, universities will be encouraged to shift from the existing 'plate-meal' approach where courses for each programme are fixed to a 'cafeteria' approach where students have opportunities to choose from a variety of courses under broad guidelines (see the adjoining box for a related initiative in Europe).

93. Students should be given flexibility not only to choose courses within the University but also to take up exchange programmes in national/ international universities. Further, since higher education is pursued at a time where students have begun to take on family and personal commitments, the programmes should be designed such that the student can take a break from education and rejoin later on. It is also suggested that universities transform the existing system of having a one-time evaluation at the end of the year. The system of evaluation should be a continuous process with emphasis on testing understanding and application rather than rote learning.
94. The State will work towards transforming its Universities into centres of excellence. While promoting research initiatives, the State will hope that centres of higher education explore and promote possible avenues of synergies between research and teaching since investment in R&D can alone stand guarantee for sustained economic growth for the future.
95. The State will facilitate greater interaction between the industry and academia through creation of appropriate structural interface like Industry-University Councils. In line with a similar national initiative, the State will set-up a knowledge network to connect all the University libraries and ensure that they have access to relevant national and international publications.

Targets for 2020

Indicator	Current level	Goal (for 2020)
Gross Enrolment Rate (Secondary)	59% (SES 2004-05)	≈100%
Drop-out rate during transition from I to X std	>50% (SES 2004-05)	≈0%
Minimum education attainment level as per KSQAO	No norms set	80%
Proportion of schools with all 8 basic infrastructure	<10%	≈100%
Proportion of schools accredited by independent agency	No system exists	≈100%
Gross Enrolment Rate (Higher education)	12%	25%
Proportion of accredited higher education institutes	<30%	100%
Number of Universities in Karnataka	16	≈50 (based on NKC recommendation)

4. Improve access and availability of quality healthcare

Indicator	India	Kar	Ker	TN	AP
Pop growth rate	21.34	17.25	9.42	11.19	13.86
Sex Ratio	933	964	1058	986	978
LEB male	61.6	62.8	70.8	64.2	62
LEB Female	63.3	66.2	75.9	66.3	64.6
CBR	23.8	20.6	15	16.5	19.1
CDR	7.6	7.1	6.4	7.4	7.3
TFR	2.9	2.3	1.7	1.8	2.1
IMR	58	50	14	37	57
MMR	301	228	110	134	195

Source: Various – SRS Bulletins 2002-05, Census 2001

3/4th of the State's PHCs do not conform to Indian Public Health Standards

Mobile hospitals in Argentina

The mobile hospital project aims to take health and health education to the people eliminating the social, economic and cultural barriers that prevent people from having access to a good medical care system. The mobile van converted into hospital houses latest medical equipment and is connected to the hospital database through wi-fi, which enables the mobile consultants to refer to patient history and old reports.

96. The State will strive to be one of the top three States in the country in terms of health index of the HDI and all other RCH indicators. A radical improvement in basic health indicators will be done through a re-haul of delivery systems. The objective is to increase confidence levels of citizens in public health provisioning using innovative schematic interventions and building good public health institutions. Efforts will be intensified to improve the design of health systems, delivery of preventive and promotive medicine and ensure timely access to primary care while strengthening healthcare education.

Increased healthcare financing

97. Countries such as China, Bangladesh and Indonesia have recognised the importance of increasing fund flow into the health sector, along side organisational and management changes to improve service delivery. Health is a State subject. Currently, the State has allocated less than 4% of its total budget to health and family welfare activities. The State will allocate up to 8% of its annual budget to the health sector as per the NHP guidelines. In the present practice of budgetary allocations, there is no clear demarcation of funds according to service components, i.e. preventive, curative, promotive and rehabilitative services. Since the country wide thrust in the current plan period is on primary health care activities such as nutrition, rural health and sustainability, the State will re-align allocations in subsequent budgets.

Thrust on Primary and Secondary healthcare

98. The primary healthcare system in Karnataka has to be realigned as per changing needs. The government will ensure increased credibility in its provisioning of free primary health services in rural areas as well as urban slums by improving accessibility, availability and quality of services. To ensure better delivery the State will enforce Indian Public Health Standards (IPHS) in all the PHCs. It will strengthen the PHCs and first referral units with trained resources and adequate supplies. The State will initiate innovative schemes with non-governmental agencies such as mobile clinics,

Rajiv Arogya Sri, Andhra Pradesh

The scheme 'Arogya Sri' extends multi specialty treatment to BPL families. It entitles them to Rs.1.5 lakh worth of treatment for various diseases. In the first phase the pilot scheme was implemented in 3 districts of AP covering more than 23 lakh BPL people. This programme has currently expanded to 13 districts. Over 90% of the poor in the State, holding white ration cards, have access to free medical treatment for 887 identified diseases. The eligible families can avail free treatment at 320 identified private and govt hospitals.

Chiranjeevi Yojana, Gujarat

The scheme aims to improve the access of poor families in Gujarat to institutional delivery and to give them financial protection from catastrophic health care costs. This scheme of Public Private Partnership (PPP) was formulated to contract private providers to provide delivery care to the poor in rural areas. The scheme started on a pilot basis in 5 backward districts with a total population of 97 lakhs. Under the scheme, the health department empanelled and contracted private practicing obstetricians and gynaecologists who had their own small hospitals in rural areas using a few selection criteria. These private doctors were to provide skilled care for deliveries of poor women and required comprehensive EmOC free of cost in their own hospital. In return the government pays the doctors Rs. 1.6 lakh for 100 deliveries (including treatment of complications), which works out to about Rs. 1600 per delivery.

82% of 6-35 month children in Karnataka are anaemic

ambulances and transport facilities for healthcare workers.

99. The State will significantly augment its secondary care system by improving the infrastructure and strengthening the referral system. The State will ensure that allocation to secondary care will increase from 13% to 35% as per the NHP guidelines^{xxv}.

Better outcomes in tertiary care through partnerships and health insurance for all

100. The tremendous scope to engage NGOs and private sector for direct health service delivery, paramedical services, monitoring, research and evaluation in tertiary care will be explored. This will require the presence of an enabling regulatory regime and the State will adopt relevant recommendations of the Clinical Establishment Bill 2007 as soon as it gets enacted by the Parliament.

101. Public Private Partnerships will also be explored in setting up institutes which use advanced technologies to improve and deliver cost effective health solutions. A Health Management and Research Institute on a PPP model will be set up that supports public health systems run by the government to provide better access to high quality services for the vulnerable sections of the society.

102. The State will explore alternative means of financing the increasing costs of healthcare services consistent with the need and economic profile of beneficiaries. Health insurance is a growing sector, with several models and delivery mechanisms to choose from (see box). In Karnataka itself there are successful models such as *Arogya Raksha* and *Yeshaswini* that can be scaled up to cover more sections of the society. The State will work towards pooling of all insurance scheme funds to enhance coverage and reach. Effective and viable risk pooling can provide necessary health security to the people for critical high-end care and reduce their out of pocket expenditure, which at around 80% is quite high when compared to international standards.

Holistic approach to health by sectoral coordination

103. Success of primary health care initiatives largely depends on participation of related departments such as urban/ rural development, water supply and sanitation, housing, education, women and child

development, social welfare etc that are responsible for indirect determinants of health. For example, freedom from water borne diseases needs coordination for delivery of population based health services – such as safe drinking water supply, sanitation, vector control, drainage, solid waste disposal, etc, accompanied by health education and resource workers. The State will bring about a public health perspective in the schemes of all these associated departments.

Governance, capacity building and strengthening research and delivery systems

Clinically trained midwives for saving mothers and babies

The relationship between low maternal mortality and extensive use of professional midwives to deliver antenatal, birthing, and postpartum services, is well established. In countries where doctors predominantly assisted births in the period around 1920, such as USA, New Zealand, and Scotland, the MMR was 600 or more per 100,000 live births. During the same period, in countries where doctors and midwives equally attended births, including France, Ireland, Australia, and England MMR was lower, averaging around 500 per 100,000 live births. And strikingly, during the same period, in countries where midwives attended most births—Norway, Sweden, the Netherlands, and Denmark—the MMR was very low, between 200 and 300 per 100,000 live births.

104. The State will strengthen existing institutes and facilitate establishment of new centres of public health education, which undertake research on State specific concerns of public health and impart training to health workers. To improve working of hospitals and health centres, a transparent audit system will be put in place to monitor their functioning.

105. There will be increased availability of trained persons such as ANMs and nurses for delivery of services in rural areas. Karnataka has been facing a problem of non-availability of medical doctors for rural health centres and this problem can be partly mitigated with service provision by trained midwives and health workers who are available from within the rural community.

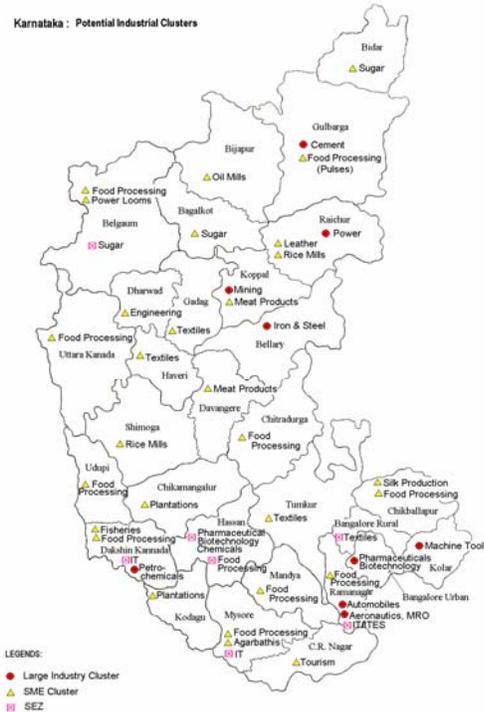
106. As per the recommendation of the State Task Force Report on Health & Family Welfare, separate public health wing and cadre will be created within the health department to develop a holistic perspective of healthcare needs of the citizens. The State will facilitate setting up of good public health institutes for capacity creation and research.

Targets for 2020

Indicator	Current level	Goal (for 2020)
IMR (Infant Mortality Ratio)	48	10
MMR (Maternal Mortality Ratio)	228	50
Under 5 Mortality	54.7	15
TFR (Total Fertility Rate)	2.08	1.8
Child Sex Ratio	949	975
Women in reproductive age (15-49 year) with anaemia	50%	15%
Births assisted by appropriate health personnel	71.3%	100%
Anaemia in children (6-35 month)	82.7%	25%
Child vaccination	55%	100%
Out of pocket expenditure (OPE) on health	>80%	60%

5. Achieve a sustainable and orderly process of industrialisation and urbanisation

Karnataka's urban population is likely to grow by 35% in the next 20 years and reach 2.8 crores in 2026 from the current 2.08 crores



Key focal areas to promote Industries

Increased provision of Industrial Infrastructure

- Industrial water supply schemes, if required through wastewater recycling plants
- Liberal captive power policy to allow investors to quickly set up power plants and allow a part of generation to be sold to the grid
- Rationalisation of industrial tariffs as given in Electricity Act

Strengthening of institutions involved in technology adoption, skill development and entrepreneurship promotion

Tracking and facilitating implementation of approved projects on priority basis

Implementation of the single window facility in letter and spirit

Incentivize industries to upgrade technology, adopt energy saving practices and conduct energy audits

107. Karnataka is a rapidly urbanising State having 36% of its population in urban areas. Urbanisation offers the ability for better provision of basic services, and acts as a centre for growth of industry and services. By facilitating employment in higher productivity sectors, it raises quality of life and disposable incomes. Therefore, if properly managed, faster industrialisation and urbanisation is desirable. In Karnataka, however, both these processes are largely concentrated around Bangalore. This has led to proliferation of slums, inadequate infrastructure, glut of unskilled labour, environmental degradation, and income disparity. The State's policies therefore need to be driven by three broad concerns – improve linkages between the city and its hinterland, make the towns a productive setting for growth and develop a distinctive approach to address issues of urban poverty. To achieve a transformational change, the State has to renew efforts on the following objectives:

Development through planned industrialisation

Area-based approach with Urban Corridors as hubs of economic activity

108. The State will target investment in select urban corridors to make them centres of industrial activity and develop select Tier II / III cities as future growth centres. These urban centres/ cities will be spread across the State to promote equitable development. Regional clusters will be identified based on their competitive advantages (see adjoining map with indicative area-based clusters). Development of pillar industries /services with facilitating policies will be done along with infrastructure suitably aligned to support/ promote these regional clusters. Industrial Infrastructure provision through private participation will be an area of focus.

Clear policy for land acquisition & rehabilitation

109. Mega projects and SEZ's involve acquisition of land and consequent problems associated with compensation, displacement of people and their relief, rehabilitation and resettlement. The State will come out with a clear and consistent policy on land acquisition and payment of compensation thereof so that conversion of farmland to factories is smooth and not dogged by uncertainties. Creation of a land

bank for industry will prioritise fallow and non cultivable land.

Optimal use of land resources

110. With increasing urbanisation, land is always going to be a premium commodity in urban areas. It is essential to unlock the economic potential of land by liberalising restrictive provisions in legislation such as 79 A & B of the land reforms act. Updation of asset registry, land survey, computerisation of land records, and creation of land bank of available government lands in each ULB will be done to identify revenue raising opportunities and optimally develop land for slum rehabilitation, transport, or for residential, industrial and commercial purposes.

Acceleration in the process of planned urbanisation

111. The stupendous growth of urban centres has led to haphazard and unplanned development, which has caused problems of environmental degradation, legal violations, corruption etc. Urban centres must not grow organically, but in a planned and directed manner so that quality of living in cities improve. Both the pattern and process of urbanisation are important. For this, urban planning must graduate beyond town planning and layout development, to “**integrated planning of urban spaces**”. This will incorporate planning of various aspects of urban space, viz. land use, transport, natural resource availability, infrastructure, environment and investment potential.

Thrust on comprehensive development in Tier I and II cities

112. The State will focus on achieving 100% coverage of all basic services in the urban centres achieving corporation status and those that will achieve this status in the near future. It has already made separate allocations for 6 such cities in the 2008-09 budget. The quality and availability of public transport in cities is grossly inadequate, causing stress, traffic congestion, and pollution; all adversely affecting health. Rapid public transport has to be therefore the focus of the State’s urban transport policies since an efficient transport system conserves energy and environment and also has the advantages of cost. Traffic management plans for all city corporations will be made incorporating future transportation needs and solutions. The centrality of

The requirement of land for new industries from projects sanctioned in the period 2004-08 by KUM is estimated to be around 40,000 hectares, which is 0.21% of state’s total area

Due to inadequate public transport facilities, 71.6% of the vehicles in the state are motorised two wheelers

Innovations in Urban Planning: Kolkata Urban Services for the Poor (KUSP)

KUSP is a project running in 40 ULBs in Kolkata Metropolitan Area with the focus to improve quality of life of the urban poor. An innovative aspect of this programme is the preparation of a draft development plan (DDP) updated once every 5 years, which is the tool for planning for creation of social assets and infrastructure. A unique feature of these DDPs is that they are completely made through a bottom-up participatory process institutionalised at the ward level in consultation with residents including slum dwellers. Ward level plans are then collated at the ULB and city level to emerge with a citizen generated city plan. Another novel idea is the “Challenge Fund” that financially supports NGOs to propose & run innovative development projects.

Source: www.changekolkata.org

public transport along trunk routes will be established through integrated town planning.

Citizen centric city planning and service provision

113. ULBs are to give priority attention to provision and improvement of essential basic services like water supply, sanitation and sewerage to ensure developing of inclusive cities where every citizen has an entitlement to basic services. Citizens need to be empowered to decide on the facilities and infrastructure they desire in their localities. Ward planning involving citizens will be implemented through a bottom-up process as done in Kolkata (see box). An integrated and efficient public grievance redressal system for citizens to present their complaints and suggestions will be available in both physical and online forms (similar to integrated bill payment facilities in ‘Bangalore-one’ centres), in all towns/cities of the State to provide a strong interface, better service delivery and improved relations between service providers and citizens.

Integrated efforts to reduce poverty through provision/access to basic services

114. At 32.7%, urban poverty in Karnataka is much higher than all-India levels. It is being recognised that urban poor do not have a support system like the rural poor and are very vulnerable. Along with income, accessibility to basic public services and social safety net should be prime focus areas.
115. Urban poverty can be linked to the following key factors that need appropriate strategies:

Financial inclusion: More than 40% urban males and females are self-employed. Urban micro-finance will be given a major thrust with focus on achieving 100% financial inclusiveness of all urban households.

Availability of low cost housing: The current low-cost housing deficit will be bridged through concerted efforts such as higher beneficiary role/participation, private sector participation to bring innovations in low-cost design and construction, performance based contracts, low-cost housing finance models through MFIs, and allocation of land for low-cost housing in each ULB.

Skill Development and availability of employment opportunities: Urban poor and immigrant labourers

Kudumbashree – Convergence brings success

The Govt of Kerala started the Kudumbashree programme in a mission mode in 1998 aiming for total eradication of absolute poverty in 10 years through community action under the leadership of Local Self Government. It is an inter-departmental initiative with staff deputed from 19 line departments to tackle the multiple dimensions and manifestations of poverty holistically. Kudumbashree employs four key strategies to promote community development: a) convergence of various government programs and resources at the community level; b) participatory antipoverty planning and implementation; c) formation of thrift and credit societies, and d) the development and nurture of micro-enterprises.

will be trained in the job-oriented skills aligned to high growth services and manufacturing sector in cities as identified by the skills commission. Industry participation will be sought for financial resources, provide training/ curriculum and job creation.

Convergence of efforts: Social security provisions and schemes will still be necessary to support some most vulnerable sections of society. A time-bound mission-mode initiative such as *Kudumbashree* to convergence poverty alleviation efforts will be designed and implemented to get rapid results.

116. The challenges in the urban sector are governance, land use policies, financing urban infrastructure and addressing urban poverty. For governance as well as service delivery in urban areas an important concern lies in the area of human capacity – in trades and services and municipal management.

117. If the State can manage urbanisation and its related transformation effectively, the physical and economic regeneration of urban Karnataka is well within the reach. With the efforts outlined above, the State hopes to achieve the following goals by 2020:

Targets for 2020

Indicator	Current level	Goal (for 2020)
Urban Poverty level	32.8% (2004-05)	< 10%
% Urban Slum Population	7.8% (2001)	≈0 (0.5% each year)
% urban HH having access to safe drinking water	92.2% (2001)	≈100% (0.5% each year)
% urban HH having sanitation within house	75.2% (2001)	>90%
% urban HH having no drainage facility	19% (2001)	≈0%
% urban HH using firewood for cooking	27.6% (2001)	<10%
% urban HH having electricity as lighting source	91.2% (2001)	≈100%
Periodic City Development Plans and City level investment plans	≈33%	100%
No of days to start a business	45	<10
% of investment proposals translating into commissioned projects	32%	>60%
% of workers employed in Industry	15%	20-22%

6. Enhancing opportunities and empowering women across economic, social and political spheres

Gender Disparities on Key Indicators

Indicator	Male	Female
Sex Ratio	1000	964
Child Sex Ratio	1000	949
Literacy Rate	76%	57%
Gross Enrolment Ratio in higher education	12.7%	10.4%
Maternal Mortality ratio		195
Agricultural Wage Rate	72	43
Urban casual wage rate	81	46
Rural WPR	623	459
Urban WPR	576	181
Incidence of Anaemia	19%	51%
Elected Reps (GP)	55.7%	44.3%
Elected Reps(PS)	57.8%	42.2%
Elected Reps(ZP)	61.9%	38.1%
MLA's (2008 elections)	221	3

Karnataka's gender parity ratio for enrolment in higher education at 0.82 is better than India (0.71)

Planning Commission RCH targets for the state during the 11th plan

Indicator	Current	2012 target
Infant Mortality Rate	48	24
Maternal Mortality Rate	228	76
Total Fertility Rate	2.08	1.8
Underweight	41%	20%
Stunted	38%	20%
Wasted	18%	8%
Anaemia	51%	25%

118. Prevalence of disparities across gender is a reality in today's society despite many initiatives (see box). To properly address this anomaly, the three aspects of economic, political and social empowerment of women are essential to guarantee women an equal opportunity for development. Gender development has received special thrust through the MDGs also. For the State to undergo a true transformation towards women's empowerment, specific efforts to address the following key objectives will be required:

Enable urban and rural women to become economically empowered individuals

119. Economic independence is the foundation on which women can become equal citizens of society. Women are currently viewed as an economic burden, and this results in manifold discrimination and atrocities on women. Supporting women to becoming economically stronger is the first step in their empowerment.

120. There is a need to improve self-employed women's access to credit through expanding micro-credit coverage in the State from the current level of 10%. The State will take necessary steps involving SHGs and MFIs for financial inclusion of all self-employed women by 2020. The State will increase financial allocations and improve policy orientation to achieve gender parity in enrolments at the secondary and higher education levels and in skill development and professional courses.

121. The State will ensure that rural women complete at least secondary education and get better access to basic services and that the existing gender gap in agricultural wages gets eliminated. The State will address the growing problem of marginalisation of female workforce in rural areas by encouraging women's access to property and financial resources.

122. In urban areas, WPR for women is low at 181. The State will promote a healthy environment for working women through appropriate legal and policy support. It will ensure that employers provide women with a secure work environment free from discrimination and sexual harassment, safe transportation facilities, adequate child care

infrastructure, and flexible working hours. For casual workers, thrust will be on ensuring equal wages.

123. The State will immediately focus on improving women's health, with a strong focus on nutrition, and achieving the RCH targets set for the 11th five year plan (see box). The State will also improve women's access to healthcare, recruit more women health care providers and extend the reach of public health education. There will be reforms to improve effectiveness of ICDS and the PDS to combat malnutrition and anaemia.

Assist in social empowerment of women and strengthen provisions for their safety and security

Social Audits to Implement Women Related Legislations (Tamil Nadu)

In 1998 several activists and NGOs combined forces to constitute a state-wide Campaign against Sex Selective Abortion (CASSA). At present CASSA has a membership of more than 60. Its main aim is to ensure effective implementation of the PNDT Act.

The campaign's activities include, lobbying the state's Directorate of Medical Services to implement the various provisions of the law, monitoring scan centers and genetic clinics to ensure implementation of the PNDT, conducting educational and awareness program on SSA and monitoring changes in the state's sex ratio at birth. As per the census, TN's sex ratio stood at 986.

124. It is necessary to create a safe and secure social environment where women are able to enforce their existing legal rights in order for them to become socially empowered citizens.

125. Organisational apparatus and process to breathe life into women-related legislations will be created. Strengthening the State commission for women and creation of an inter-departmental structure, for example, will aid in better implementation of women-related legislations. Rights violations (such as dowry deaths, female foeticide and harassment etc.) should be followed by comprehensive audits, leading to public debates, as in the campaign against sex selective abortion in Tamil Nadu (see box). School curriculum must mould young minds into gender sensitive citizens.

126. The State will raise awareness of women's rights through media and NGOs, and provide legal support to women. The entire police force will undergo gender sensitive training and the State will increase 'Women & Child Helpdesk' in police stations staffed by women police. Thrust will be on increasing women employment in the police force to raise it substantially from its current level of 3%.

127. The State will explore expanding the scope of the *Bhagyalakshmi* scheme to use it as a vehicle for overall girl child development. This could involve providing monetary benefits to meet the educational and health needs during the growing years.

Karnataka has among the highest representation of elected women representatives in the panchayat tiers across the country

Politically empower women through increased representation at higher levels of decision making.

Capacity Building of Elected Women's Representatives (EWRs)

An NGO called MARG started conducting training of EWRs from 16 villages in Haryana, about the law on Panchayats, their roles and responsibilities and the procedural aspects.

The training also focussed on the practical performance and capacity building of women. The discussions focused on the frequent problems which spring up during work and the possible solutions. Elected male representatives were also included to make them gender sensitive. MARG has found that after the training, a number of EWRs were willing to work actively and take initiatives and were also motivated to share this information with other women.

128. While the State has a higher percentage of elected women representatives (EWR) in the Panchayati Raj Institutions than the mandated 33%, it has not been able to translate it into increased women representation in the State legislature.

129. The State will focus on empowering women to become politically active at higher levels. This will be done by providing EWRs with comprehensive training on their roles and responsibilities. The State will support creation of a forum of EWRs to enable sharing of experiences. The above measures will be accomplished through increasing the role of local bodies and leveraging the existing involvement of civil society organizations.

130. Gender budgeting is of critical importance and the State will aim to build a gender responsive budget from the grassroots level and undertake gender based outcome assessment for effective evaluation of its achievements.

Targets for 2020

Indicator	Current level	Goal (for 2020)
Child Sex Ratio	949	974
Female : Male wages in agriculture (2005-06)	Rs. 33.8 : Rs 55.6	Equal
Urban Female Worker Participation Rates (WPR)	18%	27%
Financial inclusion of self-employed women	10%	>75%
Share of Female MLAs	1.5%	50%
Gender Parity Index for Higher education	0.8	1
Gender parity Index for Professional education	0.4	1.0
Gender Parity Index for secondary education	0.94	1

7. Bridge the gap between socially backward and vulnerable groups and the rest of the people

Some indicators of social disparity			
Indicator	SC/ST	Minority	ALL
Urban Poverty	54%	49%	33%
Urban MPCE	Rs 729	Rs 837	Rs 1138
Urban Female literacy	59%	71%	74%
Rural Female Mean Years of Schooling	3.22	3.68	3.94

Source: Sachar Committee Report, 2006

Innovative Approach to Capacity Building of Tribes

An NGO - Laya began working with the tribal communities of AP in 1985. The innovative training curriculum and methods include mock courts for trainees to practise their legal skills and health courses where traditional medicine is promoted. Training areas include role of traditional knowledge systems, micro credit, watershed / waste land management, land survey, legal and non-formal education focusing on literacy skills. Laya also runs a 10-month paralegal training programme for tribal youth, enabling them to become community based advocates by responding to human rights issues through legal & non-legal advocacy.

Educational backwardness in Minorities

The mean years of schooling of Muslim children in the state is merely 4.25 years, and only 34% of those enrolled go on to complete matriculation. Only 14,500 students comprising around 1% of Muslim students in the state go to Madrasas.

Most Muslims depend on government schools to obtain education. To better educational attainments among Muslims, the state needs to focus on quality improvement in government schools.

Also, due to few secondary and higher secondary Urdu medium schools, students completing primary education face a problem in continuing education that requires proficiency in another language. This can be ameliorated by introducing Kannada and English language earlier in these schools.

131. As Karnataka moves towards achieving economic and human development, it is important that no group is left behind in the State's road to progress. Ensuring social justice is a crucial factor to ensure inclusive growth. Therefore, the State will enable backward and vulnerable groups to achieve human development and economic standards on par with the rest of the population, while ensuring their safety and security.

Enable economic and educational empowerment of backward classes and vulnerable groups

132. The low economic status of vulnerable groups is chiefly due to poor access to education, occupations, income and assets, and is also a cause for their low human development.

133. The State will aim to improve the economic status of backward and vulnerable groups through a three-pronged approach: a) Focus on **education and skill development**; b) Providing opportunities for **productive employment**; and c) Increasing **financial inclusiveness**.

134. As a first step towards economic betterment, the State will focus on education and skill development of backward groups and minorities. It will ensure that scholarships and hostel facilities are available to deserving students from these groups at the secondary and higher educational level. The State will endeavour to establish ITIs in tribal areas and explore a model for community participation in the management of schools. The State Knowledge Commission will explore the scope of skill development and vocational training courses to include traditional knowledge.

135. A key challenge for tribal and minority education is the high drop out rate during transition to secondary and higher education. This will be addressed by increasing access to and providing girls-only schools in tribal and minority community areas, increasing female teachers in these schools, and providing girls' hostels. Development of indigenous people needs to encompass preservation of traditional culture and knowledge while ensuring that benefits of modern technology are also made available appropriately. A separate Tribal Academy

Plans for Disability Access and Inclusion

Public authorities in Western Australia are required to have Disability Service Plans as part of the Disability Services Act. DSPs have been in place for over 10 years, and a great deal of progress has been made by State and Local Governments towards ensuring that their services, buildings, and information are accessible to people with disabilities.

Public authorities now need to develop and implement Disability Access and Inclusion Plans, which enable people with disabilities to access services provided by public authorities in a way that facilitates increased independence, opportunities and inclusion within the community.

Census projections show that the aged (60+) population will increase from 8.1% in 2006 to 14.5% in 2026

Accessible Healthcare for the Aged (Mobile Screening Vans in USA)

The county health department, the Area Agency on Aging and 3 hospitals worked to get state funding for the purchase of a mobile, health-screening “RV”. This vehicle is equipped to provide a variety of health checks (blood pressure, vision, hearing, glaucoma) in rural communities. The objective is to provide health screenings, identify “isolated” elders, and increase the visibility of health programs and outreach efforts.

Two persons from a local hospital drive the van to various locations throughout the county to do health/medical screenings for rural elders. They serve 800-900 clients per year and expect to serve even more because of a grant received for diabetic screenings.

to research and document acceptable practices could be set up in the State.

136. The State will provide minorities with adequate support mechanisms to engage in gainful employment through skill, technology and market support programmes in *taluks* with minority concentration. Since a majority of minorities are self-employed, the State will focus on providing them easily accessible credit. It will encourage women from minority groups to participate in SHGs to become self-employed, and move away from traditional low value occupations such as *beedi* and *agarbatti* manufacturing.

Financial and policy thrust to create a progressive environment for disabled persons and senior citizens

137. The state of disabled persons and senior citizens has been neglected over the years. These two groups have not received adequate attention either in terms of policy focus or financial resources. The State needs to make up the deficit and ensure that these vulnerable groups are given adequate attention.

138. The State will adopt a rights based approach to enable the development of disabled persons. It will leverage the capabilities and experience of NGOs in the field, while contributing funds and resources. The State will also undertake a multi-sectoral approach, with departments setting targets for disabled persons as beneficiaries.

139. Disability access will be dealt with on a priority basis. The State will conduct a comprehensive access audit and explore the possibility of local governments drawing up disability access plans, as is done in Australia (see box).

140. A separate budgetary allocation will be created for the welfare of senior citizens. Apart from identifying innovative methods to improve healthcare and access to the aged, the State will start building necessary capabilities over the next 10 years in order to be well-equipped to handle morbidities particular to the aged. The State will work towards developing a comprehensive geriatric care policy encompassing health, social, familial and economic security for its senior citizens.

141. The State government has sanctioned pension to over 2 lakh senior citizens, under the *Sandhya Suraksha* scheme. The State will continue to focus on the scheme to ensure that it covers all targeted beneficiaries.

Promote peace and justice, and encourage social and communal harmony to create mutual trust

1730 crimes against SCs and 214 against STs were committed in Karnataka in 2006. During 2005-07, the state witnessed 113 communal incidents - highest among the southern states during this period

142. Socially disadvantaged groups are particularly vulnerable to discrimination and injustice. In the past few years, Karnataka has witnessed some of the highest number of atrocities and communal incidents among the southern States. These figures indicate that there is an urgent need for proactive measures to bring about peace and harmony between various communities.

143. The State will ensure that its governance structures are sensitised to foster an atmosphere of mutual trust among communities. It will orient police and other authorities to approach sensitive incidents concerning backward and vulnerable communities with prudence, and encourage people from these communities to join the police force. To ensure that the rule of law prevails, steps will be taken to ensure that the functioning of both the police and the courts become more efficient and responsive to citizen needs.

144. The State needs to increase awareness of vulnerable groups regarding the recourses and aid available to them during distress. The State Backward Classes and Minorities Commission will be strengthened. Legal and rights awareness will be built up through sponsoring educational campaigns by NGOs.

Targets for 2020

Indicator	Current level	Goal (for 2020)
Rural MPCE – SC/ ST: State average	Rs. 440: Rs 543	Equal
Urban MPCE – SC/ST : Minorities :State average	Rs. 729 : Rs 837: Rs 1138	Equal
Rural Poverty HCR – SC & ST: State average	36% : 24%	< 5% for all groups
Urban Poverty HCR – SC / ST : Minorities : State Avg.	54% : 49% : 33%	< 10% for all groups
Rural female literacy – SC/ST: State average	35% : 48%	≈ 100% for all groups
GER in higher education (ST:All)	0.3	1.0
Urban households without latrine (SC/ST:All)	0.6	1.0

8. Improve energy availability and develop infrastructure to boost productive potential of economy

145. Sustainability and acceleration of Karnataka's economic growth critically hinges on the availability of adequate and good quality infrastructure facilities. Though the State's physical infrastructure is fairly extensive, it has failed to keep pace with rapidly rising demand resulting in frequent and acute demand-supply gaps. The capacity and quality of the State's infrastructure is certainly a matter of concern. With changing structural composition of the economy and anticipated labour movement towards more productive employment, the demand for quality infrastructure is expected to increase significantly, on both absolute and per capita basis. This calls for a larger, coordinated transformational approach to infrastructure planning and implementation. While the Government's investment for infrastructure development is inescapable, the PPP route also needs to be encouraged. Along with supplementing scarce public resources, it creates a competitive environment and thus improves efficiencies.

Ensure energy security for the State by 2020

146. Karnataka's energy sector is characterised by persistent demand-supply gaps in electricity resulting in high peak and energy deficits of 15.4% and 2.4% respectively in 2007-08. Though ongoing projects can potentially add 2,425 MW by 2010 to the current installed capacity of 7,759 MW, according to CEA, it would be insufficient to meet a projected demand of 36,600 MUs. The State needs to evolve an Integrated Energy Policy to address concerns of its energy security, energy conservation and the environmental impact of energy use in human and economic activities.

147. The State will take steps to increase power availability by augmenting conventional and renewable sources, in addition to meeting supply-demand gaps through actively seeking long term Power Purchase and Fuel Supply Agreements with resource rich States. The recent pact with Chattisgarh is a step in this direction. It is also vital to improve operational /financial performance of power transmission and distribution companies through focused reduction in ATC losses to below 15% to meet the national targets. MESCOM has

MESCOM's action for loss reduction

Management focus

The MD personally monitors daily consumption and loss levels

Strict vigilance activities

1 SP & 4 Circle Inspectors on deputation to MESCOM vigilance cell

Metering tampering detected by physical inspection and unusual consumption patterns – stringent prosecution follows

Disciplinary action against erring section officers & consumers

Service improvement to improve reliability

Introduction of RLMS – Engagement with rural consumers on timing of delivery & strict adherence to promised service level

Separate feeder for rural industries

Focus on improving metered consumption

High voltage distribution system to cut loss

Stop purchase of 250 kVA transformers, and reduction in the length of LT lines

Reconducting of lines

Stringent loss monitoring to identify relatively higher loss centres, Investments prioritised by focusing on these areas

Metering

Strict and stringent technical requirements specified for meters

Stringent testing of meters prior to procurement

Organisational measures

Individuals have been empowered and simultaneously made accountable

Random checks on meter readers

Scenario	Capacity (MW; FY20)	Investment required (Rs. Cr)
Base case (No DSM + losses at 29%)	23,485	126,453
DSM to improve energy efficiency + Losses reduction @ 1% pa	20,089	99,290
DSM to improve energy efficiency + Losses reduction @2% pa	18,527	86,790

Analysis shows that a 2% annual reduction in T&D losses done with demand side measures can reduce capacity requirement by nearly 5,000 MW by 2020 with a reduced investment requirement of over Rs 40,000 crore

85% of rural households continue using firewood as primary fuel for cooking

Forest conservation through fuel migration

With over 1.5 lakh villagers and their livestock dependent on Bandipur reserves resources for firewood and fodder, the rate of degradation of natural resources had become unsustainable. A society called “Namma Sangha” was formed with an objective to provide LPG to the 25,000 families settled on the periphery of the reserve to prevent use of fuelwood. With support from Indian Oil Corporation, the cost of one connection reduced to Rs.1550 of which villagers pay Rs.1025 each and the society arranges for the remaining, along with establishment and maintenance of gas supply outlets near the villages. Within a year of operation, more than 10,000 families that previously used fuel wood had already switched over to LPG.

implemented focussed initiatives (see box) that have brought down its distribution losses to 15.3% in 2006-07 while achieving 90% metering of agricultural pump sets, which will need emulation from other ESCOMs. This has the potential to substantially reduce capacity additions and investment requirements by around Rs 40,000 crore (see table). The State will, at the same time, pool the scientific, technical and managerial talent with sufficient financial resources to develop solar and wind energy as a source of abundant energy.

148. Greater private participation in generation will be encouraged through the UMPP, liberalising the captive power policy and promoting open access, which will further reduce demand supply gap through rapid capacity additions. Securing energy sources for the State would also entail financial and policy support to develop renewable energy on a large-scale with a target to realising the already allotted capacity of 10,250 MW by the end of the 12th five year plan (2017). In addition, the State will encourage greater autonomy to the electricity regulator and ESCOMs in implementing their mandate.

Increase energy efficiency and moderate end-use

149. The State will simultaneously focus on moderating demand growth through extensive demand side measures, and increasing efficiency of end-use. The immediate requirement is to reduce the use of non-commercial energy primarily in cooking, especially in rural areas as this has adverse impact on the environment, along with imposing physical burden in fuel collection and indoor pollution, both primarily affecting women and children. The State will work to facilitate migration to cleaner commercial fuels through improving financial and physical access to commercial fuels and cleaner technology as done in Bandipur (see box).

150. The State has high energy intensity in its agricultural, industrial and commercial sectors. Reducing this can lead to significant savings. The estimated saving potential in Karnataka’s industrial sector amounts to annual generation from a 300 MW generation station^{xxvi}. The State will act to create awareness of energy conservation potential, coordinate revenue generation opportunities through carbon credits, and incentivise adoption of energy

Solar Photovoltaic (SPV) pumps in irrigation

Though the technical feasibility of SPV pumps has been long established, high costs and lack of familiarity of the technology have limited its application in India. Few initiatives by MNES and some state governments have propagated the use of solar power in small scale irrigation in far flung un-electrified rural areas. Ministry of Non Conventional Energy Sources (MNES) SPV programme provides subsidy on solar water pumping system @ Rs. 135/- per watt, subject to a maximum of Rs. 2.5 lakhs. With the considerable commercial interest in manufacturing SPV pumps in the country and various agencies and financial institutions, in place to assist in developing credit schemes, the introduction of SPV pumps provides a sustainable solution to provide free and reliable power to agriculture.

efficient technologies such as SPV pumps (see box), drip irrigation etc.

Co-ordinate provision of infrastructure

151. The quality and adequacy of infrastructure is the major determinant for improving quality of life and attracting investments. Though the State has a good road density of 105 km per sq km, much of this is single lane and/ or un-surfaced. The State requires a core road network (NH + SH) of around 40,000 km, but has around 24,000 km currently. A 250% increase in vehicle population between 1997-2007, doubling of freight vehicle density and inadequate funds for road maintenance, has led to asset deterioration. The State continues to have a low rail density, and faces a shortfall of capacity to handle projected increases in port, cargo and air traffic, which are also hindered by poor connecting infrastructure.
152. To address these issues, the State will develop the core road network and provide impetus to economic activity by connecting locations of agricultural, industrial and tourist importance. This will be in line with existing and potential regional industrial clusters, urban corridors and district development plans. The State will assess the current infrastructure gap and implement an action plan to bridge it. High density stretches will be identified for the creation of dedicated corridors, constructed with private participation. At the same time, the State will develop an international logistics and warehousing hub at an appropriate location to facilitate growth of a new industry which will have significant employment benefits. Infrastructure creation for border areas to leverage from growth centres in neighbouring States will also be encouraged. The roads having economic feasibility will be developed through public-private partnerships with a minimum specified period for revenue sharing/ annuity.

Updation of policies in line with new vision

153. Finally, with the vision to attain a stable and sustained growth rate of around 9% over the next three Plan periods, there is a need to upgrade policies (such as energy policy, state road toll policy, ports development policy, mining policy etc.) in line with new vision and development imperatives.

Investments over Rs. 5 lakh crore (at 2006-07 prices) would be required in Infrastructure in the next 15 years to sustain a GSDP growth rate of close to 9%

“PPP approach is best suited for the infrastructure sector. It supplements scarce public resources, creates a more competitive environment and helps to improve efficiencies and costs”

**Dr. Manmohan Singh,
Prime Minister of India**

Investment requirements and PPPs

154. The cross-country study of investment levels in infrastructure in the fast-growing Asian countries reveals the need to increase infrastructure investment to 11% of GDP over the next 15 years to sustain a growth rate of around 9%. This would entail a huge thrust on infrastructure investment in the State. Gross capital formation as a percentage of GSDP would have to rise to 7.5% during the 11th Plan period and to 10% and 11% during the subsequent Plan periods, translating to total investment in infrastructure of Rs. 92,462 crore, Rs. 1,86,275 crore and Rs. 3,15,657 crore at 2006-07 prices (these figures include investments in Irrigation) during the 11th, 12th and 13th Plan periods respectively. Thus, to achieve the envisaged growth rate of around 9%, the State would not only have to substantially increase its internal generation and mobilise extra budgetary resources of public sector, but also facilitate a substantial increase in private sector investments.

155. To attract private capital, a policy framework is to be laid down that assures a fair return for investors as well as protects interests of users to assure quality supply at reasonable cost. Clarity in the policy and regulatory framework for private sector participation is essential. Further, sanctity of contracts must be observed along with ensuring speedy and effective dispute resolution mechanisms.

Targets for 2020

Indicator	Current level	Goal (for 2020)
Road Density (NH+SH+MDR+RR)	107 km per sq km	150 km per sq km (TN)
Core road network (NH+SH)	21,486 km	~40,000 km
Roads with carriage width of 2 lane and above (% of NH+SH+MDR)	6,466 km (10.32%)	66,456 km (55%*)
All weather rural road connectivity	60%	100% (PMGSY)
Electricity generation installed capacity	7,759 MW	18,500 MW
State's average T&D losses in electricity	~28%	<15% (National Target)
Agricultural IP set metering	29%	>90% (MESCOM)

* Assuming 2- lane and above carriage width for all NH, SH and 30% of MDR length in the state

9. Preserve and promote Karnataka's rich cultural heritage

Types of tourism	Key Destinations across state
Heritage/ History tourism	Mysore/ Srirangapatnam, Bijapur, Belur and Halebid, Hampi, Badami, Aihole and Pattadakal, Halasi
Religious tourism	Murudeshwar, Banavasi, Dharmasthala, Sringeri, Shravanabelagola,
Ecotourism/ Natural reserves	Kodagu, Kabini, Nagarhole, Dandeli, Murudeshwar, Gokarna, Bandipur, Kudremukh, Devbagh, Kaup, Chikmagalur, Ranganthithu, Kemmanagundi, Jog Falls, Shivanasamudram Falls
Business tourism	Bangalore-Mysore, Mangalore
Festivals	Mysore Dasara, Hampi Festival, Pattadakal Dance Festival, Hoysala Mahotsava, Kambala festival, Vasanta Habba, Karaga

Representative Art forms in Karnataka	
Classical dances	Bharatanatyam (Mysore style), Kuchipudi and Kathak
Story telling/ wandering actors	Goravara kunita, Hagalu Veeshagaararu, Gaarudi Gombe, Joodu Haligi, Veeragase, Gamaka
Ritualistic dances	Puja Kunita, Devare Thatte Kunita, Yellamma Kunita, Suggi Kunita, Pata Kunita, Gorava Kunita, Dollu Kunita, Kamsale, Somana kunita (Mask dance), Huttari Dance and Bolak-aat, Hulivesha (Tiger Dance), Kolata
Folk theatre	Yakshagana and Byalatta, Gondaligara Ata (Narrative performing art) , Karadimajal, Togalu Bombe aata
Music	Carnatic music , Mysore Veena, Hindustani music
Crafts/ Arts	Mysore painting, Sandalwood craft, Bidriware (metal ware), Kinhal Craft, Channapatna toys
Handlooms	Ilkal, Guledgudda, Gadag, Molakalmuru, Tiptur, Anekal, Udupi, Kasuti embroidery

156. A combination of Karnataka's rich and vibrant cultural heritage, history, monuments and diverse natural beauty has made it a preferred destination for tourists. The State will strive towards preserving and promoting the unique heritage, customs and traditions of the State. The following are the key transformational objectives to help in this endeavour:

Massive thrust on promoting tourism

157. As seen in the table, Karnataka has tourist destinations to suit diverse preferences. The tourism sector has witnessed high growth of 14.4% and has high employment elasticity. It provides a unique opportunity for the State to not only promote its cultural legacy but also align its growth process with the changing economic and demographic structure.

158. As most tourism development models call for a simultaneous development of tourism and transport infrastructure, the State will provide a massive thrust to overall physical infrastructure so that it grows by 9% by 2020 to support accelerated growth of tourism sector. Towards this end, the State will prepare a tourism master plan, in line with the State Tourism Policy, that outlines the long-term tourism strategy for the State, with the objective to provide tourists with a unique and valuable experience, thereby increasing its share of domestic and foreign tourists among States. It will work to enhance quality and affordable connectivity to popular tourist destinations by promoting private enterprises. Being a labour intensive industry, tourism and its related activities generate income and provide employment. Development of skills relating to the hospitality sector will be the bedrock through which a multitude of local low / semi skilled workers can benefit from growth in the tourism sector.

Preservation and promotion of history, arts and crafts

159. The extensive range of Karnataka's arts and crafts is seen in its palaces, royal homes and other heritage sites that showcase the tradition of excellent craftsmanship (see box). Karnataka is home to diverse art forms in dance and music. The State will endeavour to preserve and promote these traditional and modern arts and crafts by providing financial, technical and marketing support to craftsmen and

artists. Institutions dedicated to promoting these arts and crafts will be supported. These crafts will be promoted domestically and internationally by participating and organising trade fairs, exhibitions and cultural festivals. Opportunities for producer co-operatives and PPP will be explored to meet this objective. It is also imperative to provide better social security to the workers engaged in these arts and crafts, and the State will draw from the initiatives undertaken by other States, like Rajasthan (see box), towards this end.

Revival of State's traditional industries

Rajasthan Vishwakarma Unorganised Sector Workers Contributory Pension Scheme 2007

Started in August 2007, this micro pension scheme is jointly implemented by the state government and Invest India Micro Pension Services Ltd, to provide a fair, simple, affordable and sustainable mechanism of savings for old age. As of date, this scheme has an estimated 17,000 members from low-income unorganized sector. The state government aims to increase the coverage to at least 5 lakh workers by 2010.

Under the scheme, eligible workers between 18 and 60 years can contribute a minimum amount of Rs.100 at a time to save, while the government pays an interest of 8% on total contributions into the retirement account. On reaching the age of 60 years, the member receives a pension based on the sum total of the member's contribution, government contributions and interest generated. In addition, the state government has committed to add a matching contribution to the member's saving, subject to a maximum contribution of Rs 1,000 a year per worker.

Thus, if a low-income worker starts contributing Rs 1,000 at age 20 for the next 40 years, his/her total contribution would be Rs. 40,000. As state government contributes an equal amount and that it grows at a compounding rate of 8%, the value of corpus at age 60 would be nearly Rs 5.5 lakh.

160. Sericulture is one of Karnataka's traditional industries and the State has consistently been India's largest silk producer, contributing 50% of India's output in 2006-07. With close to 1 lakh Ha under mulberry cultivation and employing over 12 lakh people, the sericulture sector is an important traditional industry. However, this industry is experiencing slow growth with falling yields and competition from cheaper and better quality silks from China have had an adverse impact. Other traditional activities like handlooms, leather, toy making etc are also facing similar situation. Thus one of the key objectives for the State is to revive the State's traditional industries through skill up-gradation, R&D, financial and technical assistance. The State will work to develop textile clusters with suitable infrastructure that supports specialised value high value and export oriented products.

Advance Kannada language and literature

161. As one of the oldest languages in the country, Kannada has a rich heritage of poems, literature, grammar, natural science and translations from Sanskrit with strong Jain and Hindu influences. The State will provide full support to the numerous schemes that include Kannada working camps for officer/staff, translation of great literary works to and from Kannada to other languages, teaching Kannada through correspondence and mass media, documentary and feature films showcasing Kannada culture and arts. The government will extend support to not only the bustling centres of Kannada literature such as the University of Mysore, Karnataka University and Kannada Sahitya Parishad, but also develop new centres around the State. Facilities to teach the language to immigrants from other countries/ States will be promoted.

Leverage Kannada Diaspora to promote the State

162. The State will also work to leverage Kannada diaspora around the world in cultural and economic activities by organising an annual event, in line with the 'Pravasi Bharatiya Diwas', to celebrate the achievements of *Kannadigas* around the world. Strategies will be developed to promote Karnataka internationally through exhibitions, food fests and cultural performances. This forum can also be used to have close interactions between the *Kannada* diaspora, local participants and State government to define new policies initiatives and explore economic opportunities to usher greater investments.

Promoting Sports to foster pride in our State

163. The State along with the country is experiencing a momentum in its economic transformation. In this journey the people of the State need to build pride in what they do. Success in the arena of sports is one way to foster such pride. Other than health and fitness, the benefits of sports are greater self confidence, more willpower, greater discipline and the willingness to take on and succeed in challenges. All these qualities contribute to character-building of an individual. The State will, therefore, come out with a Sports Policy which would facilitate investments in sports and related activities.

Targets for 2020

Indicator	Current level	Goal (for 2020)
Foreign Tourists	5 lakhs	25 lakhs
Domestic Tourists	1.1 crore	3 crore
Direct employment in Tourism	1.56 lakhs (KDR)	5 lakhs
Annual silk production	~8000 MT	16000 MT (@5% annual increase as achieved by China in the previous decade)

10. Ensure sustainability of the State's environment and natural resources

Increase in biodiversity and forest cover

Only 16.7% of Karnataka's area is under forests against a national target of 33%

National Action Plan on Climate Change (2008)

identifies measures to promote development objectives whilst yielding co-benefits for addressing climate change. It is comprised of eight missions

1. National Solar Mission
2. National Mission for Enhanced Energy Efficiency
3. National Mission on Sustainable Habitat
4. National Water Mission
5. National Mission for Sustaining Himalayan Ecosystem
6. National Mission for a Green India
7. National Mission for Sustainable Agriculture
8. National Mission on Strategic Knowledge for Climate Change

DESI Power: Biomass gasification

DESI Power is a not-for-profit collaboration between DASAG, India and TARA. It promotes, packages, builds, operates, and transfers the plants to local ownership. It builds producer gas IRPPs (Independent Rural Power Producers) power plants based on locally available biomass which is available on sustainable basis (this biomass is found in the form of weeds, agricultural wastes, plantation residues). Karnataka has one of the six IRPP plants being built by DESI Power

Source: Min. of Environment & Forests, GoI

164. Only 16.7% of the geographical area in the State is under forest cover. Of this around 30% of the area was degraded mainly due to increasing livestock grazing, fuel wood removal, poaching, destruction of habitats, and fragmentation of forests. This has unfavourably affected the quality of air, availability of water and soil fertility and led to low infiltration, low water yield in the reservoirs and occasional floods. As suggested by National Mission for Green India, Karnataka will proactively take action on degraded land through direct action by communities organized through JFMCs (Joint Forest Management Committees). The State will also set up a task force for conservation of the Western Ghats, set up sites for seabird conservation and for domesticated animal biodiversity for protection of birds and animals.

Pro-active action regarding Climate change

165. An increase in the levels of GHGs can lead to greater warming, which could affect the world's climate leading to climate change. This can jeopardise the conservation of natural ecosystems and sustainability of socioeconomic systems. India is party to the UN Framework Convention on Climate Change and its Kyoto Protocol and the Govt. of India has attempted to address this issue through the National Action Plan on Climate Change (see box). Karnataka has proactively taken on projects for 'biomass energy in rural areas, development of high-rate biomethanation processes' as means of reducing GHG emissions and 'use of alternate energy and biomass gasification'. The State will explore setting up a large commercial bio-fuel plant and promote usage of wastelands for cultivation of biofuels while addressing food security issues. Karnataka Renewable Energy Development Limited (KREDL) being the nodal agency of the State government will be strengthened to actively promote and facilitate energy efficient projects to avail the benefits of Clean Development Mechanism (CDM).

Conjunctive use of water resources

166. Some districts such as Bangalore Rural, Bidar, Koppal and Chitradurga have a high dependence on groundwater (almost 85%). More than 90% of the

Maharashtra Water Resources Regulatory Authority

The authority was set up with the following mandate:

- a) To determine distribution of entitlements for various categories of use and equitable distribution within each category of use
- b) To determine priority of equitable distribution of water available at the water resource project, sub-basin and river-basin levels during period of scarcity.
- c) To establish a water tariff system and to fix the criteria for water charging at sub-basin, river basin, and state level after ascertaining the views of beneficiary public, based on the principle that water charges shall reflect full recovery of cost of irrigation management, administration, operation and maintenance of water resources project.
- d) To administer and manage interstate water resources appropriation on river systems
- e) To review and clear water resource projects to ensure that the proposal is in conformity with Integrated State Water Plan and also with regard to the economic, hydrologic and environmental viability and where relevant, on the state's obligation under Tribunals, agreements or decrees involving interstate entitlements.
- f) Lay down the criteria and issuance of entitlements

Source: Maharashtra Water Resources Regulatory Authority

Fuel Cell Bus Development in India

This is an initiative by UNDP as a part of Climate Change Initiative. It proposes a five-year demonstration program of operating and testing 8 Fuel Cell Buses for public transport in Delhi; it has an objective to introduce zero emission and highly efficient bus technology in India for reducing local air pollution and global GHG emissions

Source: Ministry of Environments & Forests, Gol

rural public water supply schemes depend on ground water. Over exploitation of ground water resources has caused a fall in the water table and deterioration of water quality on account of high fluoride /iron content or brackishness, impacting potability. The State has been contemplating a bill for regulating groundwater for some time now. More recently, the Planning Commission has come out with guidelines on groundwater management and ownership and the pending State bill will be revised to incorporate latest developments. The State will ensure that all ULBs and PRIs enforce mandatory rain water harvesting measures for households. The Karnataka Water Resources Regulation Authority will facilitate improved water resources management, conservation and regulation to ensure an optimum use of available water resources across different use categories.

Sustainable mining

167. The mining sector contributes around 1% of Karnataka's GSDP. However, it has caused serious environmental impacts in the form of water pollution, land degradation, loss of biodiversity, displacement and landslides. The new Mining Policy under formulation will adopt relevant recommendations of the National Mineral Policy, 2008 to address these issues and ensure a sustainable development of mineral resources in harmony with environment. The Government will take measures to ensure proper resettlement and rehabilitation of persons being displaced. The State will ensure that small mines and quarries having adverse working conditions be brought under purview of relevant Act/Rules and grant mining leases on approval of a proper mining plan that includes the environmental management plan approved and enforced by statutory authorities. The State will take measures to convert old unused mining sites into forests and other appropriate forms of land use. The State will take firm measures avert exports of natural ore and encourage process industries to ensure that the natural resource wealth of the State gets multiplied through carrying out value addition activities within the State.

Air pollution

168. Transport sector is one of the leading causes of greenhouse gases and health damaging pollutants. The vehicle population in the State has increased almost five folds, from 14.33 lakh in 1990-91 to 69.4

lakh in 2006-07. It needs to be ensured that Bangalore meets the WHO air quality guidelines. To check the deleterious impact of growing vehicular traffic on the quality of air, the State will promote fuel efficiency by incentivising the use of hybrid/ electric vehicles and LPG/CNG for road-based public transport. The State intends to improve access, efficiency, effectiveness and comfort of public transport to reduce growth of private vehicles. The Bio-fuel Task Force set up in the State will devise procedures for blending fuels with specified percentage of bio-fuels. The State will also improve intra-city bus services both on a point-to-point basis as well as to provide last mile connectivity between metro stations and neighbourhoods/offices. With natural gas likely to be supplied by GAIL to Karnataka by end 2010, the State will prepare for full fleet conversion of its buses to CNG. The State will also explore options of fuel cell bus (FCBs) for reducing air pollution and global GHG emissions.

Targets for 2020

Indicator	Current level	Goal (for 2020)
Geographical Area of state under Forest Cover	16.7%	33%
Area categorised as 'over exploited' based on groundwater exploitation in all watersheds	30%	0%
Urban Public transport using Renewables/CNG/ LPG	0%	100%
Share of non-commercial energy in total energy consumed	42%	<10%
Area facing Soil degradation	40%	<10%
Commissioned Renewable energy to allotted	16%	>75%

11. Build and sustain Bangalore's global leadership in science, technology and knowledge based industries

“Bangalore has a unique place in our nation. It has shown the way to progress and prosperity that the rest of the nation is trying to emulate. Through the hard work of millions of people and visionary entrepreneurship this city has become not only the IT capital of the country but also a rival to the Silicon Valley in California However, this city has suffered from lack of infrastructure this needs to be rectified and rectified fast enough.”

***Dr. Manmohan Singh,
Prime Minister of India, June 2006***

Metropolitan Governance in Bangalore

The Expert Committee on Governance in the Bangalore Metropolitan Region (BMR) and the Bruhat Bangalore Mahanagara Palike (BBMP) under the chairmanship of K. Kasturirangan, has advocated for a policy shift from city level urban local government to a metropolitan level institution to enable better strategic planning and coordination and to address Bangalore's multiple challenges.

Some of its recommendations are :

- (i) Setting up of a Metropolitan Planning Committee (MPC) to act as the metropolitan level political institution for Bangalore.
- (ii) BMRDA to function as a metropolitan level regulator and planner.
- (iii) ULBs and DPC to be entrusted with social and economic planning under the guidance of MPC
- (iv) Restructuring of parastatals such as BDA, BWSSB and BMTC. Their jurisdiction to be extended to the entire BMR.

169. Bangalore has firmly established its presence in the global knowledge industry as a central destination for technology and R&D services. It is the engine propelling the State on the growth path. Bangalore's area is less than 0.5% of the State, but it is home to nearly 10.5% of Karnataka's population and 12.7% of its workforce. With the creation of greater Bangalore, it has expanded significantly, and has a forecast of reaching 1 crore residents as early as 2011. Managing growth is one of the key challenges facing the State and for this Bangalore will need to keep re-inventing itself for the future. If properly directed, it holds the key to improving quality of life of lakhs of citizens, and be a leader among Indian and global cities. To achieve this, the following key objectives need to be addressed.

Revamp Bangalore's governance structures

170. The foundation to be laid to enable growth along the desired path is strong governance and institutional structures. The Report of the Expert Committee on Governance in the Bangalore Metropolitan Region (2008) recommends that the city's governance structure should move towards fulfilling the directives of the 74th constitutional amendment. Most of its recommendations have received broad acceptance by stakeholders through public consultations and these will be implemented in a time-bound, phased manner. To take governance closer to citizens, the city may be administratively divided into zones, and ward structures will be strengthened. BBMP and other service providers will need to align their structures with these zones.

Develop Bangalore's infrastructure to provide world-class quality of life

171. Bangalore's reputation has suffered hugely in recent times due to its inadequate infrastructure and civic amenities. These will be upgraded to global standards befitting the progressive image of the city and State. Special thrust will be laid on the core areas as given in the box. To bring in the necessary motivation and drive, Bangalore will benchmark itself against leading global cities on comprehensive quality of life and infrastructure indicators, and come

Focal points for infrastructure provision

- a) Adequate availability of water:** Water could be a limiting factor to Bangalore's growth as a city. Steps such as reduction in leakages and unaccounted for water, Incentivising / mandating the use of water saving technologies in industry and households; telescopic pricing to deter abuse etc. will be encouraged
- b) Efficient public transportation:** The thrust will be to improve energy efficiency, provide ease of commuting, and to reduce travel time, use of private vehicles & environmental impact.
- c) Reduction in pollution:** A process for regular, systematic monitoring, reporting and notification of pollution levels will be instituted. An appropriate institution will be empowered to co-ordinate an action plan for reducing pollution to integrate efforts across multiple sectors.
- d) Increase in green space:** Coverage of open spaces in the city need to increase from around 14% to 20% of the city area. The state will make efforts to increase recreational spots and provide open public spaces for leisure and cultural activity.

On the basis of a recent study by CRISIL, the estimated cost for improving infrastructure in the BBMP area is around Rs. 27,824 crore (at constant prices)

Kasturirangan Committee Report

Leading institutions in Bangalore

- Education and Research:** Indian Institute of Science; Indian Institute of Management; Institute for Social and Economic Change (ISEC); NIMHANS
- Defence Institutions:** ADA; ADE; Hindustan Aeronautics Limited (HAL); LRDE; Indian Space Research Organization (ISRO) ; NAL
- Manufacturing:** Bharat Electronics (BEL); Bharat Heavy Electricals Limited (BHEL); Bharat Earth Movers Limited (BEML); Toyota, Volvo
- Central research institutes:** Artificial Intelligence, Dairy, Horticulture, Manufacturing Technology, Power, Poultry and Sericulture.
- IT Research MNCs:** Infosys, Wipro, Bosch, GE, Google, HP, IBM, Microsoft, Motorola, Philips, SAP, Siemens, Yahoo etc.

out with an annual status report and action points for improvements.

172. It will be ensured that vacant/ illegally occupied and derelict industrial lands are identified and appropriately developed. Older neighbourhoods in the city centres will be redeveloped to improve efficiency of land use and reduce urban sprawl. The forthcoming transportation lines (metro/ monorail) provide an opportunity to align commercial activities along trunk routes and reduce traffic congestion.

Gateway for attracting investments to rest of the State

173. While it is essential to continue promoting Bangalore as preferred investment destination, it can serve as conduit for attracting investments to rest of the State. The State will make efforts to ensure that an established investor in the city will expand facilities to Tier II cities within the State itself. To enable this, the State will undertake an exercise to map those industries/ services that can be off-loaded to Tier II cities, and understand the required facilities. It will also identify and invest to aggressively promote select Tier II cities as service delivery centres/ industrial clusters based on their comparative advantages. It will then provide inducements for investors to spread to these cities. For this, it is also imperative to develop fast and convenient transportation links between Bangalore and these Tier II cities. Also, the State will track all investment proposals and rapidly facilitate actual implementation.

Leverage on existing high-tech and R&D strengths

174. Bangalore has been at the heart of defence research, heavy manufacturing and electronics, and a host to many central research and academic institutions. Of late, it has become the nucleus of Bio-technology and high-end IT research. The State will build on these capabilities to expand presence in allied knowledge services and facilitate innovations to solve pressing issues facing the State. The State will strengthen its credentials to become a preferred destination for investors and knowledge workers. It is imperative to twin research with industry involvement. The State will play a role in stimulating this exchange by establishing Industry-academia councils, providing convention centres and hosting

conferences and events. Efforts will be made to ensure accreditation and high ratings of all institutes of higher education.

High tech platform to change working environments

175. Modern technology has changed the way people work and live. Concepts such as teleworking, IT literacy, integrated service centers, high-speed connectivity, Wide Area Network etc. have the potential to greatly reduce drudgery and enhance choices. Bangalore, being on the cutting edge of the knowledge industry, can create and demonstrate new models of work-life balance. The State will work with private sector towards such advancements.

Targets for 2020

Indicator	Current level	Goal (for 2020)
Share of country's total exports from technology and knowledge based industries	~36%	40%
Number of national and international conventions/ conferences held per year	Unknown	≈50
Unaccounted for Water out of total water supply	39%	<10%
Share of public transport to total transport	18%	36% (London)
Average commuting speed in city	10-12 kmph	
Level of Suspended Particulate Matter (SPM) in residential area	>160	40 (based on National ambient air quality guidelines)
Coverage of open spaces	14%	20%
Average vehicular speed in Bangalore	10-12 kmph	25-30 kmph

12. Improve governance through wider participation and deep democratic decentralisation

Deep Democratic Decentralisation

While acknowledging the state as the most important provider of basic social services, deep democratic decentralization proposes a three-pronged strategy to make state services more accountable:

(i) A functioning state and effective state capacity, both at central and local levels;

(ii) Empowered local authority to which functions, functionaries and finance have been devolved by the central authorities, and

(iii) 'Voice' articulated on a collective basis by civil society, through institutions enabled by the state

Source: Mehrotra (2006)

176. Research provides evidence that good governance is crucial for growth. It is also acknowledged that governance has larger implications for the poor since they depend heavily on public services. It is thus evident that good governance can expedite the process of growth, human development and poverty reduction

177. Effective operationalisation of all the transformations listed above requires improvement in governance structures through a widespread involvement of all sections of the State's society. This necessitates the existence of adequate mechanisms through which views of the people can be captured and used to inform government policy and programmes. The existing democratic system ensures this, but only to a limited extent. In a society like Karnataka's where large scale inequalities still persist, it is important to ensure people's involvement, especially of those who are poor and marginalized, in the design and implementation of development interventions. A greater participation of the people and civil society will encourage increased accountability of government bodies and ensure that their functioning is made more transparent.

Empowerment of the local government

178. Even though fifteen years have passed since the 73rd and 74th amendments of the Constitution and devolution of 29 State functions to PRIs, the actual progress on ground has been limited. While PRIs were created with a constitutional mandate, in practice they are, often, not given separate and independent functions which is resulting in a constitutional anomaly with the State and Local Bodies having overlapping functions. This will be rectified through appropriate activity mapping to clearly demarcate the roles and responsibilities of State and local governments.

179. In the case of devolution of funds as well, whereas the amount indicated to the ULBs is directly given to them as SFC grants, the portion earmarked for PRIs is apportioned among the various departments. This anomaly needs to be rectified so that effective devolution in true spirit is achieved and

the local self governments are enabled to function effectively.

180. The multiple parallel democratic structures such as JFMC (Joint Forest Management Committee), WUA /TUA (Water User Association/ Tank User Association), SDMC (School Development and Monitoring Committee) etc., which have proved useful because of their functional autonomy, will be linked to the PRIs to enhance their accountability. This will be done while retaining the functional autonomy of these bodies.

181. Under the Karnataka Zilla Parishads/ Mandal Panchayaths Act 1983, there existed only a 2-tier *panchayat* structure. Based on the State's experience with the existing 3-tier structure, the feeling that the intermediate tier of PRIs (i.e., taluk panchayats) has become superfluous is gaining ground. The State will review this issue and pursue it at appropriate forums.

Planning at the Grassroots Level

The object of district planning is to arrive at an integrated, participatory coordinated idea of development of a local area. To ensure this, Panchayat at any level or Municipality should be treated as a planning unit and the 'district plan' should be built up through consolidation and integration of these plans as well as by considering the development of the district as a whole. It is a two-way interactive exercise, the district being viewed as a convenient local area.

The sequence of preparing the Eleventh Five year plan from grassroots upwards could be to undertake a decentralized envisioning and stocktaking exercise, followed by a planning exercise at each local body level and then the consolidation and integration exercise. The envisioning process would look at how the main priorities are determined as also the participatory processes that enable all stakeholders to be involved. Next would come the actual processes involved in the planning process at each level of Panchayat. Thirdly, comes the process involved in consolidation and integration of plans by the District Planning Committee.

Source: Ramchandran committee Report, Planning Commission, Gol

182. For more effective delivery of government services, local government has to emerge as a strong unit, empowered with adequate funds and fund raising avenues, appropriately skilled employees, adequate functional devolution and freedom. For this, the State will encourage normative allocations to the district sector, especially in provisioning of basic social services while ensuring that efficiency gains get incentivised. Along with increasing financial capacities of the PRIs and ULBs through untied fund transfers and design of mechanisms which enable them to recover the cost of their service deliveries human resource capacities will also be strengthened. A multi disciplinary team of officers/experts at the taluk level could guide and provide expertise to the Gram Panchayats in utilization of the funds devolved. This would strengthen the monitoring and effective implementation of the various schemes.

183. As per recommendations of the Second Administrative Reforms Commission of Govt. of India, the State will consider constitution of District Councils, with representation of PRIs and ULBs, at the district instead of the Zilla Panchayat level.

District-led planning

184. The Nanjundappa Committee Report of 2002 has already brought out significant imbalances in development across various regions of Karnataka.

There is a special need for designing development priorities for backward regions in the State by assessing prevailing policies and existing institutional environment in these areas. A High Power Committee has been set up to review the implementation of the various recommendations of the Nanjundappa Committee Report. For a better alignment of area specific requirements and priorities, the District will be made the centre of planning and development initiatives in rural and urban areas of the State with institutionalisation of the roles and responsibilities of the PRIs and ULBs. The State has already issued guidelines for preparing Comprehensive District Development Plans (CDDP) for the 11th Five Year Plan to all the districts and will ensure that it gets further streamlined.

185. While Human Development Reports (HDRs) have already been prepared at the State level, the districts are in the process of preparing District HDRs and experience gained from this process will be useful in building planning capacity in the districts. The State will also leverage the India Statistical Strengthening Project (ISSP) for creation of appropriate and reliable sector-specific statistics at the village, taluk and district levels which can then be utilized for facilitating the decentralized planning process.

Public service delivery

186. The priority for governance is to ensure effective delivery of basic services to all. It is felt that there is a need to re-engineer processes and bring about a change in the basic governance pattern to improve simplicity, transparency, productivity and efficiency in government's functioning. For this, the State will focus on organizational issues related to reengineering government processes with strong committed leadership, autonomy, flexibility, clarity of purpose, predefined deliverables, measurable milestones and periodic monitoring. To bring about improvements in efficiency of execution, regular physical audits by stakeholders will be encouraged. The State will work towards institutionalizing the system of bringing out annual Citizen Report Cards for key services and departments. To bring about excellence in public service delivery, government departments and agencies will be encouraged to set service norms, to align delivery capability with

National e-Governance Plan

The National e-Governance Plan of Indian Government seeks to lay the foundation and provide the impetus for long-term growth of e-Governance within the country. The plan seeks to create the right governance and institutional mechanisms, set up the core infrastructure and policies and implements a number of Mission Mode Projects at the centre, state and integrated service levels to create a citizen-centric and business-centric environment for governance.

NeGP has a vision to: “make all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency & reliability of such services at affordable costs to realise the basic needs of the common man”

expectations of citizens, to gauge the quality of service delivery through an objective assessment and to improve quality using interventions like business process redesign and information technology.

187. The State will exploit the potential created by e-Governance to improve service delivery levels at the grassroots. Under the ambitious National e-Governance Plan (NeGP) of Govt. of India, computing and communications infrastructure is being provided through Common Service Centres (CSCs) up to the Gram Panchayat level. The State’s own *Nemmadi* centres through which citizens can access 27 different services provided by the Revenue Department have been operationalised in over 800 *hoblis*. These facilities will be suitably leveraged to augment capacity at the panchayat level for implementation, monitoring and evaluation of basic services. This infrastructure will also be used for effective Information, Education and Communication (IEC) activities for promoting best practices in local economic development and social (health, hygiene etc.) behaviour and disseminating relevant global experiences.

188. There is a widespread lack of awareness amongst various sections of the population with respect to poverty alleviation and other welfare schemes being implemented by various government agencies in the State. While the State has taken several steps in line with the provisions of the Right to Information (RTI) act, there still exists a need to ensure that the implementation is made more effective through an appropriate mix of institutional and technological interventions. Modern Information Technology (IT) has shown a great potential in terms of effective dissemination of information to people. The State will ensure that all sections of the society are able to benefit from appropriate use of IT in the functioning of the government.

Resource planning and fiscal governance

189. In order to increase quality, reach and resources, the State will assess its existing activities and look towards retaining essential functions and enter into private and community partnership models for service delivery wherever possible. Some of the sectors where this is imperative are infrastructure, industry, healthcare and education. Given that there is around 40% gap between the projected

Public Private Partnerships (PPP)

PPP is a contractual service delivery agreement between a private agency and the government where risks and benefits are shared. In this arrangement the public entity transfers substantial operational and financial risk to the partner(s) and ensures outcome-based financial rewards to the latter.

Examples of such partners range from Private sector organisation (which could vary from a local contractor to a large private firm or a public limited company), Community Based Organisation (CBO), Resident Welfare Association (RWA) or any Non Government Organization (NGO).

The partnership maximises the contribution by combining both public and private sector's advantages – they combine the social responsibility and public accountability of the former with the finance, technology, managerial efficiency and entrepreneurial spirit of the latter. This approach calls for a significant change in the roles and specific responsibilities for various stakeholders including the government. Therefore, it is imperative that government employees are skilled in contract management, diligence, outcome and impact monitoring etc.

investment requirements and public resources over the next 15 years, as brought out in Table 2(a) and 2(b) of the Annexure, such partnerships arrangements become crucial elements for the State's development. The State will develop a model PPP policy with flexible provisions to suit sector and project specific requirements. It will create necessary institutional mechanisms and capacity within individual departments to ensure an effective implementation of the policy.

190. The State's fiscal performance has improved after enactment of the Karnataka Fiscal Responsibility Act (2002). Fiscal deficit has reduced from 5.38% in 2001-02 to an estimated 2.83% in 2007-08 while the revenue deficit has decreased from 3.01% to an estimated revenue surplus of 1.38% during the same period. The practice of coming out with Medium Term Fiscal Framework has provided sound basis for devising fiscal strategies for the State. The State will focus on achieving the fiscal objectives outlined in these documents through a continued emphasis on improving the quality of expenditure and effectiveness in program implementation by initiatives such as budgetary screening to prevent back-loading of expenditure, performance budgeting, scheme rationalisation etc. A sound fiscal position is critical to ensure the availability of adequate resources required for the State's development (as enumerated in Table 2(b) of the Annexure).

Targets for 2020

Indicator	Current level	Goal (for 2020)
Number of districts with District Plans	-	All districts
Number of districts with District level HDRs	4	All districts
Share of own source of revenue to total revenue among ULBs (excluding Bangalore)	36%	50%
Nemmadi/ Common Service Centres to provide e-governance and other services to people	Around 800 Nemmadi centers exist at hobli level	Operational CSCs in all 5628 gram panchayats by 2012

Annexure

1(a). Projections of sectoral shares of GSDP and employment in Karnataka

	Business as usual			Employment alignment-I (a)			Employment alignment-II (a)		
	2007-12 (11 th Plan)	2012-17 (12 th Plan)	2017-22 (13 th Plan)	2007-12 (11 th Plan)	2012-17 (12 th Plan)	2017-22 (13 th Plan)	2007-12 (11 th Plan)	2012-17 (12 th Plan)	2017-22 (13 th Plan)
Agriculture									
Growth Rate	0.8%	0.8%	0.8%	2.5%	3.0%	3.5%	2.8%	3.5%	4.0%
GSDP Share	15%	10.5%	7.2%	15.7%	12.0%	8.9%	16.0%	13.0%	10.0%
Employment Share	58.8%	56.2%	53.5%	57.7%	52.0%	43.5%	55.0%	45.0%	35.0%
Industry									
Growth Rate	7.9%	7.9%	7.9%	8.1%	9.0%	9.0%	8.4%	9.0%	9.0%
GSDP Share	26.9%	26.4%	25.5%	27.0%	27.2%	27.3%	27.0%	29.0%	30.0%
Employment Share	15.4%	15.6%	15.7%	15.7%	16.9%	18.5%	17.5%	20.0%	22.5%
Services									
Growth Rate	10.1%	10.1%	10.1%	9.6%	10.0%	10.0%	9.5%	10.0%	10.0%
GSDP Share	58.1%	63.1%	67.3%	57.3%	60.8%	63.8%	57.0%	58.0%	60.0%
Employment Share	25.8%	28.2%	30.8%	26.6%	31.2%	38.0%	27.5%	35.0%	42.5%
GSDP Growth Rate	8.1%	8.5%	8.9%	8.1%	8.9%	9.1%	8.1%	8.9%	9.1%
Output per worker (Services : Agriculture)	8.8	12.0	16.2	7.9	8.4	8.2	7.1	5.7	4.9

GSDP growth rates across the 3 plan periods maintained same in both Employment alignment – I (a) and Employment alignment – II (a)

Average annual net addition to workforce during 2007-08 and 2021-22 – 4,00,000

Business as usual: trends of the past 12 years of sectoral growth rates and sectoral shares of GSDP and employment to continue.

Employment alignment – I (a): disparities do not rise; ratio of output per worker in services and agriculture remains stable; net annual movement of workers out of agriculture – 2,00,000; net annual movement of workers into industry and services – 1,40,000 and 4,60,000 respectively

Employment alignment – II (a): disparities decline, ratio of output per worker in services and agriculture decline; net annual movement of workers out of agriculture – 3,20,000; net annual movement of workers into industry and services – 2,20,000 and 5,00,000 respectively

1(b). Projections of sectoral shares of GSDP and employment in Karnataka

	Employment alignment-I (b)			Employment alignment-II (b)		
	2007-12 (11 th Plan)	2012-17 (12 th Plan)	2017-22 (13 th Plan)	2007-12 (11 th Plan)	2012-17 (12 th Plan)	2017-22 (13 th Plan)
Agriculture						
Growth Rate	2.5%	3.0%	3.5%	2.8%	3.5%	4.0%
GSDP Share	15.7%	12.0%	8.9%	16.0%	13.0%	10.0%
Employment Share	57.7%	52.0%	43.5%	55.0%	45.0%	35.0%
Industry						
Growth Rate	8.1%	9.0%	9.8%	8.4%	9.0%	10.0%
GSDP Share	27.0%	27.2%	27.3%	27.0%	29.0%	30.0%
Employment Share	15.7%	16.9%	18.5%	17.5%	20.0%	22.5%
Services						
Growth Rate	9.6%	10.5%	11.5%	9.5%	10.5%	11.5%
GSDP Share	57.3%	60.8%	63.8%	57.0%	58.0%	60.0%
Employment Share	26.6%	31.2%	38.0%	27.5%	35.0%	42.5%
GSDP Growth Rate	8.1%	9.2%	10.3%	8.1%	9.2%	10.3%
Output per worker (Services : Agriculture)	7.9	8.4	8.2	7.1	5.7	4.9

Employment alignment - I (b) : Share of the 3 sectors (Agriculture, Industry and Services) in GSDP and Employment same as in Employment alignment – I (a); GSDP growth rates during the 3 plan periods between 8.1% - 10.3%.

Employment alignment - II (b) : Share of the 3 sectors (Agriculture, Industry and Services) in GSDP and Employment same as in Employment alignment – II (a); GSDP growth rates during the 3 plan periods between 8.1% - 10.3%.

GSDP growth rates across the 3 plan periods maintained same in both Employment alignment – I (b) and Employment alignment – II (b)

2. Projections of investments and resources

2 (a) Investment projections for the next 3 plan periods (Rs. crore at 2006-07 prices)

Sector	Norm	Investment (Rs. crore at 2006-07 prices)		
		11 th FYP (2007-12)	12 th FYP (2012-17)	13 th FYP (2017-22)
Agriculture	12-16% of Agricultural GSDP ¹	31,250	32,600	33,000
Health	6% of GSDP ²	73,950	1,11,750	1,72,200
Education	6% of GSDP ³	73,950	1,11,750	1,72,200
Employment creation (in Industry and Services sector)	See footnote 4 below	40,000	40,000	40,000
Infrastructure	7.5%-11% of GSDP ⁵	82,300	1,65,800	2,80,950
Total (above 5 key sectors)		3,01,450	4,61,900	6,98,350
Other sectors ⁶		1,55,300	2,37,950	3,59,750
Total Investments		4,56,750	6,99,850	10,58,100
GSDP⁷ (Rs. crore at 2006-07 prices)		12,32,820	18,62,754	28,69,608

- As per recommendations of 11th Five Year Plan, Planning Commission; 16% of GSDP assumes existing ICOR (Incremental Capital Output Ratio) of 4.0; with a better efficiency the investments required can come down to around 12%. An assumption of 16%, 14% and 12% of GSDP for 11th, 12th and 13th FYP is assumed for investments in agriculture; the implicit assumption is that the ICOR will improve over the 3 Plan periods with more focus on R&D and demand-based extension services. (At an all-India level, the public share of investment in agriculture was less than 30% in 2006-07 and this needs to improve).
- As per National Health Policy (NHP) 2002; NHP 2002 also recommends that 40% of the total health investments/expenditure needs to be borne through public investments (presently it is around 20%).
- As per National Policy on Education 1986 (as modified in 1992 and released by Dept. of Education, Govt. of India in 1998)
- Number of jobs that can be created per lakh of investment (at 1999-00 prices) in Large Industries is 0.06, Medium Industries is 0.35, SSI (organized) is 1.40 and SSI (unorganized) is 3.11, based on data from Karnataka Udyog Mitra and 3rd All India SSI Survey. No. of jobs that will have to be created in Industry and Services are on an average 1,40,000-2,20,000 and 4,60,000-5,00,000 per annum respectively.
- 7.5% of GSDP during 11th FYP; 10% during 12th FYP and 11% during 13th FYP as per recommendations of the Committee of Infrastructure, Planning Commission, Govt. of India. Infrastructure includes Electricity, Roads, Telecom, Railways, Water Supply and Sanitation, Ports, Airports etc. The norms factor in an overall economic growth rate of around 9%. (Irrigation is already included under Agriculture and hence it is not included here. Accordingly, the total infrastructure investment as proposed by the Committee of Infrastructure has been reduced by 11%, the share proposed for Irrigation)
- As per the 11th Five Year Plan of Karnataka, the 5 key sectors outlined above have a share of about 66% of the total outlays and hence, we are assuming that all the other sectors will contribute the remaining 34%. Other sectors include rural and urban development, housing etc.
- Projected GSDP based on growth rates as per the Employment alignment – I and Employment alignment – II scenarios of Table 1 above.

2 (b) Resource projections for the next 3 plan periods (Rs. crore at 2006-07 prices)

Particulars	Investments/ Resources (Rs. crore at 2006-07 prices)		
	11 th FYP (2007-12)	12 th FYP (2012-17)	13 th FYP (2017-22)
Public Resources ¹			
1.State Revenue Receipt	2,38,149	3,49,918	5,14,145
2.Central Devolution	34,049	50,030	73,510
3.Central Grants	26,681	27,335	27,335
4. Total Resources (1+2+3)	2,98,879	4,27,283	6,14,990
5. Total Investments	4,56,750	6,99,850	10,58,100
6. Gap (5-6)	1,57,871	2,72,567	4,43,110
7. Gap as a % of total investments	34.6%	38.9%	41.9%

1. Assumptions : Real growth rate of 8% in State Revenue Receipts and Central Devolution and no real growth in Central Grants (based on projections for 11th FYP given in Karnataka Medium Term Fiscal Framework 2008-12 and assuming a inflation component of 4-5%).

3. Millenium Development Goals

The Millennium Development Goals (MDGs) are eight goals to be achieved by 2015 that respond to the world's main development challenges. The MDGs are drawn from the actions and targets contained in the Millennium Declaration that was adopted by 189 nations-including India during the UN Millennium Summit in September 2000. These goals recognise explicitly the interdependence between growth, poverty reduction and sustainable development, and acknowledge that development rests on the foundations of democratic governance, the rule of law, respect for human rights and peace and security. They are based on time-bound and measurable targets accompanied by indicators for monitoring progress. The eight MDGs break down into 18 quantifiable targets given below that are measured by 60 indicators.

Goal 1 – Eradicate extreme poverty and hunger
Reduce by half the proportion of people living on less than a dollar a day Reduce by half the proportion of people who suffer from hunger
Goal 2 – Achieve universal primary education
Ensure that all boys and girls complete a full course of primary schooling
Goal 3 – Promote gender equality and empower women
Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015
Goal 4 – Reduce child mortality
Reduce by two thirds the mortality rate among children under five
Goal 5 – Improve maternal health
Reduce by three quarters the maternal mortality ratio
Goal 6 – Combat HIV/AIDS, malaria, and other diseases
Halt and begin to reverse the spread of HIV/AIDS Halt and begin to reverse the incidence of malaria and other major diseases
Goal 7 – Ensure environment sustainability
Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources Reduce by half the proportion of people without sustainable access to safe drinking water Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020
Goal 8 – Develop a global partnership for development
Develop further an open, rule-based, predictable, non-discriminatory trading and financial system Includes a commitment to good governance, development, and poverty reduction — both nationally and internationally Address the special needs of the least developed countries Includes: tariff and quota free access for least developed countries' exports; enhanced programme of debt relief for HIPC's and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction Address the special needs of landlocked countries and small island developing States Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term. In cooperation with developing countries, develop and implement strategies for decent and productive work for youth. In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries In cooperation with the private sector, make available the benefits of new technologies, especially information and communications

4. List of abbreviations

ANM	Auxiliary Nurse Midwife
ATC	Aggregate Technical and Commercial
BBMP	Bruhat Bengaluru Mahanagara Palike
CAGR	Compounded Annual Growth Rate
CBR	Crude Birth Rate
CDM	Clean Development Mechanism
CDR	Crude Death Rate
CEA	Central Electricity Authority
CII	Confederation of Indian Industries
CNG	Condensed Natural Gas
CSC	Common Service Centre
CSO	Central Statistical Organisation
DIET	District Institute of Education and Training
DMS	Demand Side Management
EPW	Economic and Political Weekly
ESCOM	Electricity Supply Company
EWR	Elected Women Representatives
FAO	Food and Agriculture Organisation
FCB	Fuel Cell Bus
GAIL	Gas Authority of India Limited
GDI	Gender Development Index
GDP	Gross Domestic Income
GHG	Green House Gases
Gol	Government of India
GoK	Government of Karnataka
GP	Gram Panchayat
GSDP	Gross State Domestic Income
Ha	Hectare
HAM	Hectare Meters
HCR	Head Count Ratio
HDI	Human Development Index
HDR	Human Development Report
HH	Household
ICDS	Integrated Child Development Services
IEC	Information, Education and

KREDL	Karnataka Renewable Energy Development Limited
LEB LPG	Life Expectancy at Birth Liquefied Petroleum Gas
MDG	Millennium Development Goal
MESCOM	Mangalore Electricity Supply Company
MFI	Microfinance Institution
MNES	Ministry of Non-conventional Energy Sources
MPCE	Monthly per capita Consumer Expenditure
MU	Mega Unit
MW	Mega Watt
NeGP	National e-Governance Plan
NFHS	National Family Health Survey
NGO	Non-Government Organisation
NSSO	National Sample Survey Organisation
OBC	Other Backward Classes
PDS	Public Distribution System
PHC	Primary Health Centres
PNDT Act	Pre-Natal Diagnostics Act
PPP	Public Private Partnership
PPP	Purchasing Power Parity
PRI	Panchayat Raj Institution
PSU	Public Sector Unit
PwC	PricewaterhouseCoopers Private Limited
PWSM	Participatory Watershed Management
RCH	Reproductive and Child Health
SC	Schedule Castes
SCERT	State Council Educational Research and Training
SDMC	School Development Monitoring Committee
SHG	Self Help Group
SPV	Solar Photovoltaic
SRS	Sample Registration System
SSA	Sarva Siksha Abhiyan
ST	Schedule Tribes
T&D	Transmission and Distribution

	Communication
IPHS	Indian Public Health Standards
IRPP	Independent Rural Power Producers
ISSP	India Statistical Strengthening Project
ITI	Industrial Training Institutes
JFMC	Joint Forest Management Committees
JNNURM	Jawaharlal Nehru Urban Renewal Mission

TMC	Thousand Million Cubic meters
TP	Taluk Panchayat
TUA	Tank User Association
ULB	Urban Local Body
UNDP	United Nations Development Program
WPR	Worker Population Ratio

ⁱ Population Projections for India and States 2001-2026, Office of the Registrar General & Census Commissioner, India

ⁱⁱ Sample Registration System (SRS), 2006

ⁱⁱⁱ Karnataka Human Development Report 2005, Government of Karnataka

^{iv} Press Information Bureau, Government of India – Planning Commission March 2007 Press Release

^v Karnataka Human Development Report 2005, Government of Karnataka

^{vi} Press Information Bureau, Government of India – Planning Commission March 2007 Press Release

^{vii} Karnataka Human Development Report 2005, Government of Karnataka

^{viii} Data in this section is from the NSSO 61st Round Employment & Unemployment Situation in India, 2004-05

^{ix} The number of persons/person-days employed per thousand persons/person-days is referred to as work-force participation rates (WFPR) or worker-population ratio (WPR)

^x NSSO 62nd Round - Employment & Unemployment Situation in India, 2005-06

^{xi} NSSO 61st Round - Employment & Unemployment Situation in India, 2004-05

^{xii} Karnataka At A Glance, 2007-08, Directorate of Economics and Statistics

^{xiii} Forests At A Glance, Karnataka Forest Department, www.karnatakaforest.gov.in

^{xiv} Karnataka Water Policy 2002

^{xv} Report on Dynamic Groundwater Resources of Karnataka as on March 2004, Department of Mines and Geology, Government of Karnataka

^{xvi} Water Resources Department, Government of Karnataka

^{xvii} Visveshwaraiah Industrial Trade Centre, Government of Karnataka

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^{xxii} Osmani, S.R. "Exploring the Employment Nexus : Topics in Employment and Poverty," A report prepared for the joint ILO-UNDP programme on Employment and Poverty, 2003.

^{xxiii} NSSO 61st Round - Employment & Unemployment Situation in India, 2004-05

^{xxiv} Eight Agricultural Census (2005-06) report, Department of Agriculture, Government of Karnataka

^{xxv} Allocation to resources according to NHP guidelines is 55% to primary, 35% to secondary and 10% to tertiary healthcare

^{xxvi} Industrial Energy Utilisation in Karnataka and Potential Savings, <http://wgbis.ces.iisc.ernet.in/energy/paper/potential%20savings/potential%20savings.html>

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