



Population Geography

Concepts and Prospects

Varsha Rani



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Population Growth Trends, Projections, Challenges and Opportunities

Introduction

Human beings evolved under conditions of high mortality due to famines, accidents, illnesses, infections and war and therefore the relatively high fertility rates were essential for species survival. In spite of the relatively high fertility rates it took all the time from evolution of mankind to the middle of the 19th century for the global population to reach one billion. The twentieth century witnessed an unprecedented rapid improvement in health care technologies and access to health care all over the world; as a result there was a steep fall in the mortality and steep increase in longevity. The population realized these changes and took steps to reduce their fertility but the decline in fertility was not so steep. As a result the global population has undergone a fourfold increase in a hundred years and has reached 6 billion.

Demographic Transition

Demographers refer to these changes from stable population with high fertility and mortality to a new stability in population due to low fertility and mortality patterns as demographic transition. Demographic transition occurs in four phases; of these the first three phases are characterized by population growth. In the first phase there is a fall in death rate and improvement in

longevity; this leads to population growth. In the second phase there is a fall in birth rate but fall is less steep than fall in death rates and consequently there is population growth. In the third phase death rates plateau and replacement level of fertility is attained but the population growth continues because of the large size of population in reproductive age group. The fourth phase is characterized by fall in birth rate to below replacement level and reduction in the proportion of the population in reproductive age group; as a result of these changes population growth ceases and population stabilizes. Experience in some of the developed countries suggest that in some societies even after attainment of stable population there may be a further decline in fertility so that there is a further reduction in the population-so called negative population growth phase of the demographic transition. Different countries in the world have entered the demographic transition at different periods of time; there are also substantial differences in the rate of demographic transition and time taken to achieve population stabilization.

Global Population Scenario

In 1901 the world population was 1.6 billion. By 1960, it became 3 billion, and by 1987, 5 billion and in 1999, 6 billion. Currently, one billion people are added every 12-13 years. During the last decade there has been substantial decline in birth rate. The reasons for decline vary from society to society; urbanization, rising educational attainment, increasing employment among women, lower infant mortality are some major factors responsible for growing desire for smaller families; increasing awareness and improved access to contraception have made it possible for the majority of the couple to achieve the desired family size. In some countries slowing of the population growth has been due to an increase in mortality (e.g. HIV related mortality in sub-saharan Africa). As a result of all these the decline in the global population growth during the nineties is steeper than the earlier predictions. Currently, the annual increment is about 80 million. It is expected to decrease to about 64 million by 2020-25 and to 33 million by 2045-50; 95 % of the growth of population occurs in developing countries. Most demographers believe that the current accelerated decline in population growth will continue for the next few decades

and the medium projections of Population Division of United Nations, that the global population will grow to 8.9 billion by 2050 is likely to be achieved.

Changing Age Structure of the Population

During demographic transition along with the growth in number there are changes in the population age structure. While the importance of the population growth as a determinant of quality of life is universally understood, the profoundly serious consequences of changing age structure especially if it occurs too rapidly is not understood by many. Population pyramids graphically represent complex changes in age structure of the population so that it can be readily understood and interpreted. The population pyramids for the global population. Currently nearly half of the global population is below 25 years of age and one sixth are in the age group 15-24. Their choices, efforts and lifestyles will determine not only the population growth but also future improvement in the quality of life in harmony with global ecology. In developed countries the reproductive age group population is relatively small; their fertility is low and the longevity at birth is high. Population profiles of these countries resemble a cylinder and not a pyramid. These countries have the advantages of having achieved a stable population but have to face the problems of having a relatively small productive workforce to support the large aged population with substantial non-communicable disease burden. Some of the developing countries have undergone a very rapid decline in the birth rates within a short period. This enabled them to quickly achieve population stabilization but they do face the problems of rapid changes in the age structure and workforce which may be inadequate to meet their manpower requirements. In contrast the population in most of the developing countries (including India) consist of a very large proportion of children and persons in reproductive age. Because of the large reproductive age group (Population momentum) the population will continue to grow even when replacement level of fertility is reached (couples having only two children). It is imperative that these countries should generate enough employment opportunities for this work force and utilise the human resources and accelerate their economic growth. Planners and policy makers in developing countries like

India have to take into account the ongoing demographic changes (number and age structure of the population) so that available human resources are optimally utilised as agents of change and development to achieve improvement in quality of life.

Demographic Transition in India

Over the last four decades there has been rapid fall in Crude Death Rate (CDR) from 25.1 in 1951 to 9.8 in 1991 and less steep decline in the Crude Birth Rate (CBR) from 40.8 in 1951 to 29.5 in 1991. The annual exponential population growth rate has been over 2% in the period 1961-90. During the nineties the decline in CBR has been steeper than that in the (CDR) and consequently, the annual population growth rate has fallen below 2%. The rate of decline in population growth is likely to be further accelerated during the next decade.

The changes in the population growth rates have been relatively slow, steady and sustained. As a result the country was able to achieve a relatively gradual change in the population numbers and age structure. The short and long term adverse consequences of too rapid decline in birth rates and change in age structure on the social and economic development were avoided and the country was able to adapt to these changes without massive disruptions of developmental efforts.

In spite of the uniform national norms set under the 100% Centrally Funded and Centrally Sponsored Scheme (CSS) of Family Welfare, there are substantial differences in the performance between States as assessed by IMR and CBR. Though the decline in CBR and IMR has occurred in all States, the rate of decline is slower in some States.

At one end of the spectrum is Kerala with mortality and fertility rates nearly similar to those in some of the developed countries. At the other end, there are four large northern States (Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan) with high Infant Mortality Rate and Fertility Rates. Though the decline in CBR, IMR and CDR has occurred in all States, the rate of decline was slower in some States like U.P. and Bihar. There are substantial differences in CBR and IMR not only between States but also between the districts in the same state.

In view of these findings, the NDC Committee on Population recommended that efforts should be made to provide reproductive and child health services at district level and undertake decentralized area-specific micro planning and implementation of appropriate interventions. In response to this recommendation Dept of Family Welfare has abolished the practice of fixing targets for individual contraceptives by the Central Government from April 1996 and had initiated decentralized district based, planning (based on community need assessment), implementation, monitoring and midcourse corrections of FW programme. The experience of states with district based planning, implementation and the impact are being closely monitored.

Consequences of Population Growth

Environmental and Ecological Consequences

The already densely populated developing countries contribute to over 95% of the population growth and rapid population growth could lead to environmental deterioration. Developed countries are less densely populated and contribute very little to population growth; however, they cause massive ecological damage by the wasteful, unnecessary and unbalanced consumption the consequences of which could adversely affect both the developed and the developing countries. The review on "Promotion of sustainable development: challenges for environmental policies" in the Economic Survey 1998-99 had covered in detail the major environmental problems, and policy options for improvement; the present review will only briefly touch upon some of the important ecological consequences of demographic transition.

In many developing countries continued population growth has resulted in pressure on land, fragmentation of land holding, collapsing fisheries, shrinking forests, rising temperatures, loss of plant and animal species. Global warming due to increasing use of fossil fuels (mainly by the developed countries) could have serious effects on the populous coastal regions in developing countries, their food production and essential water supplies. The Intergovernmental Panel on Climate Change has projected that, if current greenhouse gas emission trends continue, the mean global surface temperature will rise from 1 to 3.5 degrees Celsius

in the next century. The panel's best estimate scenario projects a sea-level rise of 15 to 95 centimetres by 2100. The ecological impact of rising oceans would include increased flooding, coastal erosion, salination of aquifers and coastal crop land and displacement of millions of people living near the coast. Patterns of precipitation are also likely to change, which combined with increased average temperatures, could substantially alter the relative agricultural productivity of different regions. Greenhouse gas emissions are closely linked to both population growth and development. Slower population growth in developing countries and ecologically sustainable lifestyles in developed countries would make reduction in green house gas emission easier to achieve and provide more time and options for adaptation to climate change. Rapid population growth, developmental activities either to meet the growing population or the growing needs of the population as well as changing lifestyles and consumption patterns pose major challenge to preservation and promotion of ecological balance in India. Some of the major ecological adverse effects reported in India include:

- Severe pressure on the forests due to both the rate of resource use and the nature of use. The per capita forest biomass in the country is only about 6 tons as against the global average of 82 tons.
- Adverse effect on species diversity.
- Conversion of habitat to some other land use such as agriculture, urban development, forestry operation. Some 70-80 % of fresh water marshes and lakes in the Gangetic flood plains has been lost in the last 50 years.
- Tropical deforestation and destruction of mangroves for commercial needs and fuel wood. The country's mangrove areas have reduced from 700,000 ha to 453,000 ha in the last 50 years.
- Intense grazing by domestic livestock.
- Poaching and illegal harvesting of wildlife.
- Increase in agricultural area, high use of chemical fertilizers pesticides and weedicides; water stagnation, soil erosion, soil salinity and low productivity.

- High level of biomass burning causing large-scale indoor pollution.
- Encroachment on habitat for rail and road construction thereby fragmenting the habitat increase in commercial activities such as mining and unsustainable resource extraction.
- Degradation of coastal and other aquatic ecosystems from domestic sewage, pesticides, fertilizers and industrial effluents.
- Over fishing in water bodies and introduction of weeds and exotic species.
- Diversion of water for domestic, industrial and agricultural uses leading to increased river pollution and decrease in self-cleaning properties of rivers.
- Increasing water requirement leading to tapping deeper aquifers which have high content of arsenic or fluoride resulting health problems.
- Disturbance from increased recreational activity and tourism causing pollution of natural ecosystems with wastes left behind by people.

The United Nations Conference on Environment and Development (1992) acknowledged population growth, rising income levels, changing technologies, increasing consumption pattern will all have adverse impact on environment. Ensuring that there is no further deterioration depends on choices made by the population about family size, life styles, environmental protection and equity.

Availability of appropriate technology and commitment towards ensuring sustainable development is increasing throughout the world. Because of these, it might be possible to initiate steps to see that the natural carrying capacity of the environment is not damaged beyond recovery and ecological balance is to a large extent maintained. It is imperative that the environmental sustainability of all developmental projects is taken care of by appropriate inputs at the planning, implementation, monitoring and evaluation stages.

Urbanization

The proportion of people in developing countries who live in cities has almost doubled since 1960 (from less than 22 per cent to more than 40 per cent), while in more developed regions the urban share has grown from 61 per cent to 76 per cent. Urbanization is projected to continue well into the next century. By 2030, it is expected that nearly 5 billion (61 per cent) of the world's 8.1 billion people will live in cities. India shares this global trend toward urbanisation.

Globally, the number of cities with 10 million or more inhabitants is increasing rapidly, and most of these new "megacities" are in developing regions. In 1960, only New York and Tokyo had more than 10 million people. By 1999, the number of megacities had grown to 17(13 in developing countries). It is projected that there will be 26 megacities by 2015, (18 in Asia; of these five in India); more than 10 per cent of the world's population will live in these cities (1.7% in 1950). India's urban population has doubled from 109 million to 218 million during the last two decades and is estimated to reach 300 million by 2000 AD. As a consequence cities are facing the problem of expanding urban slums.

Like many other demographic changes, urbanization has both positive and negative effects. Cities and towns have become the engines of social change and rapid economic development. Urbanisation is associated with improved access to education, employment, health care; these result in increase in age at marriage, reduction in family size and improvement in health indices. As people have moved towards and into cities, information has flowed outward. Better communication and transportation now link urban and rural areas both economically and socially creating an urban-rural continuum of communities with improvement in some aspects of lifestyle of both. The ever increasing reach of mass media communicate new ideas, points of reference, and available options are becoming more widely recognized, appreciated and sought. This phenomenon has affected health care, including reproductive health, in many ways. For instance, radio and television programmes that discuss gender equity, family size preference and family planning options are now reaching formerly isolated

rural populations. This can create demand for services for mothers and children, higher contraceptive use, and fewer unwanted pregnancies, smaller healthier families and lead to more rapid population stabilisation.

But the rapid growth of urban population also poses some serious challenges. Urban population growth has outpaced the development of basic minimum services; housing, water supply, sewerage and solid waste disposal are far from adequate; increasing waste generation at home, offices and industries, coupled with poor waste disposal facilities result in rapid environmental deterioration. Increasing automobiles add to air pollution. All these have adverse effect on ecology and health. Poverty persists in urban and peri-urban areas; awareness about the glaring inequities in close urban setting may lead to social unrest.

Rural Population and their Development

Over seventy per cent of India's population still lives in rural areas. There are substantial differences between the states in the proportion of rural and urban population (varying from almost 90 per cent in Assam and Bihar to 61 per cent in Maharashtra). Agriculture is the largest and one of the most important sector of the rural economy and contributes both to economic growth and employment. Its contribution to the Gross Domestic Product has declined over the last five decades but agriculture still remains the source of livelihood for over 70 per cent of the country's population. A large proportion of the rural work force is small and consists of marginal farmers and landless agricultural labourers. There is substantial under employment among these people; both wages and productivity are low. These in turn result in poverty; it is estimated that 320 million people are still living below the poverty line in rural India.

Though poverty has declined over the last three decades, the number of rural poor has in fact increased due to the population growth. Poor tend to have larger families which puts enormous burden on their meagre resources, and prevent them from breaking out of the shackles of poverty. In States like Tamil Nadu where replacement level of fertility has been attained, population growth rates are much lower than in many other States; but the population

density is high and so there is a pressure on land. In States like Rajasthan, Uttar Pradesh, Bihar and Madhya Pradesh population is growing rapidly, resulting in increasing pressure on land and resulting land fragmentation. Low productivity of small land holders leads to poverty, low energy intake and under nutrition, and this, in turn, prevents the development thus creating a vicious circle. In most of the states non-farm employment in rural areas has not grown very much and cannot absorb the growing labour force. Those who are getting educated specially beyond the primary level, may not wish to do manual agricultural work. They would like better opportunities and more remunerative employment. In this context, it is imperative that programmes for skill development, vocational training and technical education are taken up on a large scale in order to generate productive employment in rural areas. The entire gamut of existing poverty alleviation and employment generation programmes may have to be restructured to meet the newly emerging types of demand for employment.

Rural poor have inadequate access to basic minimum services, because of poor connectivity, lack of awareness, inadequate and poorly functional infrastructure. There are ongoing efforts to improve these, but with the growing aspirations of the younger, educated population these efforts may prove to be inadequate to meet the increasing needs both in terms of type and quality of services. Greater education, awareness and better standard of living among the growing younger age group population would create the required consciousness among them that smaller families are desirable; if all the felt needs for health and family welfare services are fully met, it will be possible to enable them to attain their reproductive goals, achieve substantial decline in the family size and improve quality of life.

Water Supply

In many parts of developed and developing world, water demand substantially exceeds sustainable water supply. It is estimated that currently 430 millions (8% of the global population) are living in countries affected by water stress; by 2020 about one fourth of the global population may be facing chronic and recurring shortage of fresh water. In India, water withdrawal is estimated

to be twice the rate of aquifer recharge; as a result water tables are falling by one to three meters every year; tapping deeper aquifers have resulted in larger population groups being exposed to newer health hazards such as high fluoride or arsenic content in drinking water. At the other end of the spectrum, excessive use of water has led to water logging and increasing salinity in some parts of the country. Eventually, both lack of water and water logging could have adverse impact on India's food production. There is very little arable agricultural land which remains unexpected and in many areas, agricultural technology improvement may not be able to ensure further increase in yield per hectare. It is, therefore, imperative that research in biotechnology for improving development of foodgrains strains that would tolerate salinity and those which would require less water gets high priority. Simultaneously, a movement towards making water harvesting, storage and its need based use part of every citizens life should be taken up.

Food Security

Technological innovations in agriculture and increase in area under cultivation have ensured that so far, food production has kept pace with the population growth. Evolution of global and national food security systems have improved access to food. It is estimated that the global population will grow to 9 billion by 2050 and the food production will double; improvement in purchasing power and changing dietary habits (shift to animal products) may further add to the requirement of food grains. Thus, in the next five decades, the food and nutrition security could become critical in many parts of the world especially in the developing countries and pockets of poverty in the developed countries.

In India one of the major achievements in the last fifty years has been the green revolution and self-sufficiency in food production. Food grain production has increased from 50.82 in 1950-51 to 200.88 million tons in 1998-99 (Prov.). It is a matter of concern that while the cereal production has been growing steadily at a rate higher than the population growth rates, the coarse grain and pulse production has not shown a similar increase.

Consequently there has been a reduction in the per capita availability of pulses (from 60.7 grams in 1951 to 34 grams per day in 1996) and coarse grains. Over the last five decades there has been a decline in the per capita availability of pulses. During the last few years the country has imported pulses to meet the requirement. There has been a sharp and sustained increase in cost of pulses, so there is substantial decline in per capita pulses consumption among poorer segment of population. This in turn could have an adverse impact on their protein intake. The pulse component of the "Pulses and Oil Seeds Mission" need to receive a major thrust in terms of R&D and other inputs, so that essential pulse requirement of growing population is fully met.

Rising cost of pulses had a beneficial effect also. Till eighties in central India wages of landless labourers were given in the form Kesari Dal which was cheaper than cereals or coarse grains. Consumption of staple diet of Kesari Dal led to crippling disease of neuro lathyrism. Over the last three decades the rising cost of pulses has made Kesari Dal more expensive than wheat or rice and hence it is no longer given to labourers as wages for work done; as a result the disease has virtually disappeared from Central India. Over years the coarse grain production has remained stagnant and per capita availability of coarse grain has undergone substantial reduction; there has been a shift away from coarse grains to rice and wheat consumption even among poorer segment of population. One of the benefits of this change is virtual elimination of pellagra which was widely prevalent among low income group population in Deccan Plateau whose staple food was sorghum.

Coarse grains are less expensive than rice and wheat; they can thus provide higher calories for the same cost as compared to rice and wheat. Coarse grains which are locally produced and procured if made available through TPDS at subsidised rate, may not only substantially bring down the subsidy cost without any reduction in calories provided but also improve "targetting"-as only the most needy are likely to access these coarse grains. Another area of concern is the lack of sufficient focus and thrust in horticulture; because of this, availability of vegetables especially green leafy vegetables and yellow/red vegetables throughout the year at affordable cost both in urban and rural areas has remained an

unfulfilled dream. Health and nutrition education emphasizing the importance of consuming these inexpensive rich sources of micronutrients will not result in any change in food habits unless there is harnessing and effective management of horticultural resources in the country to meet the growing needs of the people at affordable cost. States like Tamil Nadu and Himachal Pradesh have initiated some efforts in this direction; similar efforts need be taken up in other states also.

Nutrition

At the time of independence the country faced two major nutritional problems; one was the threat of famine and acute starvation due to low agricultural production and lack of appropriate food distribution system. The other was chronic energy deficiency due to poverty, low-literacy, poor access to safe-drinking water, sanitation and health care; these factors led to wide spread prevalence of infections and ill health in children and adults. Kwashiorkor, marasmus, goitre, beri beri, blindness due to Vitamin-A deficiency and anaemia were major public health problems. The country adopted multi-sectoral, multi-pronged strategy to combat the major nutritional problems and to improve nutritional status of the population. During the last 50 years considerable progress has been achieved. Famines no longer stalk the country. There has been substantial reduction in moderate and severe undernutrition in children and some improvement in nutritional status of all segments of population. Kwashiorkor, marasmus, pellagra, lathyrism, beri beri and blindness due to severe Vitamin-A deficiency have become rare. However, it is a matter of concern that milder forms of Chronic Energy Deficiency (CED) and micronutrient deficiencies continue to be widely prevalent in adults and children. In view of the fact that population growth in India will continue for the next few decades, it is essential that appropriate strategies are devised to improve food and nutrition security of families, identify individuals/families with severe forms of CED and provide them assistance to overcome these problems.

Operational strategy to improve the dietary intake of the family and improve nutritional status of the rapidly growing adult population would include:

- Ensuring adequate agricultural production of cereals, pulses, vegetables and other foodstuffs needed to fully meet the requirement of growing population.
- Improving in purchasing power through employment generation and employment assurance schemes.
- Providing subsidised food grains through TPDS to the families below poverty line.
- Exploring feasibility of providing subsidized coarse grains to families Below Poverty Line (BPL) Operational strategies to improve health and nutritional status of the growing numbers of women and children include:
 - 1) Pregnant and lactating women-screening to identify women with weight below 40 Kgs and ensuring that they/ their preschool children receive food supplements through Integrated Child Development Services Scheme (ICDS); adequate antenatal intrapartum and neonatal care.
 - 2) 0-6 months infants-Nutrition education for (a) early initiation of lactation (b) protection and promotion of universal breast feeding (c) exclusive breast feeding for the first six months; unless there is specific reason supplementation should not be introduced before 6 months (d) immunisation, growth monitoring and health care.
 - 3) Well planned nutrition education to ensure that the infants and children do a) continue to get breastfed; b) get appropriate cereal pulse-vegetable based supplement fed to them at least 3-4 times a day – appropriate help in ensuring this through family/community/work place support; c) immunisation and health care.
 - 4) Children in the 0-5 age group; a) screen by weightment to identify children with moderate and severe undernutrition b) provide double quantity supplements through ICDS; c) screening for nutrition and health problems and appropriate intervention.
 - 5) Primary school children: a) weigh and identify those with moderate and severe chronic energy deficiency; b) improve dietary intake to these children through the midday meal.

- 6) Monitor for improvement in the identified undernourished infants, children and mothers; if no improvement after 2 months refer to physician for identification and treatment of factors that might be responsible for lack of improvement.
- 7) Nutrition education on varying dietary needs of different members of the family and how they can be met by minor modifications from the family meals. Intensive health education for improving the life style of the population coupled with active screening and management of the health problems associated with obesity.

Population Projections for India and their Implications

Right from 1958 the Planning Commission has been constituting an Expert Group on Population Projections prior to the preparation of each of the Five Year Plans so that the information on the population status at the time of initiation of the Plan and population projections for future are available during the preparation of the Plan. Population projections have been utilised not only for planning to ensure provision of essentials necessities such as food, shelter and clothing but also prerequisites for human development such as education, employment and health care. Over the years there has been considerable refinement in the methodology used for population projections and substantial improvement in the accuracy of predictions. The projections made by the Standing Committee on Population Projection in 1988 for the year 1991 was 843.6 million; this figure was within 0.3% of the 846.3 million reported in the Census 1991. In 1996, Technical Group on Population Projections, had work out the population projections for the country and the states for the period 1996 to 2016 on the basis of census 1991 and other available demographic data.

Economic Implications

Population growth and its relation to economic growth has been a matter of debate for over a century. The early Malthusian view was that population growth is likely to impede economic growth because it will put pressure on the available resources,

result in reduction in per capita income and resources; this, in turn, will result in deterioration in quality of life. Contrary to the Malthusian predictions, several of the East Asian countries have been able to achieve economic prosperity and improvement in quality of life inspite of population growth. This has been attributed to the increase in productivity due to development and utilisation of innovative technologies by the young educated population who formed the majority of the growing population. These countries have been able to exploit the dynamics of demographic transition to achieve economic growth by using the human resources as the engine driving the economic development; improved employment with adequate emoluments has promoted saving and investment which in turn stimulated economic growth.

However, not all countries, which have undergone demographic transition, have been able to transform their economies. Sri Lanka in South Asia underwent demographic transition at the same time as South East Asian countries but has not achieved the economic transition. It is now realized that population growth or demographic transition can have favourable impact on economic growth only when there are optimal interventions aimed at human resource development (HRD) and appropriate utilisation of available human resources. For India the current phase of demographic transition with low dependency ratio and high working age group population, represents both a challenge and an opportunity.

The challenge is to develop these human resources through appropriate education and skill development and utilise them fully by giving them appropriate jobs with adequate emoluments; if this challenge is met through well planned schemes for HRD and employment generation which are implemented effectively, there will be improved national productivity and personal savings rates; appropriate investment of these savings will help the country to achieve the economic transition from low economic growth-low per capita income to high economic growth-high per capita income.

It is imperative to make the best use of this opportunity so as to enable the country and its citizens to vault to the high income-high economic growth status and stabilize at that level.

Interstate Differences

There are marked differences between States in size of the population and population growth rates, the time by which replacement level of fertility is to be achieved and age structure of the population. If the present trend continues, most of the Southern and the Western States are likely to achieve TFR of 2.1 by 2010. Urgent energetic steps to assess and fully meet the unmet needs for maternal and child health (MCH) care and contraception through improvement in availability and access to family welfare services are needed in the States of UP, MP, Rajasthan and Bihar in order to achieve a faster decline in their mortality and fertility rates.

The five states of Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan and Orissa, which constitute 44% of the total population of India in 1996, will constitute 48% of the total population of India in 2016. These states will contribute 55% of the total increase in population of the country during the period 1996-2016. In all the states performance in the social and economic sector has been poor. The poor performance is the outcome of poverty, illiteracy and poor development which coexist and reinforce each other. The quality and coverage under health services is poor and the unmet need for FW services is about 30%. Urgent energetic steps are required to be initiated to assess and fully meet the unmet needs for maternal and child health (MCH) care and contraception through improvement in availability and access to family welfare services in the states of UP, MP, Rajasthan and Bihar in order to achieve a faster decline in their mortality and fertility rates. The performance of these states would determine the year and size of the population at which the country achieves population stabilisation.

There are also marked differences between States in socio-economic development. Increasing investments and rapid economic development are likely to occur in the States where literacy rates are high; there is ready availability of skilled work force and adequate infrastructure. In these States, population growth rates are low. If equitable distribution of the income and benefits generated by development is ensured, substantial increase in per

capita income and improvement in quality of life could occur in these States in a relatively short time.

In majority of States with high population growth rates, the performance in the social and economic sector has been poor. The poor performance could be the outcome of a variety of factors including paucity of natural, financial or human resources. Poverty, illiteracy and poor development coexist and aggravate each other. In order to promote equity and reduce disparity between States, special assistance has been provided to the poorly performing States. The benefits accrued from such assistance has to a large extent depended upon:

- The States' ability to utilise the available funds; improve quality & coverage of services and facilities, increase efficiency and improve performance.
- Community awareness and ability to utilise the available services.

In spite of the additional assistance provided, improvement in infrastructure, agriculture and industry have been sub-optimal and the per capita income continues to be low in most of the poorly performing States. These States also have high birth rates and relatively low literacy rates. It is imperative that special efforts are made during the next two decades to break this vicious self perpetuating cycle of poor performance, poor per capita income, poverty, low literacy and high birth rate so that the further widening of disparities between States in terms of per capita income and quality of life is prevented.

The higher population growth rates and low per capita income in poorly performing States are likely to have a major impact on several social sector programmes. The health status of the population in these States is poor; the health sector programme will require inputs not only for improving infrastructure and manpower, but also increasing efficiency and improving performance. The Family Welfare Programme has to address the massive task of meeting all the unmet needs for MCH and contraception so that there is a rapid decline in mortality and fertility rates. Due to high birth rate, the number of children requiring schooling will be large. The emphasis in the education

sector on primary education is essential to ensure that the resource constraints do not result in an increase in either proportion or number of illiterates. Emphasis on prevocational and vocational training in schools will enable these children to acquire skills through which they will find gainful employment later.

Migration

The available data from census shows that until 1991 both internal and international migration has been negligible. The Technical Group while computing the population projection upto 2016, has assumed that the component of migration between major States and from India will be negligible. This assumption may not be valid if there is further widening of the disparity between States in terms of economic growth and employment opportunity. Given the combination of high population growth, low literacy and lack of employment opportunities in the poorly performing States, there may be increasing rural to urban migration as well as interstate migration especially of unskilled workers. Such migration may in the short run assist the migrants in overcoming economic problems associated with unemployment. However, the migrant workers and their families may face problems in securing shelter, education and health care. It is essential to build up a mechanism for monitoring these changes. Steps will have to be taken to provide for the minimum essential needs of the vulnerable migrant population.

Labour, Employment and Manpower

Population, which is engaged in any economic activity (employed persons) and population seeking work (unemployed) constitute Labour Force. India has the second largest labour force in the world. Projection of labour force is pre-requisite ensuring optimal utilisation of available human resources. Manpower development is then taken up to provide adequate labour force, of appropriate skills and quality to different sectors so that there is rapid socioeconomic development and there is no mismatch between skills required and skills available. Planning also attempts to provide enabling environment for employment generation (both self employment and wage employment) in public, private and voluntary sectors in urban and rural areas.

Labour force in India will be increasing by more than 10 million per annum during 1997-2012. It will be imperative to plan for and achieve adequate agricultural and industrial growth to absorb this work force. Most of the persons entering the labour force will be educated and have some skills. Increasing literacy and decreasing birth rates may result in more women seeking economically productive work outside home. It will be important to generate appropriate and remunerative employment at places where labour force are available so as to reduce interstate and urban migration in search of employment. Attempts should be made to eliminate bonded labour, employment of children and women in hazardous industries and minimising occupational health hazards.

Planners face the challenge to have sustained high economic growth rate in sectors that are labour-intensive to ensure adequate employment generation for productively utilising this massive work force. If the massive work force of literate, skilled, aware men and women in age-group 20-60 years get fully employed and adequately paid they could trigger off a period of rapid economic development. As they have very few dependant children and elders there will be increased savings and investments at household level; this in turn will improve the availability of resources for accelerating economic growth. The current stage of demographic transition thus provides the country with the opportunity window for using human resources as the engine to power economic development and improving the quality of life of all the citizens.

Sex Ratio

The reported decline in the sex ratio during the current century has been a cause for concern. The factors responsible for this continued decline are as yet not clearly identified. However, it is well recognised that the adverse sex ratio is a reflection of the gender disparity. Higher childhood mortality in girl children is yet another facet of the existing gender disparities and consequent adverse effect on survival. In the reproductive age group the mortality rates among women are higher than those among men. The continued high maternal mortality is one of the major factors responsible for this. Effective implementation of the Reproductive

and Child Health Programme is expected to result in a substantial reduction in maternal mortality. At the moment, the longevity at birth among women is only marginally higher than that among men. However over the next decade life expectancy among women will progressively increase. Once the reproductive age group is crossed, the mortality rates among women are lower as women outlive and outnumber men in the age group 65 and above. The needs especially of the widowed women have to be met so that quality of life does not deteriorate. The census 2001 will collect and report vital data on sex disaggregated basis; this will be of help in identifying and taking up appropriate interventions in correcting gender disparity; continued collection, collation, analysis and reporting of sex disaggregated data from all social sectors will also provide a mechanism to monitor whether girls and women have equal access to services.

There are substantial differences in sex ratio at birth and in different age groups between states. The observed sex ratio of 110 is higher than the internationally accepted sex ratio at birth of 106. There are substantial differences among states in the reported sex ratio at birth. There had been speculations whether female infanticide, sex determination and selective female foeticide are at least in part responsible for this. The Government of India has enacted a legislation banning the prenatal sex determination and selective abortion. Intensive community education efforts are under way to combat these practices, especially in pockets from where female infanticide and foeticide have been reported.

Increasing Longevity

Over the coming decades the country will be facing a progressive increase both in the proportion and number of persons beyond 60 years of age. Over the next 20 years the population of more than 60 years will grow from 62.3 million to 112.9 million; the subsequent decades will witness massive increase in this age group. Increasing longevity will inevitably bring in its wake increase in the prevalence of non-communicable diseases. The growing number of senior citizens in the country poses a major challenge and the cost of providing socio-economic security and health care to this population has to be met. Currently several

region and culture specific innovative interventions to provide needed care to this population are underway; among these are efforts to reverse the trend of break up of joint families. If these efforts succeed, it will be possible to provide necessary care for rapidly increasing population of senior citizens in the subsequent two decades within the resources of the family and the country.

Majority of the people in their sixties will be physically and psychologically fit and would like to participate both in economic and social activities. They should be encouraged and supported to lead a productive life and contribute to the national development. Senior citizens in their seventies and beyond and those with health problems would require assistance.

So far, the families have borne major share in caring for the elderly. This will remain the ideal method; however, there are growing number of elderly without family support; for them, alternate modes for caring may have to be evolved and implemented. Improved health care has "added years to life". The social sectors have to make the necessary provisions for improving the quality of life of these senior citizens so that they truly "add life to years."

Health Implication of the Demographic Transition

It was earlier assumed that population growth during demographic transition will lead to overcrowding, poverty, undernutrition, environmental deterioration, poor quality of life and increase in disease burden. Experience in the last few decades have shown that this may not always be correct. India is currently in the phase of demographic transition when the increase in population is mainly among younger, better educated and healthy population with low morbidity and mortality rate.

The challenge for the health sector is to promote healthy life styles, improve access to and utilisation of health care so that the country can achieve substantial reduction in mortality and morbidity. Occupational health and environmental health programme need be augmented to ensure that working population remain healthy and productive. If these challenges are fully met, it is possible to accelerate reduction in morbidity and mortality rate in this age group and improve health indices of the country.

With growing number of senior citizens there may be substantial increase in health care needs especially for management of non-communicable diseases. Increasing availability and awareness about technological advances for management of these problems, rising expectations of the population and the ever escalating cost of health care are some of the problems that the health care system has to cope with. Health care delivery systems will have to gear up to taking up necessary preventive, promotive, curative and rehabilitative care for growing population of senior citizens.

Population Projections and their Implications for the FW Programme

There will be a marginal decline in the population less than 15 years of age (352.7 million to 350.4 million). The health care infrastructure will therefore be not grappling with ever increasing number of children for providing care and they will be able to concentrate on:

- a. improving quality of care;
- b. focus on antenatal, intranatal and neonatal care aimed at reducing neonatal morbidity and mortality;
- c. improve coverage and quality of health care to vulnerable and underserved adolescents;
- d. promote intersectoral coordination especially with ICDS programme so that there is improvement in health and nutritional status;
- e. improve coverage for immunization against vaccine preventable diseases.

The economic challenge is to provide needed funds so that these children have access to nutrition, education and skill development. The challenge faced by the health sector is to achieve reduction in morbidity and mortality rate in infancy and childhood, to improve nutritional status and eliminate ill-effects of gender bias.

There will be a massive increase of population in the 15-59 age group (from 519 million to 800 million). The persons in this

age group will be more literate and have greater access to information; they will therefore have greater awareness and expectation regarding both the access to a wide spectrum of health care related services and the quality of these services.

Under the Reproductive and child health care programme efforts are underway to provide:

- Needed services for this rapid growing population
- To broaden the spectrum of services available
- To improve quality and coverage of health care to women, children and adolescents, so that their felt needs for health care are fully met
- To improve the participation of men in the planned parenthood movement

The components of the comprehensive RCH services are given in the text box. While providing the package of services, efforts will have to be made to improve the quality of services, make services more responsive to users' needs, ensure that health workers and health care providers have the necessary skills and supplies they need and there is a strong and effective referral system to manage all the risk cases. Family welfare Programme is attempting to improve the logistics of supply of drugs and vaccine to make sure good quality drugs are available at appropriate time.

Simultaneously the IEC efforts are being directed to:

- ensure responsible reproductive/sexual behaviour;
- improve awareness about reproductive health needs;
- promote community participation and optimal utilisation of available services.

Essential Reproductive and Child Health Services

Though it is desirable that the entire package of services indicated under comprehensive RCH care is made available to all those who need it, it will not be possible to immediately implement such a comprehensive package at primary health care level on a nationwide basis. After consultation with experts a package of essential reproductive health services for nationwide implementation at primary health care settings has been identified.

Essential components recommended for nationwide implementation include:

- Prevention and management of unwanted pregnancy
- Services to provide antenatal, intra-natal and post-natal, and neo-natal care
- Services to promote child health and survival
- Prevention and treatment of RTI/STD

Most of these services are already being delivered under the Family Welfare Programme. However, there are wide variations in the quality and coverage of services not only between states but also between districts in the same state. The focus under RCH Programme is therefore on the improvement in the quality and coverage of the services over and above the existing level in all districts/states in an incremental manner so that there is over all improvement maternal and child health indices.

Family Welfare Programme in India

India, the second most populous country in the world, has no more than 2.5% of global land but is the home of 1/6th of the world's population. The prevailing high maternal, infant, childhood morbidity and mortality, low life expectancy and high fertility and associated high morbidity had been a source of concern for public health professionals right from the pre-independence period. The Bhore Committee Report (1946) which laid the foundation for health service planning in India, gave high priority to provision of maternal and child health services and improving their nutritional and health status. It is noteworthy that this report which emphasized the importance of providing integrated preventive, promotive and curative primary health care services preceded the Alma Ata declaration by over three decades. Under the Constitution of India elimination of poverty, ignorance and ill health are three important goals.

In 1951, the infant republic took stock of the existing situation in the country and initiated the first Five Year Development Plan. Living in a resource poor country with high population density, the Planners recognised in the census figures of 1951, the potential threat posed by population explosion and the need to take steps

to avert it. It was recognised that population stabilisation is an essential prerequisite for sustainability of development process so that the benefits of economic development result in enhancement of the well being of the people and improvement in quality of life. India became the first country in the world to formulate a National Family Planning Programme in 1952, with the objective of “reducing birth rate to the extent necessary to stabilise the population at a level consistent with requirement of national economy”. Thus, the key elements of health care to women and children and provision of contraceptive services have been the focus of India's health services right from the time of India's independence. Successive Five Year Plans have been providing the policy framework and funding for planned development of nationwide health care infrastructure and manpower. The Centrally Sponsored and 100% centrally funded Family Welfare Programme provides additional infrastructure, manpower and drugs, vaccines contraceptives and other consumables needed for improving health status of women and children and to meet all the felt needs for fertility regulation.

Basic premises of the Family Welfare Programme are:

- Acceptance of FW services is voluntary
- FW programme will provide
- Integrated Maternal and Child Health (MCH) & FP services
- Effective IEC to improve awareness
- Ensure easy and convenient access to FW services free of cost

Progress under the FW programme Contraception

Over the last four decades there has been substantial improvement in the availability and utilization of the and access to FW services and a progressive increase in the acceptance of contraception and couple protection rates. In the initial fifteen years, the rise in the couple protection rate has been steep. The reduction in the CBR was however not commensurate with the increase in couple protection rates. In the last ten years, the rise in CPR is less steep, but the fall in CBR has been steeper than in the earlier years. The age and parity of the acceptors of

contraception, and the continuation rates of temporary methods of contraception are some of the important factors that determine birth rates. The trends in CPR and CBR over the last 25 years suggest that over the years there has been an improvement in the acceptance of appropriate contraception at appropriate time. Currently the FW Programme is focusing its attention on need assessment, balanced presentation of advantages and disadvantages about all the available methods of contraception counselling, provision of appropriate contraceptive at the right time and good follow up services. Effective implementation of the FW programme and ensuring that all the unmet needs for contraception are met will result in substantial improvement in CPR and enable rapid reduction in CBR. Over the last two decades there has been a steep fall in number of vasectomies. At the moment, over 97% of all sterilisations are tubectomies. If, over the next decade, attempts are made to repopularise vasectomy so that this safe, simple procedure forms at least 50% of all sterilizations, there will be a further improvement in access to sterilization in the primary health care settings, substantial reduction both in the morbidity/mortality associated with terminal methods of contraception and reduction in the cost of permanent methods of contraception. In addition this would be one of the efforts to improve participation of men in planned parenthood.

In the past demographers have assumed that access to a wide spectrum of spacing and permanent methods of contraception and achievement of contraceptive prevalence of atleast 60% are essential for achievement of replacement level of fertility. In Kerala and Tamil Nadu sterilisation is the most commonly utilised method of contraception; these States have been able to achieve replacement level of fertility long before there was improved access to a wide spectrum temporary methods of contraception and Couple protection rate of 60% has been achieved. The National FW programme statistics as well as National Family Health Survey have shown in all the states in India sterilization is the most widely accepted method of contraception. Given the fact that most couples in India complete their family by the time they are in their mid-20s and marriage is a stable institution, sterilisation is the most logical, safe and cost effective contraception to protect these young couples against unwanted pregnancies for the next two

decades. There are substantial differences between states regarding the need for temporary and permanent methods of contraception. It is obvious in most of the poorly performing states over half of the women have two or more children and are likely to require permanent methods of contraception sooner or later. On the other hand in some of the better performing states increasing number of women may desire to postpone the first or second pregnancy and there may be a progressive increase in the need for spacing methods. Contraceptive need assessment, counselling, improved quality of initial and follow up care would go a long way in meeting the felt needs of contraception in the population and accelerate the decline in fertility.

Maternal and Child Health

Even though the decline in IMR and CDR are substantial, it is noteworthy that maternal, perinatal, neonatal mortality rates continue to remain high. This is because the antenatal, intrapartum and neonatal care programmes have, till now, not aimed at screening of all pregnant women for risk factors, identification and appropriate referral of the 'at risk' individuals. Improvement in the contents and quality of antenatal and paediatric care at primary health care level is receiving focussed attention under the RCH programme.

Inter-State/intra-State Differences in Fertility and Mortality

As the availability and utilisation of family welfare services is the critical determinant of performance in Family Welfare Programme, achievements in terms of reduction in IMR and CBR go hand in hand in most States. However, there are exceptions; both Punjab and Tamil Nadu have good primary health care infrastructure; IMR in both the States are identical and the age at marriage in these States is similar; TFR in Tamil Nadu is 2.1 and in Punjab it is 2.9. In Bihar, IMR is 72 and TFR is 4.6 but Assam with IMR of 75 has a TFR of 3.8. Efforts will have to be made to identify the factors responsible for poor achievements in terms of IMR and TFR and area specific remedial measures have to be planned and implemented in the States. District wise data on CBR and IMR computed on the basis of Census 1991 show that there

are marked differences in these indices not only between States but also between districts in the same State. Census 1991 has confirmed that even in Kerala there are districts where IMR (Idikki) and CBR (Mallapuram) are higher than national levels. There are districts in UP with IMR (Almora) and CBR (Kanpur-Urban) lower than national levels. The Family Welfare Programme, therefore, has been re-oriented to:

- a. remove or minimise the inter and intra-state differences
- b. undertake realistic PHC based decentralised area-specific microplanning tailored to meet the local needs
- c. involve Panchayati Raj institutions in microplanning and monitoring at local level to effective implementation of the programme and ensuring effective community participation

Under the Reproductive Child Health programme efforts are under way to improve the quality and coverage of FW services in all states. In each state, the success achieved by the better performing districts will have to be replicated in poorly performing districts; in addition efforts will have to be made to achieve incremental improvement in performance in all districts so that the performance in the state improves.

States like Kerala and Tamil Nadu have achieved low CBR and IMR at relatively low cost. On the other hand, States like Haryana and Punjab have not achieved any substantial reduction in CBR in spite of higher expenditure per eligible couple. In States like Bihar and Uttar Pradesh the expenditure is low and performance is poor. In between these extreme categories are States like Orissa and Andhra Pradesh with average or below average expenditure and average or below average performance in MCH or family planning. In some States like Orissa and West Bengal the performance in family planning is better than the performance in MCH or vice versa. Dept. of Family Welfare is attempting to implement the recommendation of the NDC Committee on Population, that factors responsible for observed differences in utilisation of funds as well as impact of the programme are to be studied and existing lacunae identified and rectified at the district level.

The last five decades have shown that different states used different approaches to achieve improvement in MCH care and improve performance in FW programme. Some of these efforts have been path breaking and have disproved many theories on the essential prerequisites for rapid achievement of decline fertility and mortality. Some examples of these experiences are indicated below:

- Goa with relatively high income, literacy and good health care infrastructure was the first administrative unit to achieve the replacement level of fertility. This fitted the classical theory; Goa and Pondicherry have been having less than replacement level fertility for over a decade.
- Kerala, the first State to achieve replacement level of fertility did so in spite of relatively low per capita income proving that in the Indian context economic development is not an essential prerequisite for the achieving small family. High status of women, female literacy, age at marriage and low infant mortality were thought to be the factors behind the rapid fall in fertility in Kerala.
- Tamil Nadu which was the second state to achieve replacement level of fertility did so in spite of low PCI, higher IMR and lower female literacy rate than Kerala. This is attributed to the strong social and political commitment, backed by good administrative support and ready availability of Family Welfare Services. There have been speculations whether the low PCI in the aware population desiring improvement in quality of care had also acted as factor that accelerated the decline in fertility.
- Andhra Pradesh is likely to achieve replacement level of fertility in the next two years. The State has shown a steep decline in fertility in spite of relatively lower age at marriage, low literacy and poorer outreach of primary health care infrastructure. It has been suggested that the major factors responsible for the success include caring attitude of the government and strong sustained movement to empower women.

- In the North-eastern States of Tripura, Manipur, Mizoram there is substantial difficulty in accessing primary health care facilities, but these States have achieved not only low fertility rates but also low infant mortality, suggesting thereby that a literate aware population can successfully overcome difficulties in access to and availability of primary health care infrastructure.

Unmet Needs for Family Welfare Services

The National Family Health Survey (NFHS) 1992-93 had provided an independent nation wide evaluation of the progress and problems in delivery of Family Welfare services in the country. The survey confirmed that in spite of obvious constraints and inadequacies, the governmental network can, and does, provides most of the MCH and contraceptive care;

Data from the NFHS showed that:

- There is universal awareness about contraception
- 40.6% of currently married women use contraceptives
- Wanted fertility is lower than the actual fertility
- There is a large unmet need for contraception:-
 - o 11.0% for birth spacing methods
 - o 8.5% for terminal method
- Unmet needs for health and contraceptive care exist in all regions and in all segments of the population irrespective of religion, caste, education and income status.

Lessons learnt during implementation of Family Welfare Programme:

- Governmental network provides most of the MCH and contraceptive care
- Adequate functional health infrastructure is an essential prerequisites for the success of the programme
- Providing efficient and effective integrated MCH and contraceptive care helps in building up rapport with the families
- IEC activities are powerful tools for promoting the small family norm

- The population is conservative but responsible, responsive and mature; their response is slow but rational and sustained

There is a popular belief that the population growth is due to poor performance in the health sector. This is not correct. The population growth that the country (and the world) had witnessed in the last five decades is mainly because of rapid reduction in the death rates due to health care and is inevitable during the first three phases of demographic transition. India's progress in demographic transition has been a slow but sustained; unlike some other developing countries India's population growth never exceeded 2.2% even at its peak; the decline in population growth once started has been sustained. This orderly progression has been achieved through improving access to family welfare services and ensuring people's participation. Concern has been expressed by some groups that the RCH programme which essentially aims at improving quality and coverage of the already ongoing maternal and child health and contraceptive care may not be successful in accelerating the decline in fertility and help the country to achieve rapid population stabilization and that there is a need for new path breaking innovations. Ongoing evaluations, however, do not suggest that there is a need for change in policy, strategy and programme content; all these studies have emphasized that there is a huge unmet need for services and there is an urgent need to improve access to good quality services to meet this need, the focus of the RCH initiative is on this task.

Approach to FW Programme During the Ninth Plan

Reduction in Population growth is one of the major objectives in the Ninth Plan. The current high population growth rate is due to:

- the large size of the population in the reproductive age-group (estimated contribution 60%);
- higher fertility due to unmet need for contraception (estimated contribution 20%);
- high wanted fertility due to prevailing high IMR (estimated contribution about 20%).

Rapid reduction in the population growth rate can be achieved by:

- meeting all the felt-needs for contraception; and
- reducing the infant and maternal morbidity and mortality so that there is a reduction in the desired level of fertility.

The Ninth Plan strategies for achieving these objectives are:

- To assess the needs for reproductive and child health at PHC level and undertake area-specific micro planning;
- To provide need-based, demand-driven high quality, integrated reproductive and child health care.

Efforts of the Family Welfare Programme are being directed towards:

- Bridging the gaps in essential infrastructure and manpower through a flexible approach and improving operational efficiency through investment in social, behavioural and operational research.
- Providing additional assistance to poorly performing districts identified on the basis of the 1991 census to fill existing gaps in infrastructure and manpower.
- Ensuring uninterrupted supply of essential drugs, vaccines and contraceptives, adequate in quantity and appropriate in quality.
- Promoting male participation in the Planned Parenthood movement and increasing the level of acceptance of vasectomy.

Under the RCH Programme the focus is on enhancing the quality and coverage of family welfare services through:

- Increasing participation of general medical practitioners working in voluntary, private, joint sectors and the active cooperation of practitioners of ISM&H;
- Involvement of the Panchayati Raj Institutions for ensuring inter-sectoral coordination and community participation in planning, monitoring and management;

- Involvement of the industries, organised and unorganised sectors, agriculture workers and labour representatives.

Goals to be Achieved

The performance under the Family Welfare Programme will depend upon:

- Programme initiatives during the Ninth Plan.
- Financial resources available.
- Capability and effectiveness of the infrastructure and manpower to carry out the programme.
- Literacy and economic status of the families particularly of the women.
- Policy support by opinion leaders and the society.

The Dept. of Family Welfare has launched the RCH initiative during the Ninth Plan. Under the Special Action Plan an additional sum of Rs 4700 crores had been provided to the Family Welfare Dept. and the total outlay provided the Department of Family Welfare was raised to Rs. 15120.20 crores for the Ninth Plan period to enable the Dept to implement the RCH programme. In view of the marked differences in the availability and utilisation of family welfare services and IMR CBR and CPR between States and districts within the states, a differential area specific approach to the implementation of Family Welfare Programme is being used. State specific Expected Level of Achievement in terms of process and impact indicators have been worked out for effective monitoring of the programme. Projection of expected levels of achievement for process and impact indicators at the end of the Ninth Plan have taken into consideration the pace of improvement in these indicators during the Eighth Plan and the additional policy and programme measures envisaged to accelerate the pace of achievement during the Ninth Plan and the additional funding being provided under the Programme. The State-specific projections have been worked out at two different levels of achievement, one on the basis of the assumption that the trend observed with regard to these parameters in the last 15 years will continue during the Ninth Plan period and the second on the assumption that the additional policy and programme initiatives

provided during the Ninth Plan period will result in the acceleration of the pace and result in more substantial improvement during the Ninth Plan period. The expected levels of achievement under both these assumptions have been computed State wise. The expected levels of achievement at the national level by the terminal year of Ninth Plan (2002).

The expected level of achievement for CBR at national level under these two sets of assumptions is 24 and 23/1000. If the target of 23/1000 is achieved there will be one million less births in 2002 AD alone. Similarly if the Programme achieves, the accelerated decline in IMR (from 56/1000-50/1000) over 140 thousand infant deaths will be averted in 2002 AD. These achievements may be the beginning of a major acceleration in pace of demographic transition and improving health status of the population. If the acceleration begun during the Ninth Plan is sustained the country may achieve replacement level of fertility by 2010, with the population of 1120 million; if this were done the country's population may stabilize by 2045.

Summary

Demographic transition is a global phenomenon; population growth is inevitable in the initial phases of the transition. For India the current phase of the demographic transition is both a challenge and an opportunity. The challenge is to ensure human development and optimum utilisation of human resources. The opportunity is to utilise available human resources to achieve rapid economic development and improvement in quality of life.

Over the last five decades the country has built up a massive healthcare infrastructure for delivery of FW services to the population in the Govt, private and voluntary sectors. The RCH programme envisages wider range of services and improvement in quality of services provided. There is universal awareness about the need for these services. In the next two decades the population growth will be mainly among the young adults who will be more literate, aware and likely to make optimal use of available facilities. India is currently in the phase of demographic transition during which where it will be possible for the country to accelerate the pace of decline in fertility. If the population now has ready access

to good quality services at affordable cost, it will be possible for them to meet all their needs, achieve the desired family size and enable the country to achieve population stabilisation rapidly.

Demographic transition does not occur in isolation. Simultaneously, there are ongoing economic transition, education transition, health transition and reproductive health transition. All these affect human development. If there is synergy between these transitions; the transitions can be completed rapidly; there will be substantial improvement in human development and economic development. The focus of planners, programme implementers and the people during the next two decades will have to be in achieving the synergy so that India can achieve rapid population stabilization, improvement in economic social and human development.

Population, Spatial Distribution

Bangladesh has the third largest and most homogeneous population in south and southeast Asia and the eighth largest population in the world. About three-fourths of its population are rural, about two-thirds are agricultural, and more than 85% are Muslims. About 99% of the population speak the Bangla. The age structure is youthful (45% are in the age group of below 15 years), and the population density is very high.

Patterns of population distribution and size before the Buddhist period (until 10th century AD) are not known. During this period there were two main regions of highest population concentration: the Tista-Karatoya interfluvies of East Bengal, covering what is now northern Bangladesh and part of northern West Bengal (India); and the lower Meghna valley covering eastern and central Bengal plain. The southern and northeastern parts of East Bengal (now covering Khulna division and parts of Dhaka and Sylhet divisions) were either sparsely populated or uninhabited due to large covers of tidal forests, swamps and shifting river channels.

In mid-12th century when the Buddhist Pala dynasty was overthrown by the Sena kings, who were orthodox Hindus, and followed a policy of persecution of Buddhists, the dominant population group in that time, many Buddhists took refuge in Burma, Thailand, Sri Lanka, and even as far as Cambodia and Laos in fear of possible persecution. Subsequently, the population of this part of Bengal declined significantly as the three major centres

of Buddhist culture (Mahasthan, Paharpur and Mainamati) in East Bengal were destroyed.

The advent of Muslims coincided with the persecution of Buddhists in Bengal and north India by Hindus, and many oppressed Buddhists and untouchable Hindus embraced ISLAM during the 11th and 13th centuries. Buddhists were also attracted to Islam mostly by the cult of SUFISM, which has spiritual parallel with Buddhist philosophy. By 1211, Muslims in Bengal numbered between 2 and 3 million and the population of East Bengal during this time reached a total of about 6 million.

After the fall of the Brahminic Hindu rule by the invading Turks in the early 13th century, various parts of Bengal were consolidated and brought under a semi-independent Sultanate with capital first at GAUR and then at SONARGAON. From this period the region received a continuous flow of Muslim immigrants from various parts of India. These immigrants led the great land reclamation schemes of southern Bengal and a few other non-settled areas, which continued for several centuries. Probably because of the late influx of Muslims in this part (southern Bengal/delta area) their proportion has remained lower in later centuries. During the period between the 13th and 15th centuries, however, the estimated population of Bengal fluctuated between 5 and 10 million owing to repeated visits of various natural disasters and epidemics.

During these two stages of population evolution, the pattern was of gradual growth over a short period followed by an abrupt decline in response to various disasters such as epidemics, natural hazards (FLOODS, EARTHQUAKES, tropical CYCLONES, river bank erosion, etc.) often followed by FAMINES. The long-term change was more or less static.

During the British period the population distribution was taking a definite pattern in most parts of East Bengal and was assuming a highly settled rural pattern. The exact figures of birth or death rates were not known for this period, but considering the overall demographic situation of the 18th and 19th centuries, it may be thought that both were very high leading to a very low rate of population growth. During the 19th century, the population

of East Bengal grew very slowly because of repeated occurrences of famines and epidemics.

The extent of population concentration in East Bengal during the present century is to be understood in its geopolitical context. The creation of a Muslim political unit in Bengal under the framework of Pakistan was not necessarily viewed as the result of direct Hindu-Muslim cleavage since in Bengal, Islam has always been accommodating and tolerant. With the Partition of Bengal in 1947, East Bengal within the framework of Pakistan with a population of 42 million, was separated from relatively less densely populated area of high economic potentials (some having overall Muslim predominance), such as the BRAHMAPUTRA valley, the northern TEA plantation areas and part of the Calcutta-Hughli industrial complex.

The post-partition political antagonism between India and Pakistan affected East Pakistan both demographically and economically much more than the less populated and industrially developed West Pakistan. Accompanying the partition was a wave of religious rioting, murder and arson together with mass displacement of population across the newly established borders of India and the two wings of Pakistan (West and East Pakistan) separated from each other by about 2000 km.

Order was not restored until spring, 1948. Consequently, a demographically significant population shift affecting regional population distribution by religion took place on the basis of religion-communal criteria.

Shortly after partition, the concentration of population by religious beliefs became more exclusive and distinctive as a result of selective population exchange based on religion. According to the Indian census sources, India received 2.55 million Hindu refugees from East Bengal. In exchange, East Bengal received 0.70 million from West Bengal and Bihar. Within less than a decade this culminated into what may be termed as the 'demographic divide' coupled with demographic immaturity, immobility and a lack of extraterritorial population expansion. With high birth and declining death rates, the population has been showing an accelerated increase during last several decades.

Table 1 Evolution of population, 1881-2001

Year	Population (miln)	increase in %	Exponential growth	density (persons per km ²)
1881	25.09	-	-	180
1901	28.92	-	-	206
1921	33.25	-	-	240
1941	41.99	-	-	300
1951	44.16	5.17	0.50	315
1961	55.22	25.16	2.26	325
1974	76.39	28.35	2.48	535
1981	89.91	17.69	2.32	625
1991	111.46	22.20	2.03	720
2001	129.25	15.96	1.53	832

The War of Liberation took place in 1971 and to thwart it, the Pakistani military junta embarked upon a military action that led to one of the greatest human tragedies of this century. It has been estimated that more than 1.6 million people died as a result of the Pakistani military persecution. Millions of Bengalis fled from their homes into neighbouring India. Over a nine-month period, 10 million REFUGEES from Bangladesh poured into the Indian states of West Bengal, Assam, Meghalaya and Tripura. The average daily influx was approximately 36,000 persons and during the peak flow months of May and June, the refugee influx often exceeded 100,000 a day. In May 1971 alone, there were nearly 3 million new arrivals. Nearly all of those who arrived after mid-May (over 6 million) were sheltered in hastily constructed camps, but some moved in with relatives as well. By December 1971, about 1,200 camps were operating along the 2,160-km India-Bangladesh border.

This important geopolitical event, however, had virtually no demographic effect on the distribution of population in Bangladesh, since after the liberation of the country, almost all refugees returned home voluntarily. This was probably the most successful voluntary return of refugees in the world. But, at the same time, a sizeable well-to-do non-Bengali population left Bangladesh for Pakistan and some for India in exchange of the Bengalis stranded in Pakistan.

Besides, about 125,000 non-Bengalis, popularly known as the Biharis, who collaborated with the Pakistanis, were repatriated with the POWs by the initiatives of the ICRC and the Indian government.

The growth of population in the present century has been the result of an excess of births over deaths as there has been no large-scale immigration. And since the last century, two stages of acceleration in the pattern of population change in Bangladesh have taken place: (a) the slow rate population growth until 1921; and (b) the accelerating increase of population since 1921 and a fresh momentum to it after 1951.

In 1901, Bangladesh had a population of 28.9 million. It increased by 9.1 percent by 1911. In the period 1911-21, the rate of increase was very slow at 5.4 percent due to high mortality from the influenza epidemic of 1918-19. After that the growth rate started to recover until 1931. In view of the over estimation in the 1941 census, it is not possible to examine the exact rate of increase of population for the decade 1931-41. It is, however, observed that this decade was a normal one regarding the fertility and mortality conditions and the population increase might have been higher than 18 percent. In the next decade, the rate of increase was low at 5.2 percent due to the Bengal famine in 1943, which took away about 2.8 million lives, and to subsequent movement of population during the Partition of Bengal in 1947. The decade 1951-61 showed a relatively higher rate of population increase, owing to somewhat stable socio-political conditions, the combined effect of the efforts of improved health condition adopted in post-famine years and a successful check on famines. To a great extent, this rise has been the result of an unprecedented acceleration of the rate of growth of Muslim population (26.9 percent) in the country. The increase in population during 1951-61 and the subsequent period reflects the impact of the post-partition 'demographic divide', the eradication of several killer diseases, such as malaria, smallpox and cholera, particularly, in 1971-81, and an improvement in child and maternal mortality situation as a result of the Extended Programme on Immunisation (EPI) during 1981-91.

Various estimates confirm that the increase in the pre-partition period was not very rapid and the CBR and CDR were estimated

at 50 to 55 and 41 to 47 respectively, although sometimes, especially during epidemics or famines the death rate reached as high as 60. This gave an annual rate of population increase of less than one percent during the early twentieth century. After 1931, the growth of population became a little faster as a result of the consequences of measures undertaken to check the intensity of epidemics and local diseases as well as improvement in health and sanitary situations. This effected a drop in death rate to about 42 in the 1930s, while the birth rate remained more or less stable and high. The mortality and fertility conditions were offset during 1941-51 by famine and the unsettled socio-political situation, resulting in a low annual increase in population (less than one percent). During 1951-61, the population increased by about 2.2 percent a year.

Table 2 Vital rates, 1881-1991

Year	CBR	CDR	IMR
1881	na	41.0	na
1901	na	44.4	na
1921	52.9	47.3	198
1941	54.7	37.8	200
1951	49.4	40.7	168
1961	48.1	29.7	144
1971	51.7	35.0	200
1981	42.0	14.0	122
1991	32.0	11.0	91

The first census of independent Bangladesh was held on 1 March 1974. Three major calamities-natural and man-made took place during the 1961-74 inter-census period contributing substantially to the total death rate. The tropical cyclone and tidal surge of November 1970 cost between 200,000 to 600,000 human lives, mostly in the coastal region. During the war of liberation, there were indiscriminate killings and torching of villages by the Pakistan army as they swept out from the towns into the rural areas in pursuit of the freedom fighters. An estimate by the UN put 16.6 million displaced from their homes within Bangladesh for at least one month. About 3 million people were killed. This raised the CDR from a normal level of 16 to 21 during the war.

In 1974 (the census year), there was a famine in Bangladesh. The number of deaths during this famine was officially estimated at 30,000. Despite these catastrophes, the population count in 1974 reached 71.4 million. The above incidents also depressed the CBR to some extent although the overall trend in the fertility pattern was not affected.

During 1974 to 1991, a downward trend in CBR has been observed with a marked decline in the CDR. The decline in CBR and CDR was the result of the successful control of communicable diseases and food shortages/famines, improvement of medical facilities, and to some extent, the impact of the family planning activities.

The regional pattern of population density In 1901, there were 526 persons per sq. mile in Bangladesh. The respective figures for 1961 and 1991 were 1,004 and 1,998. Despite the change in the overall population density in the country, its regional patterns in the present decades have shown little change, particularly in the pre-independence decades. An exception was Dhaka, which had an abnormally high density of population (more than 7,000 persons per sq mile). Three generalised density zones can be identified for 1961 and 1974. These are: less densely populated zones in western and eastern Bangladesh; medium density zone in the central part extending from north to south; and very high density zone in and around Dhaka division.

In 1981 and 1991, the spatial pattern of population density showed a skewed distribution. The distribution fell into -2 to +5 ($x = 1918 = 1005.4$) with Dhaka remaining as a highly densely populated district in 1981. In 1991, the skewness further sharpened, ranging from -2 to +6 ($x = 2313 = 1344.5$), again with Dhaka as an exceptional district.

This presents Bangladesh as one of the most densely populated areas of the world, but unlike other densely populated areas in western Europe which have intensive agricultural and a high degree of industrial and urban development, Bangladesh is primarily a rural oriented agricultural country. The greater the amount of cropland, the larger is the population in the districts and the higher is the density of population per unit area. Bangladesh

shows a significantly positive coefficient of correlation ($r = +0.923$) between total cropland and population of different districts. Also, the influence of rivers on the human habitat is reflected in the greater concentration of population and economic institutions along their banks.

The differences in the spatial pattern of population in recent times were caused primarily by the regional differences in mortality and regional migration under a situation of post-partition demographic divide. With few exceptions, the decades of 1950s and 1980s experienced some movement of population within the country but there had been no uniformity in population change amongst the different regions. The patterns of population change during 1961-74 and 1974-81 periods were more consistent in the country. The most likely causes were the success in eradicating some of the communicable diseases and epidemic, and improvements in management of situations of local food shortage and famines.

Some areas in the western part of the country recorded a marked variation in the patterns of population change mainly because of forced population movements during the War of Liberation. People dislocated from these areas in 1971 returned after the War and along with them also returned many others, who migrated to India earlier from these areas. Many also moved to Dhaka and thereby abnormally increasing its population in 1974.

The movement of agricultural populations from high-density area of the central.

Introduction

In size of population, India is the second largest country in the world, after China. She has only 2.4 per cent of the world's land area; but she has about 16.25 per cent of the world's population.

Census and Trends of Population

Census is an official counting of a population: In India it started in 1881. Since then it has been continued at an interval of 10 years. At the beginning of this century in 1901, the population of the undivided India was 242 millions. After independence the first census was held in 1951 and the population was 361 millions.

The population growth marked a steady increase in the subsequent censuses. It rose to 439 millions in 1961, 548 millions in 1971, 685 millions in 1981 and 844 millions in 1991. The last census was held in 2001 and it recorded a population of 1027 millions. This population explosion poses a serious *socio-economic* problem in the country.

Causes of the population explosion: The main causes of the increase of population are: (i) *better health conditions resulting from effective control of epidemics*, (ii) *natural increases due to high birth rates*, (iii) *efficient handling of famine situations* and (iv) *general improvement in the economic development due to scientific inventions*.

Density of Population in India

Distribution of population refers to general distribution of population of a region or a country. But density of population refers to average number of persons per sq km. The table given on the next page shows the distribution of population and density of population in the states and *Union Territories of India* according to the census of 2001. The table shows that the highest population is found in the state of *Uttar Pradesh* (16,6052,859) and the highest density is recorded in the state of *West Bengal* (904). The lowest population is found in the state of *Sikkim* and the lowest population is recorded in the state of *Arunachal Pradesh*. According to the *Union Territories*, the highest population and highest density of population occur in *Delhi*. The lowest population is found in *Lakshadweep*; but the lowest density of population prevails in the *Andaman and Nicobar Islands*. The over-all picture (*States and the Union territories together*) shows the following facts: (1) the highest population in *U.P.*, (2) the highest density of population in *Delhi*, (3) the lowest population in *Lakshadweep* and (4) the lowest density of population in *Arunachal Pradesh*.

The Distribution of Population

Division According to Density of Population: The distribution of population in India shows the following density pattern according to census 2001.

Regions of Shows population Density (density below 100 per sq. km.): It includes *Jammu and Kashmir*, *Sikkim*, *Arunachal Pradesh*,

Mizoram states and Union Territories Andaman and Nicobar. In the low population density due to ragged is topography and forested land with the severity of climate.

Regions of Medium Population Density (between 101 and 250 per sq. km.): It includes *Himachal Pradesh, Madhya Pradesh, Manipur, Meghalaya, Nagaland, Orissa, Rajasthan, Chhattisgarh and Uttaranchal states.* These regions are hilly, mountainous or forested, and some are deserted. Hence population is medium.

Regions of Considerably High Population Density (between 251 and 500 per sq. km.): This region includes *Andhra Pradesh, Assam, Gujrat, Haryana, Karnataka, Maharashtra, Punjab, Tamil Nadu, Tripura, Goa, Jharkhand states and Union Territories of Darda & Nagar Haveli.* Fairly high population of this region is due to the advancement of agriculture, mining and industry. Economic progress and job opportunities contribute much for this population.

Regions of High Population Density (between 501 and 1000 per sq. km.): *Bihar, Kerala, Uttar Pradesh and West Bengal* are included in this population zone. This high population is due to very fertile soil, advancement of agriculture, minings, industries, trade and commerce and opportunities for subsistence.

Regions of Very High Population Density (above 1001 per sq. km.): It includes the *Union Terrtories of Delhi, Chandigarh, Pandicherry, Lakshadweep and Daman & Diu.* The high density of this region is due to high economic and administrative activites.

The Causes for the Uneven Distribution of Population

The distribution of population in India is not uniform. Some areas have high density of population, while others have medium or low density. The following physical and cultural factors are responsible for the uneven distribution of population in the country. The physical factors are gifts of nature; they influence much for the distribution of population.

Difference in Relief: The relief of the country exerts immense influence in the population distribution of a country. Extremely ragged topography associated with thick forest-cover do not encourage settlement as in the Himalayas and in the north-eastern

hilly states of India. But the river valleys with alluvial plains provide easy livings for which the population is high. The population of the Ganga-brahmaputra plain is distinctively high.

Variation in Climate: Climate exerts a great influence on human settlement. The *Marausthali of western Rajasthan* is sparsely populated; it is the hottest place in India and it has the extreme type of climate with little rainfall. Due to the adverse climate condition, the *Marusthali* is sparsely populated. On the other hand, the mild and equitable climate of the *Ganga plain* encourages settlements.

Influence of Soil: Agriculture depends on soil condition. The fertility of soil determines the cultivation of crops. Thus the livings and subsistence of the people depend on soil and not on rocky waste or infertile soil. The great northern plains of India have fertile soil and on these plains density of population is remarkably high.

Influence of River: Rivers provide water to agriculture and other indispensable needs (drinking water and others) of the people. They also provide avenues for trade and commerce. That is why it is frequently said; the river valleys are the cradles of civilization. All the river valleys, which have fertile soil and tolerable climate, are thickly populated.

Presence of Minerals: Mineral deposits attract population. The discovery of enormous mineral deposits in the *Chhotanagpur plateau* region has contributed much to the growth of high concentration of population to this region. The cultural factors are also responsible for the uneven distribution of population. These factors are man-made and popularly known as non-physical factors or cultural factors.

Development of Industries: Development of industries also attracts population. A few decades ago, there was very low population in Durgapur region; but with the development of industries in the Durgapur belt, the population has steadily increased.

Historical & Political Factors: After the partition of Bengal, when the Indian independence was achieved, the population of *West Bengal* grew up rapidly due to the influx of the people from the

other side of *Bengal*. Religious Influence: *Varanasi, Mathura, Haridwar, Nabadweep, Puri* are the sacred religious centres of the *Hindus*, *Agra* of the *Muslims* and *Amritsar* of the *Sikhs*. They are densely populated due to religious factors.

Sex Ratio of India

Sex Ratio is defined as the number of females per 1000 males. Sex Ratio is an important social indicator to measure the extent of prevailing equity between males and females at a given point of time. It is mainly the outcome of the interplay of sex differentials in mortality, sex selective migration, sex ratio at birth and at times the sex differential in population enumeration.

According to the Census of India, 2001, the sex ratio of India stands at 933. This is a marginal improvement from the 1991 Census, which had recorded 927 females for every 1000 males. At the 2001 Census, the sex ratio among the major States ranged from 861 in Haryana to 1058 in Kerala.

State/Union Territory (U.T.)	India Sex Ratio
Jammu & Kashmir	900
Himachal Pradesh	970
Punjab	874
Chandigarh (U.T.)	773
Uttaranchal	964
Haryana	861
Delhi (U.T.)	821
Rajasthan	922
Uttar Pradesh	898
Bihar	921
Sikkim	875
Arunachal Pradesh	901
Nagaland	909
Manipur	978
Mizoram	938
Tripura	950
Meghalaya	975
Assam	932

West Bengal	934
Jharkhand	941
Orissa	972
Chhatisgarh	990
Madhya Pradesh	920
Gujarat	921
Daman & Diu (U.T.)	709
Dadra & Nagar Haveli (U.T.)	811
Maharashtra	922
Andhra Pradesh	978
Karnataka	964
Goa	960
Lakshadweep (U.T.)	947
Kerala	1058
Tamil Nadu	986
Pondicherry (U.T.)	1001
Andaman & Nicobar Islands (U.T.)	846

India's Sex Ratio Continues to Slide

As many as 35 million girls have been killed before, during or after birth in India over the last 100 years, according to the Indian census commissioner, J.K. Banthia. And the gap between girls and boys is accelerating, especially amongst the wealthier and better educated. A new report, *Missing: mapping the adverse child sex ratio in India*, issued by the UN Population Fund, shows that the sex ratio, which is calculated as the number of girls per 1000 boys in the 0-6 age bracket, declined from 945 in the 1991 census to 927 in the 2001 census. The normal ratio is about 950 to 1000. The steepest declines took place in the prosperous northern states of Punjab, Haryana, Himachal and Gujarat, which fell below 800 girls per 1000 boys for the first time. The lowest ratio was 754 in Fatehgarh, in Punjab. The top ten districts with healthy sex ratios of more than 1000 girls per 1000 boys are largely in non-Hindu areas like Jammu and Kashmir and in the northeastern tribal regions.

"A stage may soon come where it would become extremely difficult, if not impossible, to make up for the missing girls," says

Francois Farah of the UN Population Fund. "Today we are at a stage where many villages are having fewer or no small daughters and... the resulting imbalance can destroy the social and human fabric."

At the heart of the decline are numerous doctors offering ultrasound scans to check the sex of the pregnant woman's baby. "Involvement of the medical community in this criminal activity indulged in by parents of the unborn child and the doctors is 100 per cent," says Dr. Puneet Bedi, an independent health activist and gynaecologist.

Sex determination has been banned since 1996, but this has only slowed the spread of the practice, not decreased it, according to the census commissioner.

Campaigners against female infanticide complain that doctors are indifferent. Students at India's leading medical school, the All India Institute of Medical Sciences, recently refused to cooperate with an awareness drive. "They are not taught enough about medical ethics," said Dr. M.K. Bhan, a paediatrician at the Institute. "There is a large vacuum in the medical curriculum. The students are young. They are under a lot of pressure. In liberal arts, you are taught about ethics. In medical science, you are not."

Sex Ratio in India a Concern

New Delhi-A disturbing and steady decline has occurred in the ratio between Indian girls to boys born in the past decade, according to a United Nations Population Fund (UNFPA) report published on Tuesday.

Several thousand girls and women are "missing", the UNFPA study said, referring to those who should have been part of the population but are not because they were killed for being female.

In both rural and urban India, there is a strong preference for boys. One Indian saying goes: "Nurturing a girl is like watering someone else's garden."

Girls are thought to be a burden on their parents, and are usually given less food and little or no education. Parents do not invest in their daughters' health and development, as they will eventually get married and leave home.

'When girls go missing in a society, it shows that compassion is missing'.

In 1991, there were 945 girls born for every thousand boys in India. By 2001, the national average dropped to 927 girls, the Indian Express newspaper reported.

According to UNFPA, among the main causes for the adverse sex ratio are increasing rates of female foeticide. Indian states with alarmingly low sex ratios are Punjab, Haryana and Himachal Pradesh in the north and Gujarat in the west-all with less than 800 girls on an average for every thousand boys.

Development experts and demographers acknowledge that given the same nurturing and opportunities as boys, girls would actually outlive and outnumber them.

The desire for boys transcends caste, social, educational and economic status. "The ratio stands at a mere 770 in Kurukshetra district of Haryana, 814 in Ahmadabad (Gujarat) and 845 in southwest Delhi, which are among the most prosperous regions in the country," the study said.

Federal Minister for Health and Family Welfare Sushma Swaraj said, "When girls go missing in a society, it shows that compassion is missing."

'You will remain unmarried if girl foetuses continue to be destroyed'.

Her message to Indian men was: "You will remain unmarried if girl foetuses continue to be destroyed in the womb."-Sapa-dpa.

Age structure: *0-14 years*: 31.5% (male 189,238,487/female 172,168,306).

15-64 years: 63.3% (male 374,157,581/female 352,868,003).

65 years and over: 5.2% (male 28,285,796/female 31,277,725) (2008 est.)

Definition: This entry provides the distribution of the population according to age. Information is included by sex and age group (*0-14 years, 15-64 years, 65 years and over*). The age structure of a population affects a nation's key socioeconomic issues. Countries with young populations (high percentage under

age 15) need to invest more in schools, while countries with older populations (high percentage ages 65 and over) need to invest more in the health sector. The age structure can also be used to help predict potential political issues. For example, the rapid growth of a young adult population unable to find employment can lead to unrest.

Sex ratio: *at birth*: 1.12 male(s)/female

Under 15 years: 1.1 male(s)/female

15-64 years: 1.06 male(s)/female

65 years and over: 0.9 male(s)/female

Total population: 1.06 male(s)/female (2008 est.)

Definition: This entry includes the number of males for each female in five age groups-*at birth, under 15 years, 15-64 years, 65 years and over*, and for the *total population*. Sex ratio at birth has recently emerged as an indicator of certain kinds of sex discrimination in some countries. For instance, high sex ratios at birth in some Asian countries are now attributed to sex-selective abortion and infanticide due to a strong preference for sons. This will affect future marriage patterns and fertility patterns. Eventually it could cause unrest among young adult males who are unable to find partners.

Age Structural Transitions and Policy Implications

The workshop on Age Structural Transition and Public Policy was jointly organized in Phuket (Thailand) during November 8-10, 2000 by the IUSSP committee on Age Structure and Public Policy and the Asian Population Network (APN) of the Asian Meta Centre, Centre for Advanced Studies, National University of Singapore. This is the first of the three scientific workshops by the IUSSP committee on Age Structure and Public Policy. The workshop primarily focused on the age structural transition of the countries, which are in the later stages of the fertility transition that includes many Asian and Latin American countries. However, the nature, structure and process of age structural transition in Asian and Latin American countries were also compared with experiences of developed countries in several presentations. The workshop has brought together 20 participants from 12 countries. The participants were from Australia, Austria, Brazil, China, India, New Zealand, Philippines, Russia, Singapore, Thailand, Turkey, and United States. The workshop featured 16 papers that were presented in five different sessions. The five session includes:

- (1) Modeling Age Structural Transition;
- (2) Policy Domain;
- (3) Regional Perspectives I;
- (4) Transition, Policy and Methodology;
- (5) Regional Perspectives II.

The sixth and the final session covered the synthesis of the discussions of the papers presented which includes the issues and major themes emerged from the workshop. Three papers were presented in the first session, which were mainly focused on the conceptual, methodological issues and dynamics of age structural transition based on the parametric and or simulation model. The paper by Ian Pool was a conceptual paper which analysed the consequences of demographic transition on the age structural transition in a broader framework. It was highlighted in the paper that the past demographic research mainly focused on the population dynamics and were given less importance of its consequences on the structure except on the aging issues. This paper has shown that demographic transition causes the age structural transition and this age structural transition is leading to population waves and demographic turbulence which has implications for public policy. Highlighting the disregards of this issues in the International Conference on Population and Development 1994, this paper also suggested a birth cohort size as the unit of the analysis rather than the rate for studying the age structural transition. This paper Asian Meta Centre for Population and Sustainable Development Analysis gave the solid foundation for the workshop and highlighted the need to study age structural transition as well as its influence on the social and economic policies.

The paper by Shripad Tuljapurkar stressed the policy consequences of changing age structure on governmental expenditure on education, health and pensions based on the parametric model. This paper has highlighted the consequences of age structural transition on the problem of resource allocation. To be specific, it was shown using parametric model that the shift in the age structure induced by the demographic transition influence the age pattern of expenditure and this would vary according to the nature and timing of the fertility transition, and therefore leading to major problem in resource allocation.

Wolfgang Lutz and Warren Sanderson introduced the concept of population balance that links the macro level concerns of population growth, aging, human capital formation and intergenerational equity. It was argued that length of better life

and educational attainment should be considered an additional population dimension when we define the population balance. This paper illustrated the consequences of fertility trends and the associated echo effects on the starting sizes of cohorts in China using the new concept of Cohort Succession Ratio. Moreover, the paper highlighted the important dimension that if the educational transition precedes the fertility transition then the life time income of the recent cohort would be enhanced.

In the second session on Policy Domain, three papers have been presented. The first paper by Gavin Jones emphasized the significant of the human resource development as a prerequisite for economic development. Comparing the process of demographic transition and age structural transition of the countries in Asia that are success stories, it was argued that rapid fertility decline has positive implications for economic development and these countries used the opportunity of decline in the youth dependency ratio to improve the quality of education as well as health and nutrition of children.

The paper by Gultiano and Urich assessed the micro level implications of the growing number of youths and changing social characteristics in the rural agrarian communities in Philippines. Due to 'youth bulge' on the agricultural sectors, the women and better educated tend to migrate from the villages and those left behind in the rural areas have poor access to land and therefore highly dependent on the public forestland. This has created the generational conflict in the rural areas of the Philippines.

Peter Xenos and Midea Kabamalan highlighted the undergoing youth transition in the Asian countries, its consequences on the social transition that includes shift in age at marriage, rise in school enrolment, and changes in the labour force participation rates. This paper argued that youth transition associated with social transition has created a numerous problem among the youth and suggested a need for youth policy in the Asian countries.

The session on Regional Perspectives I has featured three papers covering Thailand, China and Latin America. The paper on Thailand by Napaporn Chayovan cautioned the rapid increase of aged population in the country likely to have unusual effect on

its economy and society due to changing consumption pattern. It was highlighted that substantial proportions of elderly are living with insufficient income and majorities of them have had no savings. Gender and rural-urban inequalities among the elderly with regard to accessibility of economic resources were also persisted over time.

The paper by Yan Hao highlighted the impact of baby boom generations on the age structural transition in China. The baby boom in China resulted an irregular shape of age structure and this Asian Meta Centre for Population and Sustainable Development Analysis will keep changing as baby boomers gradually move from school ages through working ages and then to retirement ages. This paper discussed the implications of this on the future social and economic development in China and recommended that government should take early steps to reform the existing public pension system in cities and consolidate the family support system in rural areas as the baby boomers enter the retirement ages in the next 10-20 years. The important dimension of regional differences in age structural transition was brought out in a paper by Laura Wong while analyzing the aging and human development in Latin America. This paper pointed out that age structural changes in Latin American countries is due to dramatic fertility decline followed by the mortality decline and the countries of high, medium human development index in Latin America are currently undergoing a costly process of aging. Three papers were presented in the session on Transition, Policy and Methodology. Nan Li demonstrated using the time-dependent population model that rapid fertility decline in the less developed and least developed countries would result in significant baby bust and this is in contrast with age structural transition experienced by the western countries. It was shown that this baby bust age structural transition in the developing countries would reduce the size of the working age population after 50 years and therefore will have significant effect on the labour productivity.

The paper by John Bryant used the macro simulation model to project the distribution of elderly women by number of living children after 25 years in South Korea and to study the impact of HIV/AIDS epidemic on the distribution of Thailand women aged

60+ by number of living children. This paper revealed that the proportion of older women with two or three living children is set to rise sharply over coming decades whereas the proportion with large number of living children is set to fall in South Korea. In addition, the AIDS epidemic in Thailand would increase the number of women of aged 60+ having only with few children. Gustav Feichtinger's paper attempted to link the population dynamics model and inter-temporal optimization model to study cost-benefit analysis that has great potential in the application of employment, family planning and HIV incidence.

The session on Regional perspectives II has featured four papers. Radha Devi presented an age structural dynamics of Indian Population and pointed out that the age structure in India is fast changing and is crossing through the intermediate age structure. This paper also highlighted social and economic implications of the elderly in the future where majority of the workers are engaged in informal sector and their ability to save for old age is insufficient due to low standard of living of these people.

Turgay Unalan paper dealt with the role of age structural transition on the changing family structure in Turkey. Turkey is also in the process of age structural transition that has contributed to the growing proportion of one and two person household. The share of the families with couples living without children was increased during the decade 1990-2000 and is expected to increase in the future. A regional differential also exists with respect to family type in Turkey. The role of age specific growth rates on studying population aging was presented by Subrata Lahiri and Srinivasan with the illustrations by China, Japan, South Korea and India. It was pointed out that the change in population aging seems relatively faster in South Korea compared to Japan and regarding sex differentials in population aging, it was relatively faster among females in China, Japan and South Korea. However, similar pattern was not found in the case of India.

Asian Meta Centre for Population and Sustainable Development Analysis

Pirozkov presented a paper on the age structural dynamics of post soviet states namely Russia and Ukraine. The study indicated

that number of elderly as well as their proportion would increase in Russia in the future. In addition, age structural dynamics and population aging for Russia and Ukraine were similar but their trajectories were irregular in both the countries. The final session was devoted to synthesizing the paper presented in the workshop. While integrating all the presentations and discussions in the workshop, Ian pool pointed out that age structural transition is an integral part of the demographic transition and its trajectories would vary according to nature and process of demographic transition. Age structural transition has both opportunity and turbulence in its process. This has a significant implication on the social and economic development and therefore a challenge for the policy makers to respond to this process.

On theoretical themes, this workshop has identified that age structural transition has leading to structural effects and contextual effects and therefore need for theoretical elaboration to understand their linkages where age structure and institutions are undergoing changes. On methodological issues, this workshop raised very pertinent questions on measurement issues like what should be the unit of study and how to measure age structural transition and suggested a need for methodological development. On conceptual issues, the workshop argued that ageing of a population is a component of age structural transition and introduced the concepts of waves, turbulence and mutations. The workshop discussed how to define population momentum in the context of age structural transition and introduced the concept of demographic density and population balance for studying age structural transition. On the substantive theme, the workshop discussed the critical issue of integrating macro-meso-micro effects as well as generational effects in the process the age structural transition. The regional issues as well as rural-urban issues are important dimension in age structural transition as its effects are contextual. On the policy side, the workshop suggested for redefining population policy in response to population growth, age structural transition and ageing.

The papers are being revised for publication as an edited book by the end of 2001. Nevertheless, the papers presented in the workshop are available in the Asian Meta Centre website.

Overview

- Economic reforms may have given a boost to industrial productivity and brought in foreign investment in capital intensive areas. But the boom has not created jobs. This was not unexpected. According to a report by the Washington-based Institute of Policy Studies (IPS), the combined sales of the world's top 200 MNCs is now greater than the combined GDP of all but the world's nine largest national economies. Yet, the total direct employment generated by these multinationals is a mere 18.8 millions-one-hundredth of one per cent of the global workforce.
- India's Ninth Five-Year Plan projects generation of 54 million new jobs during the Plan period (1997-2002). But performance has always fallen short of target in the past, and few believe that the current Plan will be able to meet its target.
- India's labour force is growing at a rate of 2.5 per cent annually, but employment is growing at only 2.3 per cent. Thus, the country is faced with the challenge of not only absorbing new entrants to the job market (estimated at seven million people every year), but also clearing the backlog.
- Sixty per cent of India's workforce is self-employed, many of whom remain very poor. Nearly 30 per cent are casual workers (i.e. they work only when they are able to get jobs and remain unpaid for the rest of the days). Only about 10 per cent are regular employees, of which two-fifths are employed by the public sector.
- More than 90 per cent of the labour force is employed in the "unorganised sector", i.e. sectors which don't provide with the social security and other benefits of employment in the "organised sector."
- In the rural areas, agricultural workers form the bulk of the unorganised sector. In urban India, contract and sub-contract as well as migratory agricultural labourers make up most of the unorganised labour force.

- Unorganised sector is made up of jobs in which the Minimum Wage Act is either not, or only marginally, implemented. The absence of unions in the unorganised sector does not provide any opportunity for collective bargaining.
- Over 70 per cent of the labour force in all sector combined (organised and unorganised) is either illiterate or educated below the primary level.
- The Ninth Plan projects a decline in the population growth rate to 1.59 per cent per annum by the end of the Ninth Plan, from over 2 per cent in the last three decades. However, it expects the growth rate of the labour force to reach a peak level of 2.54 per cent per annum over this period; the highest it has ever been and is ever likely to attain. This is because of the change in age structure, with the highest growth occurring in the 15-19 years age group in the Ninth Plan period.
- The addition to the labour force during the Plan period is estimated to be 53 millions on the "usual status" concept. The acceleration in the economy's growth rate to 7 per cent per annum, with special emphasis on the agriculture sector, is expected to help in creating 54 million work opportunities over the period. This would lead to a reduction in the open unemployment rate from 1.9 per cent in 1996-97 to 1.47 per cent in the Plan's terminal year, that is, by about a million persons-from 7.5 million to 6.63 million.
- In other words, if the economy maintains an annual growth of 7 per cent, it would be just sufficient to absorb the new additions to the labour force. If the economy could grow at around 8 per cent per annum during the Plan period, the incidence of open unemployment could be brought down by two million persons, thus attaining near full employment by the end of the Plan period, according to the Plan.
- However, there appears to be some confusion about the figure of open unemployment. The unemployment figure

given in the executive summary of the Ninth Plan, gives the figure of open unemployment at 7.5 million while the annual report of the Labour Ministry, for 1995-96, puts the figure for 1995 at 18.7 million. An internal government paper prepared in 1997 put the unemployment figure at the beginning of the Eighth Plan at 17 millions and at 18.7 million at the end of 1994-95. Perhaps the Planning Commission referred to the current figure while the Labour Ministry figure referred to the accumulated unemployment backlog.

Underemployment

- Open unemployment is not a true indicator of the gravity of the unemployment problem in an economy such as India, characterised as it is by large-scale underemployment and poor employment quality in the unorganised sector, which accounts for over 90 per cent of the total employment. The organised sector contributes only about 9 per cent to the total employment.
- Underemployment in various segments of the labour force is quite high.

For instance, though open unemployment was only 2 per cent in 1993-94, the incidence of under-employment and unemployment taken together was as much as 10 per cent that year. This, in spite of the fact that the incidence of underemployment was reduced substantially in the decade ending 1993-94.

- According to the Planning Commission, the States which face the prospect of increased unemployment in the post-Ninth Plan period (2002-2007) are Bihar, Rajasthan, Uttar Pradesh, Kerala and Punjab.

National Population Policy 2000-Introduction

- 1 The overriding objective of economic and social development is to improve the quality of lives that people lead, to enhance their well-being, and to provide them with opportunities and choices to become productive assets in society.
- 2 In 1952, India was the first country in the world to launch a national programme, emphasizing family planning to the extent necessary for reducing birth rates "to stabilize the population at a level consistent with the requirement of national economy" After 1952, sharp declines in death rates were, however, not accompanied by a similar drop in birth rates. The National Health Policy, 1983 stated that replacement levels of total fertility rate (TFR) should be achieved by the year 2000.
- 3 On 11 May, 2000 India is projected to have 1 billion (100 crore) people, i.e. 16 percent of the world's population on 2.4 percent of the globe's land area. If current trends continue, India may overtake China in 2045, to become the most populous country in the world. While global population has increased threefold during this century, from 2 billion to 6 billion, the population of India has increased nearly five times from 238 million (23 crores) to 1 billion in the same period. India's current annual increase in population of 15.5 million is large enough to

neutralize efforts to conserve the resource endowment and environment.

Box 1: India's Demographic Achievement

Half a century after formulating the national family welfare programme, India has: "reduced crude birth rate (CBR) from 40.8 (1951) to 26.4 (1998, SRS);

"halved the infant mortality rate (IMR) from 146 per 1000 live births (1951) to 72 per 1000 live births (1998, SRS); "quadrupled the couple protection rate (CPR) from 10.4 percent (1971) to 44 percent (1999); "reduced crude death rate (CDR) from 25 (1951) to 9.0 (1998, SRS); "added 25 years to life expectancy from 37 years to 62 years; "achieved nearly universal awareness of the need for and methods of family planning, and "reduced total fertility rate from 6.0 (1951) to 3.3 (1997, SRS).

India's population in 1991 and projections to 2016 are as follows:

Table 1: Population Projections for India (million)

March 1991	March 2001	March 2011	March 2016
846.3	1012.4	1178.9	1263.5

1 Milestones in the Evolution of the Population Policy are listed at Appendix II, page 30.

2 TFR: Average number of children born to a woman during her lifetime.

3 Source: Technical Group on Population Projections, Planning Commission.

Stabilising population is an essential requirement for promoting sustainable development with more equitable distribution. However, it is as much a function of making reproductive health care accessible and affordable for all, as of increasing the provision and outreach of primary and secondary education, extending basic amenities including sanitation, safe drinking water and housing, besides empowering women and enhancing their employment opportunities, and providing transport and communications.

The National Population Policy, 2000 (NPP 2000) affirms the commitment of government towards voluntary and informed

choice and consent of citizens while availing of reproductive health care services, and continuation of the target free approach in administering family planning services. The NPP 2000 provides a policy framework for advancing goals and prioritizing strategies during the next decade, to meet the reproductive and child health needs of the people of India, and to achieve net replacement levels (TFR) by 2010. It is based upon the need to simultaneously address issues of child survival, maternal health, and contraception, while increasing outreach and coverage of a comprehensive package of reproductive and child health services by government, industry and the voluntary non-government sector, working in partnership.

National Population Policy 2000-Objectives

The immediate objective of the NPP 2000 is to address the unmet needs for contraception, health care infrastructure, and health personnel, and to provide integrated service delivery for basic reproductive and child health care.

The medium-term objective is to bring the TFR to replacement levels by 2010, through vigorous implementation of inter-sectoral operational strategies. The long-term objective is to achieve a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development, and environmental protection.

In pursuance of these objectives, the following National Socio-Demographic Goals to be achieved in each case by 2010 are formulated:

National Socio-Demographic Goals for 2010

"Address the unmet needs for basic reproductive and child health services, supplies and infrastructure. "Make school education up to age 14 free and compulsory, and reduce drop outs at primary and secondary school levels to below 20 percent for both boys and girls. "Reduce infant mortality rate to below 30 per 1000 live births. "Reduce maternal mortality ratio to below 100 per 100,000 live births. "Achieve universal immunization of children against all vaccine preventable diseases. "Promote delayed marriage for girls, not earlier than age 18 and preferably after 20 years of age. "Achieve 80 percent institutional deliveries and 100 percent deliveries by trained persons.

"Achieve universal access to information/counselling, and services for fertility regulation and contraception with a wide basket of choices.

"Achieve 100 per cent registration of births, deaths, marriage and pregnancy.

"Contain the spread of Acquired Immunodeficiency Syndrome (AIDS), and promote greater integration between the management of reproductive tract infections (RTI) and sexually transmitted infections (STI) and the National AIDS Control Organisation.

"Prevent and control communicable diseases.

"Integrate Indian Systems of Medicine (ISM) in the provision of reproductive and child health services, and in reaching out to households.

"Promote vigorously the small family norm to achieve replacement levels of TFR.

"Bring about convergence in implementation of related social sector programs so that family welfare becomes a people centred programme.

If the NPP 2000 is fully implemented, we anticipate a population of 1107 million (110 crores) in 2010, instead of 1162 million (116 crores) projected by the Technical Group on Population Projections:

Table 2: Anticipated Growth in Population (million)

Year	If current trends continue	If TFR 2.1 is achieved by 2010	
	Total Population	Increase in population	Total population
1991	846.3	-	846.3
1996	934.2	17.6	934.2
1997	949.9	15.7	949.0
2000	996.9	15.7	991.0
2002	1027.6	15.4	1013.0
2010	1162.3	16.8	1107.0

Similarly, the anticipated reductions in the birth, infant mortality and total fertility rates are:

Table 3: Projections of Crude Birth Rate, Infant Mortality Rate, and TFR, if the NPP 2000 is fully implemented.

Year	Crude Birth Rate	Infant Mortality Rate	Total Fertility Rate
1997	27.2	71	3.3
1998	26.4	72	3.3
2002	23.0	50	2.6
2010	21.0	30	2.1

Source for Tables 2 and 3: Ministry of Health and Family Welfare

Population growth in India continues to be high on account of :

The large size of the population in the reproductive age-group (estimated contribution 58 percent). An addition of 417.2 million between 1991 and 2016 is anticipated despite substantial reductions in family size in several states, including those which have already achieved replacement levels of TFR. This momentum of increase in population will continue for some more years because high TFRs in the past have resulted in a large proportion of the population being currently in their reproductive years. It is imperative that the reproductive age group adopts without further delay or exception the "small family norm", for the reason that about 45 percent of population increase is contributed by births above two children per family.

Higher fertility due to unmet need for contraception (estimated contribution 20 percent). India has 168 million eligible couples, of which just 44 percent are currently effectively protected. Urgent steps are currently required to make contraception more widely available, accessible, and affordable. Around 74 percent of the population lives in rural areas, in about 5.5 lakh villages, many with poor communications and transport. Reproductive health and basic health infrastructure and services often do not reach the villages, and, accordingly, vast numbers of people cannot avail of these services.

High wanted fertility due to the high infant mortality rate (IMR) (estimated contribution about 20 percent). Repeated child births are seen as an insurance against multiple infant (and child)

deaths and accordingly, high infant mortality stymies all efforts at reducing TFR.

Over 50 percent of girls marry below the age of 18, the minimum legal age of marriage, resulting in a typical reproductive pattern of "too early, too frequent, too many". Around 33 percent births occur at intervals of less than 24 months, which also results in high IMR.

National Population Policy 2000-Strategic Themes

We identify 12 strategic themes which must be simultaneously pursued in "stand alone" or inter-sectoral programmes in order to achieve the national socio-demographic goals for 2010. These are presented below:

Decentralised Planning and Programme Implementation

The 73rd and 74th Constitutional Amendments Act, 1992, made health, family welfare, and education a responsibility of village panchayats. The panchayati raj institutions are an important means of furthering decentralised planning and programme implementation in the context of the NPP 2000. However, in order to realize their potential, they need strengthening by further delegation of administrative and financial powers, including powers of resource mobilization.

Further, since 33 percent of elected panchayat seats are reserved for women, representative committees of the panchayats (headed by an elected woman panchayat member) should be formed to promote a gender sensitive, multi-sectoral agenda for population stabilisation, that will "think, plan and act locally, and support nationally". These committees may identify area specific unmet needs for reproductive health services, and prepare need-based, demand-driven, socio-demographic plans at the village level, aimed at identifying and providing responsive, people-centred and integrated, basic reproductive and child health care. Panchayats demonstrating exemplary performance in the compulsory registration of births, deaths, marriages, and pregnancies, universalizing the small family norm, increasing safe deliveries, bringing about reductions in infant and maternal mortality, and

promoting compulsory education up to age 14, will be nationally recognized and honoured.

Convergence of Service Delivery at Village Levels

Efforts at population stabilisation will be effective only if we direct an integrated package of essential services at village and household levels. Below district levels, current health infrastructure includes 2,500 community health centres, 25,000 primary health centres (each covering a population of 30,000), and 1.36 lakh subcentres (each covering a population of 5,000 in the plains and 3,000 in hilly regions). Inadequacies in the existing health infrastructure have led to an unmet need of 28 percent for contraception services, and obvious gaps in coverage and outreach. Health care centres are over-burdened and struggle to provide services with limited personnel and equipment. Absence of supportive supervision, lack of training in inter-personal communication, and lack of motivation to work in rural areas, together impede citizens' access to reproductive and child health services, and contribute to poor quality of services and an apparent insensitivity to client's needs.

The last 50 years have demonstrated the unsuitability of these yardsticks for provision of health care infrastructure, particularly for remote, inaccessible, or sparsely populated regions in the country like hilly and forested areas, desert regions and tribal areas. We need to promote a more flexible approach, by extending basic reproductive and child health care through mobile clinics and counselling services. Further, recognizing that government alone cannot make up for the inadequacies in health care infrastructure and services, in order to resolve unmet needs and extend coverage, the involvement of the voluntary sector and the non-government sector in partnership with the government is essential.

Since the management, funding, and implementation of health and education programmes has been decentralised to panchayats, in order to reach household levels, a one-stop, integrated and coordinated service delivery should be provided at village levels, for basic reproductive and child health services. A vast increase in the number of trained birth attendants, at least two per village,

is necessary to universalise coverage and outreach of ante-natal, natal and post-natal health care. An equipped maternity hut in each village should be set up to serve as a delivery room, with functioning midwifery kits, basic medication for essential obstetric aid, and indigenous medicines and supplies for maternal and new born care. A key feature of the integrated service delivery will be the registration at village levels, of births, deaths, marriage, and pregnancies. Each village should maintain a list of community midwives and trained birth attendants, village health guides, panchayat sewa sahayaks, primary school teachers and aanganwadi workers who may be entrusted with various responsibilities in the implementation of integrated service delivery.

The panchayats should seek the help of community opinion makers to communicate the benefits of smaller, healthier families, the significance of educating girls, and promoting female participation in paid employment. They should also involve civil society in monitoring the availability, accessibility and affordability of services and supplies.

Empowering Women for Improved Health and Nutrition

The complex socio-cultural determinants of women's health and nutrition have cumulative effects over a lifetime. Discriminatory childcare leads to malnutrition and impaired physical development of the girl child. Undernutrition and micronutrient deficiency in early adolescence goes beyond mere food entitlements to those nutrition related capabilities that become crucial to a woman's well-being, and through her, to the well-being of children. The positive effects of good health and nutrition on the labour productivity of the poor is well documented. To the extent that women are over-represented among the poor, interventions for improving women's health and nutrition are critical for poverty reduction.

Impaired health and nutrition is compounded by early childbearing, and consequent risk of serious pregnancy related complications. Women's risk of premature death and disability is highest during their reproductive years. Malnutrition, frequent pregnancies, unsafe abortions, RTI and STI, all combine to keep

the maternal mortality ratio in India among the highest globally. Maternal mortality is not merely a health disadvantage, it is a matter of social injustice. Low social and economic status of girls and women limits their access to education, good nutrition, as well as money to pay for health care and family planning services. The extent of maternal mortality is an indicator of disparity and inequity in access to appropriate health care and nutrition services throughout a lifetime, and particularly during pregnancy and child-birth, and is a crucial factor contributing to high maternal mortality.

Programmes for Safe Motherhood, Universal Immunisation, Child Survival and Oral Rehydration have been combined into an Integrated Reproductive and Child Health Programme, which also includes promoting management of STIs and RTIs. Women's health and nutrition problems can be largely prevented or mitigated through low cost interventions designed for low income settings.

The voluntary non-government sector and the private corporate sector should actively collaborate with the community and government through specific commitments in the areas of basic reproductive and child health care, basic education, and in securing higher levels of participation in the paid work force for women.

Child Health and Survival

Infant mortality is a sensitive indicator of human development. High mortality and morbidity among infants and children below 5 years occurs on account of inadequate care, asphyxia during birth, premature birth, low birth weight, acute respiratory infections, diarrhoea, vaccine preventable diseases, malnutrition and deficiencies of nutrients, including Vitamin A. Infant mortality rates have not significantly declined in recent years.

Our priority is to intensify neo-natal care. A National Technical Committee should be set up, consisting principally of consultants in obstetrics, pediatrics (neonatologists), family health, medical research and statistics from among academia, public health professionals, clinical practitioners and government. Its terms of reference should include prescribing perinatal audit norms, developing quality improvement activities with monitoring schedules and suggestions for facilitating provision of continuing

medical and nursing education to all perinatal health care providers. Implementation at the grass-roots must benefit from current developments in the fields of perinatology and neonatology. The baby friendly hospital initiative (BFHI) should be extended to all hospitals and clinics, up to subcentre levels. Additionally, besides promoting breast-feeding and complementary feeds, the BFHI should include updating of skills of trained birth attendants to improve new born care practices to reduce the risks of hypothermia and infection. Essential equipment for the new born must be provided at subcentre levels.

Child survival interventions i.e. universal immunisation, control of childhood diarrhoeas with oral rehydration therapies, management of acute respiratory infections, and massive doses of Vitamin A and food supplements have all helped to reduce infant and child mortality and morbidity. With intensified efforts, the eradication of polio is within reach. However, the decline in standards, outreach and quality of routine immunisation is a matter of concern. Significant improvements need to be made in the quality and coverage of the routine immunisation programme.

Meeting the Unmet Needs for Family Welfare Services

In both rural and urban areas there continue to be unmet needs for contraceptives, supplies and equipment for integrated service delivery, mobility of health providers and patients, and comprehensive information. It is important to strengthen, energise and make accountable the cutting edge of health infrastructure at the village, subcentre and primary health centre levels, to improve facilities for referral transportation, to encourage and strengthen local initiatives for ambulance services at village and block levels, to increase innovative social marketing schemes for affordable products and services and to improve advocacy in locally relevant and acceptable dialects.

Under-Served Population Groups

Urban Slums: Nearly 100 million people live in urban slums, with little or no access to potable water, sanitation facilities, and health care services. This contributes to high infant and child

mortality, which in turn perpetuate high TFR and maternal mortality. Basic and primary health care, including reproductive and child health care, needs to be provided. Coordination with municipal bodies for water, sanitation and waste disposal must be pursued, and targeted information, education and communication campaigns must spread awareness about the secondary and tertiary facilities available.

Tribal Communities, Hill Area Populations and Displaced and Migrant Populations: In general, populations in remote and low density areas do not have adequate access to affordable health care services. Tribal populations often have high levels of morbidity arising from poor nutrition, particularly in situations where they are involuntarily displaced or resettled. Frequently, they have low levels of literacy, coupled with high infant, child, and maternal mortality. They remain under-served in the coverage of reproductive and child health services. These communities need special attention in terms of basic health, and reproductive and child health services. The special needs of tribal groups which need to be addressed include the provision of mobile clinics that will be responsive to seasonal variations in the availability of work and income. Information and counselling on infertility, and regular supply of standardised medication will be included.

Adolescents: Adolescents represent about a fifth of India's population. The needs of adolescents, including protection from unwanted pregnancies and sexually transmitted diseases (STD), have not been specifically addressed in the past. Programmes should encourage delayed marriage and child-bearing, and education of adolescents about the risks of unprotected sex. Reproductive health services for adolescent girls and boys is especially significant in rural India, where adolescent marriage and pregnancy are widely prevalent. Their special requirements comprise information, counselling, population education, and making contraceptive services accessible and affordable, providing food supplements and nutritional services through the ICDS, and enforcing the Child Marriage Restraint Act, 1976.

Increased Participation of Men in Planned Parenthood: In the past, population programmes have tended to exclude menfolk. Gender inequalities in patriarchal societies ensure that men play

a critical role in determining the education and employment of family members, age at marriage, besides access to and utilisation of health, nutrition, and family welfare services for women and children. The active involvement of men is called for in planning families, supporting contraceptive use, helping pregnant women stay healthy, arranging skilled care during delivery, avoiding delays in seeking care, helping after the baby is born and, finally, in being a responsible father. In short, the active cooperation and participation of men is vital for ensuring programme acceptance. Further, currently, over 97 percent of sterilisations are tubectomies and this manifestation of gender imbalance needs to be corrected. The special needs of men include re-popularising vasectomies, in particular noscalpel vasectomy as a safe and simple procedure, and focusing on men in the information and education campaigns to promote the small family norm.

Diverse Health Care Providers

Given the large unmet need for reproductive and child health services, and inadequacies in health care infrastructure it is imperative to increase the numbers and diversify the categories of health care providers. Ways of doing this include accrediting private medical practitioners and assigning them to defined beneficiary groups to provide these services; revival of the system of licensed medical practitioner who, after appropriate certification from the Indian Medical Association (IMA), could provide specified clinical services.

Collaboration With and Commitments from Non-Government Organisations and the Private Sector

A national effort to reach out to households cannot be sustained by government alone. We need to put in place a partnership of non-government voluntary organizations, the private corporate sector, government and the community. Triggered by rising incomes and institutional finance, private health care has grown significantly, with an impressive pool of expertise and management skills, and currently accounts for nearly 75 percent of health care expenditures. However, despite their obvious potential, mobilising the private (profit and non-profit) sector to serve public health goals raises governance issues of contracting, accreditation, regulation, referral,

besides the appropriate division of labour between the public and private health providers, all of which need to be addressed carefully. Where government interventions or capacities are insufficient, and the participation of the private sector unviable, focused service delivery by NGOs may effectively complement government efforts.

Mainstreaming Indian Systems of Medicine and Homeopathy

India's community supported ancient but living traditions of indigenous systems of medicine has sustained the population for centuries, with effective cures and remedies for numerous conditions, including those relating to women and children, with minimal side effects. Utilisation of ISMH in basic reproductive and child health care will expand the pool of effective health care providers, optimise utilisation of locally based remedies and cures, and promote lowcost health care. Guidelines need to be evolved to regulate and ensure standardisation, efficacy and safety of ISMH drugs for wider entry into national markets.

Particular challenges include providing appropriate training, and raising awareness and skill development in reproductive and child health care to the institutionally qualified ISMH medical practitioners. The feasibility of utilising their services to fill in gaps in manpower at village levels, and at subcentres and primary health centres may be explored. ISMH institutions, hospitals and dispensaries may be utilised for reproductive and child health care programmes. At village levels, the services of the ISMH "barefoot doctors", after appropriate training, may be utilised for advocacy and counselling, for distributing supplies and equipment, and as depot holders. ISMH practices may be applied at village maternity huts, and at household levels, for ante-natal, natal and post natal care, and for nurture of the new born.

Contraceptive Technology and Research on Reproductive and Child Health

Government must constantly advance, encourage, and support medical, social science, demographic and behavioural science research on maternal, child and reproductive health care issues. This will improve medical techniques relevant to the country's

needs, and strengthen programme and project design and implementation. Consultation and frequent dialogue by Government with the existing network of academic and research institutions in allopathy and ISMH, and with other relevant public and private research institutions engaged in social science, demography and behavioural research must continue. The International Institute of Population Sciences, and the population research centres which have been set up to pursue applied research in population related matters, need to be revitalised and strengthened.

Applied research relies upon constant monitoring of performance at the programme and project levels. The National Health and Family Welfare Survey provides data on key health and family welfare indicators every five years. Data from the first National Family Health Survey (NFHS-1), 1992-93, has been updated by NFHS-2, 1998-99, to be published shortly. Annual data is generated by the Sample Registration Survey, which, inter alia, maps at state levels the birth, death and infant mortality rates. Absence of regular feedback has been a weakness in the family welfare programme. For this reason, the Department of Family Welfare is strengthening its management information systems (MIS) and has commenced during 1998, a system of ascertaining impacts and outcomes through district surveys and facility surveys. The district surveys cover 50% districts every year, so that every 2 years there is an update on every district in the country. The facility surveys ascertain the availability of infrastructure and services up to primary health centre level, covering one district per month. The feedback from both these surveys enable remedial action at district and sub-district levels.

Providing for the Older Population

Improved life expectancy is leading to an increase in the absolute number and proportion of persons aged 60 years and above, and is anticipated to nearly double during 1996-2016, from 62.3 million to 112.9 million. When viewed in the context of significant weakening of traditional support systems, the elderly are increasingly vulnerable, needing protection and care. Promoting old age health care and support will, over time, also serve to

reduce the incentive to have large families. The Ministry of Social Justice and Empowerment has adopted in January 1999 a National Policy on Older Persons. It has become important to build in geriatric health concerns in the population policy. Ways of doing this include sensitising, training and equipping rural and urban health centres and hospitals for providing geriatric health care; encouraging NGOs to design and implement formal and informal schemes that make the elderly economically self-reliant; providing for and routinising screening for cancer, osteoporosis, and cardiovascular conditions in primary health centres, community health centres, and urban health care centres at primary, secondary and tertiary levels; and exploring tax incentives to encourage grown-up children to look after their aged parents.

Information, Education, and Communication

Information, education and communication (IEC) of family welfare messages must be clear, focused and disseminated everywhere, including the remote corners of the country, and in local dialects. This will ensure that the messages are effectively conveyed. These need to be strengthened and their outreach widened, with locally relevant, and locally comprehensible media and messages. On the model of the total literacy campaigns which have successfully mobilised local populations, there is need to undertake a massive national campaign on population related issues, via artists, popular film stars, doctors, vaidyas, hakims, nurses, local midwives, women's organizations, and youth organizations.

National Population Policy 2000-Legislation, Public Support & New Structures

Legislation

As a motivational measure, in order to enable state governments to fearlessly and effectively pursue the agenda for population stabilisation contained in the National Population Policy, 2000, one legislation is considered necessary. It is recommended that the 42nd Constitutional Amendment that freezes till 2001, the number of seats to the Lok Sabha and the Rajya Sabha based on the 1971 Census be extended up to 2026.

Public Support

Demonstration of strong support to the small family norm, as well as personal example, by political, community, business, professional and religious leaders, media and film stars, sports personalities, and opinion makers, will enhance its acceptance throughout society. The government will actively enlist their support in concrete ways.

New Structures

The NPP 2000 is to be largely implemented and managed at panchayat and nagar palika levels, in coordination with the concerned state/Union Territory administrations. Accordingly, the specific situation in each state/UT must be kept in mind. This will require comprehensive and multisectoral coordination of planning and implementation between health and family welfare on the one hand, along with schemes for education, nutrition, women and child development, safe drinking water, sanitation, rural roads, communications, transportation, housing, forestry development, environmental protection, and urban development. Accordingly, the following structures are recommended:

National Commission on Population: A National Commission on Population, presided over by the Prime Minister, will have the Chief Ministers of all states and UTs, and the Central Minister in charge of the Department of Family Welfare and other concerned Central Ministries and Departments, for example Department of Woman and Child Development, Department of Education, Department of Social Justice and Empowerment in the Ministry of HRD, Ministry of Rural Development, Ministry of Environment and Forest, and others as necessary, and reputed demographers, public health professionals, and NGOs as members. This Commission will oversee and review implementation of policy. The Commission Secretariat will be provided by the Department of Family Welfare.

State/UT Commissions on Population: Each state and UT may consider having a State/UT Commission on Population, presided over by the Chief Minister, in the analogy of the National Commission, to likewise oversee and review implementation of the NPP 2000 in the state/UT.

Coordination Cell in the Planning Commission: The Planning Commission will have a Coordination Cell for inter-sectoral coordination between Ministries for enhancing performance, particularly in States/UTs needing special attention on account of adverse demographic and human development indicators.

Technology Mission in the Department of Family Welfare: To enhance performance, particularly in states with currently below average socio-demographic indices that need focused attention, a Technology Mission in the Department of Family Welfare will be established to provide technology support in respect of design and monitoring of projects and programmes for reproductive and child health, as well as for IEC campaigns.

National Population Policy 2000-Funding, Promotional and Motivational Measures for Adoption of the Small Family Norm

Funding

The programmes, projects and schemes premised on the goals and objectives of the NPP 2000, and indeed all efforts at population stabilisation, will be adequately funded in view of their critical importance to national development. Preventive and promotive services such as ante-natal and post-natal care for women, immunisation for children, and contraception will continue to be subsidised for all those who need the services. Priority in allocation of funds will be given to improving health care infrastructure at the community and primary health centres, subcentre and village levels. Critical gaps in manpower will be remedied through redeployment, particularly in under-served and inaccessible areas, and referral linkages will be improved. In order to implement immediately the Action Plan, it would be necessary to double the annual budget of the Department of Family Welfare to enable government to address the shortfall in unmet needs for health care infrastructure, services and supplies.

Even though the annual budget for population stabilisation activities assigned to the Department of Family Welfare has increased over the years, at least 50 percent of the budgetary outlay is deployed towards non-plan activities (recurring

expenditures for maintenance of health care infrastructure in the states and UTs, and towards salaries). To illustrate, of the annual budget of Rs. 2920 crores for 1999-2000, nearly Rs 1500 crores is allocated towards non-plan activities. Only the remaining 50 percent becomes available for genuine plan activities, including procurement of supplies and equipment. For these reasons, since 1980 the Department of Family Welfare has been unable to revise norms of operational costs of health infrastructure, which in turn has impacted directly the quality of care and outreach of services provided.

Promotional and Motivational Measures for Adoption of the Small Family Norm

The following promotional and motivational measures will be undertaken:

- (i) Panchayats and Zila Parishads will be rewarded and honoured for exemplary performance in universalising the small family norm, achieving reductions in infant mortality and birth rates, and promoting literacy with completion of primary schooling.
- (ii) The Balika Samridhi Yojana run by the Department of Women and Child Development, to promote survival and care of the girl child, will continue. A cash incentive of Rs. 500 is awarded at the birth of the girl child of birth order 1 or 2.
- (iii) Maternity Benefit Scheme run by the Department of Rural Development will continue. A cash incentive of Rs. 500 is awarded to mothers who have their first child after 19 years of age, for birth of the first or second child only. Disbursement of the cash award will in future be linked to compliance with ante-natal check up, institutional delivery by trained birth attendant, registration of birth and BCG immunisation.
- (iv) A Family Welfare-linked Health Insurance Plan will be established. Couples below the poverty line, who undergo sterilisation with not more than two living children, would become eligible (along with children) for health insurance (for hospitalisation) not exceeding Rs. 5000, and a personal

accident insurance cover for the spouse undergoing sterilisation.

- (v) Couples below the poverty line, who marry after the legal age of marriage, register the marriage, have their first child after the mother reaches the age of 21, accept the small family norm, and adopt a terminal method after the birth of the second child, will be rewarded.
- (vi) A revolving fund will be set up for income-generating activities by village-level self help groups, who provide community-level health care services.
- (vii) Creches and child care centres will be opened in rural areas and urban slums. This will facilitate and promote participation of women in paid employment.
- (viii) A wider, affordable choice of contraceptives will be made accessible at diverse delivery points, with counselling services to enable acceptors to exercise voluntary and informed consent.
- (ix) Facilities for safe abortion will be strengthened and expanded.
- (x) Products and services will be made affordable through innovative social marketing schemes.
- (xi) Local entrepreneurs at village levels will be provided soft loans and encouraged to run ambulance services to supplement the existing arrangements for referral transportation.
- (xii) Increased vocational training schemes for girls, leading to self-employment will be encouraged.
- (xiii) Strict enforcement of Child Marriage Restraint Act, 1976.
- (xiv) Strict enforcement of the Pre-Natal Diagnostic Techniques Act, 1994.
- (xv) Soft loans to ensure mobility of the ANMs will be increased.
- (xvi) The 42nd Constitutional Amendment has frozen the number of representatives in the Lok Sabha (on the basis of population) at 1971 Census levels. The freeze is currently valid until 2001, and has served as an incentive for State

Governments to fearlessly pursue the agenda for population stabilisation. This freeze needs to be extended until 2026.

National Population Policy 2000-Conclusion

In the new millenium, nations are judged by the well-being of their peoples; by levels of health, nutrition and education; by the civil and political liberties enjoyed by their citizens; by the protection guaranteed to children and by provisions made for the vulnerable and the disadvantaged.

The vast numbers of the people of India can be its greatest asset if they are provided with the means to lead healthy and economically productive lives. Population stabilisation is a multisectoral endeavour requiring constant and effective dialogue among a diversity of stakeholders, and coordination at all levels of the government and society. Spread of literacy and education, increasing availability of affordable reproductive and child health services, convergence of service delivery at village levels, participation of women in the paid work force, together with a steady, equitable improvement in family incomes, will facilitate early achievement of the socio-demographic goals. Success will be achieved if the Action Plan contained in the NPP 2000 is pursued as a national movement.

Literacy in India

Literacy in India is an indispensable means for effective social and economic participation, contributing to human development and poverty reduction, says UNESCO. The Right to Education is a fundamental human right. UNESCO aims at education for all by 2015. India is one of the countries (along with the Arab states and sub-Saharan Africa) where the literacy levels are still below the threshold level of 75% but gigantic efforts are on to achieve that level. More than three fourths of the country's male population and above half of the female population is literate. The thrust forward for achieving at least the threshold level of literacy represents the largest ever civil and military mobilization in the country.

The table below shows the adult and youth literacy rates for India and some of the neighbouring countries in 2002.

Country	Adult Literacy Rate	Youth Literacy Rate
China	90.9	98.9
India	61.3	73.3
Nepal	44.0	62.7
Pakistan	41.5	53.9
Sri Lanka	92.1	97.0
Bangladesh	41.1	49.7

Adult literacy rate is for the age group 15 years and above. Youth literacy rate is for the age group 15-24 years. The youth literacy rate for India relates to 2001.

What Constitutes Literacy

Literacy as defined by UNESCO is given below.

1. A literate person is one who can with understanding both read and write a short simple statement relevant to his everyday life.
2. Literacy is not the simple reading of a word or a set of associated symbols and sounds, but an act of critical understanding of men's situation in the world.
3. Literacy is not an end in itself but a means of personal liberation and development and extending individuals educational efforts involving overall inter-disciplinary responses to concrete problems.
4. A literate person is one who has acquired all the essential knowledge and skills which enable him to engage in all those activities in which literacy is required for effective functioning in his group and community and whose attaining in reading, writing and numeracy make it possible to use these skills towards his own and his community's development.

The National Literacy Mission defines literacy as acquiring the skills of reading, writing and arithmetic and the ability to apply them to one's day-to-day life. The achievement of functional literacy implies:

- Self-reliance in 3 R's
- Becoming aware of the causes of deprivation and moving towards amelioration of their condition by participating in the process of development
- Acquiring skills to improve their economic status and general well being
- Imbibing values of national integration, conservation of environment, women's equality, observance of small family norms, etc

The working definition of literacy in the Indian census since 1991 is as follows:

- "Literacy rate":

The total percentage of the population of an area at a particular time aged seven years or above who can read and write with understanding. Here the denominator is the population aged seven years or more.

- “Crude literacy rate”:

The total percentage of the people of an area at a particular time aged seven years or above who can read and write with understanding, taking the total population of the area (including below seven years of age) as the denominator.

Growth of Literacy

During the British period, progress of education was rather tardy. Between 1881-82 and 1946-47, the number of primary schools grew from 82,916 to 134,866 and the number of students grew from 2,061,541 to 10,525,943. Literacy rates in British India rose from 3.2 per cent in 1881 to 7.2 per cent in 1931 and 12.2 per cent in 1947. In 2000-01, there were 60,840 pre-primary and pre-basic schools, and 664,041 primary and junior basic schools. Total enrolment at the primary level has increased from 19,200,000 in 1950-51 to 109,800,000 in 2001-02. The number of high schools in 2000-01 was higher than the number of primary schools at the time of independence.

The provision of universal and compulsory education for all children in the age group of 6-14 was a cherished national ideal and had been given overriding priority by incorporation as a Directive Policy in Article 45 of the Constitution, but it is still to be achieved more than half a century since the Constitution was adopted. Parliament has passed the Constitution 86th Amendment Act, 2002, to make elementary education a Fundamental Right for children in the age group of 6-14 years. In order to provide more funds for education, an education cess of 2 per cent has been imposed on all direct and indirect central taxes through the Finance (No. 2) Act, 2004.

Since independence, the literacy rate grew from 18.33 per cent in 1951, to 28.30 per cent in 1961, 34.45 per cent in 1971, 43.57 per cent in 1981, 52.21 per cent in 1991, and 64.84 per cent in 2001. During the same period, the population grew from 361 million to 1,028 million.

Literacy Rates

Kerala is at one end of the table and Bihar at the other, representing two extremes of the Indian paradox. An analysis of important social indicators highlights the social differences in the two states. Literacy rate (2001) in Kerala was 90.86 per cent against 47.00 per cent in Bihar. Life expectancy at birth (2001-2006) is 71.61 for males and 75 for females in Kerala. In Bihar, it is 65.66 for males and 64.79 for females. Infant mortality (per 1,000 live births, 2002 provisional data) was only 10 in Kerala against 61 in Bihar. Birth rate (per 1,000, provisional) is 16.9 in Kerala against 30.9 in Bihar. Death rate (per 1,000, provisional) is 6.4 in Kerala against 7.9 in Bihar. The differences clearly indicate that literacy is the key to improvement in quality of life.

Kerala's achievement is remarkable because the proportion of literate people in the area that now constitutes that state at the time of independence was, although higher than rest of India, still low. According to the 1991 census, Kottayam District of Kerala is the first district in India to achieve highest literacy rate i.e 90.52 percent.

In the graph showing literacy rates in different states for 1981 and 2001, there is considerable variance throughout the country. Large variations can be observed even amongst contiguous states. Union Territories are not included in the graph. It can be seen that while there are a few states at the top and bottom, most of the states are just above or below the national average.

The Failure Part

In his essay on *Social Infrastructure As Important As Physical Infrastructure* published in *India Development Report 2002*, Kirit S. Parikh had pointed out, "With a literacy rate of 65, we have 296 million illiterates, age seven years and above, as per the 2001 census. The number of illiterates today exceeds the population of the country of around 270 million at Independence, age seven and above." The largest segment of the world's illiterates is in India.

In his book *The Argumentative Indian*, Amartya Sen notes, on the basis of investigations by Pratichi Trust, set up with the proceeds of his Nobel award, carried out in West Bengal and Jharkhand, that absenteeism of comparatively well-paid teachers, particularly

where bulk of the students come from scheduled castes and tribes, poses a major problem. Students are circumstantially forced to go in for private tuitions. He concludes, "Sometimes the very institutions that were created to overcome disparities and barriers have tended to act as reactionary influences in reinforcing inequality... The teachers' unions, which have a very positive role to play in protecting the interests of teachers and have played that part well in the past, are often turning into an influence that reinforces the neglect of the interests of children from desperately underprivileged families. There is evidence of hardening of class barriers that separate the newly affluent teachers from the impoverished rural poor."

Concerted Efforts

Government Schemes

The Sarva Siksha Abhiyan was launched in 2001 to ensure that all children in the age group 6-14 years attend school and complete eight years of schooling by 2010. Important components of the scheme are the Education Guarantee Scheme and Alternative and Innovative Education meant primarily for children where there is no formal school within a radius of one kilometre. The centrally sponsored District Primary Education Programme launched in 1994, has so far opened more than 160,000 new schools, including almost 84,000 alternative schools.

Of the estimated population of 205 million in the age group 6-14 years on March 1, 2002, nearly 82.5 per cent was enrolled in schools. However, drop out in 2002-03 at the primary level was 34.9 per cent and at the upper primary level, it was 52.8 per cent. The high drop out rate has been a matter of major concern. One of the most popular schemes adopted to attract children to schools is the midday meals programme launched in 1995. Several other special programmes have been launched with varying degrees of success.

The National Literacy Mission launched in 1988 aims at attaining a literacy rate of 75 per cent by 2007. It imparts functional literacy to non-literates in the age group of 15-35 years. The Total Literacy Campaign is the principal strategy of the NLM for

eradication of illiteracy. The Continuing Education Scheme provides a learning continuum to the efforts of the Total Literacy and Post-Literacy programmes.

International Literacy Day is celebrated each year on 8th September with the aim to highlight the importance of literacy to individuals, communities and societies.

Social Reformation Efforts

Bulk of the illiterates is in the rural areas, where social and economic barriers play an important role in keeping the lowest strata of society illiterate. Government programmes alone, however well intentioned, may not be able break barriers built over the centuries. Major social reformation efforts are required to bring about a change in the rural scenario. Examples of two such efforts are given below. There are many but more are required.

In 2002, Sandeep Pandey won the prestigious Magsaysay Award. While pursuing a Ph.D. in control theory at the University of California-Berkeley, he joined his friends to form Asha (Hope), to support education for poor children in India by tapping the resources of Indians abroad. The enterprising founders raised ten thousand dollars in one year, an auspicious beginning for an organization that now claims thirty-six North-American chapters and has disbursed nearly one million dollars for programs in India. After launching Asha, he himself returned to India, doctorate in hand. He taught briefly at the prestigious Indian Institute of Technology and, in 1992, left the institute to devote himself full-time to Asha's larger purpose: to bring about socio-economic change in India through education.

The flow of money apart, it was not an easy task. In Ballia district of Uttar Pradesh, he confronted the impoverished world of low-caste families and dalits, or untouchables. Few children went to school at all; even those who did, grew up to swell India's vast unemployment rolls. With local volunteers in the villages of Reoti and Bhainsaha, Pandey has created schools that instill self-reliance and values for a just society. Asha's teachers take no pay. Instead, they support themselves with sidelines such as making candles and greeting cards from handmade paper. A fuller expression of his vision is the Asha ashram in the dalit village of

Lalpur, outside Lucknow. There, students live and study among traditional artisans and engage in bee-keeping, vegetable gardening, and cottage industries. His award was in recognition of "the empowering example of his commitment to the transformation of India's marginalized poor."

The Magsaysay Award for Shantha Sinha in 2003 was in recognition of "her guiding the people of Andhra Pradesh to end the scourge of child labour and send all of their children to school." As head of an extension program at the University of Hyderabad in 1987, she organized a three-month-long "camp" to prepare children rescued from bonded labour to attend school. Later, in 1991, she guided her family's Mamidipudi Venkatarangaiya Foundation to take up this idea as part of its overriding mission in Andhra Pradesh. Her original transition camps grew into full-fledged residential "bridge schools." The foundation is creating a social climate hostile not only to child labour but also to child marriage and other practices that deny children the right to a normal childhood. Today the MV Foundation's bridge schools and programs extend to 4,300 villages.

NLM—An Introduction

Education in India

India has been a major seat of learning for thousands of years, dating back to ancient seats of learning like Nalanda. In modern times, Indian educational institutions such as the (IITs, IISc, IIMs, NITs, AIIMS, ISI, BITS and ISB) are well known worldwide. India, being a developing nation, struggles with challenges in its primary education and strives to reach 100% literacy. Universal Compulsory Primary Education, with its challenges of keeping poor children in school and maintaining quality of education in rural areas, has been difficult to achieve (Kerala is an Indian state to reach this goal so far). All levels of education in India, from primary to higher education, are overseen by the Ministry of Human Resource Development (Department of Higher Education (India) and Department of School Education and Literacy), and heavily subsidized by the Indian government, though there is a move to make higher education partially self-financing. The Indian Government is considering to allow 100% foreign direct investment in Higher Education.

Structure

Indian Education System comprises stages called Nursery, Primary, Secondary, Higher Secondary, Graduation & Post Graduation. Some students go in different stream after Secondary for 3 Years Technical education called Polytechnics There are broadly four stages of school education in India, namely NOTINDIAN primary, upper primary, secondary and higher

secondary (or high school). Overall, schooling lasts 12 years, following the “10+2 pattern”. However, there are considerable differences between the various states in terms of the organizational patterns within these first 10 years of schooling. The government is committed to ensuring universal elementary education (primary and upper primary) education for all children aged 6-14 years of age. Primary school includes children of ages six to eleven, organized into classes one through five. Upper Primary and Secondary school pupils aged eleven through fifteen are organized into classes six through ten, and higher secondary school students ages sixteen through seventeen are enrolled in classes eleven through twelve. In some places there is a concept called Middle/ Upper Primary schools for classes between six to eight. In such cases classes nine to twelve are classified under high school category. Higher Education in India provides an opportunity to specialize in a field and includes technical schools (such as the Indian Institutes of Technology and Indian Institutes of Information Technology, Design & Manufacturing), colleges, and universities.

In India, the main types of schools are those controlled by:

- The state government boards like SSLC, in which the vast majority of Indian school-children are enrolled,
- The Central Board of Secondary Education (CBSE) board,
- The Council for the Indian School Certificate Examinations (CISCE) board,
- National Open School,
- “International schools.” These schools mimic the schools in the West in pattern and syllabi and are considerably more expensive than regular schools. The exams conducted have the syllabus of any one of the above-mentioned Councils or Boards.

Overall, according to the latest Government Survey undertaken by NUEPA (DISE, 2005-6), there are 1,124,033 schools.

Pre-primary Education

Pre-primary education in India is not a fundamental right, with a very low percentage of children receiving preschool educational facilities. The largest source of provision is the so

called Integrated Child Development Services (or ICDS) and anganwadis. However, the preschool component in the same remains weak.

In the absence of significant government provisions, the private sector (reaching to the relatively richer section of society) has opened schools. Provisions in these kindergartens are divided into two stages-lower kindergarten (LKG) and upper kindergarten (UKG). Typically, an LKG class would comprise children 3 to 4 years of age, and the UKG class would comprise children 4 to 5 years of age. After finishing upper kindergarten, a child enters Class 1 (or, Standard 1) of primary school. Often kindergarten is an integral part of regular schools, though there is a marked trend towards exclusive prep schools. A special Toddler/Nursery group at the age of 2-2½ is also part of the pre-primary education. It is run as part of the kindergarten. However, creches and other early care facilities for the underprivileged sections of society are extremely limited in number. There are some organized players with standardized curricula coming of age which cover a very small share of the urban population. Overall, the % enrollment of pre-primary classes to total enrollment (primary) is 11.22% (DISE, 2005-06).

Elementary Education

During the eighth five-year plan, the target of “universalizing” elementary education was divided into three broad parameters: *Universal Access*, *Universal Retention* and *Universal Achievement* i.e., making education accessible to children, making sure that they continue education and finally, achieving goals. As a result of education programs, by the end of 2000, 94% of India's rural population had primary schools within one km and 84% had upper primary schools within 3 km. Special efforts were made to enroll SC/ST and girls. The enrollment in primary and upper-primary schools has gone up considerably since the first five-year plan. So has the number of primary and upper-primary schools. In 1950-51, only 3.1 million students had enrolled for primary education. In 1997-98, this figure was 39.5 million. The number of primary and upper-primary schools was 0.223 million in 1950-51. This figure was 0.775 million in 1996-97.

In 2002/2003, an estimated 82% of children in the age group of 6-14 were enrolled in school. The Government of India aims to increase this to 100% by the end of the decade. To achieve this the Government launched Sarva Shiksha Abhiyan. The strategies adopted by the Government to check drop-out rate are:

- Creating parental awareness
- Community mobilization
- Economic incentives
- Minimum Levels of Learning (MLL)
- District Primary Education Programme (DPEP)
- National Programme of Nutritional Support to Primary Education (Midday Meals Scheme)
- The 86th Constitutional Amendment Act was passed by the parliament to make the *Right to Elementary Education* a fundamental right and a fundamental duty
- National Elementary Education Mission
- A National Committee of State Education Ministers has been set up with the Minister of Human Resource Development as the Chairperson of the committee
- Media publicity and advocacy plans
- Sarva Shiksha Abhiyan which function is the SCERT campus

Non-graduation Market

This is a chart of non-graduation market of India as per Census 2001.

Educational level	Holders
Total	502,994,684
Unclassified	97,756
Non-technical diploma or certificate not equal to degree	386,146
Technical diploma or certificate not equal to degree	3,666,680
Higher Secondary, Intermediate, Pre-university or Senior Secondary	37,816,215
Matriculation or Secondary	79,229,21

While availability of primary and upper primary schools has been to a considerable extent been created, access to higher education remains a major issue in rural areas (especially for girls). Government high schools are usually taught in the regional language, however urban and suburban schools usually teach in English. These institutions are heavily subsidised. Study materials (such as textbooks, notebooks and stationary) are sometime but not always subsidised. Government schools follow the state curriculum.

There are also a number of private schools providing secondary education. These schools usually either follow the State or national curriculum. Some top schools provide international qualifications and offer an alternative international qualification, such as the IB program or A Levels.

Higher Education

Higher education in India has evolved in distinct and divergent streams with each stream monitored by an apex body, indirectly controlled by the Ministry of Human Resource Development and funded by the state governments. Most universities are administered by the States, however, there are 18 important universities called Central Universities, which are maintained by the Union Government. The increased funding of the central universities give them an advantage over state competitors.

The Indian Institutes of Technology were placed 50th in the world and 2nd in the field of Engineering (next only to MIT) by Times Higher World University Rankings although they did not appear in the Shanghai Jiao Tong University Academic Ranking of World Universities. There are several thousands colleges in India, Which provides technical education. The Indian Technical Education are very strong these days. They are producing millions of engineers every year.

International league tables produced in 2006 by the London-based Times Higher Education Supplement (THES) confirmed Jawaharlal Nehru University (JNU)'s place among the world's top 200 universities. Likewise, THES 2006 ranked JNU's School of Social Sciences at the 57th position among the world's top 100 institutes for social sciences.

The National Law School of India University is highly regarded, with some of its students being awarded Rhodes Scholarships to Oxford University, and the All India Institute of Medical Sciences is consistently rated the top medical school in the country. Indian Institutes of Management (IIMs) are the top management institutes in India.

The private sector is strong in Indian higher education. This has been partly as a result of the decision by the Government to divert spending to the goal of universalisation of elementary education. Within a decade different state assemblies has passed bills for private universities, and some of these universities are performing very well these universities includes Gyanvihar university, Amity university, Rai university and many more.

Accreditation

Accreditation for universities in India is required by law unless it was created through an act of Parliament. Without accreditation, the government notes “these fake institutions have no legal entity to call themselves as University/Vishwvidyalaya and to award ‘degree’ which are not treated as valid for academic/employment purposes”. University Grants Commission Act 1956 explains,

“the right of conferring or granting degrees shall be exercised only by a University established or incorporated by or under a Central Act *carlo bon tempo*, or a State Act, or an Institution deemed to be University or an institution specially empowered by an Act of the Parliament to confer or grant degrees. Thus, any institution which has not been created by an enactment of Parliament or a State Legislature or has not been granted the status of a Deemed to be University, is not entitled to award a degree.”

Accreditation for higher learning is overseen by autonomous institutions established by the University Grants Commission :

- All India Council for Technical Education (AICTE)
- Distance Education Council (DEC)
- Indian Council of Agricultural Research (ICAR)
- Bar Council of India (BCI)
- National Assessment and Accreditation Council (NAAC)

- National Council for Teacher Education (NCTE)
- Rehabilitation Council of India (RCI)
- Medical Council of India (MCI)
- Pharmacy Council of India (PCI)
- Indian Nursing Council (INC)
- Dental Council of India (DCI)
- Central Council of Homeopathy (CCH)
- Central Council of Indian Medicine (CCIM)
- Veterinary council of india (VCI)

Graduation Market

This is a chart of graduation market of India as per Census 2001.

Degree	Holders
Total	37,670,147
Post-graduate degree other than technical degree	6,949,707
Graduate degree other than technical degree	25,666,044
Engineering and technology	2,588,405
Teaching	1,547,671
Medicine	768,964****
Agriculture and dairying	100,126
Veterinary	99,999
Other	22,588

History

India has a long history of organized education. The Gurukul system of education is one of the oldest on earth but before that the guru shishya system was extant, in which students were taught orally and the data would be passed from one generation to the next. Gurukuls were traditional Hindu residential schools of learning; typically the teacher's house or a monastery. Education was free (and often limited to the higher castes), but students from well-to-do families paid Gurudakshina, a voluntary contribution after the completion of their studies. At the Gurukuls, the teacher

imparted knowledge of Religion, Scriptures, Philosophy, Literature, Warfare, Statecraft, mathematics, Medicine, Astrology and "History" ("Itihaas"). Only students belonging to Brahmin and Kshatriya communities were taught in these Gurukuls. However, the advent of Buddhism and Jainism brought fundamental changes in access to education with their democratic character.

The first millennium and the few centuries preceding it saw the flourishing of higher education at Nalanda, Takshashila University, Ujjain, & Vikramshila Universities. Art, Architecture, Painting, Logic, mathematics, Grammar, Philosophy, Astronomy, Literature, Buddhism, Hinduism, Arthashastra (Economics & Politics), Law, and Medicine were among the subjects taught and each university specialized in a particular field of study. Takshila specialized in the study of medicine, while Ujjain laid emphasis on astronomy. Nalanda, being the biggest centre, handled all branches of knowledge, and housed up to 10,000 students at its peak. British records show that education was widespread in the 18th century, with a school for every temple, mosque or village in most regions of the country. The subjects taught included Reading, Writing, Arithmetic, Theology, Law, Astronomy, Metaphysics, Ethics, Medical Science and Religion. The schools were attended by students representative of all classes of society. Traditional structures were not recognized by the British government and have been on the decline since. Gandhi is said to have described the traditional educational system as a beautiful tree that was destroyed during the British rule.

Up to the 17th Century

The first millennium and the few centuries preceding it saw the flourishing of higher education at Nalanda, Takshila, Ujjain, & Vikramshila Universities. Art, Architecture, Painting, Logic, mathematics, Grammar, Philosophy, Astronomy, Literature, Buddhism, Hinduism, Arthashastra (Economics & Politics), Law, and Medicine were among the subjects taught and each university specialized in a particular field of study. Takshila specialized in the study of medicine, while Ujjain laid emphasis on astronomy. Nalanda, being the biggest centre, handled all branches of knowledge, and housed up to 10,000 students at its peak.

Education under British Rule

British records show that indigenous education was widespread in the 18th century, with a school for every temple, mosque or village in most regions of the country. The subjects taught included Reading, Writing, Arithmetic, Theology, Law, Astronomy, Metaphysics, Ethics, Medical Science and Religion. The schools were attended by students representative of all classes of society. Printed books were introduced in India by 1579. Pre-British schools and colleges were maintained by grants of revenue-free land. The East India Company, with its policy of maximizing land revenue, stopped this and thus starved the Indian education system of its financial resources.

The current system of education, with its western style and content, was introduced & funded by the British in the 19th century, following recommendations by Macaulay. Traditional structures were not recognized by the British government and have been on the decline since. Gandhi is said to have described the traditional educational system as a beautiful tree that was destroyed during British rule.

The British established many colleges like St. Xavier's College, Sydenham College, Wilson College and Elphinstone College in India.

According to Prof. Emeritus M.G. Sahadevan, F.R.C.P. (London), the first 'western-modelled' medical college of Kerala was started at Calicut, in 1942-43, during World War II. Due to shortage of doctors to serve the military, the British Government decided to open a branch of Madras Medical College in Malabar, which was under Madras Presidency then. After the war, the medical school at Calicut was closed and the students continued their studies at Madras Medical College.

After Independence

After independence, education became the responsibility of the states. The Central Government's only obligation was to co-ordinate in technical and higher education and specify standards. This continued till 1976, when the education became a joint responsibility of the state and the Centre.

Education Commission

The Education Commission under the Chairmanship of Dr. D. S. Kothari, the then Chairman, University Grants Commission, began its task on October 2, 1964. It consisted of sixteen members, eleven being Indians and five foreign experts. In addition, the Commission had the benefit of discussion with a number of internationally known consultants in the educational as well as scientific field.

After 1976

In 1976, education was made a joint responsibility of the states and the Centre, through a constitutional amendment. The centre is represented by Ministry of Human Resource Development's Department of Education and together with the states, it is jointly responsible for the formulation of education policy and planning.

NPE 1986 and revised PoA 1992 envisioned that free and compulsory education should be provided for all children up to 14 years of age before the commencement of 21st century. Government of India made a commitment that by 2000, 6% of the Gross Domestic Product (GDP) will be spent on education, out of which half would be spent on the Primary education.

The 86th Amendment of the Indian constitution makes education a fundamental right for all children aged 6-14 years. The access to preschool education for children under 6 years of age was excluded from the provisions, and the supporting legislation has not yet been passed.

In November 1998, Prime Minister Atal Behari Vajpayee announced setting up of *Vidya Vahini* Network to link up universities, UGC and CSIR.

Recent Developments

The Indian Education System is generally marks-based. However, some experiments have been made to do away with the marks-based system which has led to cases of depression and suicides among students. In 2005, the Kerala government introduced a grades-based system in the hope that it will help students to move away from the cut-throat competition and rote-

learning and will be able to focus on creative aspects and personality development as well. Discovery education started by Alumni of Harvard, XLRI is a pioneer in this field. This organization has already developed 5 model schools.

Outdoor Education in India

Outdoor education is relatively new to schools in rural areas of India, though it is quite well established in urban areas. These trips are conducted to enhance personal growth through experiential learning and increase awareness about various subjects like the environment, ecology, wildlife, history, archaeology, geography and adventure sports.

Expenditure on Education in India

The Government expenditure on Education has greatly increased since the First five-year plan. The Government of India has highly subsidized higher education. Nearly 97% of the Central Government expenditure on elementary education goes towards the payment of teachers' salaries.

Data based on "*Educational Planning and Administration in India : Retrospect and Prospect*", Journal for Education Planning and Administration, Vol. VII, Number 2, NHIEPA. New Delhi by Dr. R. V. Vaidayantha Ayyar.

Note:

- Expenditure is in millions of Rupees
- Expenditure for Ninth-year plan excludes Rs. 45267.40 million for Mid-Day Meals

Initiatives

Non-Formal Education

In 1979-80, the Government of India, Department of Education launched a program of *Non-Formal Education* (NFE) for children of 6-14 years age group, who cannot join regular schools. These children include school dropouts, working children, children from areas without easy access to schools etc. The initial focus of the scheme was on ten educationally backward states. Later, it was extended to urban slums as well as hilly, tribal and desert areas

in other states. The program is now functional in 25 states/UTs. 100% assistance is given to voluntary organizations for running NFE centres.

Bal Bhavans

Bal Bhavans centres, which are operational all over India, aim to enhance creative and sports skills of children in the age group 5-16 years. There are various State and District Bal Bhavans, which conduct programs in fine-arts, aeromodeling, computer-education, sports, martial arts, performing arts etc. They are also equipped with libraries with books for children. New Delhi alone has 52 Bal Bhavan centres. The National Bal Bhavan is an autonomous institution under the Department of Education. It provides general guidance, training facility and transfer of information to State and District Bal Bhavans situated all over India.

Distance Education

India has a large number of Distance education programmes in Undergraduate and Post-Graduate levels. The trend was started originally by private institutions that offered distance education at certificate and diploma level. By 1985 many of the larger Universities recognized the need and potential of distance education in a poor and populous country like India and launched degree level programs through distance education. The trend caught up, and today many prestigious Indian Universities offer distance programs. Indira Gandhi National Open University, one of the largest in student enrollment, has only distance programs with numerous local centres that offer supplementary contact classes.

Education for Special Sections of Society

Women

Under Non-Formal Education programme, about 40% of the centres in states and 10% of the centres in UTs are exclusively for girls. As of 2000, about 0.3 million NFE centres were catering to about 7.42 million children, out of which about 0.12 million were exclusively for girls. In engineering, medical and other colleges, 30% of the seats have been reserved for women.

SC/STs and OBCs

The Government has reserved seats for SC/STs in all areas of education. Special scholarships and other incentives are provided for SC/ST candidates. Many State Governments have completely waived fees for SC/ST students. The IITs have a special coaching program for the SC/ST candidates who fail in the entrance exams marginally. Seats have been reserved for candidates belonging to Other Backward Classes as well in some states like Tamil Nadu, Karnataka and Andhra Pradesh. The struggle for reserving seats for students from OBC categories in elite institutions like IITs, IIMs and AIIMS and Central Universities is still going on. The Supreme Court of India is obstructing this reservation for the reason that there has been no caste-wise census since 1931 and the population share of OBCs cannot be based on 1931 census. The Department for the Welfare of SC/ST/OBC/Minorities introduced the SC/ST tuition-fee reimbursement scheme in 2003-2004. The scheme applies to SC and ST students of Delhi who are enrolled in recognized unaided private schools and who have an annual family income of less than Rs. 1 lakh. It provides a 100% reimbursement of the tuition fees, sports fee, science fee, lab fee, admission fee and the co-curricular fee if the student's family income falls below Rs. 48, 000 per annum and a reimbursement of 75% if the family income is greater than Rs. 48, 000 per annum but less than Rs. 1 lakh. The subsidy provided by the scheme covers between 85% and 90% of the beneficiary's total running expenses in studying in a private school.

Post Graduate Classes at Correctional Homes

The Government of West Bengal has started the Post Graduate teaching facilities for the convicts at the Correctional Homes in West Bengal.

Contemporary Education Issues

Modern education in India is often criticized for being based on rote learning. Emphasis is laid on passing examinations with high percentage. Very few institutes give importance to developing personality and creativity among students. Recently, the country has seen a rise in instances of student suicides due to low marks

and failures, especially in metropolitan cities, even though such cases are very rare. The boards are recently trying to improve quality of education by increasing percentage of practical and project marks.

Many people also criticize the caste, language and religion-based reservations in education system. Many allege that very few of the weaker castes get the benefit of reservations and that forged caste certificates abound. Educational institutions also can seek *religious minority* (non-Hindu) or *linguistic minority* status. In such institutions, 50% of the seats are reserved for students belonging to a particular religion or having particular mother-tongue(s). For example, many colleges run by the Jesuits and Salesians have 50% seats reserved for Roman Catholics. In case of languages, an institution can declare itself linguistic minority only in states in which the language is not official language. For example, an engineering college can declare itself as linguistic-minority (Hindi) institution in the state of Maharashtra (where official state language is Marathi), but not in Madhya Pradesh or Uttar Pradesh (where the official state language is Hindi). These reservations are said to be a cause of heartbreak among many. Many students with poor marks manage to get admissions, while meritorious students are left out. Critics say that such reservations may eventually create rifts in the society.

Ragging is a major problem in colleges, many students die due to ragging every year. Some state governments have made ragging a criminal offense.

Expenditure on education is also an issue which comes under the scanner. According to the Kothari commission led by Dr. Vijay Kothari in 1966, expenditure on education has to be minimum 6% of the GDP. Whereas in 2004 expenditure on education stood at 3.52% of the GDP and in the eleventh plan it is estimated to be around 4%. The “sarva shikshan abhyan” has to receive sufficient funds from the central government to impart quality education.

Literacy: Its Scope and Dimensions

In this Chapter, a general overview of the need for literacy and education is outlined to justify literacy being a part of Constitutional Provisions and guarantees. In addition to the simple definition as

given in the Census, the broader dimensions of literacy in its relationship with Education and Societal Development are also mentioned. Role of literacy as a part of the Human Rights dialogue and also as an integral part of the Human Development index is also discussed.

Having given unto ourselves a written Constitution, the very preamble of which proclaims Equality of opportunity as an express intent, the concern for literacy as an important parameter is obvious.

Definition of Literacy

Literacy, as defined in Census operations, is the ability to read and write with understanding in any language. A person who can merely read but cannot write is not classified as literate. Any formal education or minimum educational standard is not necessary to be considered literate. Adopting these definitions, the literacy level of the country as a whole was only 29.45 per cent with male literacy at 39.45 per cent and female literacy at 18.69 per cent. As per the latest Census estimates (2001), the All-India figure has gone up to 65.38 per cent; About three-fourths of our menfolk (75.85 %) are literate whereas over half of our womenfolk (54.16 %) are also literate. As later discussed in this Paper, this should be regarded as no mean achievement, despite the fact that we have not met the Constitutional directives that we have set for ourselves.

Illiteracy – National and International Dimensions

The problems of illiteracy are not confined to India, but are also a malady in developed countries too. Daedalus, the journal of the American Academy of Arts and Sciences, devoted the Spring 1990 issue to study the problem of Literacy in America. The Journal quotes Joseph Murphy, Chancellor, City University of New York who stated: "There are as many as 60 million illiterate and semi-literate adults in America today. Because poverty and illiteracy go hand in hand, the poor are disenfranchised, cut off from the democratic process. Any account that does not discuss the political interests served by allowing a large proportion of the American people to remain disenfranchised does not touch the heart of the matter. Before the Civil War in the United States it was illegal to

teach slaves to read, for reading was acknowledged, as the tool needed to understand the social, historical, behavioural and physical laws that controls the human condition. An apprehension of those forces invests human beings with the capacity to alter the conditions of their lives. It is not too far fetched to draw an analogy between slaves in the nineteenth century and illiterate Americans today." While this may be a strong statement, it reflects the concern on the prevailing levels of illiteracy and its consequent effects.

A leading German magazine 'Stern' points out that even in the United Kingdom, "One out of five adults in the land of William Shakespeare and Harry Potter is practically illiterate or has problems counting money in the purse." According to Daniel A. Wagner, Director, Literacy Research Centre at the University of Pennsylvania, over one billion individuals worldwide, nearly 25% of today's youth and adults, can't read. Even fewer comprehend numeracy and far fewer have access to electronic superhighway. "Achieving a literate society in which adults can fully participate in the workplace, community, and family will be a major challenge for the world in the coming millenium".

Illiteracy is one of the major problems faced by the developing world, specially Africa and South-East Asia and has been identified as the major cause of socio-economic and ethnic conflicts that frequently surface in the region.

Need to go Beyond Rudimentary Literacy

With the limited definition of 'literacy' being adopted for enumeration purposes, there has been concern on the content of a Mass Literacy program. The focus of mass literacy efforts is in terms of basics – the mechanics of reading and attention to computation (addition, subtraction, multiplication and division) in mathematics. It is recognized that these basics are not rooted in the goals of higher-order thinking – conceptualizing, inferring, inventing, testing, hypothesis and thinking critically. It is true that these literacy programs do not have in mind, literacy practice that would promote capacities for independent reasoning, of the kind sought by Third World socially minded pedagogues like Paulo Friere or the leading edge of reformers, business leaders and cognitive psychologists. A candid analysis of illiteracy's political

and cultural consequences throughout the population will necessitate in our seeking to move literacy expectations beyond a rudimentary ability to read, write and calculate. The recognition that '*literacy*' has to be situationally relevant has given rise to the concept of '*functional literacy*', which has been referred to by the Second Education Commission. The need to go into the broader aspect is for the purpose of determining the structure of the system. In devising the system, educational and psychological philosophies of Adler, Dewey, Wittgenstein, Chomsky and our own Mahatma Gandhi (in his basic education concept) and other experiences will come into play. Indeed, it is probably in recognition of this limited scope of literacy, that our Constitution makes a reference to education and educational opportunities and not to literacy.

Literacy and Human Rights.

Literacy is now part of the Human Rights Dialogue. Now most of the nations of the world have also accepted their obligation to provide at least free elementary education to their citizens. Article 26 of the Universal Declaration of Human Rights declares:

"Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and Professional education shall be generally available and higher education shall be equally accessible to all on the basis of merit".

This Right is also repeated in the UN Declaration of the Rights of the Child which seeks to ensure "*Right to free and compulsory education at least in the elementary stages and education to promote general culture, abilities, judgment and sense of responsibility to become a useful member of society and opportunity to recreation, and play to attain the same purpose as of education*".

India has ratified the above, and these have thus the power of domestic laws. From the Human Rights perspective, constitutional guarantees arise automatically.

Literacy and Human Development

Investment potential on human capital has now been recognized. Economists had long assumed that the main component of a country's productive wealth is physical assets ("produced

assets"). But according to World Bank's assessment for 192 countries, physical capital on average accounts only for 16% of total wealth. More important is natural wealth, which accounts for 20%. And more important still is human capital, which accounts for 64%. Literacy is now part of the Human Development Index. Government of India has also accepted this position, and one of the important components in the National Human Development initiative announced in the Union Budget 1999-2000 is education, forming also a component in the Prime Minister's 'Special Action Plan'.

By improving people's ability to acquire and use information, education deepens their understanding of themselves and the world, enriches their minds by broadening their experiences, and improves the choices they make as consumers, producers and citizens. Education strengthens their ability to meet their wants and those of their family by increasing their productivity and their potential to achieve a higher standard of living. By improving people's confidence and their ability to create and innovate, it multiplies their opportunities for personal and social achievement. Japan's rapid industrialization after the Meiji Restoration was fuelled by its aggressive accumulation of technical skills, which in turn was based on the already high level of literacy and a strong commitment to education, especially the training of engineers.

In the field of Development Economics, literacy holds an important place as a parameter to measure development. It has been recognized that the "Human Development Index" (HDI) developed by UN is a measure of the overall development of the country. One of the three components used in the calculation of HDI is "Literacy" as it is a cumulative measure of several factors that contribute to human development. As per UN Development Report, 2000, India's ranking in HDI is 128, with education index registering a low 55 due to a low adult literacy rate of 55.7 and combined primary, secondary and tertiary gross enrolment of 54. In their book, *"Development Reconsidered"*, Owens and Shaw have stated: "It is self-evident that literacy is a basic element of a nationwide knowledge system. The most important element of a literacy program is not the program itself, but the incentive to become and remain literate." When people are able to believe that

they can improve their lives through their own efforts, when they realize that some newly created opportunity is denied to them by illiteracy, then they will learn how to read, write and count."

Education is thus viewed as an integral part of national development. Development is not only 'economic growth'; rather, it 'comprehended opportunities to all people for better life' with 'man as end of development and instrument'. Education and development are linked in a variety of ways. First, education, as stated earlier, is a human right, the exercise of which is essential for individual development and fulfillment.

The capacity of an individual to contribute to societal development is made possible and enhanced by his or her development as an individual. In this light, education is also a basic need. It is also a means by which other needs, both collective and individual, are realized. Thus, education is the instrument by which the skills and productive capacities are developed and endowed.

All these interrelationships of education and development are inseparable from the conception of educational policies. It is in the second order of 'action' that problems arise. The problems of illiteracy will not solve by itself in the flux of time. Without organized literacy action, illiteracy will continue to stagnate indefinitely along with the associated ills of poverty and underdevelopment. Experience has shown that determined literacy action is the exception and that more often, literacy campaigns are 'turned on' and 'turned off' in line with short-term policy changes. Hence the need for Constitutional guarantees. In the light of the discussions earlier, *Literacy* and *Education* have overlapping connotations both as an engine of socio-economic progress as well as for individual growth. An attempt at serious semantic distinction between is not followed here in the discussions.

Aid for Education by State

Concern for literacy arises from the clearly related question as to whether educational expansion has created the conditions for freer individual expression, for a more active participation in the body politic, for what Pericles called "sound judges of policy", and for greater respect for human welfare and dignity. Many feel,

as indeed the Constitution makers felt, that education is its own reward-i.e. the more one is educated, the greater is his possibility of developing these qualities. Thus, they believed that the future and hope of mankind lie in educational advancement and a Welfare State has to make suitable provision for the same. Education is valuable by itself for discovering “the treasure within”, as has been mentioned by UNESCO.

As stated in the Constitution, the State has to set for itself a Welfare goal. It should, therefore, take upon itself all activities and steps to move towards this goal. Most major classical economists have argued by their extensive earlier writings the need for State provision, under the proposition that the private market would under provide education.

E. G. West (1965), in a thought-provoking book on education, argues that a strong case can be made for State intervention in education (but not for direct State provision of education) on two counts, namely, the externality effects of education and the alleged incompetence or ignorance of parents. Advocates of State education in the past have usually rested their case predominantly on the two extra economic considerations of equality of opportunity and social cohesion.

Constitutional Provisions

This Chapter sets out to list the provisions contained in the Constitution of India along with a mention of some of the decided cases, which have given a wide amplitude to such provisions. The amendments as affect education are mentioned. There are 16 Articles and other mentions in the Constitution and 4 specific amendments to advance the cause of education.

Education for Social Transformation

The Indian Constitution has recognized the significance of education for social transformation. It is a document committed to social justice. The Preamble affirms a determination to secure liberty of thought, expression, belief, faith and worship and equality of status and opportunity and to promote amongst the people a feeling of fraternity, ensuring the dignity of the individual and the unity of the nation. Literacy forms the cornerstone for making the

provision of equality of opportunity a reality. The objective specified in the Preamble contains the basic structure of the Constitution, which cannot be amended, and the preamble may be invoked to determine the ambit of Fundamental Rights and Directive Principles of State Policy.

Judicial interpretation has brought alive many an Article of the Constitution, which if read literally may seem to be a colourless Article. Of relevance to literacy, for instance, is the wide interpretation given to the words 'personal; liberty'. In *Francis Coralie Mulin v. Administrator, Union Territory of Delhi* (1981), Justice Bhagwati observed:

"The fundamental right to life which is the most precious human right and which forms the arc of all other rights must therefore be interpreted in a broad and expansive spirit so as to invest it with significance and vitality which may endure for years to come and enhance the dignity of the individual and the worth of the human person.

We think that the right to life includes right to live, with human dignity and all that goes along with it, namely, the bare necessities of life such as adequate nutrition, clothing and shelter and facilities for reading, writing and expressing oneself in diverse forms, freely moving about, mixing and co-mingling with fellow human beings."

Again, the Supreme Court in its judgment in the case of *Bandhua Mukti Morcha, etc. vs. Union of India* (J.T. 1997 (5) SC 285) specifically referred to the earlier judgments made in this connection as under:

"In *Maharashtra State Board of Secondary and Higher Education v. K.S. Gandhi* JT 1991 (2) SC 296, right to education at the secondary stage was held to be a fundamental right. In *J.P. Unnikrishnan V. State of Andhra Pradesh* JT 1993 (1) SC 474, a constitution Bench had held education upto the age of 14 years to be a fundamental right.

It would be therefore incumbent upon the State to provide facilities and opportunity as enjoined under Article 39 (e) and (f) of the Constitution and to prevent exploitation of their childhood due to indigence and vagary."

Specific Constitutional Provisions

Part/Article	Provision
Preamble.	To secure to all its citizens EQUALITY of status and opportunity.
Fundamental Rights	
Article 12 Definition of "the State"	State aid, control and regulation so impregnating a private activity as to give it the color of "State action" (M.C.Mehta v.UOI)
Article 14: Equality before law	Equality before law invoked to regulate rules of admission (G.Beena v. A.P.University of Health Sc. AIR 1990 AP 252)
Article 19: Protection of certain rights regarding freedom of speech, etc.	Right to freedom of speech, which has been interpreted as a Right to Know (L.K.Koolwal v. State of Rajasthan AIR 1988 Raj. 2)
Article 21: Protection of life and personal liberty	Right to life ".....the fewer elegances of human civilisation, right to dignity, to health and healthy environ to clean water, to free education upto 14 years are parts of Right to Life under Article 21; Mahendra 1997, etc." Right to livelihood: Is an integral facet of the right to life. Narendra Kumar v. State of Haryana, JT (1994) 2 SC 94. As Prof. D. D. Basu has annotated: "Articles 19 and 21 are not water-tight compartments. On the other hand, the expression of 'personal liberty' in Art. 21 is of the widest amplitude, covering a variety of rights of which some have been included in Art.19 and given additional protection. From A.Gopalan to Maneka the judicial exploration has completed its "trek from North Pole to the South Pole". The decision in Maneka's is being followed by the Supreme Court in subsequent cases.
Article 29: Protection of interests of minorities	Cultural and Educational Rights – protection of interests of Minorities. Although commonly Art. 29(1) is assumed to relate to minorities, its scope is not necessarily so confined, as

	it is available to "any section of citizens resident in the territory of India". This may well include the majority, as Ray, C.J. pointed out in Ahmedabad St.Xavier College Society v. State of Gujarat, AIR 1974 SC 1389.
Article 30(1): Right of minorities to establish and administer educational institutions	Right of minorities to establish and administer educational institutions. The right under this article is subject to the regulatory power of the state. This article is not a charter for mal administration Virendra Nath v. Delhi (1990) 2 SCC 307. This broad statement of the legal position is illustrated by and draws support from a host of decided cases beginning from Kerala Education Bill, In re. AIR 1958 SC 956 to St. Stephen's College v. University of Delhi. This Article does not come in the way of enactments for ensuring educational standards and maintaining excellence thereof.

There have been specific amendments to the Constitution affecting education, as can be seen in 42nd, 73rd, 74th and 83rd Amendment Acts. These amendments pertain to provisions to enable education being included in the Concurrent List, devolution of powers to local bodies and making elementary education a Fundamental Right formally (from its present status of Directive Principles though this has been ruled as such through judicial interpretation even otherwise).

Equality of Educational Opportunity

Since '*Equality of Opportunity*' is a basic feature of the Constitution, being a part of the Preamble itself, judicial interpretation has been sought on the different facets of this principle of equality of educational opportunity. For many, egalitarianism in education is seen as a powerful force for the achievement of a just, more equitable society through its contribution to greater social mobility, the 'breaking of any connection between the distribution of education and distribution of personal income' (Blaug). Yet the "*equality of education*" concept can be given a variety of interpretations, each leading to different policy outcomes. In particular, "*equality of education*" may concern equality of access to education, equality of educational treatment

or equality of ultimate educational performance. Our Courts have wrestled with this problem in the face of affirmative action or what is known as 'positive discrimination' in favour of the deprived sections while at the same time preserving the needs of quality of education and fair play. The argument in this regard is somewhat on the following lines: "The liberal goal of providing education according to each individual's capacity or aptitude (rather than his socio-economic background) is unhelpful because the criteria used for identifying aptitudes, or 'intelligence' are themselves correlated with the social background. Hence society must adopt special methods to compensate for the deficiencies of the environment in which children grow and which account largely for their unequal educational performance; this would take the form of a national policy of 'positive discrimination' in favour of the underprivileged. The Constitutional provisions have come in very useful to resolve what are essentially political and ideological objectives and the policy conflict of parental free-choice versus educational equality (should education be available in accordance with parental willingness to pay or in relation to capacity to learn?), to avoid bringing about a marked decline in educational standards.

Litigation and Education

The huge volume of litigation and the mass of decided cases interpreting constitutional provisions are thus a sufficient testimony to the usefulness of constitutional provision in this vital field. The pronouncements of the Courts have been on varied subjects, affecting the quality and quantity of educational services not only encompassing service and management equities, but also such academic questions as medium of instruction access and autonomy of institutions. That the Government has sought to bring forward amendments also shows its imperative to continue to use this document to pursue this welfare objective. In fact, the sheer load of litigation may be proving a bane in one sense, negating the very purpose for which such Constitutional provisions are sought. It has also been lamented that follow-up action on Constitutional Amendments had either not taken place, or slow in implementation.

Education and Judiciary

True, economic transformation is the primary function of the

Executive and the Legislature. But where Justice is the end product and its content has socio-economic components, the Constitution, which is the nidus of all Power, commands the judges to catalyze and control, monitor and mandate by writs, orders and direction – vide Arts. 32 and 226-so that they may bear true faith and allegiance to the Constitution and say that ‘thy will shall be done’. The interventions of the judiciary from time to time upholding the responsibilities of the State in the all-important educational endeavors, have been positive in providing directions.

Historical Background and Review of Achievements

In this Chapter, a general review of the progress in universalization of literacy including its socio-political and economic dimensions is given. The need for compulsory elementary education and free education at that level and the urgency thereof so as not to carry the burden into the 21st century is emphasized. Though a substantial progress has been achieved in the field of literacy, the basic Constitutional provision of universalization of elementary education, to have been achieved by 1960, is still eluding us; even by 2000, only 90% is targeted to be achieved.

For the purpose of this Consultation Paper, this Review will be confined to two specific aspects, viz.

- (1) *Literacy*, as this has a direct link with the concept of Welfare State enshrined in our Constitution
- (2) *Universalization of Elementary Education* which has been spelt out as a specific Directive Principle of State Policy, and which provision has been interpreted to be of the nature of a Fundamental Right, and later has been incorporated as such also

There are several published papers on the subject critically reviewing the progress that we have made in the area of education. As a matter of fact, over the last five decades, a separate sub-discipline in Economics, *Economics of Education* has developed and there is already published material, which deals at length and in depth the various issues involved. A mass of statistical data is also available in the Census and regular Returns filed by the various State Education Departments (compiled and published by the

Ministry of Human Resources Development, Government of India) and in the various in-depth studies conducted from time to time. These make the task of review relatively simple, as reliable data are available.

Census 2001

The major advantages of the census data are that they are based on complete enumeration and are, therefore, more reliable than projections and estimates. Further, they provide an opportunity to observe trends over a period of time and draw meaningful conclusions to facilitate planning. The latest census data on literacy as compared with the 1991 data is given in Appendix I. As stated earlier, a little above three-fourths of our male population have been found to be literate and a little above half of our female population have also been found to be literate as per this Census report.

Census 2001

Population of India : A little over 1,027,000,000. This figure represents one-sixth of the population of the entire planet

Growth rate of Population: has fallen by 2.52 per cent over the previous decade

Literacy Rate: At All India level: 65.38 % overall; male literacy : 75.96 % Female literacy : 54.28%

This represents an increase in overall literacy per centage by 13.75% from last Census. The corresponding increases in Male and Female literacy are: 11.83 % and 14.99 %

Sex Ratio: Has gone up to 933 from the earlier Census figure of 927

The increase of 13.75% in literacy rate in the last one decade, marks a recognition of the combined efforts in the field of elementary education and adult education through the total literacy campaigns.

These figures are interesting in another sense as they represent crossing of another threshold in the Development field. Literacy and economic development may not be directly linked as many studies in the Developing World would indicate. To quote Owens

and Shaw: *"Literacy has suffered by being treated by the advocates of universal literacy as a kind of panacea for whatever they conceive to be the ailments of an undeveloped country. However, marginal people see no reason to be literate. Literacy does not provide access if people are not organized to participate in development. For this reason, there appears to be little relationship between literacy and economic growth. When the Age of Development began, the rate of literacy in the Philippines and some Latin countries was considerably higher than in Taiwan and Korea and is still much higher than in Egypt or Comilla county of Bangladesh. Argentina and Chile combine exceptionally high literacy rates, by Third World standards, with a very low economic growth rates."* Having stated this, the point remains that there is, however, a threshold requirement. A distinguished economist, Dr. Malcolm Adiseshiah states: *"There is however, a threshold of somewhere around fifty per cent of the population being literate for Development to take place as no country has ever achieved an industrial growth with a literacy rate below fifty per cent... If we want the National Development portrayed in our Draft Plan, we must reach the minimum Adult Education threshold."*

Apart from the overall literacy figures, even distribution of these literacy figures, show that all the States excepting for Bihar (which also only falls marginally below at 47.27) have achieved this threshold. Even in Bihar, the male literacy figure is above the 50 per cent figure. In a macro sense, this achievement is encouraging.

The other statistic regarding the fall on population growth is also significant and relevant for our purpose as it will mean lesser provision necessary to be made in the Plan budget for new enrolments, lesser in the sense of incremental addition required for school teachers, etc. While quantitative expansion in specific areas at least in the elementary section may still be necessary, its rate will now be less with the control of population increases and more Plan funds can now be diverted to other areas of necessity within the elementary education budget.

Article 45

The provision in Article 45 is:

"The state shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and

compulsory education for all children until they complete the age of fourteen years”.

It is 40 years since the deadline expired, and we are still to achieve it. Admittedly there has been failure in this front, and the revised target is now 2000. In the document Education For All, the Department's own statement on the subject (as expressed through the NIEPA document) is as under:

“A review of the progress of basic education shows that goals and targets were fixed in the past on the basis of an inadequate understanding of the significance of education. These targets did not take into account the problem of availability of resources, and the conflicting claims of social and economic planning. When the Constitution directed the State to endeavour, within a period of ten years, to provide free and compulsory education to all children till 14 years of age (Article 45), it was expressing an ideal to which the whole nation was expected to commit itself. In the event, however, this commitment and the resources, which go with it, were not forthcoming. The Education Commission (1964-66) indicated targets in a similar time frame and it also made similar assumptions regarding national commitment and the availability of resources. By 1986, the experience of planning more than three and a half decades had amply highlighted the diversity and complexity of the problems the country had been facing in achieving the goal of basic education for all. Notwithstanding this, the Parliament, while approving the National Policy on Education in 1986, chose to approve the following formulation of the target: “It shall be ensured that all children who attain the age of 11 years by 1990 will have had five years of schooling or its equivalent though the non-formal stream. Likewise, by 1995, all children will be provided free and compulsory education upto 14 years of age.” Interestingly, here again the timeframe of roughly a decade was chosen. It became apparent very soon that the targets set for 1990 would not be achieved. It appears that in setting such high targets, the Parliament, like the Constituent Assembly, was reiterating its commitment to the ideal of education for all and was expressing its firm belief that education is a basic right that cannot be denied to anybody.

If right from the beginning, it is apparent that the goals are unrealistic and unachievable, they do not lead to the kind of motivation and resource mobilization required. The right approach therefore, is to set realistic targets – realistic not to be defined as easily achievable, but as achievable, with conceivable maximum input of meticulous planning and resources – financial as well as human. We shall therefore proceed to propose realistic targets that we believe can be achieved by the year 2000."

The new slogans are:

- Primary Education is a basic need
- For every child, no matter what caste or creed
- Every child we must carefully nourish
- So that our country may progress and flourish
- From illiteracy to literacy – Education for all by the year 2000

The goals for Education For All in India Constitute:

1. Expansion of early childhood care and development activities, especially for poor, disadvantaged and disabled children, through a multi-pronged effort involving families, communities and appropriate institutions.
2. Universalization of Elementary Education (UEE), viewed as a complete program of:
 - (a) Access to Elementary Education to all children upto 14 years of age.
 - (b) Universal participation till they complete their elementary stage through formal or non-formal education programs.
 - (c) Universal achievement of at least minimum levels of learning.
3. Drastic reduction in illiteracy, particularly in the 15 to 35 age group, bringing the literacy level in this age group to at least 80 % in each gender and for each identified disadvantaged group, besides ensuring that the levels of the three R's are relevant to the living and working conditions of the people.

4. Provision of opportunities to maintain, use and upgrade education and, provision of facilities for development of skills to all persons who are functionally literate and those who have received primary education through formal and non-formal channels.
5. Creation of necessary structures, and the setting in motion of processes which could empower women and make education an instrument of women's equality.
6. Improving the contents and process of education to relate it better to the empowerment, people's culture and with their living and working conditions thereby enhancing their ability to learn and cope with the problems of livelihood and environment.

Historical Background

India has a long tradition of organized education. As a historian has put it, *"There is no other country where the love of learning had so early an origin or has exercised so lasting and powerful an influence."* However, educational effort in the country has come a long way from this traditional position in its definition, coverage as well as impact. The current educational system in the country operates in an altogether different context from the classical past. The country's commitment to the provision of education for all and its endeavour to achieve this goal in a speedy fashion has to be seen in this complex milieu within which the educational system is currently functioning.

As the veteran educationist Shri J.P.Naik put it: "The Indian Society, especially the Hindu Society has been extremely inegalitarian, and this (provision of equality of educational opportunity) is the one value on the basis of which the society can be humanized and strengthened. In fact, the issue is so crucial that the Indian society cannot even hope to survive except on the basis of an egalitarian reorganization". Between 1813 and 1921, the British administrators laid the foundations of the modern educational system. The principal positive contribution of the British administrators to equality was to give all citizens open access to educational institutions maintained from or supported by public funds. For instance, the worst difficulties were perhaps

encountered when the problem of educating the “untouchable” castes came up.

The first test case arose in 1856 when a boy from an untouchable caste applied for admission to the government school at Dharwar. He was refused admission on the ground that it would result in the withdrawal of all the caste Hindu children from the school and thus in the closure of the school itself. But the decision was sharply criticized by the Governor General of India as well as by the Court of Directors in the East India Company and a clear policy was laid down that no untouchable child should be refused admission to a government school even if it meant the closure of the school (Report of the Indian Education Commission, 1882). The British administrators thus established, firmly and unequivocally, the right of every child irrespective of caste, sex or traditional taboos, to seek admission to all schools supported or aided by public funds. The British administrators refused to accept the principle of compulsory elementary education. The Indian nationalist thought, however, was firmly of the view that the provision of equality of educational opportunity must include a certain minimum general education to be provided to all children on a free and compulsory basis. A demand that four years of compulsory education (which would ensure effective literacy) should be provided to all children was put forward, for the first time before the Indian Education Commission by the Grand Old Man of India, Dadabhai Naoroji in 1881. Gopal Krishna Gokhale who moved a resolution on the subject in the Central Legislative Assembly in 1910 and again took the proposal *vide* a bill in 1912, neither of which achieved their objective. At this stage, it is illuminating to read the then announced Indian Educational Policy, 1913. It begins as under:

“His Most Gracious Imperial Majesty the King Emperor, in replying to the address of the Calcutta University on the 6th January 1912, said:-

“It is my wish that there may be spread over the land a network of schools and colleges from which will go forth loyal and manly and useful citizens, able to hold their own in industries and agriculture and all the vocations in life. And

it is my wish too, that the homes of my Indian subjects may be brightened and their labour sweetened by the spread of knowledge with all that follows in its train, a higher level of thought, comfort and of health. It is through education that my wish will be fulfilled, and the cause of education in India will ever be very close to my heart."

The Government of India, have decided, with the approval of the Secretary of State, to assist Local Governments, by means of large grants from imperial revenues as funds become available', to extend comprehensive systems of education in the several provinces. Each province has its own educational system, which has grown up under local conditions and become familiar to the people as a part of their general well being. In view of the diverse social conditions in India there cannot in practice be one set of regulations and one rate of progress for the whole of India. Even within provinces there is scope for greater variety in types of institutions that exists today. The Government of India have no desire to deprive Local Governments of interest and initiative in education. But it is important at intervals to review educational policy in India as a whole. Principles, bearing on education in its wider aspects and under modern conditions and conceptions, on orientalia and on the special needs of the domiciled community, were discussed at three important conferences of experts and representative non-officials held within the last two years. These principles are the basis of accepted policy. How far they can at any time find local application must be determined with reference to local conditions.

On the question compulsory and free elementary education, the Policy stated:

" The propositions that illiteracy must be broken down and that primary education has, in the present circumstances of India, a predominant claim upon the public funds, represent accepted policy no longer open to discussion. For financial and administrative reasons of decisive weight, the Government of India have refused to recognize the principle of compulsory education, but they desire the widest possible extension of primary education on a voluntary basis. As regards free elementary education, the time has not yet arrived when it is practicable to

dispense wholly with fees without injustice to the many villages, which are waiting for the provision of schools. The fees derived from those pupils who can pay them are now devoted to the maintenance and expansion of primary education, and a total remission of fees would involve to a certain extent a more prolonged postponement of the provision of schools in villages without them. In some provinces, elementary education is already free and in the majority of provinces, liberal provision is already made for giving free elementary instruction to those boys whose parents cannot afford to pay fees. Local Governments have been requested to extend the application of the principle of free elementary education amongst the poorer and more backward sections of the population. Further than this it is not possible at present to go."

The public demand for compulsory primary education continued however to grow, and between 1918 and 1931 compulsory education laws were passed for most parts of the country by the newly elected State legislatures in which Indians were in majority. In 1937, Mahatma Gandhi put forward his scheme of Basic Education under which education of seven or eight years duration was to be provided for all children and its content was to be revolutionized by building it round a socially useful productive craft. As a result of all these efforts, the idea that it was the duty of the state to provide free and compulsory education to all children till they reached the age of 14 years was nationally accepted as an important aspect of the overall effort to provide equality of opportunity. Under the wise leadership of Sir John Sargent, the then educational adviser to the Government of India, these ideas were accepted by the British administrators and the Post-war Plan of educational development in India (1944) known popularly as the Sargent Plan, put forward proposals to provide free and compulsory basic education to all children in the age group 6-14 over a period of 40 years. (1944-1984). The nationalist opinion did not accept this long period, and a committee under the chairmanship of B.G.Kher proposed that this goal could and should be achieved in a period of 16 years (1944-1960). It was this recommendation that was eventually incorporated in the Constitution as a Directive Principle of State Policy. It was thus not a mere statement of an ideal, but a well-thought out enunciation of a policy, which is yet to be implemented though a substantial

component was sought to be achieved by 2000 under the Education for All plan.

Review of Achievements – elementary School Stage

It is a very healthy administrative practice of the Education Department to publish annually a variety of information on different aspects of education through its Educational Statistics. Even a routine analysis of the variety of information that the government collects in the application for administering the programs, is an eye-opener. While preparing the document Education For All, the Ministry of Human Resource Development has brought out a compendium of relevant statistics, culled out from the annual statements regularly sent by the State Governments. The accompanying Box gives the decadal progress in enrolment, which shows a growing curve.

Table: Drop out Rates at Elementary and Middle Stages ##

	1960-61	1970-71	1980-81	1990-91	1992-93	1997-98*
Classes I-V						
Boys	61.7	64.5	56.2	40.1	43.83	38.23
Girls	70.9	70.9	62.5	46.0	46.67	41.34
Total	64.9	67.0	58.7	42.6	45.01	39.58
Classes I-VIII						
Boys	75.0	74.6	68.0	59.1	58.23	50.72
Girls	85.0	83.4	79.4	65.1	65.21	58.61
Total	78.3	77.9	72.7	60.9	61.10	54.14

Rate of Drop has been defined as per centage of the number of children to total enrolment, dropping out of the school education system in a particular year.

A core curriculum is emphasized at the elementary school level. This is a carefully planned curriculum that in content it compares favourably with those adopted in a number of other countries. A common core can help in overcoming discrepancies between the educational opportunities of urban and rural people, and that of men and women, but it cannot eliminate those difficulties unless literacy rates improve, greater participation

occurs in school and other changes take place in society. These statistics are also followed by 5 or 6 illustrations), there are also two expert institutions under the aegis of the Ministry of Human Resource Development, viz. National Council of Educational Research and Training (NCERT) and National Institute of Educational Planning and Administration (NIEPA) which carry out regular research and surveys, and in-depth analyses.

NCERT has been conducting regular educational surveys and the report of the Sixth Educational Survey was published in 1995. Highlights of the findings of this survey are:

Sixth All India Education Survey

1. 94 per cent of the Rural Population is served within 1.0 kilometres by Primary Stage
2. 85 per cent of the Rural Population is served within 3.0 kilometres by Upper Primary Stage
3. Of the Total 8,22,486 schools in the country, 5,70,455 and 1,62,805 are Primary and Upper Primary Schools respectively
4. Of the total 15,39,06,057 pupils enrolled in all the schools, 9,70,29,235 and 5,40,71,058 are children enrolled in Primary grades (Grades I-V) and Upper Primary (Grades VI-VIII) stages respectively
5. Of the total 41,97,555 teachers, 16,23,379 and 11,29,747 teachers are employed in Primary and Upper Primary Schools
6. 84 per cent of the primary and 89 per cent of the Upper Primary Schools have pucca and partly pucca buildings

Similarly, NIEPA had carried out a research study on the regional dimension of educational development based on Fourth All India Educational Survey data. (Similar comprehensive analysis of the data of the later surveys has also been made). In the survey, the following attributes of schooling are analyzed:

- Accessibility,
- Availability,
- Quantity,

- Quality,
- Inter-connectivity,
- Equity,
- Utility.

In that study (School Education in India, Regional Dimension), it was found that in spite of the progress in the quantitative expansion of education and the apparent narrowing gaps between different social groups, inequities within the educational system of the country continue to be quite sharp. The variations one observes in the regional distributions (Inter-State variations) have already been highlighted.

Inequities get complicated in the case of Scheduled Caste and Scheduled Tribes women in the rural areas of the backward regions. The literacy rate among this group in the 1991 Census was only 16 %. This was followed by SC Rural Male (19.45 %), SC Urban Female (42.25 %). If arranged as an inverse pyramid, the Non-scheduled Urban populations (both Male and Female) are on the top. Presenting the literacy level of different components of the population brings out the nature of this multi-level system of inequities. Similar study of subsequent surveys and 2001 Census might bring out a better picture, though even after the improved statistics, the pyramidal structure has not undergone any significant change in terms of reduction of inequities in any large measure.

The causes for educational deprivation in India have been analyzed in detail. The Indian Social Institute, in a program of research on schooling, (E.P.W of July, 1998) identified three obstacles against universal elementary education. They are-

- Inadequate parental motivation
- Poverty (resulting in the shaping of parental motivation in favour of education of their male offspring, thus implanting gender inequality in the formative years of life)
- Low quality of schooling

The author concludes: "Therefore, there does appear to exist (more and more) a case for compulsory education, provided that (1) it is understood to include compulsion on the state to provide

adequate schooling facilities; and (2) top-down measures which concentrate on punitive action against parents, are avoided."

The review of the Government's efforts in the direction of universalization of elementary education through school system, shows up both its gains and shortcomings. Gains lay in the direction of quantitative expansion, and shortcomings have been in the direction of quality and equity as between different sections of the populace. But the biggest shortcoming has been as the educationist J.P.Naik put it: *"it was a wrong policy that we did not place adequate emphasis on direct programs of adult education to liquidate mass illiteracy"*. A review of the educational scene cannot therefore be complete without reviewing the progress on this front.

Adult Education – Historical Background and Review of Achievements

Eradication of illiteracy has been one of the major national concerns of the Government of India since independence. During the first Five Year Plan, the program of Social Education, inclusive of literacy, was introduced as part of the Community Development Program (1952).

Efforts of varied types were made by the States for the spread of literacy. Among these, the Gram Shikshan Mohim initiated in Satara District of Maharashtra in 1959 was one of the successful mass campaigns. It aimed at completing literacy work village-by-village within a short period of 3 to 6 months, through the honorary services of primary teachers and middle-school and high school students, supported by the entire community. It achieved a good deal of success but suffered from the lack of follow-up due to financial constraints and some of its good work was lost as a consequence. In spite of these varied initiatives the program of adult literacy did not make much headway.

The topic was dealt at length by the Kothari Commission (1964-66) which emphasized the importance of spreading literacy as fast as possible. The Commission also observed that *"literacy if it is to be worthwhile, must be functional"*. It suggested the following measures:

- Expansion of universal schooling of five-year duration for the age group 6-11.

- Provision of part-time education for those children of age group 11-14 who had either missed schooling or dropped out of school prematurely.
- Provision of part-time general and vocational education to the younger adults of age group 15 – 30.
- Use of mass media as a powerful tool of environment building for literacy.
- Setting up of libraries.
- Need for follow up program.
- Active role of universities and voluntary organisation at the State and district levels.

The National Policy on Education in 1968 not only endorsed the recommendations of the Education Commission but also reiterated the significance of universal literacy and developing adult and continuing education as matters of priority. While the formal elementary education program was supplemented by a Non-formal Education system, it was also decided to undertake Adult Literacy programs culminating in the Total Literacy mission approach.

A multi-pronged approach of universalization of elementary education and universal adult literacy has been adopted for achieving total literacy. The National Policy on Education (1986) has given an unqualified priority to the following three programs for eradication of illiteracy, particularly among women:-

- (a) Universalization of elementary education and universal retention of children upto 14 years of age.
- (b) A systematic program of non-formal education in the educationally backward states.
- (c) The National Literacy Mission which aims at making 100 million adults literate by 1997.

The major thrust of these programs is on promotion of literacy among women, members belonging to Scheduled Castes and Scheduled Tribes particularly in the rural areas.

The Adult Education Program consists of three components: basic literacy (including numeracy), functionality and civic

awareness. The program covers different schemes so that finally it aims at helping learners achieve a 'reasonable degree of self-reliance in literacy and functionality and better appreciation of the scope and value of science.

Of course, even before Independence, there were adult education programs. Mahatma Gandhi had education as one of his constructive programs, and as a mass campaign had through his movement, tried to make districts completely literate. Some success was also achieved. For instance Surat District, in erstwhile Bombay Presidency had been totally literate, but again relapsed into illiteracy for lack of follow-up. There were efforts at spreading by the Baroda Rulers, supplemented by a live library movement. Here again lack of follow-up and sustained efforts caused a relapse into illiteracy among the vulnerable sections. There were voluntary agencies working in the field. Some agencies as the Karnataka Adult Education Council, Gujarat Social Education Committee and Bombay City Social Education Committee has had large programs extending to the whole state or a metropolitan city. Literacy House of Lucknow did commendable work in this field. It came into existence in 1953 when its founder, Mrs. Welthy H. Fisher established it in small verandah at Allahabad, with a view to eradicate illiteracy and promote education in India. It was shifted to Lucknow in 1956.

The University Grants Commission, at its meeting held in 5th May 1971, considered the general pattern of development and assistance towards adult education in the university and agreed that "assistance to universities for program of adult education be made on a sharing basis of 75:25 and that the Commission's assistance to university would not exceed Rs. 3 lakhs for the Fourth Plan period." Departments of Continuing Education took up the work of "University goes to Masses". The slogan "Each One, Teach One" caught the imagination of not only the students, but also a large number of educated individuals, and it looked like these programs will meet a major success. However, like most enthusiastically launched programs, they also fell by the wayside. A Farmers Training and Functional literacy project was launched in 1968-69, coordinating the activities of Ministries of Education, Agriculture and Information & Broadcasting. The Central Advisory

Board of Education in its November 1975 meeting asked that the exclusive emphasis on formal system of education should be given up and a large element of non-formal education should be introduced within the system.

In one sense, though the Non-formal education system was launched with its own set of objectives, the main purpose was to tackle the problem of dropouts from the formal system. The dropout from the formal system continues to hover around 50% and have not shown any great variation in the last four decades (Dropout rate ranging in Grades I-IV from 64.0 in 1960-61, to 67 in 70-71, to 58.7 in 1980-81 to 44.3 in 1990-91. The dropout rate in Grades V-VIII ranged from 74.3 to 63.4 during these decades). It is not difficult to guess the collective identities of the victims, children who fail to survive at school. They are children of landless agricultural labourers and subsistence peasants. Caste-wise, a substantial proportion of them belongs to the Scheduled Castes that have been granted special rights including reservation in higher education and representative bodies, in the Constitution. The situation of children belonging to many of the Scheduled Tribes is worse, especially in the central Indian belt. Forest-dwelling tribal communities have had to bear the brunt of State initiatives in dam construction, development of tourism with the help of game sanctuaries and mining. Apart from such destabilizing experiences, bias against tribal cultures and languages also makes the school curriculum and the teacher a deterrent for the advancement of tribal education. There are about 40 million rural artisans in India. For them, the current standard school curriculum is trivial, and in a sense irrelevant and demeaning. No wonder, one realizes in a rather simple, unscientific way, these children stop coming to school early. Finally, the child residing in a slum, living in conditions of uncertainty and violence is always a likely case of early withdrawal or elimination.

In keeping with recent trends in the international literacy movement, the emphasis of mass literacy programs in India shifted from 'literacy' to 'adult education' through the intermediate phases of 'functional literacy' and 'non-formal education' during the last fifty years. The Policy Statement of the present program highlights the development of functional competencies and awareness of the

adult learners as two of the three equally important components of the National Adult Education Program (1978). The third component is obviously literacy. Our Universities had also been roped into this activity.

The National Adult Education Program (NAEP) was inaugurated on October 2, 1978. In a statement in the Parliament on April 5, 1977, the Union Education Minister declared that "along with universalization of elementary education, highest priority in educational planning would be accorded to adult education." The objective of the NAEP is "to organise adult education programs, with literacy as an indispensable component, for approximately 100 million illiterate persons in the age-group 15-35 with a view to providing them with skills for self-directed learning leading to self-reliant and active role in their own development and in the development of their environment." In concrete terms, three R's, social awareness and functionality are the three basic components of the NAEP. In spite of careful planning before the launch of this program (it had envisaged a phased program), the Sardar Patel Institute of Social and Economic Research, after a survey carried out in the initial flush of enthusiasm, observed about the progress of the program in a progressive state like Gujarat: "On the whole, while the NAEP in Gujarat was generally found to be addressed to the target groups kept in view under the NAEP and it was found to have some other commendable aspects, all things considered, its achievement in terms of spread of literacy is rather modest, and more so in terms of social awareness and functionality". The report had gone on to say: "The more crucial aspects like the content of education, pedagogy, etc. can be probed into only if longer time is available, or ideally, on an ongoing basis. It is these aspects which have contributed most to the continuing stagnation of even the spread of literacy in the country. This study is not sufficient to indicate whether breakthrough in these areas is being made, and whether the adult education program is assuming the character of a Mass Movement as would be desirable and is clearly the intent of NAEP" (1979).

Then came the National Literacy Mission (NLM). For a short while during the era of the high profile technology missions, some attention was given to issues like immunization, safe drinking

water and literacy along with talk of people's participation and social audit of these programs. In 1989, the district-based Total Literacy Campaigns (TLC) emerged as a program strategy for the National Literacy Mission against this background. While it was correctly envisaged that the initial social mobilization for a time-bound campaign provides the inspiration to spark for a mass participation of people, volunteering their time and energy for a cause like literacy, the follow-up program was not worked out clearly. However, admitting and recognizing the many flaws and failures of the 'campaign approach', even as early as 1994, NLM continued with the same TLC strategy and tried to bolster it with better monitoring, internal evaluation and presently with a revival effort through what is called 'Operation Restoration'. Reviewing the functioning of these programs, Avik Ghosh concludes: *"The present focus of NLM on literacy has to shift, and similarly the mission-mode-time-bound thrust of NLM should give way to a more durable and sustained program of adult education that responds to the needs of adults as individuals and also as members of the disadvantaged groups"*. The Total Literacy Campaigns, initially at least, helped in fostering a participatory approach in dealing with this issue, though here again, the problem of sustaining the momentum has remained. In the budget for 1999-2000, allocation for the Rural Functional Literacy Project does not find a special mention. The overall allocation to adult education has, however, been increased by about 40%.

Unless it be in the context of revolutionary social transformation, the lack of spectacular success in a program like Adult Education and of sustaining its momentum is understandable. It is after all a far distant cousin in terms of financial outlays to the formal system (In the budget of 1999-2000, the total allocation of resources (both Plan and non-plan) for the four programs of Elementary Education, Operation Black board, Non-formal education and Adult Education was respectively, 3037, 400, 350 and 113.4 crores respectively). Further, there is the very real problem of pedagogy. For instance, as Prof. Jalaluddin (1986) says: "While 1652 mother tongues have been identified in the recent censuses in India, only 15 major literary languages have been accorded political status under the Eighth Schedule of the

Indian Constitution. Then there is the problem of script. In the context of a nationwide adult literacy and education program, the question of the acquisition of more than one writing system or even script by linguistic minorities becomes an important area of language planning. The term biliteracy is used in this context in India." Further in countries like India which have a long tradition of transmission of ideas and wisdom orally, such individual and societal transformations through a mass literacy campaign, are rather a form of renewal in nature than being additive or extensive". There is also the problem continued sustenance of the campaign approach. There are some hopeful signs of ICT-supported services being used to bridge the gulf. Some collaborative partnership of the Government of India and non-governmental agencies in partnership with International Organizations and private sector has been mooted and the results of such collaborative efforts may perhaps show a way.

And yet, the importance of this component cannot be gainsaid. *"In our country, numerous persons enter adulthood without proper education and consequently their self-confidence is shaky. In a fast-changing environment of economic and cultural change, they will continue to be edged out unless their capacities are actively consolidated and improved so as to encounter the world outside on equal terms".* This program can be in the nature of a Sunset program (referred to later in this Paper); but till then, i.e. literacy becomes self-sustaining fact with self-arising demand for its very usefulness and need for a fuller life, no Government should be allowed to ignore this aspect.

Need for Community Support to Supplement Government Effort

It is perhaps wise to reminisce on the "Education For All" document which says:

"It will be against the spirit of the Constitution to allow elementary education to suffer from inadequacy of resources. As far as funding elementary education and literacy programs is concerned, it should be viewed in the framework of the Constitution. It is not just the Department of Education, but all the government departments, which should be made to allocate substantial resources for elementary education, as no

sector can develop significantly with illiterate masses. In fact, the whole nation should feel responsible for the development of education in the country."

In the system of central planning we are used to in this country, only the resources required from the government or public sector agencies are taken into account. However, for an activity like education, there are considerable costs borne by the children and parents. These costs are not included in the financial implications presented, except for the provision of incentives like books and uniforms to the weaker sections. The Constitution has directed that education for children in primary and upper primary levels of education should be free. This has been so far taken in practice, to mean that schools should not charge any fees. The cost incurred by parents for education of their children has been ignored and has not been considered as a violation of the directive of free education. In view of the paucity of resources, it may be pragmatic to continue this approach and let the parents bear costs of this nature, while underscoring that ideally these costs should be borne by public funds.

We may also have to move from the concept of exclusive responsibility of the government for education to shared responsibility between the government and the community. This would not be difficult, keeping in view the tradition in India of community support to education from ancient times. This will be also consistent with the general approach of decentralization, community involvement and people's participation. For safeguarding democracy and strengthening the foundations of the integrated nation, it is necessary not to compromise with the requirements of these basic needs in education. It should be noted that without adequate resources, financial, physical and human, our target of *Education For All* will remain unachieved even by the turn of the century. If we have to enter the twenty-first century without the burden of the unfulfilled goals originally proposed by the Constitution makers of India, substantial resources should be allocated to elementary and adult education programs.

Into the Future

The emerging trends are discussed in this Chapter. The need

to go into a learning mode as also conditions for creating capabilities in the education system to meet the needs of knowledge growth, communication expansion, reinforcement of cultural roots is indicated. Changing needs of Educational Technology and entry of computers and Integration of Information and Communication Technology demand new structures, which the system should be able to assimilate. Renewal of education also calls for provision for regular reviews, which reckons also changing scenarios and developments in emerging technologies.

In a UNESCO publication, “*Education in Asia and the Pacific*”, Raja Roy Singh has rightly written:

“The dynamics of education and its role in each society in development and transformation make it essential that education continuously renews itself in order to prepare for a future rather than for obsolescence. This renewal process derives from a variety of sources which include: the growth of human knowledge, which is the basic component of education; the heritage of collective experience and values which education transmits to the new generations; the means and methods of communication by which knowledge and values are transmitted and the new values and aspirations which the human spirit adds to the collective experience and wisdom of the past or by which the heritage of the past is reinterpreted and reassessed.”

Change from Teaching to Learning Process

The books *Learning to Be* (UNESCO 1972) and *The Learning Society* (Hutchins, 1962) are pointers to the future directions that educational process will have to take. Now learning process is replacing the teaching process. Nobody teaches any one, but men learn from each other. In other words, all are learners. The aim of education is not to fit people into a system but to help them develop their human powers. (Hutchins 1968). The new developments in the field of learning have been due to the significant and path-breaking contributions by many scientists: Rogers (1969) by emphasizing the importance of nurturing self-direction and fulfillment; Bruner (1966) by stressing the importance of autonomy, self-reward and discovery as the main way of learning;

and Friere (1972) by his emphasis on conscientization as the main goal of education. The shift in emphasis can be seen from coping behaviour to expressive behaviour (using the terminology by Bruner) or from prescriptive behaviour to liberating behaviour (using the terminology by Friere) or from direct influence to indirect influence using the concept developed by Flanders (1970).

Three distinct global developments that may affect future of education are:

Knowledge Growth. The speed with which the growth of knowledge is now taking place, its range and sweep, are epitomized in the expansion of knowledge in science and technology. It is estimated that in the period 600 BC to AD 1700, the body of scientific knowledge doubled every 1000 years; from the beginning of industrialization until the early twentieth century, the doubling period accelerated to about 200 years; and now in many scientific fields, knowledge is doubling every 15 years or so. Moreover, the lag between a discovery in a fundamental science and its technological application has narrowed remarkably. This enormous growth in the volume and application of knowledge impacts on every aspect of modern life. Parallel to the rapid growth of knowledge is the increasing velocity with which knowledge is being circulated. New configurations in the fields of knowledge are emerging and are tending to efface to some extent at least, the old established demarcation lines between the natural sciences and the social and human sciences. Cross over points are emerging between the major fields of human activity. Another direction of advance is the aggregation of different components of traditional disciplines into new integrated fields. The most practical conclusion that we draw on education planning is, therefore, that the options open to learners in regard to fields of study should not be closed too early.

Education and Communication. In perhaps no other fields has there been such a profound revolution as in communications and informatics. The communication technologies have multiplied and become more and more powerful. The development in computer technology will soon affect every individual. Telecommunications and data processing have already increased dramatically the volume of information readily available as well

as its accessibility. Integration of information and communication technologies is a new challenge before the educational administrators. This calls for-

- a need for research and development in the information and communication technology;
- creation of scientific and technological capacity to crucially use these technologies which represent a power of unlimited possibilities;
- discrimination and selectivity arising from information overload. There is also an increasing danger of the deliberate manipulation of information such that the models of reality that people learn from the media are either incomplete or distorted. In curriculum development, that which is omitted may be as important as that which is included.

Education and culture. The other source of educational renewal is the cultural heritage reflected in the whole range of expressions, which give meaning and worth to the society's being. The need for a reaffirmation of cultural identity is more urgent today because of the tendency towards uniformity and homogeneity generated by economic and material forces and the mass media. Next only to the family, the school is the most important institution for the transmission of cultural values. Role of education, an indispensable role, is to be a medium in which the various new influences are assimilated in the cultural stream. Education has a vital role in promoting the processes by which scientific and technological knowledge is assimilated in the fabric of national life without detriment to the people's values. There is a 'cultural' dimension in every subject taught in the schools. This needs to be brought out in the methods of instruction.

The tools and techniques available for pedagogy and androgogy are also undergoing a major change. *Educational Technology* is the new addition to the armamentarium of pedagogy in the future. The phrase 'Educational Technology' was defined by the National Council of Educational Technology (UK) as the development, application, evaluation of systems, techniques and aids to improve the process of human learning. It has a wider

connotation than simply the use of electromechanical and other aids in teaching. It places as much stress on educational ideas as on educational inventions. It can only be of value if it is really integrated into the entire system. There are two approaches – hardware and software-in educational technology. The hardware approach is based on the application of engineering principles for developing electromechanical equipment like motion pictures, tape recorders, teaching machines, computers, videotape, closed circuit television, etc. The second approach, i.e. software approach uses the principle of psychology for behaviour modification purposes. There are two trends or directions of educational technology: towards mass instructional technology and towards technology designed for individual instruction. Mass transmission technology capable of making educational messages is available to millions of children and adults. Television is the most obvious example of mass instructional technology. Teaching machines are examples of individual instructional technology.

Distance Learning

Distance learning, an aspect of use of Educational Technology, can thus transform traditional learning. Learning at one's own pace and at his convenience will get stressed. Attending formal classroom instruction puts severe stress both on the learner and the Society. The former has to schedule his activities in the structured requirements of a formal classroom, which for a person already working may be difficult. The latter has to grapple with difficult-to-find resources to provide for the escalating costs of education. Distance education overcomes these hurdles. Use of satellites is rapidly changing the concept of conventional education. Students need no longer be limited by lack of access, shortage of teachers or interference from work.

Computers

Entry of computers in the Educational Field can be stated to have caused a paradigm shift in the field of technology so much so that we cannot afford to be left out of computer literacy in any future plans for education. With computers, the technological revolution can be stated to have come into the classroom. Technology is an enabling tool. It facilitates the process of writing

so that students and teachers alike can interact with the text in useful ways that are difficult with paper and pencil. Experience at MS Swaminathan Research Foundation as well as in many villages in Pondicherry and Madhya Pradesh have demonstrated that a high level of formal education is not necessary to gain operational computer literacy, and as a functional education tool, it is valuable.

Computers across the Curriculum

The term 'Computer literacy' covers aspects both of learning about the computers and of learning with, from and through the computers. It involves consideration of the application of the computers in the educational settings and the society at large. The Computer is a general-purpose tool and can be effectively used in a large number of activities in the teaching-learning process. Some of the common programs are:

1. Computer Assisted Instruction (CAI): In this mode, the Computer acts as a teacher teaching new skills or concepts or providing practice for learners.
2. Computer Based Learning (CBL) or Computer Assisted Learning (CAL) which could be assisted for a variety of purposes such as Simulations and Modeling, Instructional Games, Information Handling, Demonstrations, etc.
3. Computer Managed Learning (CML) where the Computer serves as a tool to help in the management of student learning.

The changing methods of storing information now mean that computer literacy becomes a fundamental component of literacy itself. Commonly included in the objectives of computer literacy are:

- (a) An awareness of Information Technology and how it affects day-to-day living.
- (b) An understanding about the importance of information to aid decision-making processes.
- (c) An understanding of Man: Machine interaction so that the tool can be used effectively.

Integration of Information and Communication Technologies

Integration of Information and Communication Technologies (ICT) with school needs serious consideration. Teachers, educators, curriculum developers, evaluators and others will have to redefine their roles to tackle ICT rich environment and harness its full potential for the benefit of learners. Information media are bringing about dramatic changes and are facilitating the communication of information between instructor and learner. These media have also produced a basic easing of spatio-temporal limitations and creation of new learning spaces based on information networks. These may call for structural changes. Our politico-administrative structures should be interpreted flexibly enough not to obstruct these winds of change.

Renewal and Periodic Reforms

International Experience

A reference has been made in the beginning of this section for the need for renewal process. Updating is very essential in educational processes. In this field, both individuals and nations have been known to slide down unless a conscious effort is taken to keep 'awareness' at the best pitch. Knowledge expands and values undergo a change taking subsequent experience into account. As the noted American analyst David Halberstam says in 'The Next Century': "National security was no longer an index of weaponry (essentially a missile and tank count), if it ever really was, but a broad array of factors reflecting the general state of national well being. It included the ability of a country to house its people, to feed them, to educate them, to provide them with opportunities in keeping with their desires and education, and to instill in them trust and optimism that their lives were going to be valued and fruitful." According to him, though the 20th century was an American century, the next century was no more theirs. It was possible to make 20th century an American century because of its concern for 'humane' values and democratization. Ensuring cultural and ethical values while at the same time adopting 3 R's is a challenge that has to be adequately tackled.

Concerned with maintaining its economic and social initiatives without losing sight of the various cultural accumulations and traditions, the Japanese Government decided to adopt the following five concrete measures for educational reform: (i) the development of life-long structures; (ii) the diversification and reform of institutions of higher education; (iii) the enrichment and reform of elementary and secondary education; (iv) reforms for coping with internationalization, (v) reforms for coping with the information age and (vi) the reform of educational administration and finance. Similar studies for reforms have been undertaken in other countries too. And if Japan has been cited as an example, it is to point out the need for the reforms even in the best of circumstances.

National Experience

For the future, in our case, of particular reference is the need to focus on the core and permanent aspects of education so that Constitutional guarantees can ensure that the most important aspects are not lost sight of. Our Indian experience has also been spelt out in many a fora. J.P.Naik identified the causes for our failure in the field of primary education: (a) We have made no attempt to introduce those radical structural changes in the formal system of elementary education. (b) Exclusive reliance on full-time formal education has an inherent bias in favour of classes and a built-in unsuitability for the education of the masses. (c) There is a general view that standards in education have continually and alarmingly deteriorated in the last few years, which may be only partially true. (d) There should be an early end to the dual system which we now run at all stages under which the classes have access to a small group of high quality elite institutions while the masses are compelled to study in public institutions of poor quality. Krishna Kumar (1998) lists three additional tendencies discernible in the current scenario in education: the first is related to the drastic reduction in the number of children who proceed beyond the primary and secondary stages; the second, the preponderance of higher education, with the culturally dominant and economically stronger sections of society using the state's resources to consolidate their hold on the state apparatus; and third, the inherent divisiveness in the system which protects class interests.

Thus the causes for apparent failure of universalisation of primary education are many; the overall picture is a mixture of light and shade. Standards have definitely improved in certain sectors. The number of good institutions and of first-rate students have considerably increased at all stages. There has been a steady improvement in average qualifications and remuneration of teachers and some improvements in curricula and teaching material. But there has also been an immense increase in such negative factors as the rapid increase in sub-standard institutions, deterioration in facilities and conditions of work and service in large number of schools and colleges, of the breakdown of the examination system through large-scale practice of unfair means. The list can be enlarged to cover different aspects. To maintain social cohesion, is an aim of education as also the purpose of our Constitution. Hence also the need for vigil on this front.

Promoting Literacy: Some Implementation Strategies

In this Chapter, a possible Model for achieving the goals of universalization of literacy and primary education in the country is suggested, where the main theme is decentralization and development of a Systems Model to facilitate mobility and life-long learning and education.

Our Goals and Targets

It has already been mentioned that the constitutional goal of universalization of elementary education directed in Article 45 has long since expired. In the approach paper to the Tenth Plan, the non-achievement in this field has been accepted, and the revised target year to achieve universal access to primary education has been pushed to 2007. Similarly, the targets for progress in literacy has now been fixed at 72% by 2007 and 80% by 2012. In view of the progress already achieved, these targets are not unrealistic. Nevertheless there is need for readiness to accept modifications and changes and even new structures to achieve the goal, instead of merely relying on the existing scheme of things, alone. Fresh initiatives will be necessary. As far back as 1966, the Second Education Commission observed: *"It is no longer desirable to undertake educational reforms in piecemeal fashion, without a concept of the totality of the goals and modes of the educational process. To find out how to*

reshape its component parts, one must have a vision of the future. This search for practical alternatives are parts of a genuine strategy of innovation seems to us to be one of the primary tasks of any educational undertaking."

In one sense, it is true that the education system has undergone many types of changes and experiments. Many a new thought and idea has been tried out and implemented at some point of time and in some part of the country. The various Departments of Education of the Universities all over the country have been deliberating over the various facets of the problem and the treatises submitted for the M.Ed. and Ph.D courses are a veritable storehouse of ideas. Then, there are the various Centres of Advanced Studies which can distill the various ideas and have also been rendering advisory services.

The number of enquiry commissions, whether it be the Royal Commissions, or Commissions appointed thereafter headed by Indians of eminence, are not insignificant. As instances of the latter, the reports of the Radhakrishnan Commission or the Kothari Commission have been truly incisive and have been given due consideration and even acceptance. Gunnar Myrdal said it all when he wrote: *"In India, in particular, there has been much honest and penetrating discussion of the problems, though little action. The excellent Report of the Education Commission, 1966, is outspoken; the educational system 'is tending to widen the gulf between the classes and the masses.' The Commission's observation: 'Indian education needs a drastic reconstruction, almost a revolution.. This calls for determined and large scale action. Tinkering with the existing situation, and moving forward with faltering steps and lack of faith can make things worse than before' is quite relevant in this context.*

Purpose of Education – Some Views

True enough, education is a 'vast, shapeless and vexatious subject'. In a country of continental proportions, with its different communities and people with different socio-economic backgrounds, and literally living in different centuries in terms of thought, the aims of education can be at variance with the thoughts of experts in the field. And even among the latter, there are different perceptions. A few quotes from some of the Experts are interesting.

"One reason for the 'chaos' in education is the burgeoning of new opportunities and aspirations for hundreds of millions who had so long been denied all education and were living at a level of tragic deprivation. Education is the key to help us in the transition process to the Age of Science and Ahimsa, and therefore, education, which does not value and promote excellence is, in the end, 'a waste of effort and resources'. To support excellence is not to oppose the concept of equality of opportunity." (Dr. D.S. Kothari).

"The theory of education is summed up in its being able to instill in a person "knowledge, skill, equipoise, understanding and gentleness, as these values are connected with the faculties of *man and his soul*". (Dr. V.K.Gokak).

"The basic issues are: how education can meet the variability of man, how it can design education to aid evolution rather than retard it. How does education discover what a child is good at and encourage it? How can children develop sensitivity to others and to their environment? How early do we begin language education? How do we weave manual skills and linguistic skills so as to develop proper attitudes to science and technology, not merely to glorify science but to make it understandable to children and adolescents, to convey to them both the positive and negative aspects of technology and science."

"We keep on forgetting simple things: it is easier to learn a language at the age of four rather than at forty; it is happier for children to work together than against each other; it is wiser that children are given opportunities on occasions to find out for themselves what they like and what they are good at than to prematurely 'guide' them into narrow grooves. As to 'what they like' and 'what they are good at', it is important to remember that the two are not synonymous and we can be misled.

A child, too, can mislead himself or herself, because of the visible as well as indirect power of suggestion of family, friends and school teachers. Another forgotten element or rather often disregarded aspect is the need to acquire technical or manual skills, not from a Thoreausque moral point of view but from a basic anthropological understanding of the connection that exist between the movements of the fingers, particularly the opposable

thumb and the association centres of the brain. We often work so that we can think." (Dr. B.D. Nag Chaudhri).

"The principal goal of education is to create men who are capable of doing new things, not simply of repeating what other generations have done-men, who are creative, inventive and discoverers. The second goal of education is to form minds, which can be critical, can verify, and not accept everything they are offered. The great danger today is of slogans, collective opinions, and ready-made trends of thought. We have to be able to resist individually, to criticize, to distinguish between what is proven and what is not". (Jean Piaget).

Some Experiences in the Past

There is a need for a core curriculum to bring nearly all pupils above a certain threshold of learning, for thereafter all subsequent learning is made easier. But then, there is also the concern for democratization of primary education. As a UNESCO publication puts it: "A primary school that fails to achieve certain minimum and useful objectives, that fails to meet the people's needs, that fails to interest either the children or their parents, will inevitably end up by losing in one way or the other".

In efforts to bring in certain integration, even well-planned curriculum contents have to be toned down. In Gujarat, for instance, after the introduction of the new education policy after the acceptance of the Kothari Commission Report, because of the end-of-term certificate or diploma, the final examination content had to be toned down and alternative subjects had to be offered. Instead of New Mathematics, Commercial Arithmetic and instead of New Science, Everyday needs of health and hygiene, were allowed. In that very State a battle royal was waged on the introduction of English at the V Standard or VIII Standard. The battle was both political and legal. Then there is the different perception of what the 'average' rural lad or lass needs. We have thus in both Gujarat and Maharashtra, parallel streams of the normal school system and the basic and post-basic schools. At the secondary the plethora of examination bodies in addition to the different State Secondary Examination Boards is part of the same malady of what is perceived as the purpose of education. Even

the medium of instruction whether it should be mother tongue only at the primary education level has been a matter of many an academic and legal disputes.

In such an environment, innovative experiments could be inhibited because of the competing and variant expectations. At the same time, what it portends is the fact that in our country, there could perhaps be no one solution. In a multilingual and multicultural environment where the people also live in varying socio-economic background and in different centuries even in the realm of thinking patterns, one pattern is certainly not the answer. The problems of universalisation of education are also even otherwise real.

Some Causes of Concern

In the special issue of the International Yearbook of Education on "Primary Education on the threshold of the twenty-first century" (International Bureau of Education, UNESCO, Geneva, 1986), Ramamoorthi identified the following as the main problems, difficulties and obstacles to the universalisation of primary education in most of the developing countries:

1. A lack of financial resources coupled with the escalating cost of education.
2. A high rate of population growth in relation to the available limited resources.
3. Deteriorating and inadequate physical facilities for education, such as an inadequate number of school buildings, essential scholastic and other educational materials.
4. An inadequate supply of trained teachers.
5. Inhibitory cultural attitudes in these countries' communities, particularly bias against the education of girls and the physically and mentally handicapped. It should be pointed out that economic constraints tend to entrench these inhibitory attitudes.
6. High drop-out rates in primary schools.
7. Unattractive terms of service for teachers.

Thanks to sustained efforts taken by Government of India both in the field of education and Family Welfare, the problems are no more insurmountable, as can be seen from the positive trends in the Census and Educational Survey reports. While the problems of resources will continue to plague us, the problem of community involvement has to be more constructively thought out. Centralized governments and administrations will have to move towards a pronounced form of decentralization of primary education. As stated earlier, there have been innovations and changes made in the system. Instances are many where the State Government have handed over Government Schools to private education trusts for management along with required funds. In Maharashtra and Gujarat, many a Sarvajanic Sikshan Society has come up to take up such responsibility. Similarly there have been technical schools and participating schools also. Why these efforts did not yield expected results is a matter of study. However, the fact that an experiment failed at one point of time or at a particular surrounding, may not be a bar to try it again at another point of time or place. While it is true that what is right in theory may always be right in practice, it is definitely true that what is wrong in theory can never be right in practice. Within that parameter, experimentation will have to go on and decentralization is a key to this process of experimentation.

The comments expressed by Dr. Adiseshiah are relevant:

"First, we need to commit ourselves whole-heartedly to the principle of decentralized planning as against the tradition of centralization that we have built up, and then face its implications which, inter alia, include questions of (1) whether block-level educational planning can be developed without all planning – agricultural, rural development, health, housing, etc. being planned at the Block level (Can there be an island of purity in an ocean of impurity?) (2) whether the poorly equipped rural school with the various rural power networks that control even this low-level educational unit is capable of planning its content, learning methods and timing'. How can we avoid local control of education becoming another bonanza for the elite urban schools? What does this involve in the way of strengthening the rural school infrastructure?"

Functional Literacy through Modern Information Technology

Specially in the area of Adult Education, the concept of functional literacy has been discussed earlier. Conventional methods of education involving mastering a script, learning words and sentences, etc., that have no direct relationship to everyday life such learners, have to give place a learning that is directly relevant to them. The Education Division of the Tata Consultancy Services claims to have evolved a system where the learners are exposed to a set of words and pictures that have a direct relevance to them. A set of about 500 words or so form the vocabulary, and by repeated exposure of these words and pictures, the learners become familiar with them and learn to recognize them. This knowledge enables them to even read newspapers and magazines and activates an interest in the learner to know more. If necessary, they can then join a formal education program. Video projections and large computer screens aid such learning process.

A Systems Model Proposed

Can the present model with its structured hierarchy of time-dependant learning levels, single point entry, isolation from society and the marketplace, outdated learning content, irrelevant evaluation techniques and class-biased survival be replaced or at least be supplemented by a Systems Model? The latter model will need the following action steps:

Launching the *non-formal education sub-system* for the two priority groups-school dropouts in the age group 6-14 years, and working adult illiterates in the age group 15-40 years, involving devising functional curricula, producing learning materials, mobilizing teaching resources from trained teachers as well as progressive farmers, engineers, musicians, dramatists and sportsmen, and using existing buildings, laboratories and workshops for running the concentrated courses.

Reorganizing the existing *formal education sub-system* into multiple-entry and exit points at its different levels, so that students could enter, leave and re-enter the school and university system at any one of several points to answer the call of work in the home,

farm, factory or office, continue their education through organized non-formal programs and re-enter the school or university at appropriate points when they so desire in order to acquire further learning skills. The launching of the non-formal education system and the reorganization of the formal system will help the system serve the majority now excluded.

Establishing the relationship between the two sub-systems involving crossover points and the feed-in and feed-out provisions and the nexus between their educational content, methods and technologies of teaching and learning.

Vocationalizing the second level through a system of diversified learning experiences in higher secondary schools and technical schools so that such work-based education is freely available to all up to the age of 15 or 16 years in school and out of school and becomes the constructive skill forming a terminal point for 80 per cent of the full-time students entering the school stream.

Can Educational Funding Become Participatory ?

Earlier a question has been raised whether the State should be the only funding agency for promoting literacy and education programs. NGOs and Corporate Institutions should be encouraged to take interest in such programs. Most of the NGOs are, however, dependent only on government funding for their activities, and funding them for this activity will be only an indirect government support. With large business houses expressing interest in Welfare measures, at least in the geographical regions in which they operate, they can be encouraged to contribute to such causes. Local Institutions like Panchayats and Gram Sabhas should also be encouraged to take interest in these activities by impressing on them the fact that an educational community is innovative, peace-loving and involved in community affairs. Such experimentation will have to continue and hence the need for flexibility, periodic review and autonomy and the host of other institutional safeguards spelt out in the concluding sections.

Issues For Consideration

In this Chapter, some issues arising from the foregoing discussions, which should find a way as constitutional or legal

provisions into our educational structures, are discussed. The need for consensus, application of sunset laws to avoid obsolescence, special considerations and structures because of the altruistic nature of the pursuit etc are some of the directions indicated.

Universalization of Education: Need for Consensus

Fortunately for us, there is a general consensus about universalization of elementary education as our credo. This issue has to be beyond politics – in fact, the whole basis for access to educational opportunities at all levels has to be a non-party matter and discussion of its aspects should be beyond party politics and cut across party lines. All major political parties have put it high on their agenda. It is also a positive factor that successive governments have expressed their priority for education. This has now been made an important component of National Human Development Initiative (NHDI) and also the Prime Minister's Special Action Plan. In a situation when the need for strong political commitment is being increasingly felt, these proclaimed intentions of the government are certainly welcome, and help to keep the momentum alive.

When education has had a strong and consistent political commitment in the State, the tangible achievements it can mark, is indeed remarkable. As far back as 1819, the ruler of Travancore in south Kerala called for the State to meet the cost of education. Facilities were provided for everyone to have access to education either free or at a small nominal cost. The State continued to make progress and Universal Literacy was achieved in 1991. The State continues to top the literacy chart even in the Census 2001. The case is cited to indicate the importance of enlightened leadership with progressive views to achieve goals.

Educational Opportunity as a Fundamental Right

Education is a value in itself and is the bedrock on which any edifice of equality of opportunity can be erected. It opens the road to progress and literacy is a measure of human development. It is easier to plan for sound economic development and a stable political system in an educated society. There is, therefore, every

reason to canvass for Right to Education being incorporated as a Fundamental Right.

Learning Process is Complex and Demanding

The learning process is not only complex but also demanding. Aldous Huxley wrote,

“There is no substitute for correct knowledge, and in the process of acquiring that knowledge there is no substitute for concentration and prolonged practice. Except for the unusually gifted, learning must ever be hard work. Unfortunately there are many professional educationists who seem to think that children should never be required to work hard. Whenever educational methods are based on this assumption, children will not in fact acquire much knowledge; and if the methods are followed for a generation or two, the society, which tolerates them, will find itself in full decline. We are human because, at a very early stage in the history of our species, our ancestors discovered a way of preserving and disseminating the results of experience”.

Cicero told the unvarnished truth in saying that “those who have no knowledge of what has gone before them must, for ever, remain children”. There is no denying the fact that the histories of our developments in many fields have to be properly projected. But this should not take away the requirements of discipline involved in the learning process. What is required is ensuring irreversibility and giving a sense of perspective by not distorting history. Planning the contents of curriculum for the young mind that gets easily swayed by ‘what is taught’ rather than ‘what is desirable to teach”, is probably more difficult. The commitment of the various political parties on universalization of elementary education must also converge into a consensus on content and dissemination.

Application of Sunset Laws

Sunset is one of the most refreshing and significant legislative concepts borrowed from the American history. The idea of self-retiring government programs embodied in the concept of Sunset has generated widespread among people who have been worrying

about the continued growth of government, unending expansion of bureaucracy and insufficient accountability and consequent irresponsibility in government spending. This also serves as an accountability tool. Most of the contemporary proposals for Sunset legislation encompass the principle of economy in government spending, a definite course of action to ensure adherence to that principle and an imagery of the fading away of programs that were useful in the past, but no longer useful or relevant. Against the backdrop of parliamentary control over expenditure in India, the principle of Sunset assumes particular relevance and importance.

However, the principle of Sunset Legislation has a special significance where time targets for some activities have been prescribed. The withdrawal from the statute books of laws and provisions, which have become obsolete or have acquired the nature of anachronisms, is equally important. A proper sunset legislation will certainly supply the action forcing mechanism to compel the legislature to make an evaluation of programs and give it an unprecedented amount of power to effect changes in specific expenditure items. The concept of sunset legislation, where the sun sets on the law after a duration has to be invoked regularly and in full awareness. Our Constitution makers had prescribed time limits for a number of provisions. These time limits have been treated rather lightly or extended to suit the convenience of governance. In matters of education, these sunset laws should be adhered to, and the degree of accountability to the people's forum absolute. Can we say as to whether this holds true for our constitutional provision or for that matter our administrative and legislative fiats in the field of education? Does our Constitution have a provision to analyze such extension of the sunset laws through the means of a different microscope? Is such a differential treatment called for?

Autonomy

Once education is considered bedrock as stated above, do we have Constitutional guarantees to ensure that the sanctity for the schemes and the financial outlay is honoured? For instance, judiciary is considered such a non-political organ, and we have

Constitutional guarantees to ensure its autonomy by way of such provisions as being a charge on the Consolidated Fund, etc. Does education merit such a consideration at some level at least?

Continuous review and periodical reforms

If renewal, reform and rethinking are fundamental to the process of education, can the Constitution ensure that these take place and are not subject to the whims and fancies, or become matters of lower priority, because it may involve ruffling of some feathers?

Lack of Ambiguity in Policy Formulation

Is it necessary to make certain provisions unambiguous at least in matters of education, as not to be dependent on judicial activism? Today part of the gains in education has to be related to the widest amplitude given to Art. 21, which had to travel a full circle from the days of Gopalan to Maneka Gandhi, as pointed out in D.D. Basu's commentaries? One amendment has already been brought, for instance. Can we expect a Constitutional amendment to accelerate 'the demand for accountability in the system of education, particularly from its bureaucracy?'

Flexible Institutional Structures

Are the structural changes required in the field of education hampered by treating educational structures at par with industrial or commercial structures? When profit or commercial gain is not the motive and there could be other partners in the process whose interests are to be protected, can a different yardstick be applied, which is different from the industrial or commercial enterprises which normally follows the principle of what the traffic can bear, when structural changes are necessary?

Can there not be other structures specific to educational institutions to protect the interests of other stakeholders, and to ensure a certain degree of autonomy and insulation from political buffeting?

The above are some specific issues that have emerged from the foregoing discussions, answers to some of which will have to be found in the suggestions for changes indicated later.

Suggestions for Amending Provisions

In this Chapter, seven illustrative areas are indicated with possible amendments therein. These are areas of high priority taking into consideration the arguments elaborated in the previous Chapters.

This Consultation Paper is not intended to be a treatise on educational policy or its implementation as such. The foregoing discussion has been to aid in the search for the usefulness of the Constitutional provisions in advancing the cause of education. There is no doubt that the interpretations given by the Supreme Court and other courts, have given a wider amplitude to the provisions as to specifically advance the cause of education, They have helped in doing away with discriminatory provisions, and also have covered wide areas as medium of instruction, etc., to ensure that the cause of education has not suffered.

The goal of reaching education to one and all has also been served by these provisions. Some further suggestions have been offered in this Chapter to advance the cause of education, which is a value in itself. These suggestions are illustrative and not comprehensive. A comprehensive list will require a wider discussion, and it is with the awareness of this shortcoming that these suggestions have been offered.

Preamble itself could be enlarged to secure to us a learning society so that the fruits of Enlightenment reach one and all without fear, favour or discrimination. Enlarging the Preamble can give it the nature of a basic feature as not to be easily tampered with. Acts of Philistinism such as burning of libraries, destroying ancient monuments or some other similar acts, should never occur, and if such tendencies or administrative fiats come to be passed, it should be possible to obtain mandamus against it. In a multilingual and racial society such as ours, with a multitude of dialects, to some people or community, preservation or even enrichment of them may not appear to be worthwhile. The State has some bounden duties to preserve and guard cultures. If some efforts were forthcoming, such efforts should not be prevented.

With the vast changes taking place in the world of knowledge and communication, it might be worthwhile to incorporate a new

right, as Right to Knowledge. Its practical implication will be for the State to set up libraries or information centres accessible to one and all which will themselves be fountains of knowledge to be dipped into at will. A model of a typical Knowledge Centre for Information Management has been developed for the Union Territory of Pondicherry. In a collaborative project between International Literacy Institute and Indira Gandhi National Open University entitled, Bridges to the Future Initiative (BFI), there is a mention of medium-term development of Community Learning and Technology Centres (CLTC). With the coming of a digital age, these may be the new versions of libraries-cum-community access centres. This can serve as a model. The Right to Knowledge is broader than the Right to Know which has already been derived from the existing Fundamental Rights.

The existing Directive principle contained in Article 45 or the amended provision as contained in the 83rd Amendment Bill needs spelling out. The free and compulsory education concept should not be whittled down on some grounds of economic liberalization. In the arguments for education being able to pay for itself, it is forgotten that there is already a levy of education cess on the citizens, which goes to finance education. Whether education fees to be paid by the recipient or a general education cess paid according to capacity of the citizen to bear his general responsibility for the cause of education is a better way is not considered in the argument for privatizing education. It has been reported that the Soviet Union has gone to eliminate education as an obligation of the State (EPW May 1998); such a situation should not come so easily by in our country. The provision of a fundamental right should not overlook the State responsibility to create demand.

In the field of education, sunset laws should be in operation, so that obsolescence is at a minimum and anachronisms are removed. Sheer inertia has continued some of the earlier practices. Reservations in admissions were initially meant for a purpose and for a specific time period; these have continued for some reason or the other. Such laws should be subject to strict reviews. As Dr. Malcolm Adiseshiah has stated: "The present model with its structured hierarchy of time-dependent learning levels, single-point entry isolation from society and marketplace and outdated

learning content, irrelevant evaluation techniques and class-biased survival must be replaced by a Systems Model”.

There is a strong case for ensuring autonomy for the education budget. Some sanctity should be attached to the core provision, and such factors as the teacher's salaries being charge on Consolidated Fund of States could be considered. In a study of elementary education in Gujarat, The Indian Institute of Management had made one such recommendation to protect the salaries of elementary school teachers and their budget. In fact, there is a case for a special provision in the Constitution for protecting the service condition of teachers, as in the case of Civil Servants as contained in Articles 311 and 312. There should be also a provision to ensure their political neutrality as in the case of civil servants, and the fact that most of the teachers are paid through State or through instrumentalities of State, having been funded mostly from State funds (the so-called own contribution coming from the students' fee for which the management have no claim to call it as their own). In Germany, all teachers are paid directly from State funds. A similar provision for recruitment through a Public Service Commission, but differently constituted to contain peers, could also be considered. In short, the kind of autonomy granted to judicial Institutions could be extended to teachers and teaching institutions. Their pay and conditions of service should be separately decided, as the consideration is not what the traffic can bear. "If education is to function as a liberating force, obviously it should be independent of other kinds of organized power. The most organized kind of power in modern societies is that of the State. It is, therefore, of crucial importance that education be free from government control. This does not mean that government should give money and sit back. Government has certainly a role apart from that of Santa Claus. It has to function as an operational critic of education as of all other institutions in the society.

There is need for a regular Education Commission like a Finance Commission, reporting to Parliament to review and update the systems. A Constitutional Provision similar to that Finance Commission can be considered. It is interesting to look back and note that the 1913 Government of India Policy had envisaged such a regular study. In his article 'Towards an Education for the 21st

Century', Prem Kripal stated, "National authorities should reshape their educational system on two parallel lines: (i) internal reforms and continued improvements of existing educational systems; and (ii) search for innovative forms, for alternatives and fresh resources". The Education Commission had rightly remarked: "It is no longer desirable to undertake educational reforms in piecemeal fashion, without a concept of the totality of the goals and modes of the educational process. To find out how to reshape its component parts, one must have a vision of the whole. We must think clearly in exploring new paths for the future. This search for practical alternatives aspects of a genuine strategy of innovation seems to us to be one of the primary tasks of any educational undertaking."

There is need to insulate the educational bodies from needless litigation, when structural changes become necessary. There is already a legislation to distinguish the teaching staff from 'industrial labour', though the amended legislation has not yet been put into effect. The needs of the times and the international pace, call for flexibility in structures, which should not be hampered because of misplaced importance claimed by interests of a section of the stakeholders. Different nature of rules of association should be recognized so that teachers' unions do not function like other labour unions with their right to strike.

Suitable provisions can be made in the Preamble as well as in Parts III, IV, XII and XIV of the Constitution or even as fresh parts therein.

These suggestions for amendments have been made, as these are areas considered of immense importance to preserve the integrity of educational policies.

Need for Literacy in India

The problem of illiteracy in the Indian context cannot be over emphasised. Basic literacy, as defined by the United Nations, is the ability to read 40 words per minute, write 20 words per minute, and do 2-digit arithmetic. Check out these alarming statistics:

In India, where one of the oldest civilizations flourished, only 52% of the population is literate (65.5% of males, 39% of females). (These figures are from the 1991 census).

The literacy rate among rural women is 10%.

Over half of the world's illiterates may be in India as we enter the 21st century.

Every third working child in the world is in India. (There are 15 million bonded child labourers in India!).

For 3 million children in India, the street is their home.

Various barriers to child and adult literacy exist in India, most prominent are the issues of gender and poverty. However, now as the population nears the 1 billion mark and with issues of poverty and social inequities becoming larger, it is time to face the challenges. Literacy is the key to development, health care, employment and last but not the least, it is the key to population control.

Despite overwhelming factors (cultural issues, population, resources), *India's literacy is steadily improving*. India's literacy rate at the time of independence (1947) was only 14% and female

literacy was abysmally low at 8%. In 1981 the literacy rate was 36% and in 1991 it was 52% (males 65%, females 39%). The southern state of Kerala was the first to reach “100% literacy” for a city (Kottayam 1989), then a district (Ernakulam 1990), and finally the whole state (1991). Grassroot endeavors, inspired by Kerala's success, have led literacy efforts throughout India. However there is still a long way to go and Asha is an organization trying to make a difference by supporting rural child education programmes, and helping secure a progressive future for India's underprivileged children.

Current Literacy/Non-formal Education Objectives/Strategies

Goals and Objectives

The goal of the National Literacy Mission is to attain full literacy, i.e. a sustainable threshold level of 75 % by 2005. The mission seeks to achieve this goal by imparting functional literacy to non-literates in the 15-35 age group. This age group has been the focus of attention because they are in the productive and reproductive period of life. The total literacy campaign offers them a second chance, in case they missed the opportunity or were denied access to mainstream formal education.

The mission also takes into its fold children in the 9.14 age group, in areas not covered by non-formal education programmes to reach the benefits of literacy to out-of-school children as well. The major thrust of these programmes is on the promotion of literacy among women, scheduled castes and tribes and backward classes.

The National Literacy Mission eventually aims at ensuring that the total literacy campaigns and their sequel, the post-literacy campaigns, successfully move on to continuing education, which provides life-long learning and is responsible for the creation of a learning society.

Strategy to Achieve the set Goals

Adopted a national strategy in mission mode to take care of the need for diversity of approach and inter-regional variations.

Stress on proper environment building and active participation of the people, especially women.

Encourage joint efforts by Governmental and Non-Governmental organisations.

Preparation of local specific primers in local languages.

Integrated approach to total literacy and post-literacy programmes to tackle the problem of residual illiteracy and to reduce the time gap between TLC and PLP.

Stress on vocational training of neo-literates to facilitate linking literacy with life skills.

Lessons Learned from Past Literacy Programmes and Activities

A number of significant programmes have been taken up since Independence to eradicate illiteracy among adults through different programmes like Social Education (1951-56), Gram Shiksha Muhim, Farmers Functional Literacy (1967-68), Non-Formal Education, Polyvalent Adult Education, Education Commission, Functional Literacy for Adult Women, National Adult Education Programme, Rural Functional Literacy Project, State Adult Education Programme, Adult Education through Voluntary Agencies etc.

Earlier there was also a campaign made for a two-year duration of 40 hours' instruction, and evaluation was conducted at the end of the campaign.

After the launch of NLM in 1988, between 1988 and 1990, the Mission tried to consolidate the earlier centre-based programme to make its implementation more effective through the campaign-based approach. The real breakthrough came with an experiment in mass literacy, a campaign initiated in 1989 and successfully completed in Ernakulam District of Kerala.

Literacy as Seen in the 2001 Census

While the rates for the years 1951, 1961 and 1971 Censuses relate to the population in the five years plus category, those for 1981, 1991 and 2001 relate to the population which is seven years and above. The literacy rates for the country as a whole increased from 18.33 per cent in 1951 to 65.38 per cent in 2001, with literacy rate for males at 75.85 per cent and that for females at 54.16 per cent. The literacy rate recorded an increase of 13.17 percentage points to from 1991 to 2001, the highest increase in any one decade. An encouraging feature is that the growth rate of literacy has been higher in case of females at 14.87 per cent than for males at 11.72 per cent during this decade. The gap in male-female literacy rates has decreased from 24.84 percentage points in 1991 to 21.70 percentage points in 2001. The rate of growth of literacy in the decade ending 2001 has been higher in the rural areas, at 14.75 per cent as compared to the 7.2 per cent increase in urban areas. Despite these improvements literacy in urban areas was 80.3 per cent and that in rural areas 59.4 per cent.

Kerala, which has the highest literacy rate of 90.92 per cent, occupies the top slot in both male and female literacy, at 94.20 and 87.86 per cent respectively. Bihar has the lowest literacy rate of 47.53 per cent, along with the lowest literacy rate for males at 60.32 per cent and for females, at 33.57 per cent. The number of literates has more than doubled in Dadra and Nagar Haveli and Rajasthan during the decade 1991-2001. As per the 2001 Census, all States

and Union Territories have now achieved a male literacy rate of over 60 per cent. States/UTs having less than 50 per cent female literacy rates are Rajasthan, Arunachal Pradesh, Dadra and Nagar Haveli, Uttar Pradesh, Jammu & Kashmir, Jharkhand and Bihar.

During 1991-2001 the population in the seven plus age group increased by 172 million while 204 million additional persons became literates. Despite the overall increase in population, the total number of illiterates has come down from 328 million in 1991 to 296 million in 2001. This is significant since for the first time since independence, there has been a decline in the absolute number of illiterates during a decade. States which contributed to the decrease in absolute number of illiterates are Andhra Pradesh, Uttar Pradesh, Maharashtra, Rajasthan, Madhya Pradesh and Tamil Nadu. States/UTs registering an increase in the number of illiterates during the decade are Bihar, Delhi, Nagaland, Manipur, Chandigar, Daman & Diu and Dadra & Nagar Haveli.

The National Literacy Mission (NLM) set up in 1988, seeks to achieve full literacy i.e. a sustainable threshold level of 75 per cent literacy by the end of the year 2005, by imparting functional literacy to the non-literates in the 15-35 age group. The NLM aims at ensuring that the Total Literacy Campaigns and their sequel, the Post Literacy Campaigns successfully move on to Continuing Education. Under this scheme, greater emphasis is placed on development and acquisition of new learning. To prevent the non-literates from relapsing into illiteracy and also acquire skills, the NLM has been restructured to provide for an integrated approach combining the Total and Post Literacy Programme under one. Literacy Project to achieve continuity, efficiency and convergence.

Literacy in India

Literacy is an effective instrument for social and economic development and national integration. It is defined in Census operations, as the ability to read and write with understanding in any language. Any formal education or minimum educational standard is not necessary to be considered literate. The latest census report (2001) reveal that at the beginning of new millennium literacy rate in India stands at 65.38% with male literacy level at 75.85% and female literacy level at 54.16%. There has been only

marginal increase in literacy level from the last census in 1991 (literacy level was 52.2%).

The pace of progress in literacy rates, as revealed by decennial censuses, is very slow in India. Between 1961 and 1991, a span of thirty years, literacy rate has gone up by a mere 23.9 percentage points, from 28.3 in 1961 to 52.2 in 1991. From 1991 to 2001 there is 13.36% increase. However the literacy scenario in India is characterized by wide inequalities among different sections of the population. The female literacy rate is still low in comparison to male population. Country's half of the female population is still illiterate even after so many years of independence. No less disturbing is the rural-urban disparity in literacy rates that again differ by ever a wider margin the disparity has persisted over the years.

The scheduled castes and scheduled tribes form two other specially disadvantaged population groups in India and disparity in their case too is equally wide and persisting. Finally, there again exists a wide disparity among the various regions/states in India vis-a-vis their literacy rates. At the top of the hierarchy, lies the state of Kerala that has an exceptionally high literacy rate of 90.92 %. This is basically because of strong social movements in this state even during the pre-independence period. For Bihar (the least literate state) the rate is merely 47.53 %. In Bihar, Kishanganj district has the lowest literacy rate (31% for males and 18.49% for females).

When illiteracy begins to impinge upon livelihoods issues it becomes critical. Illiteracy often results in missed opportunities. Women usually receive lower wages than men. In Kishanganj district of Bihar women and girls work in the tea gardens and brickkilns but as they are illiterate they often get exploited and do not get proper wages. Both men and women often earn less than the minimum wage but they are often unaware of the Minimum Wages Act. Illiteracy and lack of information can adversely affect human rights. In an era when technology has shrunk the world into a global village and when information has been brought to the fingertips of a small section of society, it would be unfortunate if the masses were denied access to basic information due to the inability to read and write.

During the first Five Year Plan, the program of Social Education, inclusive of literacy, was introduced as part of the Community Development Program 1952.

The National Policy on Education in 1968 not only endorsed the recommendations of the Education Commission but also reiterated the significance of universal literacy and developing adult and continuing education as matters of priority. While the formal elementary education program was supplemented by a Non-formal Education system, it was also decided to undertake Adult Literacy programs culminating in the Total Literacy mission approach.

- (a) A multi-pronged approach of universalization of elementary education and universal adult literacy has been adopted for achieving total literacy.
- (b) A systematic program of non-formal education in the educationally backward states.
- (c) The National Literacy Mission that aims at making 100 million adults literate.

The major thrust of these programs is on promotion of literacy among women, Scheduled Castes and Scheduled Tribes particularly in the rural areas. The Adult Education Program consists of three components: basic literacy (including numeracy), functionality and civic awareness. The third component is obviously literacy. The National Adult Education Program (NAEP) was inaugurated on October 2, 1978.

Then came the National Literacy Mission (NLM). In 1989, the district-based Total Literacy Campaigns (TLC) emerged as a program strategy for the National Literacy Mission against this background. In the budget of 1999-2000, the total allocation of resources (both Plan and non-plan) for the four programs of Elementary Education, Operation Black board, Non-formal education and Adult Education was 3037, 400, 350 and 113.4 crores respectively.

The Total Literacy campaign districts had been set the optimistic goal of achieving 80% literacy amongst the target age-group of 15-35 years. Now Sarva Shikha Abiyan is doing rounds in all the

districts in most of the states for which there is huge fund allocation under 9th and 10th Five year plans.

In spite of the enormous expansion of adult education, nonformal and elementary education in India, the problem of illiteracy has been lingering on. It is both colossal and complex given the size of the country, its huge population, wide regional and gender disparities, economic and other cultural factors such as poverty, communalism, casteism etc. It needs action from people, communities Government agencies, NGOs and international organizations such as UN bodies to totally eradicate illiteracy from India.

Unorganised Sector Workforce in India

Introduction

Across the globe, neoliberal policies are uprooting social security mechanisms that have been long in place in most of the developed and developing economies. The statebased social security system is giving way to market-based fundamentalism. The contemporary model of globalisation typically perpetuates and thrives on its central theme of “risk taking” and “insecurity”. The present phase of capitalist onslaught rooted in the Washington Consensus works through a model in which the working class is left to bear much of the worst forms of insecurity, while large-scale asset-holders are relatively well shielded from insecurity. Although the “ageing crisis” has been thrown up as the reason for watering down social security institutions and policies in developed market economies, the bogey of “fiscal stress” is often cited as a reason for destroying these institutions in developing economies. However, it is another story that in many developing countries, the social security system is unavailable to a majority of working population.

Although the need to provide employment and social security is crucial for the poor and other vulnerable sections of population, even after over half a century of development policies, there does not appear to be any effort to ensure this for large sections of the working force. Rather, recent efforts in many developing economies go to show that the unorganised labour force is left to fend for

itself, as more and more workers are added to the army of informal job markets.

Bulk of India's workforce is unorganised in nature. While almost the entire farm sector can be characterised as informal, roughly 80 per cent of the workforce in the non-farm sector is informal. In this study, we have delineated unorganised from organised workers using both residual and direct approach. The study examines the growth and structure of formal and informal sector workforce by one-digit industry across major Indian states. We have examined the coverage of social security schemes among economically and socially vulnerable sections of the workforce, with particular reference to provident fund schemes in India.

Methodology

We have adopted two approaches for estimating unorganised workers in India. These are the residual and direct approaches. While scholars in the past have made use of the residual approach, estimation through the direct approach has been a recent phenomenon with the availability of enterprise module in the 55th round of quinquennial employment-unemployment schedule. The residual approach is the result of deducting estimates of organised employment (available from DGE and T source) from total employment figures derived from employment-unemployment surveys (EUS) of NSS. Absolute numbers of workforce figures are arrived at by first obtaining worker-population ratios (of usual principal and subsidiary status) from the unit level records of EUS of each round. The ratios are worked out for four different categories, viz, rural male, rural female, urban male and urban female across states. Applying these ratios to the estimated interpolated population figures relating to mid-survey year of 1999-2000, we obtain aggregate workforce estimates. To understand the trends and patterns of both formal and informal segment of workers through residual approach, we have used four quinquennial rounds (38th round – 1983; 43rd round – 1987-88; 50th round – 1993-94; and 55th round – 1999-2000) of EUS of NSS along with the Employment Market Information (EMI) figures of DGE and T (Directorate General of Employment and Training) for the corresponding period.

Deviating from earlier practice, the NSSO for the first time in 1999-2000, in its survey of employment-unemployment, administered few probing questions to elicit information from the households themselves about the type of enterprise in which they work. Apart from this, the survey also collected other vital data from households on the number of workers engaged in the enterprise, type of job and coverage of provident fund. The uniqueness of the 55th round of employment-unemployment survey lies in obtaining such information from the households rather than the enterprises.

Direct estimation involves arriving at organised/unorganised component of workers directly from EUS, based essentially on the following variables: (a) employment status of workers: salaried/regular labourers, casual wage workers and self-employed workers; (b) type of enterprise; (c) number of workers; (d) type of job: part-time/temporary, etc; and (e) coverage of provident fund. More specifically, the entire agricultural sector, except for plantations, is considered as belonging to unorganised segment. As far as the non-agricultural sector is concerned, a variety of criteria has been used here applying the ILO conceptual framework on informal employment and SNA, 1993s definition of informal sector. Firstly, all self-employed labourers engaged in proprietary and partnership concerns are included under the unorganised sector. Secondly, all casual workers employed in any economic unit come under the informal segment of the workforce. Thirdly, all those who are regular/salaried employees working in public sector, semi-public organisations, cooperative societies, public limited companies, private limited companies and other units covered in the Annual Survey of Industries (ASI) are considered to be part of the organised sector. However, those regular/salaried workers who are temporary or part-time and not receiving provident fund benefits have been considered as part of informal segment of the workforce. It must be noted that the household approach has severe limitations in delineating whether a household belongs to the formal or informal economy. One of the severe lacunae found in EUS of 55th round is that there are considerable numbers of households who have no clue about the characteristics of the enterprises with which they are associated.

Having delineated formal from informal sector workers, we proceed to obtain the percentage of workers covered under social security measures. However, the survey elicited information only about the coverage of provident fund: general provident fund, contributory provident fund and public provident fund or a combination of these. Hence, we confine our analysis only to the coverage of provident fund among various groups.

Unorganised Sector Employment: Residual Estimates

Over half of India's national output comes from the unorganised sector. While employment in the formal sector has been stagnant in the last decade, employment creation in the informal segment of the economy has been tremendous. Broad employment trends for the organised and unorganised sector is shown in Table 1 for the years 1983, 1987-88, 1993-94 and 1999-2000. It is evident that throughout this period an overwhelmingly large portion of the workforce in India is found to be employed in the unorganised sector. Out of 399 million workers in 1999-2000, it is estimated that 371.2 million workers (nearly 93 per cent) are employed in the unorganised segment of the economy whereas only 27.8 million workers (7 per cent) are engaged in the organised sector. The share of unorganised employment in the economy has displayed remarkable steadiness over the years. The share of informal employment has risen from 92 per cent (nearly 276 million out of 300 million) in 1983 to 93 per cent in the 1999-2000. It is clear that employment opportunity in the organised sector has remained more or less stagnant, showing only a marginal increase from 24 million in 1983 to 27.8 million in 1999-2000.

The near stagnancy of employment opportunity in the organised sector becomes evident from Table 2, where the compound annual growth rates of employment in the organised and unorganised sector are presented. Employment in the organised sector has registered a growth of 1.25 per cent between 1983 and 1987-88 and 1.26 per cent between 1983 and 1993-94. But during the decade of the 1990s, we witness a sharp decline in employment opportunities. During this period organised employment grew by only 0.34 per cent. Overall, the decade of the 1990s in India has been characterised by slow growth in

employment opportunities. This is also true for the unorganised sector of the economy.

The stagnancy of employment opportunities in the organised sector in the 1980s has to a large extent been compensated by a significant expansion of workforce in the unorganised segment of the economy. We observe that during 1983 to 1987-88, employment in the unorganised sector grew by 2.05 per cent while during the period of 1983 to 1993-94, the growth rate was around 2.27 per cent. This fact clearly indicates that unorganised sector served as a buffer for the workforce when the employment opportunity in organised sector dwindled. However, the unorganised sector also underwent a sharp slump during the 1990s with the growth rate of employment falling to 1.25 per cent.

Trends in Industry-wise Employment

One can observe that over the last two decades, agriculture, hunting, forestry and fishing absorbed an overwhelming proportion of workforce in the Indian economy, a continuation of trends witnessed during previous decades. Moreover, most prominent has been the unorganised pattern of cultivation. The size of the unorganised segment of the workforce in this category was 203.8 million in 1983, 209.9 million in 1987-88, 238.3 million in 1993-94 and 238.6 million in 1999-2000 respectively.

It is clear that during the 1980s and 1990s, 99 per cent of employment in agriculture, hunting, etc, could be categorised under the unorganised segment. This is followed by employment in trade, hotels and restaurants whose share of unorganised employment in this category accounted for 98 per cent. Construction and manufacturing sectors are the other two sectors witnessing rapid informalisation of the workforce. In the construction industry, share of unorganised employment has increased from 82 per cent in 1983 to 90 per cent in 1987-88 (an increase of 8 per cent points). In the post-liberalisation period, this share further increased to 94 per cent in 1999-2000 (an increase of 12 per cent points between 1983 and 1999-2000). As far as the manufacturing sector is concerned, the share of unorganised employment has increased from 80 per cent in 1983 to 83 per cent in 1987-88. And in the next decade, this share has further risen to

84 per cent in 1993-94 while in 1999-2000 the share is found to be 85 per cent (an increase of 5 per cent points between 1980s and 1990s). But in the next decade, the transport, storage and communication industry experienced a rapid informalisation of the workforce where the share of the unorganised workers increased by 8 per cent points (70.3 per cent in 1993-94 to 78.45 per cent in 1999-2000). In fact, this particular category of industry has experienced the fastest informalisation of the labour employed, with an increase registered at 17 per cent points in the share of unorganised employment (from 61.2 per cent 1983 to 78.5 per cent in 1999-2000). In the pre-liberalisation period, informalisation of workforce involved in the electricity, gas and water supply occurred most rapidly (unorganised workforce in this industry grew by 18 per cent between 1983 and 1993-94). Growth rates for unorganised workers in mining, quarrying and construction industry were also quite high for this period (7 per cent growth for each of these industries). But in the post liberalisation phase, the situation changed dramatically. Between 1993-94 and 1999-2000, the highest growth rate for the unorganised workers was observed in transport, storage and communication (compound annual growth of 9 per cent). Growth rates for unorganised workers in construction industry (8 per cent growth rate) and in trade, hotels and restaurants (7 per cent growth rate) were quite high. But for electricity, gas and water supply industry as well as in the mining and quarrying industry, growth rates for unorganised workers were found to be negative. This suggests that in the post-liberalisation era, informalisation of the workforce is most prominent in the transport industry, construction industry and for wholesale and retail trade and also for the hotel industry.

Unorganised Sector Employment: Direct Approach

Estimates from the residual approach suggest that 92 per cent of Indian labourers are engaged in the unorganised sector while organised segment constitutes the remaining 8 per cent. Corroborating the overall trends estimates from the direct approach also reveals that roughly 9 per cent of the workforce in India is in the organised sector while the rest 91 per cent are in the unorganised segment, a difference of 1 per cent between direct and residual approach. Further, it can be noted that 95 per cent

of female workers and 89 per cent of male labourers are engaged in the unorganised segment in India. The informal nature of farm and non-farm activities in rural areas drives this trend of overwhelming presence of unorganised sector in India. Thus, nearly 95 per cent of the rural workforce is engaged in unorganised activities whereas barely 5 per cent of rural workers are found in formal economic activities. The gender break-up of workforce in informal sector in rural areas suggest that roughly 97 per cent and 94 per cent of male and female workers are found in the unorganised sector respectively. On the other hand, roughly two-thirds of the urban labourers constituting around 76 per cent are engaged in the unorganised sector and the rest one-third of them are engaged in the organised segment. As far as male and female workforce break-up is concerned, the results show that the former accounted for a little over one-third while the latter around 80 per cent in the urban unorganised sector.

Although the informal nature of farm activities in rural areas has been well documented, even non-agricultural activities appear to be extremely unorganised in nature in India. Estimates derived from the non-agricultural sector reveals that nearly 80 per cent of the workers are unorganised and the rest belongs to the category of formal employment. As far the rural-urban break-up is concerned, nearly 80 per cent of rural non-farm activities is found to be in the informal sector, while the share of the informal sector in urban areas accounts for around 75 per cent.

It is interesting to note that state-wise estimates of the formal/informal sector share clearly show an overwhelming presence of the informal sector workforce in most Indian states. This is particularly visible in economically backward states such as, Bihar, UP, MP, Orissa and Rajasthan. These are the very same states whose share in agriculture and allied activities are extremely high relative to other states. It is estimated that over 94 per cent of workers in these states are engaged in informal economic activities. Even in industrially advanced states such as, Maharashtra, Gujarat, Tamil Nadu, West Bengal, etc, the share of unorganised workers is close to 90 per cent of the total workforce. However, smaller states such as Goa, Delhi and Kerala appear to have less unorganised workers, accounting for roughly three-fourths in each of the states.

It can also be seen from state-wise estimates that unorganised segments constitute around four-fifths of the total non-farm workforce even in industrially advanced states. Maharashtra alone is an exception with unorganised sector workers in non-agricultural sector accounting for a little over 70 per cent apart from few smaller states like Goa and Himachal Pradesh that also depict a similar picture.

As far as mining and quarrying is concerned, two-thirds of the workforce engaged in this sector is informal in nature. However, the rural-urban breakup suggests that while in rural areas roughly 13 per cent is in the organised segment; in urban areas, the share of organised workers is close to 60 per cent in mining and quarrying. Manufacturing, on the other hand, displays a different pattern, wherein a little over 85 per cent of workers in this sector are unorganised. In urban areas, unorganised workers in manufacturing worked out to a little less than four-fifths while in rural areas, the percentage share is over 90.

Informal workforce in public utilities like electricity, gas and water supply account for only one-fifth of the total workers in this sector. Since public utilities are directly under the supervision and control of the government, employment security and benefits are assured to the maximum extent. Hence, the organised segment accounts for a larger share in public utilities. Construction, which accounts for close to 5 per cent of the total employment in India, displays an almost similar structure to that found in agriculture. The break-up of the component of construction sector shows that close to 98 per cent of the workforce is in the unorganised segment of this industry. This is closely followed by trade, hotels and restaurants sub-sector, where 95 per cent of workforce is unorganised. The sub-sector of transport, communication and storage slightly deviates from the above trend. The organised component of the workforce in this sector accounts for close to one-fourth of the total workers in this sector. Barring transport, communication and storage, the other service sectors such as, (i) finance, insurance and real estate; and (ii) social, personal and community services, displayed a different trend. The significant presence of the government in the field of banking, insurance, education, health, etc, enables close to half of the workforce engaged

in these sub-sectors to be organised. But such trends may be reversed with the withdrawal of government from these sectors, as private sector cannot be expected to provide employment and social security for the unorganised.

Furthermore, an analysis of the possession of industry-wise skills (in terms of level of education) among informal workers in India reveals that 98-99 per cent of them are illiterate who are engaged in agriculture, construction and trade, hotels and restaurants. Even among the other sectors, 90 per cent of the unorganised sector workforce is found to be illiterate. The only exception being public utilities. It is observed that 54 per cent of the illiterate workforce in electricity, water and gas supply is organised in nature. On the other end of the spectrum, workers possessing graduate and higher level of education in the informal sector shows that in traditional forms of subsectors such as, agriculture, construction, trade, hotels and restaurants they account for 95, 81 and 88 per cent respectively.

In spite of possessing the skills, workforce in these sectors is still largely engaged in unorganised activities. However, workers with graduate degree and higher levels of education appear less likely to be in the unorganised segment and are largely engaged in the public sector such as public utilities, mining and quarrying, and social, community and personal services. The respective share of these set of workers in such sub-sectors are 7, 16 and 30 per cent.

Overall, while the poorest quintile is virtually found in the informal sector, only one-fourth of the richest expenditure group is organised. Even the fourth quintile group (2nd richest) is unorganised to the extent of 90 per cent. However, there appears to be some deviation from this trend, when one compares non-agricultural vis-a-vis the farm sector. As the quintile ladder goes up, the share of the informal sector declines gradually in the non-farm sector. In contrast, the unorganised segments share in the farm sector remains extremely high and flat, as depicted.

Existing Social Security Schemes: An Overview

As of today, there are a variety of social security policies and institutions in India – both promotional and protective. While

promotional measures include financing and provision of education, health, nutrition, employment, etc, protective ones on the other hand, comprise pension and provident funds, maternity benefits, sickness allowance, employees' state insurance, etc, which are provided to the workers. Protective measures are largely available to the central and state government employees in specific and to the minuscule organised workforce in India in general.

Employees' provident funds available for the workers in India are essentially a statutory form of compulsory saving schemes that enable old and retiring workers to maintain their living standards in post-retirement years. The Provident Fund and Miscellaneous Provisions (PF and MP) Act dates back to 1952. The act applies to units engaged in any industry listed in schedule I and where 20 or more persons are employed. Further, it is also applicable to any other establishment employing 20 or more employees or any class of such establishments, which the central government may notify in the official gazette from time to time. Under this act, as on March 2005, there are an estimated 4,08,831 units and 4.11 crore workers covering 180 odd industries. The progressive contribution received towards the employees' provident fund as on March 2003 is put at Rs 1,08,510.14 crore.

Coverage of Social Security Scheme in India

In this section, we intend to examine the coverage of social security schemes in India by different groups. We confine our analysis here only to the examination of employees' provident fund. Employees' provident fund is one of the largely available social security instruments in India for workers. It is estimated that roughly four crore workers are presently covered by this instrument. The latest round of the 55th round of National Sample Survey (NSS) collected information regarding the coverage of provident fund among workers (specific data was obtained as to whether the workers were covered by provident fund or not and if yes, whether they are covered under (i) general provident fund; (ii) contributory provident fund; (iii) public provident fund; and (iv) combination of GPF, CPF, PPF). Irrespective of the quintile groups, results suggest that nonfarm unorganised sector workers have been virtually been left out of social security arrangements.

As far as organised sector workers are concerned, 90 per cent of the richest groups avail provident fund facility. Further, it appears that only 55 per cent of the poorest among non-farm organised segment of workforce are covered under the provident fund system in India. Overall, in the non-farm sector, as against a paltry 5 per cent of poorest, 35 per cent of the richest workers avail provident fund benefits.

Industry-wise Coverage of Social Security Benefit

It is interesting to observe that except public utilities, the coverage of provident fund among the unorganised segment of workforce in India is virtually next to nil. Since electricity, gas and water supply are largely under the public sector, around 10 per cent of unorganised workers are covered under the scheme of provident fund. Further, it must be noted that in this sector, nearly 95 per cent of organised workforce is provided with the facility of provident fund. This is followed by (i) social, community and personal services; (ii) mining and quarrying; and (iii) finance, insurance, banking, etc, where the coverage is roughly in the range of 85-90 per cent among the organised labourers. In the organised manufacturing sector, 78 per cent of workers are estimated to be availing of this facility. However, since the organised sector contributes to a paltry 8 per cent of the total workforce, an examination of social security coverage among all workers would provide us a better understanding. Workers in construction, trade, hotels and restaurants appear to be receiving absolutely no social security benefits. Two sectors which are predominantly dominated by public sector, i e, (i) electricity, gas and water supply; and (ii) social, community and personal services, are found to receive maximum employees provident fund benefit. The respective shares of those covered under this scheme in these two sectors are 78 and 45 per cent. Further, evidence suggests that roughly 40 per cent of the workers engaged in finance, insurance, banking, etc, which is largely in the organised domain, provide social security benefits.

Social Security Coverage among Social Groups

India's workforce is typically characterised by labour segmentation wherein employment and social security among socially vulnerable groups are against them. The last quinquennial

(55th round – 1999-2000) national sample survey in India collected information regarding socio-economic and employment particulars of households. It also included data on caste groups, such as scheduled tribes (ST), scheduled castes (SC), other backward castes (OBCs) and others.

In the non-farm sector, SCs and OBCs each accounted for roughly 85 per cent of informal workers. On the other hand, nearly one-fourth of the other forward caste groups are found in the organised segment of non-farm sector. As far as the coverage of social security schemes are concerned, estimates from the survey show that 85 per cent of workers from non-farm sector belonging to the category of SCs and OBCs do not have social security benefits. For the other category, the same works out to 75 per cent. Among the unorganised segment of workforce, there is hardly any coverage of social security schemes. Estimates for the organised segment suggest that 85-90 per cent of the workforce belonging to the category of STs and others are covered under social security schemes. Further, it is noted that the same for SCs and OBCs are lower and particularly in the latter, the coverage is less than 80 per cent.

Conclusion

India's workforce comprises nearly 92 per cent of unorganised workers, with virtually the entire farm sector falling under the informal category, only one-fifth of the non-farm workers are found in the organised segment. Utilising both residual and direct approaches, the study uses the last four quinquennial rounds of employment-unemployment of national sample survey. The study examines the growth and structure of formal and informal sector workforce by one-digit industry across major Indian states. Estimates suggest that in the non-farm sectors, as we move up the ladder of income, the share of informal sector gradually declines. However, as far as the agricultural sector is concerned, irrespective of economic class, the share of the unorganised segment of the workforce remains flat. Further analysis reveals that the coverage of social security schemes has been largely against economically and socially vulnerable sections. While regular workers are largely covered by the provident fund regime, the ever increasing army

of casual and contract workers, even in the organised sector appear to have been discriminated against, not to speak of the entire self-employed, which accounts for a significant proportion of India's workforce. Although the statutory provisions of provident fund are supposed to be applicable universally among industries specified in schedule I, the evidence clearly points to a dismal state of affairs. Hence, there is a crying need to enforce the same in the industries covered apart from revising the list (enhanced) of industries continuously. It is in this context, constant skirmishes from the ruling class to "reform" provident fund must be resisted tooth and nail. The current interest regime of provident fund is being "liberalised" from the earlier administered regime. Recent efforts by the present government in revising interest rate downward from 9.5 to 8.5 per cent to the fund subscribers must be seen in this context. This is a clear case of transfer of income from labour to capital [Fine 1999]. The Pension Fund Regulatory and Development Authority (PFRDA), 2005 is only a prelude to the larger design of privatisation of pension and provident funds. Global pension fund managers find that the huge corpus fund that Indian ruling class is offering them on a platter irresistible.

Moving away from defined benefit schemes to defined contributory schemes is fraught with danger. The exposure to risks of shifting to contributory schemes arising from future adverse investment return, etc. will have a serious bearing on the workers' fragile savings. As far the larger issue of extending social security measures to the unorganised sector is concerned, we argue that given the poor affordability and lack of institutional mechanism, any design of social security that relies heavily on contributory basis is bound to fail dismally.

India's Workforce Quality is Superior

Interview: Dieter Scheiff

Dieter Scheiff, CEO, Adecco Group holds that the Indian staffing market would acquire greater importance in times to come. This will occur with the country's young demographic profile and its superior quality workforce. Not surprisingly, the company is looking at strengthening its position in India. Recently, it upped its stake in the Bangalore-based Indian staffing firm People One to 100%— it had bought a 67% stake in the organisation in 2004. Globally, Adecco enjoys a dominant position in the world staffing market and is the biggest human resource recruitment firm. It has 7,000 offices in 60 countries. Meanwhile, in the financial year (calendar) 2006, the group had sales of Euro 20.4 billion. The group places over 7 lakh people everyday with its network of over 1.5 lakh clients.

In an interview, via email with Taneesha Kulshrestha, he says that going forward, Adecco may also still have further acquisitions in India. He is optimistic about positive changes that may come about with the new Chinese labour law coming into effect from January 1, 2008. Excerpts: As a staffing market, how important is India for you? With a GDP growth of 8-10% year-on-year, India is one of the world's fastest growing market and is, therefore, key for the Adecco Group. How much does Adecco's India operations contribute to your global revenue and what are your expectations for the same going forward?

Currently, 40,000 people are working in Adecco India. The contribution of the Indian operations to the total Adecco Group revenue of Euro 20.4 billion and profit of Euro 611 million (2006) is still marginal due to the lower salary levels compared to the levels of Europe or the US. However, in terms of potential growth, India and China are key to the Adecco Group.

Are you looking at any more acquisitions in India? What is the rationale for upping your stake to 100% in People One? Can you share your growth targets with us?

We are currently screening the market in the US, Europe and Asia for professional acquisitions. However, we are also looking at some specific emerging markets such as India and China for good specialised general staffing businesses. We agreed that when we acquired 64% of People One (2004) to increase our stake to 100%. This is where we have now reached and are happy about it.

In India, what segments of the market including senior, middle, junior or temping are growing the fastest for you?

At the moment, we see a strong demand for middle and senior management due to shortage of talent. We also see great potential in specialised general staffing. If we look at global trends, do you find more executives looking for job opportunities in India?

The language and cultural understanding is key to the success of executives, especially in the Asian market. If executives speak the local language and have international expertise, I see great opportunities in India. What sectors are attracting these people and what are the key concerns? We especially see great demand in the information technology and automotive sectors, notably also for engineers.

Do you find Indian salaries beginning to approach global salary levels? We see a closing of the gap with the salary levels in the western world, especially for the higher-skilled employees. We do not anticipate any immediate impact from the rising rupee on overall salary levels.

What do you think of the workforce quality in India across different levels? India's work force quality is superior. I will give you some examples: in India we have the largest English-speaking

population outside of the US, which is important in an increasingly globalised world. India has a booming IT industry and no worldwide company can successfully compete without a state-of-the-art IT infrastructure. The workforce is cost-effective, highly educated and has a high level of cross-border mobility.

With greater globalisation and integration of individual economies, should we still have cumbersome visa regulations and caps on the number of professionals allowed to enter particular countries?

Adecco approaches candidate mobility on a global scale. Adecco, for example, trains employees in Poland to work in Norway and nurses from Bangladesh to work in Italy. As a company with global reach, we are able to identify talent needs around the globe. In general terms, we see deregulation and the lowering of entry barriers for labour as a great benefit for the worldwide economy. Over time, we will begin to see the benefits from the new Chinese labour law, which will come into force as of January 1, 2008.

Given the changing world demographic profile, do you see any key trends when it comes to the migration of labour? India has a great competitive advantage vis-a-vis Europe as well as China due to its demographic profile. In 2020 the majority of the population in Europe will be over 40 years. In 2015, a third of the population of China will be older than 50, while at the same time 60% of India's population will be younger than 30. This will be of great advantage for India, especially for those who are well-trained and educated.

Workforce Issues in India

HR Needs to Understand

India's expanding economy, consumer base and burgeoning capabilities in service sectors like information technology and business process outsourcing are making it a new go-to place for western companies large and small. Also increasing India's attractiveness to western corporations is its huge population of capable workers. However, most of those workers are already employed, and the current economic expansion is further tightening the supply of skilled labour.

So, for a company seeking to get the most out of an operation in India, a firm needs a trained workforce. Recruiting such a workforce requires a careful and pro-active HR strategy that is adapted to the local culture and practices. But the many differences in laws, compensation and business culture can make HR in India a challenge. To meet that challenge, HR needs to become knowledgeable of India's laws, practices and local conditions.

Labour Market Overview

India has a huge number of employable workers. Out of India's population of 1.1 billion people, about 160 million are in the non-agricultural workforce. The population is matched by a large educational network of over 10,000 colleges of various sorts. India has over 22 million college graduates, 7.2 million of those in science and engineering, and it turns out 2.5 million new graduates each year.

Since 2002, seasoned technical and managerial staffs have been in high demand in India, with salaries for those employees rising sharply every year. Competition is fierce, with frequent job-hopping and poaching the norm. But, despite the higher demand for talent, salaries are significantly less than among U.S. counterparts.

Legal Environment

Although deregulation in the 1990s made it much easier to do business in India, the legal system is still onerous by American standards. Among the legal hazards a company must deal with are a huge number of non-codified, ambiguous laws (estimated at over 2,000) and joint federal and state government authority over labour. However, restrictions are often lighter for the newest service industries, and the regulatory burden is no longer so heavy that it deters investment.

Working Conditions

Standards for working conditions in India depend on state and federal laws as well as whether the workplace is a "specified establishment." Factories, mines and plantations are usually put in this category. When in effect, regulations set standards such as

19 days of annual paid leave; a working day not less than 12 hours; and double pay for overtime above nine hours a day or 48 hours a week. In addition, governmental permission is needed for female employees to work at night, though this is usually granted in service sectors.

Managerial staffs are almost always excluded from regulations on working conditions. While managers usually receive the same leave terms, they do not receive overtime pay.

Contracts and Termination

The standard hiring practice in India is for employers to provide new employees with a letter of appointment, which serves as a binding contract, though legal requirements take precedence. The letter usually includes the terms of salary, starting date, position, workplace, transfers, ethics, confidentiality, probation and termination. Terminating a worker in India can be difficult. By law, a number of procedures must be followed, involving just cause, notice and arbitration. But, while the procedures are not applicable to managerial staff, it is important to observe the termination process with non-managerial employee because if they are not observed a firing can be challenged in court. The possibility of a terminated employee raising a court challenge increases the need to document the circumstances surrounding a termination, but HR departments need to remember that although misconduct is accepted as a cause for termination, inefficiency is not always accepted.

Compensation Structures and Levels

For Westerners, one of the most unfamiliar aspects of employment in India is the prevalence of non-salary benefits. The structure of compensation usually comes out to about 40 percent base salary, 35 percent flexible benefit plan, and 25 percent retirement benefits and performance-based pay.

This system was developed mainly because most non-salary benefits were tax-exempt for the company. However, these tax advantages are being chipped away at, especially with the fringe benefit tax (FBT), a new corporate tax established in 2005. The FBT lists tax valuations for many different benefits, such as

entertainment, travel and gifts, up to 30 percent of the benefit's actual value. As a result of the FBT and other changes, benefits are being reduced somewhat, but they are still a significant part of the Indian HR landscape. The flexible benefit plan (FBP) is a standard corporate practice where an employee is assigned a fixed monetary amount to receive in benefit form. The employee chooses how to take benefits, depending on personal and tax circumstances. Common benefits include rent, house payments, transportation, medical insurance, children's education and subsidized loans.

Salaries in India vary sharply by education quality and experience. An entry-level information technology (IT) hire may earn as little as \$2,000 annually, while an engineer freshly graduated from a reputed university will easily make \$12,000. In some of the highest-demand sectors, salaries for particularly experienced staff have even risen to surpass American levels, IT managers with 15 years' experience, for example, command about \$220,000. However, IT is an exceptional sector as department leaders' pay in most other industries is generally about 25 percent of American levels. But wage levels are changing, and overall salaries are increasing annually by from 10 percent to 30 percent.

Public Retirement, Disability Programs

The most prominent social security program in India is the "Provident Fund." Although it is mandatory only for employees making under about \$141 monthly, it is used almost universally because of its tax benefits. The Provident Fund deducts 12 percent from an employee's wages, which the employer matches. The funds collected are earmarked to a retirement pension or to make lump sum payments for worker death or disability.

There is also the Employees State Insurance (ESI) program, mandatory for employees in specific industries making under about \$163 monthly. The ESI pays benefits for worker death and disability as well as sick pay and maternity pay.

Types of Employees

Expatriates are less common in India than in most Asian countries, except for top positions, with the pharmaceutical, hospitality and airline industries among the leading companies

that most often hire expatriates. Returnees are becoming more common but are still limited overall, and they rarely command higher salaries than locals. In addition, work visas are generally tied to a job, thereby preventing most foreigners from moving easily from job to job on the same permit.

Some Indian employees' written communication skills may need improvement. Some socialization with colleagues and bosses is expected. In deciding whether to take a job, most potential Indian hires will consider such factors as responsibility, career prospects, company reputation and profitability, their offered title, travel opportunities, and the possibility of going overseas. Multinational companies tend to have more prestige among Indians, even as the gap between multinational firm's salaries and domestic companies' salaries is narrowing.

Recruiting Methods

Like the United States, India has a wide range of recruiting methods, but most recruiting is fairly informal, with walk-in interviews common below the managerial level. In specialties like finance, engineering and marketing, on-campus recruitment is often used to find entry-level candidates. Advertisements and recruitment agencies can be effective and even necessary to recruit for managerial positions. Internet job sites like Monsterindia.com and Naukri.com are coming into wider use.

Retention

There was a time when many Indians hoped to stay in one job for life, but that is no longer the case, and now many employees frequently check up on average industry salaries and will readily switch jobs for an inducement. In addition, many Indians may take an overseas posting as an opportunity to relocate to the West permanently. In that environment, employers must do as much as possible to keep employees satisfied. Some common strategies are:

- Keeping salary levels in line with the market.
- Having transparent appraisal systems and company policies.
- Providing good food and leisure facilities.

Life Expectancy and Mortality in India

The average Indian male born in the 1990s can expect to live 58.5 years; women can expect to live only slightly longer (59.6 years), according to 1995 estimates. Life expectancy has risen dramatically throughout the century from a scant twenty years in the 1911-20 period. Although men enjoyed a slightly longer life expectancy throughout the first part of the twentieth century, by 1990 women had slightly surpassed men.

The death rate declined from 48.6 per 1,000 in the 1910-20 period to fifteen per 1,000 in the 1970s, and improved thereafter, reaching ten per 1,000 by 1990, a rate that held steady through the mid-1990s. India's high infant mortality rate was estimated to exceed 76 per 1,000 live births in 1995. Thirty percent of infants had low birth weights, and the death rate for children aged one to four years was around ten per 1,000 of the population.

According to a 1989 National Nutrition Monitoring Bureau report, less than 15 percent of the population was adequately nourished, although 96 percent received an adequate number of calories per day. In 1986 daily average intake was 2,238 calories as compared with 2,630 calories in China. According to UN findings, caloric intake per day in India had fallen slightly to 2,229 in 1989, lending credence to the concerns of some experts who claimed that annual nutritional standards statistics cannot be relied on to show whether poverty is actually being reduced. Instead, such studies may actually pick up short-term amelioration of

poverty as the result of a period of good crops rather than a long-term trend.

Official Indian estimates of the poverty level are based on a person's income and corresponding access to minimum nutritional needs. There were 332 million people at or below the poverty level in FY 1991, most of whom lived in rural areas.

Communicable and Noncommunicable Diseases

A number of endemic communicable diseases present a serious public health hazard in India. Over the years, the government has set up a variety of national programs aimed at controlling or eradicating these diseases, including the National Malaria Eradication Programme and the National Filaria Control Programme. Other initiatives seek to limit the incidence of respiratory infections, cholera, diarrheal diseases, trachoma, goiter, and sexually transmitted diseases.

Smallpox, formerly a significant source of mortality, was eradicated as part of the worldwide effort to eliminate that disease. India was declared smallpox-free in 1975. Malaria remains a serious health hazard; although the incidence of the disease declined sharply in the post-independence period, India remains one of the most heavily malarial countries in the world. Only the Himalaya region above 1,500 meters is spared. In 1965 government sources registered only 150,000 cases, a notable drop from the 75 million cases in the early post-independence years. This success was short-lived, however, as the malarial parasites became increasingly resistant to the insecticides and drugs used to combat the disease. By the mid-1970s, there were nearly 6.5 million cases on record. The situation again improved because of more conscientious efforts; by 1982 the number of cases had fallen by roughly two-thirds. This downward trend continued, and in 1987 slightly fewer than 1.7 million cases of malaria were reported.

In the early 1990s, about 389 million people were at risk of infection from filaria parasites; 19 million showed symptoms of filariasis, and 25 million were deemed to be hosts to the parasites. Efforts at control, under the National Filaria Control Programme, which was established in 1955, have focused on eliminating the filaria larvae in urban locales, and by the early 1990s there were

more than 200 filaria control units in operation. Leprosy, a major public health and social problem, is endemic, with all the states and union territories reporting cases. However, the prevalence of the disease varies. About 3 million leprosy cases are estimated to exist nationally, of which 15 to 20 percent are infectious. The National Leprosy Control Programme was started in 1955, but it only received high priority after 1980. In FY 1982, it was redesignated as the National Leprosy Eradication Programme. Its goal was to achieve eradication of the disease by 2000. To that end, 758 leprosy control units, 900 urban leprosy centres, 291 temporary hospitalization wards, 285 district leprosy units, and some 6,000 lower-level centres had been established by March 1990. By March 1992, nearly 1.7 million patients were receiving regular multidrug treatment, which is more effective than the standard single drug therapy (Dapsone monotherapy).

India is subject to outbreaks of various diseases. Among them is pneumonic plague, an episode of which spread quickly throughout India in 1994 killing hundreds before being brought under control. Tuberculosis, trachoma, and goiter are endemic. In the early 1980s, there were an estimated 10 million cases of tuberculosis, of which about 25 percent were infectious. During 1991 nearly 1.6 million new tuberculosis cases were detected. The functions of the Trachoma Control Programme, which started in 1968, have been subsumed by the National Programme for the Control of Blindness. Approximately 45 million Indians are vision-impaired; roughly 12 million are blind. The incidence of goiter is dominant throughout the sub-Himalayan states from Jammu and Kashmir to the northeast. There are some 170 million people who are exposed to iodine deficiency disorders. Starting in the late 1980s, the central government began a salt iodination program for all edible salt, and by 1991 record production—2.5 million tons—of iodized salt had been achieved. There are as well anemias related to poor nutrition, a variety of diseases caused by vitamin and mineral deficiencies—beriberi, scurvy, osteomalacia, and rickets—and a high incidence of parasitic infection.

Diarrheal diseases, the primary cause of early childhood mortality, are linked to inadequate sewage disposal and lack of safe drinking water. Roughly 50 percent of all illness is attributed

to poor sanitation; in rural areas, about 80 percent of all children are infected by parasitic worms. Estimates in the early 1980s suggested that although more than 80 percent of the urban population had access to reasonably safe water, fewer than 5 percent of rural dwellers did. Waterborne sewage systems were woefully overburdened; only around 30 percent of urban populations had adequate sewage disposal, but scarcely any populations outside cities did. In 1990, according to United States sources, only 3 percent of the rural population and 44 percent of the urban population had access to sanitation services, a level relatively low by developing nation standards. There were better findings for access to potable water: 69 percent in the rural areas and 86 percent in urban areas, relatively high percentages by developing nation standards. In the mid-1990s, about 1 million people die each year of diseases associated with diarrhea.

India has an estimated 1.5 million to 2 million cases of cancer, with 500,000 new cases added each year. Annual deaths from cancer total around 300,000. The most common malignancies are cancer of the oral cavity (mostly relating to tobacco use and pan chewing—about 35 percent of all cases), cervix, and breast. Cardiovascular diseases are a major health problem; men and women suffer from them in almost equal numbers (14 million versus 13 million in FY 1990).

An Overview of Migration in India, its Impacts and Key Issues

Summary

This paper deals with internal and international migration, both of which are large-scale with impacts on economic growth and poverty reduction in many regions of the country.

In some parts of India, three out of four households include a migrant. However despite the large scale of migration in absolute numbers of people involved and India's long history of population and labour mobility, labour migration has rarely been reliably studied. Labour migration is complex. Streams differ in duration, origin, destination and migrant characteristics. Economic and social impacts on migrants and their families are variable. Migration often involves longer working hours, poor living and working conditions, social isolation and poor access to basic amenities. At destination, migrant labour affects markets, lowering the cost of labour. Migration also affects the labour market at the place of origin. Migrant earnings affect income, expenditure patterns and investment and changes relations at household and community levels. While there seems to be some positive impact on incomes and investment, the major function of migration is to act as a 'safety valve' in poor areas. The impact on asset and income inequality is more mixed. Internal mobility is critical to the livelihoods of many people, especially tribal people, socially

deprived groups and people from resource-poor areas. However, because of lack of data, migration is largely invisible and ignored by policy makers. There is a large gap between the insights from macro data and those from field studies.

What data are available attest to the substantial and growing scale of internal seasonal migration. In one district of the rice-producing belt of West Bengal, the flow of seasonal migrants, drawn from tribals, Muslims and low castes, exceeds 500,000 people. Migrants are disadvantaged as labourers and labour laws dealing with them are weakly implemented. Poor migrants have very little bargaining power. Most migrant labourers are also employed in the unorganised sector, where the lack of regulation compounds their vulnerability. They are largely ignored by government and NGO programmes (AIDS related work is a recent exception).

Laws and regulations concerning working conditions of migrants are largely ineffective: legislation fails because regulatory authorities are over-stretched, the state sees migrants as a low priority and because migrant workers are vulnerable with little support from civil society. But there are instances in which both governmental and non-governmental organisations have intervened to reduce the costs of migration and to increase its benefits to migrants.

International migration, though involving a small proportion of the workforce, has important local impacts. Since independence, two distinct streams of migration have left India: people with professional expertise or technical qualifications emigrating to industrialised countries, and semi-skilled and skilled workers emigrating to the Middle East. Data on these labour flows are limited, but estimates and trends can be discerned. Migration to industrialised countries grew steadily between 1950 and 2000. Nearly 1.25 million Indians emigrated to the US, Canada, UK and Australia during this period. Average annual flows to these destinations increased nearly five-fold between the 1950s and the 1990s.

Migration to the Middle East increased rapidly between the late 1970s and early 1980s. In the mid to late 1980s, however, the number of Indian workers migrating to the Middle East fell sharply.

Labour migration increased substantially again during the 1990s. Today, some 3 million Indian migrants live in Gulf countries. Most migrants come from Kerala, Tamil Nadu, Andhra Pradesh and Punjab. The current number of Indian migrants overseas accounts for less than 1% of the total workforce in India, so has little direct impact on the national labour market. However, the effects of migration are significant in major sending regions. In Kerala, for example, emigration has recently led to a considerable reduction in unemployment.

Remittances are the main benefit of external migration, providing scarce foreign exchange and scope for higher levels of savings and investments. Remittances over the past 30 years have financed much of India's balance of trade deficit and have thus reduced the current account deficit.

Remittances have had a considerable impact on regional economies. The most striking case is that of Kerala, where remittances made up 21% of state income in the 1990s. This flow appears to have increased wealth: although the average per capita consumption in Kerala was below the national average until 1978–79, by 1999–2000 consumer expenditure in Kerala exceeded the national average by around 41%. International migration has also had considerable impacts on demographic structures, expenditure patterns, social structures and poverty levels. Impacts include reducing population growth; enhancing the dependency burden within households; increasing consumption expenditures and reducing poverty levels.

External migration flows are regulated by the government. The main instrument of regulation is the Emigration Act 1983 which deals with the departure of Indian workers for overseas contractual employment and seeks to safeguard their interests. However efforts to direct manpower export have been minimal. The paper recommends several changes in government policy. A key focus of policy intervention should be to improve synergy between migration and development. Internal migration is a consequence of unequal regional development. In the case of international migration, the impact on pro-poor growth should be maximised through appropriate institutional and policy measures.

Four major categories of interventions can be envisaged, which will differ for internal and external migration. These categories relate to:

- addressing underdevelopment and improving the synergy between migration and development;
- improving labour market outcomes;
- ensuring basic entitlements to migrant workers;
- improving the social and political environment for migration.

Introduction

In some regions of India, three out of four households include a migrant. The effects of migration on individuals, households and regions add up to a significant impact on the national economy and society. Despite the numbers, not much is written on migration within or from India and its considerable costs and returns remain outside of the public policy realm. This paper reviews key issues relating to internal and external labour migration in India. It analyses the patterns, trends and nature of labour migration, reviews existing government and non-governmental policies and programmes, and briefly examines key policy issues and options.

This paper relies mainly on existing data, but also draws on some new analysis of secondary data. The study benefited from insights gained at a stakeholder workshop involving staff from grassroots programmes of both governmental and non-governmental agencies. Key policy makers were also interviewed in order both to gain an understanding of current government concerns and to validate our findings. There is considerable conceptual difficulty in defining a migrant, often unacknowledged in the literature. Worker mobility takes different forms, which may coexist. The worker's place of residence and place of work may be different, and the distance covered by daily commuting. At the other end of the spectrum, workers may move permanently from their places of birth or usual place of residence, maintaining little or no contact with their places of origin. Between these two extremes, people move away for differing periods of time. Most household surveys use a cut-off point to determine the usual place

of residence – in India, this is six months – but such a cut-off point has no firm basis in migration patterns.

It is useful to distinguish between ‘permanent’, ‘semi-permanent’ and ‘temporary’ migrants, based on how long they are away from their place of origin, the links they maintain, and the likelihood that they will return home. Temporary migrants are unlikely to stay away from their places of origin for more than a few months in a year. Since the central concern of this paper is the links between migration and poverty, we have focused on migration streams which involve poorer people in the section on internal migration.

Background

Migration from one area to another in search of improved livelihoods is a key feature of human history. While some regions and sectors fall behind in their capacity to support populations, others move ahead and people migrate to access these emerging opportunities. Industrialisation widens the gap between rural and urban areas, inducing a shift of the workforce towards industrialising areas. There is extensive debate on the factors that cause populations to shift, from those that emphasise individual rationality and household behaviour to those that cite the structural logic of capitalist development (cf. de Haan and Rogaly, 2002). Moreover, numerous studies show that the process of migration is influenced by social, cultural and economic factors and outcomes can be vastly different for men and women, for different groups and different locations (*ibid.*).

In the past few decades new patterns have emerged, challenging old paradigms. First, there have been shifts of the workforce towards the tertiary sector in both developed and developing countries. Secondly, in developed countries, urban congestion and the growth of communication infrastructure has slowed down urbanisation. Thirdly, in developing countries, the workforce shift towards the secondary/tertiary sector has been slow and has been dominated by an expansion of the ‘informal’ sector, which has grown over time. In countries like India, permanent shifts of population and workforce coexist with the ‘circulatory’ movement of populations between lagging and

developed regions and between rural and urban areas, mostly being absorbed in the unorganised sector of the economy. Such movements show little sign of abating with development.

The sources of early migration flows were primarily agro-ecological, related to population expansion to new settlements or to conquests (e.g. Eaton, 1984). There is considerable information on patterns of migration during the British period. Indian emigration abroad was one consequence of the abolition of slavery and the demand for replacement labour. This was normally through indenture, a form of contract labour whereby a person would bind himself for a specified period of service, usually four to seven years in return for payment of their passage. They left for British, Dutch and French colonies to work in sugar plantations and subsequently for the tea and rubber plantations of Southeast Asia (Tinker, 1974). Similar demands for labour rose internally with the growth of tea, coffee and rubber plantations, coal mines and, later, modern industry.

Much of this labour was procured through some form of organised mediation and some portion of it remained circulatory and retained strong links with the areas of origin. But as it settled down, it provided a bridgehead to other migrants, whose numbers grew to satisfy colonial demand. Urban pockets like Kolkatta and Mumbai attracted rural labourers mainly from labour catchment areas like Bihar, Uttar Pradesh and Orissa in the east and Andhra Pradesh, Tamil Nadu and parts of Kerala and Karnataka in the south. The historical pattern of the flow of labourers persisted even after independence. In 2001, India's population exceeded 1 billion. At that time, 67.2% lived in rural areas and 32.8% in towns and cities. Between 1951 and 2001, the proportion of the population living in urban areas rose from 17.3% to 32.8%. Of the total workforce, 73.3% remained in rural areas, declining marginally from 77.7% in 1991 and 79.3% in 1981; 58% remained dependent upon agriculture.

In a country of India's size, the existence of significant regional disparities should not come as a surprise. The scale and growth of these disparities is, however, of concern. The ratio between the highest to lowest state per capita incomes, represented by Punjab and Bihar in the first period, and Maharashtra and Bihar in the

second period, has increased from 2.6 in 1980–83 to 3.5 in 1997–00 (Srivastava, 2003). The Planning Commission estimates that 26.1% of India's population lives below the poverty line (based on the controversial National Sample Survey of 1999–2000). The rural poor has gradually concentrated in eastern India and rainfed parts of central and western India, which continue to have low-productivity agriculture. In 1999–2000, the states with the highest poverty levels were: Orissa (47.2%), Bihar (41.2%), Madhya Pradesh (37.4%), Assam (36.1%) and Uttar Pradesh (31.2%).

Generally, India's poor have meagre physical assets and human capital and belong largely to socially deprived groups such as scheduled castes (SC) and tribes (ST). Women share an extraordinary burden of deprivation within households. The poor rely on different types of work to construct a livelihood; wage labour and cultivation are the most important. Earlier studies have shown that poor households participate extensively in migration (Connell *et al*, 1976).

More recent studies have reconfirmed that migration is a significant livelihood strategy for poor households in several regions of India.

Existing Structures for Policy Implementation Internal

The Ministry of Labour and the Departments of Labour, at state levels, are responsible for formulating and implementing measures to protect migrant workers. Certain existing labour laws aim to improve the conditions of migrant workers and prevent their exploitation. The important ones are: the Inter State Migrant Workmen Act, 1979; the Minimum Wages Act, 1948; the Contract Labour (Regulation and Abolition) Act, 1970; the Equal Remuneration Act, 1976; and the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996. The enforcement of these laws is the responsibility of both the central and state governments. At the central level, the key agency is the office of the Chief Labour Commissioner and its field offices. However, the Directorate General of Labour Welfare and the Welfare Commissioners also deal with certain welfare provisions emanating from some of these enactments. In the states, the offices of the Labour Commissioners and their field offices are

responsible for enforcing these laws. Concerns of migrant labourers are also the responsibility of the relevant Social Sector Ministries (Health and Family Welfare, Human Resource Development, Food and Consumer Affairs, Urban Affairs, Social Justice). However, there are no separate departments in these ministries dealing exclusively with migrant labour. The Ministry of Home Affairs has the responsibility for immigration.

International

India regulates external labour migration flows, for which the 1983 Emigration Act provides the necessary legal framework. The office of the Protector of Emigrants, Ministry of Labour, is empowered by law to regulate the deployment of Indian nationals seeking foreign employment. The main objective of state intervention is to ensure that nationals obtain legally valid employment abroad under acceptable conditions. This is achieved mainly by setting minimum employment standards and verifying employment contracts; regulating recruitment through licensing the agents; issuing emigration clearances for certain categories of emigrants, especially those considered less able to protect their own interests; and handling public grievances related to violation of employment contracts and recruitment abuses.

Two other ministries concerned with the emigration of Indian workers are the Ministry of External Affairs (MEA) and Ministry of Home Affairs. Indian diplomatic missions abroad come under the MEA. They often have a labour attache posted to the mission, responsible for monitoring and reporting on the conditions of Indian nationals and liaising with host government authorities on matters such as employment conditions, welfare and repatriation of migrant labour.

The MEA also addresses issues related to international migration during bilateral diplomatic negotiations, especially with major destination countries. The Immigration Department under the Ministry of Home Affairs is responsible for the control of exit of Indian nationals. The Police Department under the Ministry of Home Affairs is responsible for investigating complaints lodged on recruitment abuses in India. An organogram shows the links between the different Ministries.

Trends and Patterns in Internal Migration

The two main secondary sources of data on population mobility in India are the Census and the National Sample Survey (NSS). These surveys may underestimate some migration flows, such as temporary, seasonal and circulatory migration, both due to empirical and conceptual difficulties. Since such migration and commuting is predominantly employment oriented, the data underestimate the extent of labour mobility. Furthermore, migration data relate to population mobility and not worker mobility, although economic theories of migration are primarily about worker migration. It is not easy to disentangle these, firstly because definitions of migrants used in both surveys (change from birthplace and change in last usual place of residence), are not employment related. Secondly, migration surveys give only the main reason for migration, and that only at the time of migration.

Secondary economic reasons could be masked, as in the case of married women, who would cite other reasons for movement. Another problem is that migration data relate to stocks of migrants and not to flows, although different policy concerns relate to stocks (of different ages) and flows. Many of these concerns can be handled only by micro surveys, which have their own problems.

Population Mobility

In one view, population mobility in India is low (Davis, 1951; Kundu and Gupta, 1996). Migration statistics to the early 1990s also suggest a decline in mobility. In the 1991 census, using the change in residence concept, 27.4% of the population is considered to have migrated (that is, 232 million of the total 838 million persons), which shows a considerable decline from 30.6% in 1971 and 31.2% in 1981. This is true for male and female migrants. In the case of males, it declined from 18.1% in 1971 to 14.7% in 1991. In the case of females, it declined from 43.1% in 1971 to 41.6% in 1991.

However, recent evidence based on NSS figures for 1992–1993 and 1999–2000, and indirectly supported by the census, suggests an increase in migration rates – from 24.7% to 26.6% over that period. This evidence suggests the proportion of migrants of both sexes, in both rural and urban areas, increased during the last

decade of the 20th century. Migration in India is predominantly short distance, with around 60% of migrants changing their residence within the district of enumeration and over 20% within the state of enumeration while the rest move across the state boundaries. A significant proportion of women migrates over short distances, mainly following marriage. The proportion of male lifetime migrants is low in most poor states except Madhya Pradesh and high in most developed states. For inter-state migration, a similar trend is observed: developed states show high inter-state immigration while poor states, except Madhya Pradesh, show low rates of total and male immigration. Rates of interstate lifetime emigration are complementary to the above trends (Srivastava, 1998).

Based on place of last residence and on place of birth, migrants are generally classified into four migration streams. Rural areas are still the main destination for migrants, but urban destinations are more important for male migrants (49% of male migrants moved to urban destinations in 1991, compared to 29.5% female migrants).

Between 1992–1993 and 1999–2000, NSS data indicate an increase in urban migration, but this is mainly due to urban-urban flows (Srivastava and Bhattacharya, 2002).

Migration for Work

The primary motive for migration, recorded by the census as well as the NSS, is an important indicator of how mobility is influenced by conditions of the labour market. Of the 27.4% who changed place of residence, as per 1991 census, 8.8% moved for employment reasons and 2.3% had business motives. The proportion moving due to economic motives was higher for males (27.8% moved for employment reasons, and 7.1% for business reasons), compared with females (only 1.8% moved for employment reasons and 0.5% for business reasons).

The proportion migrating for economic reasons is greater among long-distance migrants; most male migrants moving between states did so for economic reasons. Again, economic motives are more significant in urban migration streams, especially for males. While the share of inter-state to total migrants was only

11.8% in 1991, such migrants comprised 28% of all economic migrants. Similarly, while 49% of male migrants were in urban areas, 69.2% of such migrants migrated for employment (Srivastava, 1998).

A distinct regional variation emerges in the work pattern of migrants. In the northeastern states and some others, migrants are mainly employed in the tertiary and secondary sector of the economy. Elsewhere, the primary sector attracts the migrant most. An analysis of the occupational division of migrant workers (other than cultivators and agricultural labourers) shows that among males, 43% are engaged in production related work. In the tertiary sector, significant proportions of male migrants are engaged as sales workers, followed by clerical and related work.

All the western states have a significant proportion of male migrants in secondary activity and in the southern and north-eastern states they are mainly engaged in the tertiary sector. In the case of female migrant workers, 40% are in production related works and a significant proportion are in technical and professional activity.

Migration for Work in the 1990s

Analysis of the recent trends of labour mobility, on the basis of NSS estimates from the 49th (1992–93) and 55th rounds (1999–00) have been carried out by Srivastava and Bhattacharya (2002) and a few central conclusions from that analysis are discussed below. This period shows a sharp increase in urban male mobility, with a significantly larger percentage of male migrants reporting economic and employment linked reasons for mobility. For other streams, there has been a decline in the percentage of migrants giving economic reasons for mobility.

A comparison of the decadal migrant streams (migrants who had migrated in the decade preceding the period of survey) shows that (a) a greater percentage of the urban migrant workers were from the non-agricultural sector (self-employed or regular employed); (b) a greater percentage of the male migrant workers were self-employed or in regular employment in 1999–00; (c) in the case of females, however, a larger percentage of decadal female migrant workers worked in 1999–00 as casual labourers (in the

rural areas in agriculture). Comparing activity status before and after migration for all migrants, we find that migrants in general show much higher work participation rates for both urban and rural areas. In the urban areas, the NSS 55th round figures show a significant transition towards regular employment and self-employment among males, with a small decline in the percentage of casual labour. In the rural areas, there is an increase in all three categories including casual labour, but the most significant shift is towards self-employment. In the case of female migrants, however, along with an increase in the percentage of workers to population in all three categories after migration, there is also an increase in casualisation both in rural and urban areas, but quite significantly in the former.

These results, along with the decline in short duration migration, which we discuss below, suggest that the 1990s may have provided greater opportunity for labour mobility to those who were better positioned – males in urban areas and in the non-agricultural sector. However, these results are still tentative and need to be corroborated with further analysis from other sources.

Short Duration Labour Migration

Our special interest is in temporary, short duration migration, because such migrants lack stable employment and sources of livelihood at home and belong to the poorer strata. These migrants find work in agriculture, seasonal industries, or are absorbed in the amorphous urban economy, either as casual labourers or as selfemployed. They may move from one type of job to another or even from rural to urban areas. There is another category of poor and destitute migrants who have virtually no assets in the areas of origin and have lost all contact with their origin. Thus not all poor migrants would fall in the category of seasonal/short term migrants. But as discussed earlier, for one reason or another, all these categories are likely to be underestimated in data.

In terms of the duration of migration, Census of India estimates 56.2% of the migrants in 1991 were of more than 10 years standing, while 21.4% were of 1 to 9 years duration. Only 7.07 million or 3.04% of the migrants were recorded as short duration (less than one year's duration), of whom 1.37 million migrated for economic

reasons. The NSS survey of 1999–00 has estimated that there was 8.64 million short duration (less than one year) (in)-migrants in 1999–00, out of whom 3.24 million had migrated for economic reasons. However, in 1992–93 the total number of estimated short duration migrants was 16.75 million, suggesting a sharp decline in the intervening years. The NSS 55th round has separately estimated (for the first time) the number of short duration outmigrants in 1999–00 (those who stayed away for a period between 2 and 6 months for work or seeking work). Generally, this category would not overlap with the category of short duration in-migrants who are expected to have stayed in their current place of residence for six months or more. A total of nearly 10.87 million people stayed away from their UPR for work/seeking work for a period between 2 and 6 months. Of these 8.45 million were resident in rural areas and 2.42 million in urban areas. Among the 8.45 million short duration out-migrant in rural areas, 3.06 million were females and 5.39 million were males.

Short-duration out-migrants constituted 2.1% of rural employed persons and 1.3% of urban employed persons. Casual labourers among them formed 3.1% and 1.5% of the casual labour force in rural and urban areas respectively.

Some informal estimates of seasonal/short term migration have been made from time to time. They broadly suggest that these flows might be underestimated in national surveys. The National Commission of Rural Labour (NCRL) made a quick estimate of such labourers based on their numbers in industries employing migrant workers. According to the NCRL, there were approximately 10 million seasonal/circular migrants in the rural areas alone. This included an estimated 4.5 million inter-state migrants. There were large numbers of migrants in agriculture and plantations, brick kilns, quarries, construction sites and fish processing.

A number of field studies over the 1990s also provide rough estimates of the magnitude of seasonal migration in different parts of India. These attest to the considerable scale of such migration. Empirical research on the scale and pattern of seasonal migration of workers to the rice-producing belt of West Bengal carried out in 1999–00 suggests that the number of seasonal migrants, drawn

from tribals, Muslims and other low castes, moving to Bardhaman district during aman harvesting season exceeds 500,000 and this volume has been growing since the 1980s (Rogaly *et al*, 2001). A study based on annual seasonal migration of tribal households from Khandesh (Dhule district, Maharashtra) to the sugarcane fields of southern Gujarat in 1988–89 estimated that every year 100,000 to 150,000 labourers are recruited from this region to work in the nine sugar co-operatives of Southern Gujarat (Teerink, 1995). Other studies in the tribal areas in MP, Rajasthan and Gujarat also indicate a very high rate of out migration, in some cases involving 60 to 80% of households.

Significant number of tribals, mainly from drought prone areas of Andhra Pradesh, Karnataka and Maharashtra, migrate to work in construction, tile factory, brick kiln and crop cutting in Maharashtra (Pandey, 1998). Saora, Munda and Santhal tribes have a long history of migration, with male only migration among the Saora (plantation cultivation in Assam and Arunachal Pradesh), whereas Mundas and Santhals migrate as household units, mainly to NALCO site in Denkanal district of Orissa (Menon, 1995). The construction industry mainly depends on migrant labour (90% of the labourers are migrants in one estimate (Vaijanyanta, 1998). Around 40,000 girls migrate from Kerala annually to other state to work in the fishery industry (Sarodamoni, 1995).

Profile of Migrant Workers

Migration encompasses enormous economic and social diversity. Migrants are concentrated in different types of work in rural and urban areas. In the rural areas, self-employment is the predominant activity for both male and female migrant workers followed by casual work which, according to the NSS 55th round findings, engaged 33.4% of male migrant workers and 44.2% of female migrant workers in 1999–00. In urban areas, regular employment engaged 55.6% of the male workers while self-employment and casual work engaged 31.1 and 13.3% of male migrant workers respectively. In the case of females, the highest percentage were self-employed (39.7) followed by regular employment (35.1%) and casual work (25.2%) This naturally implies that there is considerable economic differentiation among migrant

households. Further a little under 50% of the urban and rural migrants and more than 50% of male migrants in both sectors are in the top two consumption quintiles. Among other factors, this may reflect the higher work participation rates among migrants and the propensity of the well-off to migrate.

Micro studies show a bi-modal relationship with respect to wealth/income and land: migrants cluster both at low and high levels (Connell *et al*, 1976). The NCRL report suggests that labourers and landpoor farmers have a high propensity to migrate as seasonal labourers.

Data on individual migrants gleaned from micro surveys shows a significant clustering of migrants in the 16–40 year age group (Connell *et al*, 1976). This is even more the case with poorer semi-permanent or temporary labour migrants (Srivastava 1999, and forthcoming). With respect to education, migration rates are high both among the highly educated and the least educated, and among seasonal migrants there is a high preponderance of illiterate people.

In the overall migrant population, differences across caste groups are not significant, but ST and SC migrants are more involved in short duration migrants, with migration rates among them being 2% and 1% respectively, compared with an overall rate of 0.7% for all short duration migrants (NSS, 2001). This is also corroborated by field survey data showing that low castes are predominant in short duration migration flows.

The nature of migration primarily reflects household subsistence strategies in the face of social, cultural, demographic and other constraints. Males predominate in most labour migration streams. But in a number of other cases, both men and women migrate together for work, especially among lower caste and tribals where constraints on women's participation in non-household economic activities are fewer. The pattern of labour migration (whether males alone, males and females, or females alone) is related to the social structure, the pattern of demand, and the nature of the migration process. In some sectors such as construction, brick kiln and sugarcane cutting, family migration is prevalent as it is more economical for employers. The proportion

of women outmigrants (predominantly to agriculture and the construction sector) ranges from 18% to 42% in the case of some tribal areas.

Rogaly *et al* (2001), focusing on four source areas for labour migration to West Bengal's rice bowl, find male only migration in two of the source areas they studied, whereas migration from the other two areas was both by men and women. The fish processing industry has seen the migration of large numbers of single women (Sarodamoni, 1995). In the domestic maid sector, there is increasing trend of independent migration of females. A study by the Institute of Social Sciences (1991) indicates that 20% of total women migrants to Delhi are employed as domestic maids. There are also important regional differences in the pattern of female labour mobility between the northern and southern states (Singh, 1984). Among inter-state economic migrants, the share of the northern states (Bihar, UP) is very large in male migration, but the southern states have a comparatively larger share in female economic migrants (Srivastava, 1998). On the whole, however, females move smaller distances for work compared to males.

Causes of Migration

Given the diversity in the nature of migration in India, the causes are also bound to vary. Migration is influenced both by the pattern of development (NCRL, 1991), and the social structure (Mosse *et al*, 2002). The National Commission on Rural Labour, focusing on seasonal migration, concluded that uneven development was the main cause of seasonal migration. Along with inter regional disparity, disparity between different socioeconomic classes and the development policy adopted since independence has accelerated the process of seasonal migration. In tribal regions, intrusion of outsiders, the pattern of settlement, displacement and deforestation, also have played a significant role.

Most migration literature makes a distinction between 'pull' and 'push' factors, which, however, do not operate in isolation of one another. Mobility occurs when workers in source areas lack suitable options for employment/livelihood, and there is some expectation of improvement in circumstances through migration.

The improvement sought may be better employment or higher wages/incomes, but also maximisation of family employment or smoothing of employment/income/consumption over the year.

At one end of the migration spectrum, workers could be locked into a debt-migration cycle, where earnings from migration are used to repay debts incurred at home or in the destination areas, thereby cementing the migration cycle. At the other end, migration is largely voluntary, although shaped by their limited choices. The NCRL has recognised the existence of this continuum for poor migrants by distinguishing between rural labour migration for survival and for subsistence. The landless poor, who mostly belong to lower caste, indigenous communities, from economically backward regions, migrate for survival and constitute a significant proportion of seasonal labour flow (Study Group on Migrant Labour, 1990).

The growth of intensive agriculture and commercialisation of agriculture since the late 1960s has led to peak periods of labour demand, often also coinciding with a decline in local labour deployment. In the case of labour flows to the riceproducing belt of West Bengal, wage differentials between the source and destination have been considered as the main reason for migration. Moreover, absence of non-farm employment, low agricultural production has resulted in a growth of seasonal migration (Rogaly *et al*, 2001). Migration decisions are influenced by both individual and household characteristics as well as the social matrix, which is best captured in social-anthropological studies. Factors such as age, education level, wealth, land owned, productivity and job opportunities influence the participation of individuals and households in migration, but so do social attitudes and supporting social networks.

Where migration is essentially involuntary, it makes little sense to use voluntaristic models to explain the phenomenon. In Dhule region (Maharashtra) sugarcane cultivation leads to high demand for labour, but landowners recruit labourers from other districts for harvesting as they can have effective control over the labour. Local labourers are thus forced to migrate with their households to South Gujarat (Teerink 1995). In Kerala, trawler-fishing has depleted marine resources. With unemployment in other industries

like cashew and rubber, this has led to large scale out migration of girls (Sardamoni, 1995).

The Migrant Labour Market

Migrants at the lower end of the market comprise mostly unskilled casual labourers or those who own or hire small means of livelihood such as carts or rickshaws and are self-employed. We focus in this section primarily on migrants who work as casual labourers, although several of the conditions discussed below are also common to other categories of migrants.

Migrant labourers are exposed to large uncertainties in the potential job market. To begin with, they have little knowledge of the market and risk high job search costs. The perceived risks and costs tend to be higher the further they are from home. There are several ways in which migrants minimise risks and costs. For a number of industries, recruitment is often done through middlemen. In many cases, these middlemen are known to the job seekers and may belong to the source area. In other cases, migrants move to the destination areas on their own. This is generally the case where 'bridgeheads' have been established, lowering potential risks and costs. The movement of migrants in groups, often sharing kinship ties, also provides some protection in the context of the harsh environment in which migrants travel, seek jobs and work. Mosse *et al* (2002), based on a study of villages in the Western India Rain-fed Farming Project (WIRFFP), have shown that the incorporation of workers in the labour market in different ways may depend upon their initial status, with somewhat better-off migrants having superior social net-works and being better able to exploit bridgeheads in urban locations. As with other types of interlocked relationships, the poorer migrants trade their freedom of making individual contracts with employers to the possibility of securing advances and employment from contractors.

In the agricultural sector, labourers are sometimes directly recruited by the employer. In Punjab, labourers are often recruited by employers at the railway stations (Sidhu and Grewal, 1980). In West Bengal, labourers are sometimes recruited at bus stands or employers often go to the source area and recruit labourers (Rogaly *et al*, 2001). Contractors, who often belong to same caste and

community, are the other medium for recruitment in the agricultural and rural sectors (agricultural workers in Punjab, coffee plantations in Karnataka, sugarcane plantations in Gujarat, quarry workers around Delhi). In parts of Punjab, agents or traders are also active in recruitment. Labourers are hired by contractors in their village, or by their relatives and friends who have already migrated. In the urban informal sector, friends and relatives act as a network and the job market is highly segmented based around people of the same caste, religion and kinship. (Mitra and Gupta, 2002). Social networks provide initial income support, information, accommodation, and access to jobs. However, parts of the urban unorganised sector may also be characterised by a high degree of organised migration, as in the rural areas discussed above. In the construction industry, workers are largely recruited through contractors who settle wages, retain part of their earnings apart from payments received from employer, and sometimes also play supervisory roles. In the fish processing industry in Kerala, recruitment takes place through contractors, who often use networks of older women to recruit. In the case of domestic maid servants in Delhi, a number of voluntary organisations are involved in the recruitment process. Most of the maids are from the tribal belts of Jharkhand and Chattisgarh. While a new genre of private recruitment agencies has sprung up (which continue to recruit through informal channels and make unspecified deductions from wage payments), the church also plays an active and more benign role in bringing potential employers and employees together (Neetha, 2002).

The labour process in the places of employment only partly overlaps with the process of recruitment. Workers seeking jobs independently may still find the labour processes in the destination dominated by contracting and sub-contracting relationships. Workers have to depend upon advances and irregular payments. Migrants often get lower wages than local labourers. The migrant status of the labourers accounts for 38–56% of the wage differential in Chennai city when other characteristics are accounted (Duraiswamy and Narsimhan, 1997).

They work long and odd hours. Moreover the payments are not made on time. Piece rates are mostly prevalent which provide

greater flexibility to employers (NCRL, 1991). Of course, migrants may also prefer these wage systems as they can maximise returns on a per day basis, raising the possibility of their saving part of wages. But in many cases organised migration results in credit-labour interlocking, such that the net return to labour may have no relation to wages in destination areas.

Employers often prefer migrant labourers to local labourers, as they are cheaper and do not develop social relationships with the place of destination. Women migrants fare the worst; they are generally paid less than male migrants (Pandey, 1998). In the construction industry they are viewed as assistants to their husbands, and confined to unskilled jobs. The consequent segmentation is used as a justification for low payments. Women also face greater insecurity (Viajanyanta, 1998). In the fish processing industry, they are badly exploited in terms of working condition, wages, living condition and sometimes sexually harassed (Sarodamoni, 1995).

In the public sector, wage structures also vary from project to project. As most contracts are given to private firms, they flout labour laws and minimum wage legislation. Low wages of seasonal workers are the result of instability of demand, segmented labour markets, unregulated nature and dominance of labour contractors and vulnerability of workers (Study Group on Migrant Labour, 1990).

Breman (1996) has argued that the continued existence of a large mass of unorganised workers belies expectations that workers would eventually shift from the traditional to the modern sector. An examination of the major industries in the informal sector shows a steady replacement of local workers by migrants. He also finds that rural-urban migration shares a number of features in common with rural-to-rural migration. The urban and rural informal sector markets are increasingly linked through horizontal circulation as migrants may move from one to the other in search of jobs. Despite growing linkages between the urban and rural labour markets, the markets are not integrated but instead segmented in various ways. Breman (*ibid.*) shows that for locals as well as migrants, stratifications are generally preserved as workers move so that the overall tendency of the labour market

is to be broken into 'circuits' of labour. Women migrant workers in urban areas are concentrated mainly in the lower segments, in household work or jobs in manufacturing, construction or personal services (Meher, 1994). According to Das (1994) chain migration also has the impact of fragmenting this market along ethnic and regional lines. In the construction sector, migrant workers are fragmented by the contracting arrangements through which they work. In focusing on the characteristics of migrant labourers, schooling and resources act as two important barriers in the poorer social groups obtaining on-job training and skills which could lead to the semipermanent jobs.

The Impact of Migration

On migrants and their families Poorer migrant workers, crowded into the lower ends of the labour market, have few entitlements *vis a vis* their employers or the public authorities in the destination areas. They have meagre personal assets and suffer a range of deprivations in the destination areas. In the source areas, migration has both negative and positive consequences for migrants and their families.

Living conditions: migrant labourers, whether agricultural or non-agricultural, live in deplorable conditions. There is no provision of safe drinking water or hygienic sanitation. Most live in open spaces or makeshift shelters in spite of the Contract Labour Act which stipulates that the contractor or employer should provide suitable accommodation (NCRL, 1991; GVT, 2002; Rani and Shylendra, 2001). Apart from seasonal workers, workers who migrate to the cities for job live in parks and pavements. Slum dwellers, who are mostly migrants, stay in deplorable conditions, with inadequate water and bad drainage. Food costs more for migrant workers who are not able to obtain temporary ration cards.

Health and Education: labourers working in harsh circumstances and living in unhygienic conditions suffer from serious occupational health problems and are vulnerable to disease. Those working in quarries, construction sites and mines suffer from various health hazards, mostly lung diseases. As the employer does not follow safety measures, accidents are quite frequent.

Migrants cannot access various health and family care programmes due to their temporary status. Free public health care facilities and programmes are not accessible to them. For women workers, there is no provision of maternity leave, forcing them to resume work almost immediately after childbirth. Workers, particularly those working in tile factories and brick kilns suffer from occupational health hazards such as body ache, sunstroke and skin irritation (NCRL, 1991).

As there are no creche facilities, children often accompany their families to the workplace to be exposed to health hazards. They are also deprived of education: the schooling system at home does not take into account their migration pattern and their temporary status in the destination areas does not make them eligible for schooling there (Rogaly *et al*, 2001; 2002).

In the case of male-only migration, the impact on family relations and on women, children and the elderly left behind can be quite significant. The absence of men adds to material and psychological insecurity, leading to pressures and negotiations with wider family (Rogaly *et al*, 2001; 2002). Male out migration has been seen to influence the participation of women in the directly productive sphere of the economy as workers and decision-makers and increase the level of their interaction with the outside world (Srivastava, 1999 and forthcoming). But given the patriarchal set up, women may have to cope with a number of problems which are exacerbated due to the uncertainty of the timing and magnitude of remittances on which the precarious household economy depends. This, in turn, pushes women and children from poor labouring households to participate in the labour market under adverse conditions. Thus, the impact of migration on the women can be two-sided but the strong influence of patriarchy restricts the scope of women's autonomy. The impact of male migration can be especially adverse for girls, who often have to bear additional domestic responsibilities and take care of younger siblings. The absence of male supervision further reduces their chances of acquiring education (Srivastava, 2001, and forthcoming).

There are several cases where women participate in the migration streams along with male members of their households. It is usual in such cases for younger siblings and older children

to accompany their parents and to work along with them. Family migration usually implies migration of the younger members of the family, leaving the elderly to cope with additional responsibilities while at the same time fend for their subsistence and other basic requirements (Mosse *et al*, 1997).

Changes in migrants' attitudes: Exposure to a different environment, including the stresses that it carries, has a deep impact on the attitudes, habits and awareness levels of migrant workers, depending upon the length of migration and the place to which it occurs. Changes are more dramatic in the case of urban migrants. Migrant workers develop greater awareness regarding conditions of work (Srivastava, 1999). Life style and changes in awareness may lead to a mixed impact on family members. The increased awareness which migrants, especially in urban areas, gain often helps them realise the importance of their children's education.

Impact on Source Areas

The major impacts of migration on source areas occur through changes in the labour market, income and assets, changes in the pattern of expenditure and investment. Although seasonal out migration potentially has the effect of smoothing out employment over the annual cycle, rural out migration could cause a tightening of the labour market in some circumstances. However, empirical evidence from out-migrant areas does not often attest to this. This may be because out migration often takes place in labour surplus situations. There is also evidence of the replacement of out migrant male labour by female and even child labour (Srivastava, forthcoming).

Srivastava's (1999) study of seven villages in Uttar Pradesh showed some variation over regions. While the situation in the study villages in Eastern and central Uttar Pradesh conformed to a situation of labour surplus, this was not the case in Western Uttar Pradesh where seasonal migration coincided with the agricultural peak season (*Rabi*) and employers complained of labour shortages. Significantly in all the regions studied, labourers on their part gave uncertainty of employment along with employment conditions and poor relations with their agricultural employers

as the major reasons for out migration. Even if labour tightening is not an outcome, out migration may still speed up qualitative changes in existing labour relationships in rural areas, and thereby affect the pace of change. This may occur in several ways. First, there is the well-documented impact of migration on attitudes and awareness as migrant labourers and return migrants are more reluctant to accept adverse employment conditions and low wages. Secondly, out migration leads to a more diversified livelihood strategy. Combined with some increase in the income and employment portfolio of poor households, this may tend to push up acceptable level of wages (reservation wages) in rural areas and may make certain forms of labour relationships (as for example, those involving personalised dependency) less acceptable (Srivastava, *ibid*; cf. also Rogaly *et al*, 2001).

Out migration as a result of debt at home, or debt-interlocking (i.e. the repayment of debts through advance labour commitment) involving employers in the destination areas or their middlemen, is quite common. Such out migration may or may not eliminate the causes of debt. The reduction of personalised dependencies or interlocked relationships may also accelerate labour mobility and migration as labourers seek out alternative sources of cash income.

Remittances and effect on sending areas While the impact of out migration via the labour market has been reviewed above, the other source of changes which need to be analysed would work through changes in income, income distribution and the pattern of expenditure and investment. Although we do not have direct evidence of the value of remittances from migrants, some indirect evidence can be adduced from the NSS surveys on migration and consumption and employment/unemployment. These surveys give the percentage of out-migrants making remittances and households receiving remittances and depending upon remittances as their major source of livelihood. The former estimates depend upon the definition of out-migrants, which can vary. In 1992–93, 89% of permanent outmigrants sent remittances. The percentage of all rural households receiving remittance income is also fairly high – in some regions of the country, one-quarter to one-third of the households receive remittances. It should be noted that remittances

are only one form in which resourceflows occur as a result of migration, the other being savings brought home by migrants in cash or kind. Field studies show that a majority of seasonal migrants either remit or bring home savings. In many cases, a substantial proportion of household cash income is attributed to migrant earnings. However, the cash incomes which accrue may not always add to the resource base of migrant households as some are used to adjust earlier debts.

However, it does appear that the income and consumption level of migrant households is generally higher than that of similarly placed non-migrants. But this conclusion needs to be carefully linked to migration impact as it is generally based on ex-post cross-sectional comparisons. As Mosse *et al* (2002) have noted, and as other studies testify, migrants are not only differentially placed at the entry point, their differential status also leads to different trajectories, so that changes in post-migration average incomes may provide only a limited picture of the varied set of changes. One of the few careful ethnographical studies (Rogaly *et al*, 2001) provides some evidence of improvement in incomes of seasonal migrants as a result of migration, but these conclusions need to be supported by other studies.

The impact of migration on income and asset inequality is limited. The ethnographical study quoted above (Rogaly *et al*, 2001), finds evidence of reduced inequality, as incomes of labour households rise against non-labour households. In another context, Mosse *et al* (1997) suggest that these inequalities increase because the differentiated nature of the migration process led to the amplification of income and asset inequalities. Remittances are mainly used for purposes like consumption, repayment of loans and meeting other social obligations. These constitute, in effect the 'first charge' on migrant incomes. The evidence on investment is, however, mixed. Investment by migrant households on housing, land and consumer durables is common and migrant income is also used to finance working capital requirements in agriculture. Evidence of other productive farm or non-farm investment is scarce but a number of studies do report such investment by a small percentage of migrant and return migrant households. Thus, while studies do not fully discount for the impact of some factors

such as the life cycle effect, rural out migration appears to provide some, albeit slender, evidence of an improvement in the productive potential of source areas, and the ability of some poor migrant households to acquire small surpluses and strengthen their productive base and bargaining strength in the rural economy (cf. Rogaly *et al*, 2001; Srivastava, forthcoming).

The question of social and economic mobility can be examined both from the changes in worker occupations in the destination areas, as well as in the source areas. As shown earlier, a very large proportion of short duration migrants are unskilled. The question of their mobility is linked to their circumstances of migration, its duration, and is highly gendered. On the whole, a very small proportion of male migrants achieve economic mobility in the destination areas. The limited mobility occurs as migrants acquire a foothold in the destination areas, or acquire some skills, and are thus better positioned to exploit the labour market situation. In the source areas, there is a slightly greater impact on social and economic mobility, which, however, generally eludes the poorest, and in most cases, is not substantial for poor migrants.

A major linked issue, is the role of rural out migration in the material and social reproduction of rural households and the extant relationships in which they are placed. Standing (1985) has argued that circulatory migration in particular contributes to the stability of rural production relations. He argues that circulatory labour migrations has 'safety valve' features and 'has often been a mechanism preserving a social mode of production or at least reducing the pressures on it' (*ibid*). Temporary migration may allow households to relieve underemployment and meet debt and other obligations without having to sell assets. 'Relay migration' can also be seen as a part of the household survival strategy. Indeed the long history of rural out migration in some of the source areas in India combined with agricultural and rural stagnation seems to corroborate the stabilising role of out migration. But labour circulation as well as other forms of rural out migration can also disrupt pre-existing production relations (Standing, *ibid*). The major impact on source areas appears to be through the labour market, with recent evidence indicating greater mobility of rural labour households leading to a less isolated and more generalised

agriculture labour market and an upward pressure on wages. Further, as we have shown, there is also evidence of some impact through improvement in the resource base of the migrant households (Srivastava 1998).

Impact on Destination Areas

There are clearly multiple rationales for the use of migrant labour in destination areas. While shortages of local labour provides one important rationale, virtually all available evidence shows that recruitment of immigrants is as much motivated by strategies of labour control and wage cost reduction. Numerous cases have been documented where the same areas export and import labour to identical sectors. Migrants are preferred because their labour is easier to control and it is easier to extract labour from them under arduous conditions. Moreover, the supply of labour can be easily increased or decreased with little cost to employers and migrants can work for long and flexible hours. Flexibility of the migrant workforce is reinforced because of the role of contractors and middlemen in recruitment and supervision. The segmentation of the labour market, which also leads to greater control over both migrant and local labour, is another outcome of the process. Finally, the wage payment systems which grow around industries based predominantly on migrant labour are eminently suited to side-stepping minimum wage legislation. Thus migration reduces labour cost to employers.

The labour market outcomes generated by labour immigration facilitate a certain kind of growth and accumulation in the destination areas, although this is via what can be described as a 'low road' to capitalism. According to Breman (1996) the basic rationale for the growing informalisation, two-way mobility of labour and segmentation is to be found in the type of mercantilist capitalist development witnessed in India, just as international migration is strongly related to the structure of international capitalism (cf. Sassen, 1988; Piore, 1990). Capitalists operate in uncertain markets, under circumstances in which they are highly dependent on traders. Labour immigration is one of the strategies favoured by entrepreneurs to shift both risk and cost of production on to workers. Another reason for continued informalisation is to

keep businesses away from state surveillance. Thus most enterprises in the informal sector escape regulation of any kind.

Furthermore, in such destination areas, employers rarely provide anything other than wage subsistence requirements. Migrant labourers have to fend for themselves to meet their health, shelter and other basic requirements. Although the poor condition in which labourers subsist is a result of employers not internalising the legitimate costs of hiring labour (contravening numerous laws), to society the resulting urban congestion appears to be result of unplanned mobility. The costs of population mobility have been, as a result, considered in theory in the context of large costs imposed by population concentration in large cities. The social, political and other consequences of immigration, especially where such migration is by linguistically, ethnically or regionally distinct groups, has not been considered in the growing economic literature on internal migration, but figures prominently in the corpus of sociological and political literature (cf. Weiner, 1978).

Government Legislation and Policies

Labour Laws and Policies

The Indian Constitution contains basic provisions relating to the conditions of employment, nondiscrimination, right to work etc.. India is also a member of the ILO and has ratified many of the ILO conventions. These provisions and commitments, along with pressure from workers' organisations, have found expression in labour laws and policies. Migrant labourers face additional problems and constraints as they are both labourers and migrants. Many of the problems faced by migrant labourers are covered by laws and policies in as much as they cover all labourers in a particular sector or industry.

These laws include the Minimum Wages Act, 1948; the Contract Labour Act, 1970; the Equal Remuneration Act, 1976; the Building and Other Construction Workers (Regulation of Employment and Conditions of Service), Act, 1996; the Workmen's Compensation Act 1923; the Payment of Wages Act 1936; the Child Labour (Prohibition & Regulation) Act, 1986; the Bonded Labour Act, 1976; the Employees State Insurance Act, 1952; the Employees

Provident Fund Act, 1952; and the Maternity Benefit Act, 1961. The last three Acts cover only organised sector workers and thus preclude temporary migrants. In addition to the above laws, Parliament passed the Inter State Migrant Workmen (Regulation and Conditions of Service) Act 1979 specifically to deal with malpractices associated with the recruitment and employment of workers who migrate across state boundaries. The Act followed the recommendations of a committee set up by the Labour Ministers' Conference in 1976. The Act covers only interstate migrants recruited through contractors or middlemen and those establishments that employ five or more such workers on any given day. Under the Act:

- Contractors and establishments are required to be licensed and registered by a notified registering authority.
- The contractor is required to issue a passbook to every worker, giving details about the worker, including payments and advances, and pay each worker a displacement allowance and a journey allowance.
- Contractors must pay timely wages equal to or higher than the minimum wage; provide suitable residential accommodation, prescribed medical facilities and protective clothing; and notify accidents and casualties to specified authorities and kin.

The Act lays down machinery to resolve industrial disputes and provides for migrant workers to approach the authorities in destination states or in their home states if they have already returned home. The Act sets penalties including imprisonment for non-compliance, but provides an escape route to principal employers if they can show that the transgressions were committed without their knowledge.

Labour laws aiming to protect migrant workers have remained largely on paper. In the case of the 1979 Act, few contractors have taken licences and very few enterprises employing interstate migrant workers have registered under the Act. The record of prosecutions and dispute settlement has been very weak. Migrant workers do not possess pass books, prescribed by law, and forming the basic record of their identity and their transactions with the

contractor and employers (NCRL 1991, GVT, 2003). A study conducted on the status of migrant workers in the Punjab by the Centre for Education and Communication (CEC) pointed out gross violations of the Child Labour (Prohibition & Regulation Act 1986), the Minimum Wages Act (1948), the Contract Labour Act (1970), the Inter State Migrant Workmen Act, 1979 and the Equal Remuneration Act (1976). The violation of these laws was found to be most rampant in the case of brick kilns. Different kinds of harassment were meted out to migrant workers by the police, postal department, owners of the establishments, owners of workers' dwellings, shopkeepers, labour contractors and the railway police during their journey. Migrant labour is recruited from various parts of a particular state through contractors or agents for work outside that state in large construction and other projects.

This system lends itself to abuses – working hours are not fixed and workers have to work under extremely harsh conditions. A similar situation was reported by Rani and Shylendra (2001) in their study of construction sites in Gujarat. Legislation fails because regulatory authorities are over-stretched, the state lacks commitment and migrant workers are weak and vulnerable with little support from civil society. Most migrant labourers are also employed in the unorganised sector, where the lack of regulation compounds their vulnerability.

Following the recommendations of the Second National Commission of Labour (NCL, 2002), the central government has mooted a draft law (The Unorganised Sector Workers Bill, 2003) in order to identify workers employed in the unorganised sector and to provide them with basic social security. The Bill builds upon the experience of tri-partite welfare funds already in existence for a few industries in some states.

Key provisions of the proposed Act include:

- The scope of the Act will extend to all workers in the unorganised sector, whether directly or through an agency or contractor, whether for one or several employers and whether a casual or temporary worker, a migrant worker, or a home based worker (self-employed or employed for wages).

- Central and state governments shall constitute an 'Unorganised Sector Workers' Central Board' and similar state boards for the administration and coordination of the Act at central and state levels.
- The boards shall set up 'Workers Facilitation Centres' for the registration of workers; issue of social security numbers and identity cards; mobilisation of workers to become members of the Welfare Fund; assistance in dispute resolution and in the conduct of inspections.
- Concerned governments could notify welfare schemes for any class of employment under the Act and establish a Fund for this purpose. It could also regulate the conditions of employment.
- The Welfare Fund will receive contributions from the government, employers and workers. Workers will have to make regular contribution to the Fund until the age of 60.
- All workers, including self-employed or home based will be eligible for registration.
- Lok Shramik Panchayats shall be formed for dispute resolution in the unorganised sector.
- The government will appoint persons known as *Shramik Samrakshak* to carry out inspections and check on the compliance of the Act.

Although broad in intent, the Act does not make registration or contributions to the Fund mandatory, remains trade/employment specific and the creation of the Fund itself will depend upon the relevant Board and its financial considerations. However, this is the first time that the government of India has conceived of a comprehensive law to cover all unorganised sector workers including migrants, and its scope and content need to be debated in all fora concerned with the welfare of such workers.

Other Areas of Government Intervention and Policy

Apart from labour laws, a whole gamut of governmental interventions and policies in favour of the poor also impinge upon migrant workers. However migrants often fail to benefit.

Participatory poverty assessments in Madhya Pradesh show that migrant labourers are not able to participate in the *gram sabha* meetings which identify beneficiaries for government programmes (PRAXIS, 2002). This is particularly true in cases where entire families migrate out.

Schooling of children is a major problem for migrants and, not surprisingly, several studies find that the hard-core of educationally under-privileged children belong to migrant families. Even in cases where men alone migrate, women in poor households are unable to take appropriate schooling decisions and supervise school-going children. (In the case of slightly better-off migrant households, however, migration may lead to a better recognition of the value of education.) The Lok Jumbish programme in Rajasthan became the forerunner of programmes of education focusing on migrants' children.

Migrants suffer from a lack of access to health services both at home and in the work places, although they are known to be especially vulnerable to health problems, and can serve as carriers of communicable disease. The issue remains largely unaddressed although seasonal migrants to rice fields in West Bengal have some access to doctors through their employers (Rogaly *et al*, 2002). The recent international focus on HIV/AIDS has galvanised governmental attention on the link between migration and the spread of this disease, and has resulted in a large number of NGOs working with migrant workers under the National AIDS Control Programme, but other health related problems of migrants continue to receive short shrift.

Government employment and watershed programmes have the potential to increase employment in dry and rain-fed regions and reduce distress migration. Together with well-executed public employment programmes, watershed development programmes resulted in lower levels of distress migration following drought in Madhya Pradesh in 1999–00, and 2000–01 (PRAXIS, 2002). This was also the case with food-for-work programmes in several drought affected states in 1987–88, but institutional break down and lack of political commitment prevented a similar impact in recent drought years. The Maharashtra Employment Guarantee Scheme (EGS), which has been operational since 1975 and which

assures employment to labourers in public works, has succeeded to some extent. The overall picture, however, is one of neglect: unwitting or otherwise. Thus, as with labour policies, few other government strategies have begun to accord visibility to migration, and build in issues of migration in the design and implementation of programmes.

Role of Non Governmental Organisations

As in governmental policy, migrants have low visibility in the work of political organisations, trade unions and non-governmental/voluntary organisations. Regional political parties and organisations often ascribe economic and social problems to the presence of migrants. Trade unions also sometimes emphasise the negative role of migrant workers (in dampening wages or being instrumental in strike breaking) and are relatively less active in organising these workers to protect their own rights.

Nevertheless, some organisations are actively engaged in helping to improve wages and working and living conditions of migrant labourers, and, in the source areas, to improve the flow of information and credit to migrant workers, protect their entitlements, and to develop these areas so as to curb distress migration.

- In West Bengal, the bargaining power of migrant labourers has improved due to the intervention of the Krishak Sabha and *panchayats*. These organisations have settled local disputes between labourers and employers and worked to close the gaps between immigrant and non-immigrant and male and female wages (Rogaly *et al*, 2001, 2002). The Krishak Sabha has negotiated between employers and workers at the district level so that migrant wages do not undercut local wages and employment, thereby reducing friction with local labourers.
- DISHA, a voluntary organisation in Ahmedabad, is addressing the living and working conditions of construction workers, migrating mainly from the Panchmahals area of Gujarat. The NGO has formed a labour union and has been able to provide shelters for the workers, with government support.

- A few organisations like the Nirman Mazdoor Panchayat, the National Campaign Committee for Construction Labourers, and the National Federation of Construction labourers, are working to improve the wages and working conditions of construction labourers, many of whom are migrants. Nirman has also started mobile creche for children of construction workers (Vaijanyanta 1998).
- The Mobile Creches organisation was created in 1986 in Mumbai to meet the needs of children of migrant construction workers, giving children basic literacy and numeracy skills, together with health education. The Child-to-Child programme within Bombay Mobile Creches introduced specific health messages covering personal hygiene, environmental cleanliness, safe water, prevention of accidents, nutrition, polio, measles, diarrhoea, scabies, leprosy, tuberculosis and bad habits (e.g. alcohol abuse). A similar Mobile Creches programme also operates in Delhi with the support of the Aga Khan Foundation.
- Constant male out migration among Saora tribes in Orissa has had a negative impact on women who are left behind. They are overburdened with work, since apart from slash and burn agriculture, food and fuel gathering and domestic work, they are now playing new roles in settled agriculture. Income from migration does not mitigate poverty or compensate for the problems faced by women. A voluntary organisation – Kimidi Multisectoral Development Society (KMDS), is playing an active role, with financial assistance from the Royal Netherlands Embassy. Women activists hold regular meetings with women groups in the area to find solutions to their problems and also provide some financial assistance to women for self-sufficiency programmes (Menon, 1995).
- The Banaskantha Women's Rural Development Project set up by SEWA (Self Employed Women's Association) has played a key role in improving the economic position of women through dairy and handicraft activity projects in Banaskantha district, western Gujarat. There has been a significant decline in seasonal migration from this area

since the inception of this project. In the whole process, the role of moneylenders and middlemen has been eliminated. The domestic workload of women has been reduced by the installation of piped drinking water. Income generation has been closely linked with formation of cooperatives, trade unions, skill and management training (Sanbergen, 1995b).

- The Society for Comprehensive Rural Health in Jamkhed (Ahmednagar district, Maharashtra) has been playing a leading role in health care among the women at village level through forming *mahila mandals* (women's groups) and farmers' groups in which female village health workers play a pivotal role. Their scope has widened to socio-economic development and the creation of sustainable local employment for women, reducing survival labour migration for this area (Sandbergen 1995b).
- The Western India Rainfed Farming Project is a seven-year development project covering village clusters in seven districts of three states (MP, Rajasthan and Gujarat). The project is being implemented through Gramin Vikas Trust (GVT) and Indian Farm Forestry Development Co-operative (IFFDC). Migration involves more than two-thirds of the households in the region and more than two-fifth of the working adults. Nearly 42% of the migrants are women. Development interventions (mainly soil and water conservation) have reduced the intensity of migration, although with mixed impact (reduced outflow of working males). Both GVT and IFFDC have developed extensive multi-pronged strategies to deal with migration, with some differences in emphasis (IFFDC continues to put greater stress on local asset creation and employment generation to reduce migration). One major dimension of the GVT strategy is to increase returns to migration by upgrading skills, improving awareness, enhancing negotiation skills, and providing better information flows to migrants and potential employers, and strengthening linkages with government organisations and other service providers. The other dimension is to reduce the costs of

migration through interventions both in the source and destination areas. Interventions in the areas of origin include improving communication with families, providing identity cards, setting up of shelters for the elderly and children, and pooled arrangements for taking care of cattle. Institutional initiatives include the strengthening of self-help groups to address the concerns of migrants, recruitment of *jankars*, for awareness building, setting up resource centres, and liaising with panchayats and other agencies and organisations. In order to carry the migrant support activities forward, partnerships are being developed with organisations supporting migrants in urban areas.

Policy Issues and Recommendations

The nature of labour migration in India is linked, on the one hand, to the pattern of (uneven) development accentuated by several dimensions of policy, and, on the other, to a pattern of capitalist growth, which has implied continued and growing informalisation of the rural and urban economy. We have argued earlier in this paper that this pattern of development, apart from being inimical to the poor regions, is consistent with a 'low road' to capitalist development, constraining the possibility of more rapid growth and technical change. In the light of this, as was rightly observed by the National Commission on Rural Labour (1991), migration policy has to be concerned not only with supporting migrants, but also with the mutual links between migration and development. Some of the major issues in this context are summarised below.

Pro-poor Development in Backward Areas

One major set of policy initiatives has to address a more vigorous pro-poor development strategy in backward areas. This could take the form of land and water management through the watershed approach and public investment in the source area. These strategies need to be accompanied by changes that improve the poor's access to land, to common property resources, social and physical infrastructure, and to governance institutions. The latter set of changes will require strong organisational intervention

by, and on behalf of, the poor (cf. NCRL 1991 for a similar set of recommendations). In rain-fed areas, the scope for an Employment Guarantee type of scheme, which dovetails with the need for the building of physical and social infrastructure, should be explored. Food and Credit based interventions. Development in poor regions may ameliorate some of the highly negative features of labour migration. Further steps can be taken to strengthen the position of the poor who resort to survival migration. This involves helping the poor overcome two major constraints that they face; food and credit. Access to food can be improved through a more effective public distribution system, through grain bank schemes, or through 'food for work' schemes. Organising the poor into self-help or savings groups, specifically tailored to the requirements of migrants, could help increase access to credit. Ensuring basic entitlements in other schemes. A major policy focus has to be on ensuring that migrant households are able to access benefits of public programmes meant for poor households. A special focus has to be ensuring access of migrant labourers' children to schooling (and that they are not pushed into labour). There is scope for learning from the experiences of community based interventions (MV Foundation, GVT) as well as government programmes (Lok Jumbish, DPEP).

Improving the information base and bargaining strength of migrant workers. As described earlier, poor migrant workers lack bargaining strength. Further, their sense of vulnerability and social isolation is exacerbated by their ignorance, illiteracy and the alien environment in which they have to work. NGOs and governmental authorities have taken various routes to improve the information base and bargaining strength of migrant workers. Some of the NGO strategies have been discussed in the preceding section. In Bolangir (Orissa), district authorities have formed more than 125 labour societies which take up the execution of public works, issue identity cards to workers and negotiate with contractors.

Role of panchayats. Panchayats should emerge as the focus of the resource pool for migrant workers residing in their area. They should maintain a register of migrant workers and issue identity cards and pass books to them. Further, it should be mandatory for recruiters to deposit with the panchayats a list of the labourers

recruited by them along with other employment details. With growing IT based communication, it may become possible for panchayats or NGOs to maintain a record of potential employers and employees.

Enforcement of labour laws. At the work place, stricter enforcement of labour laws is essential. It must be mandatory on employers to maintain the record of payments and advances in workers' passbooks, and to provide them with the basic facilities laid down by law. This may, however, also call for a scrutiny and simplification of some of these laws. The subjection of contractors and employers to the rule of law requires commitment on the part of the government. In Bolangir, authorities use criminal law in conjunction with the existing labour laws to ensure better compliance with the latter by contractors and middle-men. The Inter-State Migrant Workmen Act is one of the important pieces of legislation affecting inter-state migrant workers, who are often employed under very poor conditions. The Act requires both modifications and more rigorous implementation. In particular, the filing of complaints by third parties and trade unions and the constitution of an inter-state coordination mechanism should be taken up as proposed by the Tenth Plan Working Group on Migrant Labour.

Enlarge the scope of discussion on the Unorganised Sector Workers Bill to cover issues pertinent to migrant workers. The proposed Bill for unorganised workers includes many provisions that are potentially beneficial to migrant workers. The debate on the Bill should be vigorously extended in order to ensure that it meets the requirements of migrant workers as fully as possible. The provision of social security numbers, identity cards and passbooks for all unorganised sector workers could be made mandatory, instead of remaining optional as proposed at present.

These cards could be used by migrant workers to access other services, for example health. The issue of strengthening existing entitlements could be delinked from new social security provisions which may be handicapped due to budgetary constraints. The thrust of our suggestions is that both governmental and non-governmental intervention should support migrant labourers and pro-poor development as vigorously as possible. This would not

only influence the condition of migrants and the pattern of migration, but also the pattern of development that sustains these patterns of migration.

International Migration

Historical Development

Movement of people across national boundaries in South Asia is long standing. Trade, political and religious links have necessitated regular contacts with southeast, eastern and central Asia, and Africa. However, with the advent of colonial rule, international migratory movement entered a new phase. The imperial needs for labour required substantial migration of labour from India to the plantation colonies in the West Indies, Ceylon, Southeast Asia, Mauritius, Fiji and South Africa. The bulk of these migrants went as indentured labourers. Kingsley Davis estimates that about 30 million Indians emigrated between 1834 and 1947 (Davis, 1951). This scale of movement was as large as the European migration to the Americas in the 19th century. It declined with the ending of indenture in 1921. However, a significant free migration did continue between India and Ceylon, Africa and southeast Asia. Most of this migration was of unskilled labour.

International migration from independent India Two distinct types of labour migration have been taking place from India since independence:

- People with technical skills and professional expertise migrate to countries such as the USA, Canada, UK and Australia as permanent migrants (since the early 1950s).
- Unskilled and semi-skilled workers migrate to oil exporting countries of the Middle East on temporary contracts, especially following the oil price increases of 1973–74 and 1979.

Migration to Industrialised Countries: Magnitude and Composition

Although labour flows to the industrialised countries have continued for a long time, information on them is scanty. Whatever analyses have been carried out to date on the composition of these

flows is based on immigration statistics of destination countries. Nayyar (1994) provides an analysis of the trends in migration flows from India to three industrialised countries, the USA, Canada and the UK, for the period between 1951 and 1990. The USA received the largest number of Indian emigrants. The general trend shows that Indian immigration, which constituted a negligible proportion to the total immigrants in the USA and Canada, increased rapidly during the 1960s and 1970s. Of the total immigrants in the United States and Canada, Indians constituted about 3.6% and 6% respectively, and these rates stabilised by the 1980s. In comparison, the proportion of Indian immigrants to the UK declined drastically from around 20% during the 1960s to about 10% during the 1980s.

Migration flows to industrialised countries during the 1990s, considered as the most critical phase of contemporary globalisation, are of great importance both for theoretical and policy reasons. However, there is hardly any detailed analysis of the changing nature of this flow.

We have tried to collate the latest information pertaining to Indian immigration flows to the industrialised world with a view to examining the trends in the 1990s. The information in relation to four major destinations, the USA, the UK, Canada. It is evident that the annual inflow of Indian immigrants in the USA and Canada increased in the 1990s. The average annual inflow of Indian immigrants to the USA increased from 26,184 persons during the 1980s to 38,330 (3.5% of total immigrants) during the 1990s (4.5 per cent of its total immigrants). In the case of Canada, the average annual inflow of Indian immigrants increased from 7,930 during the 1980s (6% of its total immigrants) to 13,770 during the 1990s (7% of total immigrants).

Another striking feature of migration flows from India to the industrialised nations during the 1990s is the growing importance of newer destination countries. This period witnessed significant flow of Indian professionals, especially IT professionals, to countries such as Australia, Germany, Japan, and Malaysia. For instance, nearly 40,000 Indians migrated to Australia, accounting for 4.1% of total immigrants. Migration from India to industrialised countries, though modest in scale, grew steadily between 1950 and

2000. Nearly 1.25 million Indians have migrated to the principal destinations. The flow was especially impressive during the 1990s, a period that incidentally witnessed tightening of immigration policies in many industrialised countries. The average inflows of Indian immigrants to these principal destinations has in fact increased from around 10,300 persons per annum in the 1950s to around 60,000 persons per annum during the 1990s. The growth during the 1990s is especially striking as it took place in a period when immigration laws were made more restrictive in many industrialised countries.

Occupational Distribution and Skill Composition

Analysis of the occupational distribution of the Indians immigrating to industrialised countries shows that in the first half of the 1970s, persons with professional expertise, technical qualifications and managerial talents constituted a large proportion of the emigrant workforce from India to the USA. But their share declined over time.

In Canada between 1971 and 1990, the share of professional, technical, entrepreneurial, managerial and administrative occupation groups also declined. However the share of white-collar workers (clerical, sales and service) remained almost unchanged and the share of workers engaged in farming, horticulture and animal husbandry rose significantly. During the 1950s and the 1960s, a significant proportion of those who migrated to the UK and, to some extent, to Canada, were unskilled or semi-skilled. During the 1970s and the 1980s, however, much emigration was made up of people with professional expertise, technical qualifications of managerial talents and of white-collar workers who were also educated. Such skill composition continued to dominate migration flows during the 1990s as well.

Migration to the Middle East: Magnitude and Composition

The oil price increases of 1973–74 and 1979 led to enormous growth in the demand for foreign labour in the oil exporting countries of the Gulf. In response, labourers from India began to migrate in large numbers and the flow still continues. The scale

of labour movements into the Gulf was intimately linked to the escalation in oil revenues, the unprecedented rate of investment in domestic industry and infrastructure of the oil states, and the shortage of domestic labour. Overall the number of migrant workers in these countries rose from 800,000 in 1972 to 1.71 million in 1975 and further increased to an estimated 2.82 millions by 1980. Foreign workers' share in the total employment in the six Gulf Co-operation Council (GCC) member countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE)) rose from 50.5% in 1975 to 70% by 1980 – 49% in Oman, 59% in Bahrain, 78% in Kuwait, 89% in Qatar and the UAE.

Magnitude

The Ministry of Labour, Government of India, furnished the primary source of information on year wise out migration. Section 22 of the Emigration Act, 1983 provides that no citizen of India shall emigrate unless he/she obtains emigration clearance from the Protector of Emigrants. However, the Act exempts some categories of people. Therefore, we can say that this data set is partial as it includes only the number of those who require and had actually obtained emigration clearance while migrating abroad to seek employment. Over and above this problem, the outflow of this proportion of the labour force to the Middle East has been on an increase from the mid 1980s for two reasons: (a) change in demand composition in the Middle East labour market in favour of skilled labour and (b) bringing in of more and more sections of people under the category requiring clearance.

The partial nature of these data is further compounded by illegal migration which does not get reflected in statistics. The main *modus operandi* is through the manipulation of tourist and business visas. People with passports endorsed under the category emigrant check required (ECR), have to obtain 'suspension' from the requirement to obtain emigration clearance if they intend to travel abroad for non-employment purposes. While provisions have been made to safeguard against the misuse of 'suspension', it is common knowledge that considerable numbers of people who go to the Middle East after obtaining 'suspension' do not return and manage to secure a job there through networking with

their relatives or acquaintances. This category of migrants also escapes from the data bank. Therefore, in general, we can state that although the data set suggests the broad trend, it under represents the size of out migration. Trends in the annual outflow of migrant labour from India to the Middle East for the period 1976 to 2001 based on the available statistics, although an underestimate. The data shows that out migration increased at a phenomenal rate through the late 1970s, peaking in 1981. From 1979 to 1982, nearly 234,064 persons per annum had migrated from India to the Middle East for employment purpose. The period during 1983 to 1990, however, witnessed a significant reduction in the number of Indian workers migrating to the Middle East with the average number of persons migrating per annum declining to 155,401. Such a decline could mainly be attributed to the reduction in demand for migrant workers in the Middle East emanating mainly from the oil glut of the early 1980s.

Viewing this trend, apprehensions were expressed in many quarters as to whether Indian labour migration to the Middle East would be sustained in a significant manner in the next couple of decades. These apprehensions were further aggravated by the events relating to the Gulf crisis of 1990 which forced nearly 160,000 Indians to return home from the warzones in distressed conditions (Sasikumar, 1995).

Contrary to apprehensions of declining out migration, evidence indicates that labour migration from India to the Middle East has picked up substantial momentum since the initial hiatus in the early 1990s. During 1992–2001, nearly 360,000 persons per annum migrated from India to the Gulf countries. This is significantly higher than the quantum of labour outflows from India attained even during the 'Gulf boom' of the late 1970s and early 1980s.

The data on emigration clearances by country of destination, for the period 1990 to 2001. It shows that Saudi Arabia and the UAE. have been the principal destinations during the last two decades. In fact they account for about 55% of total Indian emigration to the Middle East. Within India, migration to the Middle East originates from a number of states. A detailed review of the migration literature in India, however, reveals Kerala has always had a dominant position in terms of the export of manpower

to the Middle East. International labour migration has been so integral to Kerala's economy and society that it is viewed as 'the single most dynamic factor in the otherwise dreary employment scenario of the socially well-developed state during the last quarter of the twentieth century' (Zachariah *et al*, 2002). It may also be appropriate to mention here that many of the available studies on international labour migration from India focus largely on Kerala. Hence the empirical support to many of our arguments is based on evidence from Kerala.

A macro perspective on the relative importance of the different states in relation to labour migration to the Middle East can also be obtained from the emigration statistics, which as we have mentioned earlier, are for unskilled workers who require emigration clearances. Keeping in mind the likely under-estimation, these data provide some evidence regarding the pattern of unskilled labour movement from India.

The state-wise distribution of emigration clearances granted during 1993–2001 shows that nearly 16 states contribute to the process of emigration to the Middle East, with varying degrees of importance. Three states, Kerala, Tamil Nadu and Andhra Pradesh together contribute to about 60% of those who have obtained emigration clearance. In terms of the share of these prominent states, there has been a steady decline in Kerala's contribution where as the share of Tamil Nadu and Andhra Pradesh have registered considerable increases. This could also mean that larger numbers of people who are migrating from Kerala are now engaged in skilled/professional related activities in the Middle East where as there is a larger outflow of unskilled labourers who require emigration clearance emigrate from the other states.

Return Flows

Return migration is an inevitable aspect of temporary or contract migration. In the case of Indian labour migration to the Middle East, return migration has assumed important dimensions since the mid 1980s. During the 1970s, employment possibilities in the Middle East were more or less assured. Under such market conditions, displacement of labour from labour importing countries was minimal. But the scenario changed towards the beginning of

the 1980s as demand for imported labour declined and supply grew. The effect was to force intending migrants to return to their native countries. It is not that labour migration to the Middle East was reduced, but the labour flow started taking place in both directions. The net result was that 'return migration' emerged on a significant scale.

There is paucity of information to gauge the magnitude of the return migration. Attempts have been made by researchers to arrive at some macro estimates. Nayyar (1994) estimates that around 131,900 people returned from the Middle East in 1983–86 and 38,000 returned in 1987–90. Zachariah *et al* (2002c) estimates that nearly 147,000 persons during 1988 to 1992 and around 400,000 during 1993 to 1997 returned to the state of Kerala alone. This study also reports that the current number of return migrants in the state would be around 750,000. There is almost total lack of information on aspects like occupational structure, skills acquired, resource position, investment capabilities and investment plans of the return migrants. This has severely impaired the formulation of any purposeful reintegration plans for the return migrants underscoring the need for further research in this area.

Aggregate Indian Migrant Population in the Middle East

Attempts have been made to estimate the size of the Indian migrant population in the Middle East region. It must be emphasised that these estimates are not based on any registration or census. They are, at best, an informed guess. The total stock of Indian migrant population is estimated to have registered a significant increase from around 0.5 million in 1979 to around 3 million by 2000. Saudi Arabia and UAE have been the major destinations of Indian migrants during the past three decades. They together account for about 70% of the total stock of Indians in the Middle East.

A number of efforts have been made over the past three decades to estimate the number of Keralites working in the Middle East. The Kerala State Planning Board reports that a total of 1.6 million Keralites were working in the Middle East in 1998 (State Planning Board, 1998). Zachariah *et al* (2002) estimate the number of

emigrants from Kerala in the second half of 1998 as 1.36 million. Although there are differences between the exact quantitative figures, all available estimates attest to the predominance of Keralite labourers in the Gulf region.

Skill Composition

Analysis of the skill mix of the Indian migrant workers in Middle East labour markets is again difficult because of lack of data. Whatever is available is restricted to rough estimates made by individual researchers on the basis of sample surveys and some figures pertaining to certain periods published by government sources. However, from the available estimates, it can be gauged that the majority of those who migrated during late 1970s and early 1980s belonged to the unskilled and semi-skilled category. One of the studies report that while about two thirds of the migrant workers were semi-skilled or unskilled, only about 14% were employed in professional technical and managerial occupations (Eevit and Zachariah, 1978). It shows that the outflow of workers engaged in construction activities, skilled and unskilled taken together, declined not only in absolute terms, but also as a proportion of total out-migrants during this period. This can be attributed to the completion of major construction projects launched during the boom and also the cut in expenditure on construction followed by many Gulf States.

The 1990s witnessed a further structural shift in the market for expatriate labour. There was a marked change in demand for skills away from construction towards operations and maintenance, services, and transport and communications. In general there was a tendency to hire more professionals and skilled manpower as opposed to unskilled and semi skilled workers. The skill composition of the labour outflows from India has changed its character accordingly. The occupational distribution of emigrants as reflected in a recent field survey conducted among Indian emigrants in the UAE shows that more people who are migrating to Middle East are those in the skilled/professional categories.

Economic Impact of Labour Migration

At the aggregate level, labour emigration affects the sending country's economy through its impact on the labour market, on

macro-economic variables (savings, balance of payments and so on), and social relations. These impacts are summarised below.

Impact on Labour Markets

The labour market impact of international migration depends on factors such as size of outflow, employment status before migration, skill composition of migrants and, in the case of temporary migration, on the size of the return flow. The labour market implications of migration from India may be examined both in relation to permanent emigration to the industrialised countries and to the outflow of temporary migrants to the Middle East countries.

From the discussion on the magnitude of permanent migration from India to the industrialised countries taken up earlier, it is abundantly clear that they form an insignificant proportion of the total workforce in India. Even though a large proportion of those who migrate to industrialised countries are fairly highly educated, the absolute number of migrants is small and their proportion of the total educated population of graduates is insignificant. In fact, total emigration to the four industrialised countries (USA, UK, Australia and Canada) constituted a mere 0.13% of the population of graduates in 1991. Similarly considering the large reservoir of educated unemployed in India, it may be reasonable to presume that permanent migration to the industrialised countries could have hardly created any supply shortages in the labour markets. In such a situation it may be prudent to assume that the aggregate labour market effects of permanent migration is negligible in the Indian context.

However, it is important to mention that such migration has given rise to considerable debates on costs and benefits of emigration of certain categories of highly skilled workers through 'brain drain'. Abella (1997), for example, highlights the important implications of the brain drain phenomenon as follows. The first is the need to avoid exacerbating the problem, which happens when the state facilitates the emigration of skills wanted at home. The second is the need to remove rigidities in the labour market which may be constraining timely supply response. The third implication is the challenge of including return through

programmes that compensate for some of the comparative disadvantages of less developed countries. Even though the magnitude of temporary migration from India to the Middle East is much larger than the quantum of migration to the industrialised countries, as a proportion to the total workforce in the country, it is again negligible. In terms of labour flows, even if we consider the year in which the largest number of emigration clearances were granted (1993), it would constitute only around 0.1% of the total labour force of India during that year. The current magnitude of total migrants in the Middle East (3 million in 2000) would constitute less than 1% of the total workforce in India during 1999–2000.

Although at the pan Indian level the repercussions of migration on the labour market is not significant, as migration to Middle East takes place from specific regions, the labour markets of these regions are affected. For instance, Kerala's labour market experienced considerable shortage for semiskilled labourers such as carpenters, welders, plumbers, drivers, electricians, motor mechanics and other crafts men (Nair, 1998). As a result of this, wage rates have multiplied and yet there is continued shortage of such workers (Sasikumar and Raju, 2000). Information on the status of employment of migrants before their emigration is scanty. Some micro level studies indicate that nearly half of the migrants, especially the unskilled, were unemployed prior to departure to the Middle East. Their migration would have directly reduced unemployment rates. However, this proportion too would be insignificant in terms of the unemployment rates for the country as a whole.

Thus the labour market effects of migration are reported to be significant in relation to major sending regions within the country. Research studies on international migration in 1970s and 80s have shown that migration acted as a safety valve in countering growing unemployment in states like Kerala and in districts like Ratnagiri in Maharashtra. (Abella and Yogesh, 1986; Mowli, 1992; Nair, 1988). The most recent evidence in this regard is reported by the Kerala Migration Study of 1998 (Zachariah *et al*, 2002). The study notes that the unemployment rates in the state has declined by about 3 percentage points as a consequence of migration.

Impact through Financial Flows

The most widely recognised immediate benefit from the international labour migration remains the flow of remittances, which not only augments scarce foreign exchange but also provides a potential source of additional savings and capital formation. Remittances have direct bearing on the balance of payments accounts as they meet a substantial part of the import bill.

In the balance of payments statistics of India, remittances are identified as credits on the accounts of private transfer payments. These aggregates also include grants that constitute a very small proportion of the total. Remittances constitute the larger part of it. Any variation in private transfer payments can thus be taken as identical to any variations in remittances. The trends in value of remittances could be analysed in relation to three phases: 1951–52 to 1970–1971, a period which witnessed a rapid spurt in migratory flows to industrialised countries; 1971–72 to 1990–91, a period corresponding to a major increase and then a decline in labour migration to the Middle East; and 1990–91 to 2000–2001, a period characterised by new exchange regime as well as revival of larger labour flows to the Middle East. It shows that the remittances registered a sudden increase during 1960–67 to 1970–71, which as noted earlier had witnessed substantial increase in the number of Indians migrating to USA and Canada. It shows a substantial increase in the value of remittances during the mid 1970s to the late 1980s and subsequent stagnation till the beginning of the 1990s. It is more or less certain that this trend is closely related to the size of labour migration from India to the Middle East. It also highlights the major role played by remittances of Indian migrant workers from the Middle East in augmenting foreign exchange resources.

An examination of trends in value of remittances during the 1990s reveals a significant growth remittance flows in the Indian economy. This spectacular increase could mainly be attributed to the general liberalisation of the foreign exchange regime.

A certain proportion of remittances is channelled through informal means and thereby is undocumented in the official data. Here again, lack of reliable estimates makes meaningful inferences

difficult. However, based on the findings of certain micro level studies, it could be ascertained that such undocumented remittances were fairly prominent in the late 1970s and 1980s. A survey of return migrants from the Middle East during the mid 1980s showed that respondents channelled around 25 to 30% of the total remittances through undocumented means (Nair, 1986). However such undocumented flows almost dried up during the 1990s due to the liberalisation of foreign exchange. Apart from these policy measures, the arrival of e-banking, which provide instantaneous transfer also encourages migrants to use formal means for remittances. (Zachariah *et al*, 2002b).

In terms of the macro level impact, the impact of remittances is most significant in the context of balance of payments. Remittance flows during the past three decades have financed a large proportion of the balance of trade deficit and thus reduced the current account deficit. In fact, during the 1980s, when India faced a severe balance of payment crisis, foreign remittances were in a position to finance as much as 40% of the balance of trade deficits. However, in terms of other macro level aggregates, the contribution of the remittances to the national economy is not that significant. For instance, remittances constitute only 4.4% of GDP during 1999–2000. But it must be stressed that this percentage has consistently grown during the past three decades from 0.2% in 1970–71 to 1.3% in 1981–82 to 1.5% in 1991–92 and to 4.4% in 1999–2000. Remittances, however, have had a considerable impact on regional economies within India. Here again, the most striking case in point is that of Kerala. A recent study (Kannan and Hari, 2002) concludes that remittances to the Kerala economy averaged 21% of state income in the 1990s. This study also reports that an increase in per capita income as a result of remittances has contributed to an increase in consumption expenditure in Kerala. Although the average per capita consumption in Kerala was below the national average until 1978–79, by 1999–2000 consumer expenditure in Kerala exceeded the national average by around 41%.

Social and Demographic Impacts of Migration

Empirical evidence to assess the demographic consequences of international migration from India is limited. Evidence available

in the case of Kerala highlights the following:

- Migration has had a direct effect in reducing the population growth in the state since the 1950s. In 1981–91, nearly a fifth of the natural increase of population was removed from the state through migration.
- Migration has reduced the working age population in the state and consequently increased the proportion of children and the elderly. Migration has contributed to the prevalence of large numbers of very small families in the state. Single member households have increased by 33% and two member households by 42% as a result of migration. (Zachariah *et al*, 2002b). Research studies report that migration has had significant consequences on poverty levels. Zachariah *et al* (2002b) reports that migration has had a very significant impact on the proportion of population below the poverty line in Kerala during the 1990s. The study notes that the proportion has declined by over 3 percentage points as a result of remittances received by Kerala households from abroad. It is important to note that the largest decline has been in the case of the relatively economically backward sections of people belonging to the Muslim community, the decline being over 6 percentage points.

Another prominent impact, which migration, especially male migration to the Middle East, has had, is in relation to the effects on women left behind. This is especially so in the case of those who are married. A number of studies conducted during the past three decades have concluded that one of the major problems encountered by wives of emigrants is loneliness.

The extent of such loneliness is reported to be more severe among younger wives whose husbands migrated immediately after the marriage. Such solitude had given rise to mental tension in the wives of those migrated during the 1970s and 80s. Such mental tensions seem to have been reduced in the 1990s. This could mainly be attributed to the availability of quicker means of communication, new responsibilities, roles, and leisure activities for women (Zachariah *et al*, 2002 b).

Policy Regime Governing International Labour Migration from India

The overseas employment policy regime in India mainly addresses temporary and contract migration. The most important policy instrument, the Emigration Act 1983, deals with the emigration of Indian workers for overseas employment on a contractual basis and seeks to safeguard their interest and ensure their welfare. Prior to the Act of 1983, the Emigration Act of 1922 governed the migration of Indians across national boundaries. The main purpose of this Act was to regulate and control the recruitment and emigration of unskilled agricultural workers. The Rules of the Act stipulated procedures for emigration and the steps to be taken by the foreign agents in India for the welfare of such emigrants. According to the Act, emigration of unskilled workers involved notifications for specific countries. However, since no such notification was issued by the government, the emigration of unskilled workers progressively declined between 1923 and 1947.

The Act did not specify any regulations governing the emigration of people with technical qualifications or professional expertise and therefore permanent migration to the industrialised countries, which began from the 1950s, was hardly regulated or monitored by the policy regime in India. The migration boom to the Middle East during the mid 1970s exposed the limitations of the 1922 Act in safeguarding the interests of workers emigrating for employment. This period witnessed the emergence of a large number of illegal recruiting agents who employed exploitative practices, including extortion and fraud. Workers with low skills and incomes suffered most. It was in this broader context the Emigration Act, 1983 was introduced with a view to alleviate the problems associated with emigration of unskilled and skilled workers.

The Act aims to safeguard the interests of Indians migrating abroad for employment by stipulating emigration clearance and registration of recruiting agents, and by setting up mechanisms for redressing grievances of migrants. Section 22 of the Act states that all Indian citizens seeking to migrate must obtain emigration clearances from the Office of the Protector of Emigrants, Ministry

of Labour, as an endorsement in their passports. In providing such clearances, the Protector of Emigrants is required to examine the terms and conditions of employment contracts to ensure that the wages and working conditions are not exploitative and that adequate provision has been made for travel expense, accommodation and medical care. In order to facilitate free movement of manpower, 17 categories of persons are currently exempted from the requirement to obtaining clearance and placed under emigration check not required category (ECNR category). In addition six more categories of persons with valid employment visa endorsed on their passports can also obtain ECNR endorsement.

The Emigration Act 1983 focuses on regulating overseas employment recruitment systems in India. Section 10 of the Act states that no recruiting agent can carry out the business of recruitment without a registration certificate issued by the Protector General of Emigrants. The Certificate is granted after taking into account inter-alia the recruiting agent's financial soundness, trustworthiness, adequacy of premises, experience in the field of handling manpower export, etc., and after obtaining security ranging from Rs.0.3 million to Rs.1 million in the form of Bank Guarantee. The financial security is intended to secure due performance of the terms and conditions of the Registration Certificate and also to meet the cost of repatriation of any stranded worker sent by him.

Another important aspect of the Emigration Act relates to the maximum amount that the recruiting agents are authorised to charge as fees for services rendered to the migrant. Currently this ranges from Rs.2000 for unskilled workers to Rs. 3000 for semiskilled workers to Rs.5000 for skilled workers and to Rs.10,000 for other than the above categories.

An examination of the provisions of the Emigration Act indicates that overseas employment policies in India have been largely confined to ensuring that the terms and conditions of employment conformed to certain specified norms so that agents and employers did not subject the workers to exploitation. Efforts to manage and direct export of manpower have indeed been minimal. The policy regime has also not been concerned with

migration of persons with technical or professional qualifications. The Emigration Act has considerably reduced the problems encountered by migrant workers. However, there is little policy influence on the forces of market supply and demand which still largely determine the emigration of workers from India.

Problems Encountered by Migrants

Problems encountered by the migrant workers may be examined at two levels. First in relation to recruitment violations and the second in relation to working and living conditions in destination countries. Commonly reported violations are delayed deployment or nondeployment of workers, overcharging or collection of fees far in excess of authorised placement fees and illegal recruitment. Delayed deployments are often caused by factors beyond the control of the recruitment agency, such as visa delays or when the employer requests a postponement. Non-deployment is however a serious case and the magnitude of its implications are amplified if an excessive placement fee is collected from the worker. Overcharging is a serious offence and is prevalent in all labour-sending countries in Asia. What makes overcharging doubly serious is that the workers end up paying huge amounts equivalent to many months salary (Sasikumar, 2000). Minimising, if not totally eliminating, overcharging poses a serious challenge to overseas employment administrators.

Illegal recruitment is another serious violation of the rules as workers get recruited and deployed overseas without the government knowing about them. Being unlicensed, illegal recruiters are beyond the reach of the normal regulatory machinery of the national overseas employment policy. They are and should be the concern of police and other enforcement agencies. Some major problems encountered by the migrants in their countries of employment include: a) premature termination of job contracts, b) changing the clauses of contract to the disadvantage of the workers, c) delay in payment of salary, d) violation of minimum wage standards, e) freezing of fringe benefits and other perks, f) forced over-time work without returns and g) denial of permission to keep one's own passport. Migrant labourers seldom lodge any complaint against the erring employers for the fear of

losing their jobs. In cases where migrant workers decide to complain against the erring employer, they have two options. First, the employee may inform the home embassy in the country of employment. This is mainly done by people lacking the means to return home. Embassy officials sometimes seek the help and assistance of the local government to take actions against the erring employers. Apart from that, the Embassy also passes information about the complaints made to it to the Protector of Emigrants (POE) offices in India. If a registered recruiting agent recruited the complainant, then the POE refers the complaint to the concerned agent seeking explanation.

In most cases the agents maintain that it was the foreign employer who committed any violation. However, if the POE office finds the explanation unsatisfactory it proceeds with further action. Secondly, the employee registers the complaint after he/she reaches India. To facilitate the lodging of such complaints, a system of public hearing is conducted at the POE offices, where emigrants, recruiting agents, project exporters etc., can meet the most senior officer on duty to obtain information and voice their grievances. When complaints are received against foreign employers, the POE office forwards them to the Indian embassy in the concerned country of employment for taking necessary actions. As in the case of first option, if a registered agent has recruited the complainant, the POE office seeks the agent's explanation. If the agent does not provide satisfactory explanations, a case is registered for the violation and the case is referred to the police for investigation. In some instances, the POE officials themselves conduct the inquiry. Employers against whom the complaints have been made, if found guilty through preliminary investigations, are blacklisted and this information is passed on to embassies and registered agents in order to ensure that in future labourers are not supplied to these employers. Apart from this, generally no action can be taken against foreign employers as they are governed by laws of another nation state.

Suggestions and Recommendations

Some specific suggestions relating to international labour migration are:

Developing migration information systems: One of the areas requiring immediate policy intervention is the creation of an appropriate information system on international emigration. This would enable closer surveillance and better management of emigration. The status of out-migrant data can be improved by making the registration of entry by migrant workers mandatory in the Indian missions operating in labour receiving countries. The nature of outflow data at home can be strengthened by a fuller utilisation of the data already available with government departments and recruitment agencies. A chief requirement in this connection would be the strengthening of the statistical wings of the concerned government departments. There is also a need to use border control records for more accurate measurement of international labour migration. International experience suggests that it is possible to extract labour outflow and return flow data on key variables from embarkation/disembarkation cards. An essential first step to make use of this source is to redesign the existing arrival/departure cards to yield required information. To obtain further information, periodic airport surveys could be resorted to. Data on migration are as much essential at the state level as they are at the national level. Apart from relevant disaggregation of national data sources, it would be desirable if the National Sample Survey Organisation (NSSO) conduct detailed surveys on international migration periodically, say once in five years. To strengthen the information base abroad, an identification and networking of Indian associations operating in different Middle East countries is necessary. The Gulf crisis of 1990 had highlighted the vital role played by various Indian associations and bodies in safeguarding the interests of Indian migrants in the Gulf at a time of emergency (Sasikumar, 1995). Discussions with evacuees from Kuwait revealed that the majority of Indian migrants maintained very close liaison with community organisations even in times of stability.

Managing and directing migration flows: There is an urgent need to manage and direct migration flows from India. It is important in this context that labour markets of the major labour importing countries are closely monitored. This may be done through the establishment of a labour market monitoring authority. The authority has to carry out negotiations on various labour

contracts and also study the nature of emerging skill requirements. The activities of the labour market monitoring mechanism should be linked with a comprehensive system of labour market information for all types of employment seekers.

Welfare funds: Although the issue of welfare of families of workers left behind in the home country has come to be recognised as potentially important, there are hardly any policies in this area. It may be worthwhile to consider the constitution of a 'Welfare Fund' for Indian workers abroad. Such a fund can be utilised for a wide range of welfare measures concerned with both the migrant workers and their families. The Welfare Fund could also be of vital importance to women employees in the Gulf who are largely in the category of para-medical staff and domestic servants. The Gulf crisis of 1990 had brought to light the adverse conditions that women employees, especially the domestic servants category had to face, while their employers fled to safety. The Fund could mainly comprise of the contributions received from Indians working in the Middle East. Incentives such as attractive insurance schemes and tax relief should be offered to the migrants contributing towards the Fund.

Pre-departure orientation programmes: One of the most neglected aspects of overseas employment policy in India is the absence of any form of pre departure orientation to the intending emigrants. It is important to recognise adaptability of the workers to changed working conditions and to new socio-cultural environment. It can also influence their productivity levels. The orientation programme can include topics such as religion, the socio-cultural and political conditions of the country of employment, the do's and don'ts, the contract of employment, description of the jobsite, the duties and responsibilities of the workers, travel tips, procedure on how the workers may handle their problems at the worksite, and advice on remittance procedures. The government, registered recruitment agencies, returned associations and non-governmental organisations working among the migrant workers can participate in providing pre-departure training to the potential emigrants.

Responding to transformations in labour markets: Any policy intended to streamline the overseas labour recruitment system in

India has to recognise, as a pre-condition, the important transformation that has occurred with respect to expatriate labour market in most of the labour importing countries, i.e. a transformation of expatriate labour market from being a seller's to a buyer's market.

Under the transformed expatriate labour market conditions, the expenditure incurred by the recruiting agents for the promotion and maintenance of their business has risen significantly. In order to match such a rise in expenditure, most private recruiting agents sidestep the law and charge a fee much higher than the legally prescribed limit.

It is also true that most emigrants are willing to pay an amount higher than the ones prescribed by the law as the earnings from the Gulf can easily abate losses due to extra payment. In such a context, government may take a more flexible position and reconsider the amount of maximum chargeable fee.

Financing out migration: It would also be worth establishing a government system of offering low interest loans to less well-off emigrants to finance out migration. Such a system of financing out migration may also ensure that those emigrants availing the low interest loans would resort to formal banking channels to transfer their remittances back home. This would further augment the foreign exchange resources, which are vital for a developing country like India.

Utilising resource flows and human capital of emigrants to strengthen development: There is an absence of any policy framework regarding the effective utilisation of financial inflows from emigrants to strengthen the development process at national or state levels.

Similarly, the existing policy regime in India hardly addresses any concerns related to the migration of persons with technical or professional expertise, many of whom are willing to make a contribution to the development process, either in their non-resident status or as returnees. These issues need close consideration at national and regional levels and effective policies need to be formulated which can integrate development concerns with the migration process.

Recommendations and Key Next Steps

Summary of Key Issues

Labour mobility is a key feature of the development process in India. Because much of it is poorly measured and undocumented, it remains largely invisible in the strategising of policies.

Internal labour flows are highly heterogeneous and hence their impacts on the poor need to be carefully disaggregated. Migration is a vital component of poor people's struggle for survival. It entails both costs and benefits for migrants and their families.

International worker emigration from India has been closely linked to phases of immigration policies in other countries. Since the oil boom, the emigration of low-skilled workers to the Middle East has been the major source of employment and inward remittances. Inward remittances have significant macroeconomic implications in especially regions of high out migration. Both internal and external migration have potentially growth producing and poverty reducing impacts, which can be increased through suitable policies and supportive interventions by civil society and other national/international actors.

Internal migration, particularly seasonal migration, is largely driven by the persistence of large regional inequalities and its potential positive impacts on the lives of the poor are also minimised by the inadequate legislative environment and the lack of a rights based perspective with respect to migrants. Migrants enjoy the least rights, even among a comparatively right-less group of poor workers and labourers.

International migration is also driven by unemployment, lack of suitable opportunities, and mismatches between skills and opportunities, but the requirement of sizeable financial costs make it accessible only to those who possess appropriate skills and can raise the necessary financial resources to undertake migration.

There are imperfections in both types of labour markets which can be addressed through suitable policy measures. But internal migrants have such weak bargaining power that they would require far greater legislative and non-legislative support from

governmental and non-governmental actors. This role can not only be confined to the Ministry of Labour, which is the key Ministry dealing with migrant workers but requires coordinated support from all the social sector Ministries. The thrust of our suggestions is that both governmental and non-governmental intervention should first discourage regional and labour market dualism as vigorously as possible. Secondly they should take all measures necessary to improve labour market outcomes. Third, the basic rights and entitlements should be ensured for all migrant workers and their families through coordinated inter-governmental effort and civil society action. Fourth, action should be focused on improving the social and political environment in which migrants live and work. These steps would not only influence the condition of migrants and the pattern of migration, but also the pattern of development which has sustained these patterns of migration. We briefly elaborate on these four suggestions below discussed in detail in sections 3 and 4 under these four heads. Although the detailed issues with respect to internal and international migration are different, we bring them together here to underscore a common analytical and policy framework.

Synergising Migration and Development

A major policy focus has to be on a more vigorous pro-poor development strategy in the backward areas. This should address the needs of these regions, and simultaneously improve the access of the poor to land, CPRs, financial resources and governance institutions. Depending upon the availability of financial resources, the provision of an employment safety net can be dovetailed with the development programmes. Evolving suitable development policies in order to maximise the positive impact of inward remittances and to reduce its negative impact (through labour market and expenditure distortions, or the 'Dutch Disease' effect), remains a priority even with external migration. Thus in all cases, the synergy between migration and development requires to be strengthened.

Improving Labour Market Outcomes

The main problem is that poor migrants lack bargaining strength. Hence steps taken to organise them, improve their

negotiating strength and level of awareness are necessary. At the workplace, stricter enforcement of labour legislations (with necessary simplification and modification of the laws where necessary) is a prerequisite for improved outcomes.

Panchayats could emerge as the pivotal institution in the resource pool for migrant workers residing in their area. They could maintain a register of migrant workers and issue identity cards and pass books to them. Further, it should be mandatory for recruiters to deposit with the panchayats, a list of the labourers recruited by them along with other employment details. NGOs and panchayats could cooperate in building up an information base to cut down transaction costs for both employers and labourers.

They could also assist in upgrading the skills of migrant workers.

An improved information base, orientation and skills are also important requirement in the case of international migration. Labour markets of the major labour importing countries need to be closely monitored. This could be done through the establishment of a labour market monitoring authority which could also carry out negotiations on various labour contracts and also study the nature of emerging skill requirements. Another important area in which the government could take the lead is in providing predeparture training through registered recruitment agencies; returned associations and non-governmental organisations working among the migrant workers. While regulation of recruitment conditions is a must, provisions of the Emigration Act, 1983, which are out of line with the changing market conditions under which recruitment agents operate should be liberalised so that there is no adverse incentive for the latter to operate outside the law.

Loans could be granted to potential migrants to cover their transaction costs and could be linked to their seeking the assistance of the formal recruiting system. This could help to curb malpractices. Ensure basic entitlements to migrants and their families A focused approach is required to ensure that the basic entitlements of the poor to food, elementary education, basic health are fulfilled, as also their entitlement to other government programmes and subsidies.

The proposed Bill for unorganised workers includes many provisions which are potentially beneficial to migrant workers. The debate on the Bill should be vigorously extended in order to ensure that it meets the requirements of migrant workers as fully as possible. It may be worthwhile considering the constitution of a welfare Fund for employees working abroad. Such a fund can be utilised for a wide range of welfare measures concerned with both the migrant workers and their families. The fund could be supported mainly by contributions received from Indians working in the Middle East. Incentives such as attractive insurance schemes and tax reliefs should be offered to migrants contributing.

Improvement in the Economic, Social and Political Environment in Favour of Migration

Disadvantages faced by poor migrants are accentuated because of their low political voice in source and destination areas; because they often comprise a distinct ethnic, social or cultural group, and are seen to be threatening to the livelihoods of workers in the destination areas. As a consequence, they can be victims of strong prejudices. There is, thus a role for advocacy to remove stereotypes and misapprehensions and for a campaign to buttress the voices of poor migrants. In the case of Indian emigrants and people of Indian origin, it is critical to address how they can participate in selected but specific developmental activities. Another significant issue is the identification of possible ways in which human capital can return to India and, having returned, can contribute to the development process.

Unemployment and Migration

Jobless growth and regional imbalances have collectively spurred migration, and this is the larger malaise behind recent mass murders on ethnic lines, says Swati Narayan.

March 2004-Fifty-six Biharis were murdered in Assam in November 2003, over a week of sustained ethnic violence. In the face of intense competition for the semi-skilled D category of jobs (requiring a minimum of eighth standard education) in the Indian Railways (the single largest employer in the world), targeted bloodshed was the answer. A mere 2,750 vacancies in Assam had attracted 20,000 prospective applicants from Bihar. This prompted the local ULFA (United Liberation Front of Assam) to call for protection of employment opportunities for the sons-of-the-soil, a long-standing ideology of Bal Thackeray's Shiv Sena in Maharashtra. In the days of violence, 11 wage labourers were also brutally murdered because they hailed from Bihar. But what is the root of a force so vicious and desperate that it instigates mass murder on ethnic lines?

Jobless Growth: Trends in India

This incident can be interpreted as a symptom of a larger malaise. The root of the problem is 'jobless growth' in the Indian economy, that is, despite an acceleration in the growth rate in India; the pace of creation of work opportunities has not kept pace with the growing requirement. In the post-liberalisation period, unemployment on a Current Daily Status basis rose from 6.0 percent in 1993-94 to 7.3 percent in 1999-2000 resulting in an

additional 27 million job seekers. The most disturbing fact is that of these, 74 percent are in the rural areas and 60 percent among them are educated.

There is substantial decline in employment elasticity (e.g. increase in employment for every unit rise in GDP) in almost all the major productive sectors, except for transport and finance. In agriculture, the employment elasticity has dropped to near zero. The reason for the phenomenon of jobless growth could be that growth in India has essentially been capital intensive. Further, the public sector is in the process of shedding excess labour in the name of downsizing for meeting the efficiency challenges of market competition.

Regional Imbalances

This trend of rising unemployment is compounded by the existence of regional imbalances in development within the country, which have collectively accelerated the phenomenon of migration. All theories of migration concede that migration occurs when the region of origin lacks the opportunities which the destination promises. It is inherently a combination of pull and push factors. Variation in economic development across regions is a primary motive for migration to greener pastures. The rural poor are concentrated in eastern India, and in the rainfall-dependant parts of central and western India, which continue to have low agricultural productivity, while the bulk of the jobs are being created in western and southern India.

Inter-state labour migration is an important feature of the Indian economy. Most of this movement has been from the most populous and poorest states with net in-migration being higher for the more developed states. Gujarat and Bihar provide an interesting contrast in terms of migration. The population entering Bihar was 364,337 and that exiting the state was more than three times higher at 1,226,839. (Census 1991) In contrast, the in-coming population for Gujarat was double that of Bihar at 716,190 and the out-going population 305,738, a quarter of the population leaving Bihar. Further, there exist intra-district movements. In Surat, labourers from the eastern talukas move to the irrigated western talukas like Uccal and Nirzar, which are irrigated by the Ukai

project. Census 2001 migration tables have not yet been released.) This increase in migration is essentially due to regional differences in the population pressure on land, inequality of infrastructure, industrial development, and modernization of agriculture. In particular, the developed areas have increased demand for labour during specific seasonal activities, especially sowing and harvesting in the case of agricultural activities. As this demand often supersedes the availability of local labour, these developed regions offer a higher wage rate and/or greater number of days of employment. The agriculturally developed regions are invariably areas which have extensive canal irrigation and HYV (high yielding variety) technology. The demand for labour also exists in seasonally based agro-industries e.g. rice mills, sugar factories, canal construction, road construction, etc.

Implications of Migration: Evidence from Gujarat

However, in the Indian context in recent decades, certain new migratory trends can be discerned, which indicate that its effects may be unfavourable both at the macro and micro level. There is evidence from different secondary studies in Gujarat to identify these new trends.

One is excessive migration. In Gujarat, rural-rural migration, especially from the drought-prone to the agro-climatically better-endowed districts, seems to have created overcrowding in the districts of destination. This is reflected in the fact that some of the most drought prone districts such as Amreli, Kachchh, Surendranagar and Rajkot, have relatively higher labour productivity vis-a-vis the agriculturally prosperous districts like Junagadh, Kheda and Mehsana. Invariably, migrant labour is paid at lower wages compared to local labour, and the implementation of the Interstate Migrant Workman (Regulation of Employment and Conditions of Service) Act of 1979 is largely on paper. Migrants from backward regions are willing to accept any distress wages that are offered as long as they have access to employment. In the bargain they undercut the employment prospects of local labour. Their excess supply also contributes to reducing the wage rate.

The phenomenon of overcrowding appears to be both a cause and a symptom of the exploitative labour process of distress

migration. The growing phenomenon of rural-rural migration also has important implications for future generations who would also suffer from the same debilitating lack of opportunities and low productivity. For example, whole families of tribals from the Dang district of South Gujarat migrate for six to eight months to work in the sugar factories in the plains, resulting in their children being unable to enrol in schools.

Secondly, Jan Breman draws attention to a new phenomenon of circulatory migration in South Gujarat. Employers prefer to hire migrant labour, as they are considered to be cheaper and more docile than local labour. Consequently, labourers need to migrate in search of jobs, which they are denied in their native region. This perpetuates a vicious cycle of migration. Also, there often seems to be an inherent specialisation among labourers according to their place of origin, resulting in region and task specific movements. For example, road workers originate from the Panchmahals, quarry workers from Bharauch, cane cutters into South Gujarat from Maharashtra, and rice mill workers from the Jalan district of Rajasthan. These location-specific 'skills' however often are inconsequential for unskilled jobs with high content of physical labour. They are nevertheless perpetuated as a justification among employers to hire outstation labour.

These processes of seasonal migration have even developed into semi-formalised systems with the active participation of contractors or mukadams as middlemen who gather migrant labourers for prospective employers. The seasonal movements are often debt induced as the mukadam often provides a wage advance to the migrants. According to the NCRL (National Commission of Rural Labour), there were approximately 10 million seasonal/circular migrants in the rural areas alone in 1999-2000. This includes an estimated 4.5 million inter-state migrants. There were large numbers of migrants in agriculture and plantations, brick kilns, quarries, construction sites and fish processing.

Theory and Impact of Migration

While migration enables workers from underdeveloped regions to find employment, its impacts have been evaluated variably by academics. Todaro's neo-classical model regards migration as a

product of rational economic decision-making. The migrant makes a rational free choice to improve his economic condition by seeking more favourable employment conditions, even if the decision is being taken under distress. The policy recommendations of this theory are therefore in favour of migration and suggest reducing the cost of migration, i.e. improve the bargaining power of migrants, improve information and conditions of work, etc.

In contrast, the structuralist theories view the personal choice to migrate not at a product of individual freedom but rather as structured by the larger mechanisms of capitalistic production. In case of the poor, their choice to migrate is often the only option that they possess for survival, and their decision is a reflection of lack of choice rather than freedom of opportunity. Breman views the creation of migrant 'wage hunters' as representative symptoms of the larger processes of global capitalistic development resulting in a race to the bottom. Given that capitalistic production is motivated by profit as the only determining factor, it would invariably lead to regional imbalances and employers would hire labour at the lowest available cost.

Also, the reality of migrants at a micro-level ensures that their constant motion and inherent insecurity of employment reduces their ability and inclination to unionise or enhance their bargaining positions for fear of instant dismissal. The policy recommendations of this group of academics would therefore be in favour of strict implementation of programs to reduce regional development imbalances, minimum wage regulation and right to work, for example, employment assurance schemes like the Maharashtra Employment Guarantee Scheme (EGS).

Maharashtra's Employment Guarantee Scheme (EGS): Right to Work

Maharashtra Employment Guarantee Scheme was launched in 1972 and aims to provide unskilled manual employment on demand for wage labourers. The program innovatively draws its corpus of funds, which is funded up to 90 percent, by imposing a tax on white-collar professionals and traders in the cities, especially Bombay, and imposing an additional Motor Vehicle and Sales tax. These funds are used to create labour intensive public

works, for example, digging wells, building roads, etc. Employment is guaranteed in the vicinity of the village or the transport cost to the place of work is reimbursed.

The major objective of this self-targeting scheme is to create additional wage employment for emergency relief during natural calamities, provide food security and employment guarantee in cases of chronic poverty, and construct village infrastructure concurrently. Since this employment provides only minimum wage and is pegged at below the prevailing market wage, the program is self-targeting and draws only the poor and unemployed. Consequently, it also targets poverty alleviation, as it is directed at the most vulnerable populace.

The strategy is similar to the conceptualisation of the Keynesian multiplier, which encouraged the use of large-scale public works to reduce unemployment and revive the economy during the Great Depression. His logic was simple – in times of distress it is the responsibility of the government to engage labour even if only to dig and fill trenches as long as it provides a means to circulate money, increase effective demand in the economy, and feed hungry stomachs.

In the eighties in India, non-agricultural employment in public works, sustained by the large increases in government expenditure, influenced an increase in agricultural wages. Thus landless labourers, the poorest segments in the Indian rural population, were not only able to access gainful employment at the minimum wages in the public-works programs but also their seasonal wages in agriculture saw a much-needed increase.

However in recent decades the EGS itself has witnessed deterioration due to use of funds for other purposes, corruption, competition between different poverty alleviation programs, insufficient unskilled work opportunities in rural areas, mismanagement, and decreasing demand for unskilled work as education levels increase.

Irrespective of ideological interpretations of the phenomenon of migration, it is an urgent crisis for the Indian state. The alarming call of political parties to curb migration on ethnic lines is a by-product of the economic distress facing the nation. Hence it is

imperative to implement policy options to alleviate the situation for the short and long term.

Conclusion

This article presented an evaluation of the prevalence of migration in India as the root cause of ethnic tensions vitiated by economic distress at low level of skill and education. The problem of unemployment is in urgent need of redressal in India. The implications of its unchecked fury were evident in the ethnic violence in Assam. The phenomenon of low productivity due to overcrowding and cyclical unemployment have important implications for future generations in terms of education as it affects their labour market options to improve their skills and vertical mobility. Therefore it is imperative to protect the right to work in the second most populous nation on the planet.

Today, the nation is facing the daunting challenge of unemployment. With restructuring, even formal sector jobs have been shed. While employment options abound for the core circle of skilled professionals, the periphery of the unskilled and semi-skilled is worsening.

Universalisation of programs like the EGS would provide an important measure of relief and long-term growth for the rural economy. However, it must be noted that a decade from now, the problem that the nation will face is educational unemployment for which the Assam incident serves as an ugly precursor. In fact, with the expansion of rural education, 8 million children have been taken off the fields in the last decade to join the rural schooling system. The aspirations of these first-generation literates require the construction of creative strategies for mass semi-skilled employment in the near future.

Migration in India

India as a nation has seen a high migration rate in recent years. Over 98 million people migrated from one place to another in 1990s, the highest for any decade since independence according to the 2001 census details. However in 1970s migration was slowing down. The number of migrants during 1991-2001 increased by about 22% over the previous decade an increase since 1951.

Apart from women migrating due to marriage, employment is the biggest reason for migration. The number of job seekers among all migrants has increased by 45% over the previous decade. Nearly 14 million people migrated from their place of birth in search of jobs. The overwhelming majority of these-12 million was men.

Migrants have created pressure on others who are in same job market. While freedom to migrate within the country is an enshrined right the uneven development, levels of desperation and other factors have created friction points. Most people migrate because of a combination of push and pull factors. Lack of rural employment, fragmentation of land holdings and declining public investment in agriculture create a crisis for rural Indians. Urban areas and some rural areas with industrial development or high agricultural production offer better prospects for jobs or self-employment.

Contrary to common perception the search for jobs is more often within the same state than in some other state. About 9 million persons were intra-state migrants often within the district while 5 million went to other states. The intra-state figures include people moving from villages to nearby towns and cities in search of better jobs. Over 5.7 million persons who moved in search of jobs migrated from rural to urban areas. Another 4.5 million migrated within the rural areas looking for work. The data shows that among people migrating in search of jobs, literates constitute the vast bulk over 10.6 million while illiterate migrants are about 3.3 million. Three out of four job-seeking migrants are educated males. Among literate, migrant job-seekers less than 1% was women. Nearly 40% of literate persons migrating for work had studied up to secondary level and another 32% had studied beyond. Graduates numbered over 1.8 million or about 17% while technical diploma or degree holders constituted about 8%.

About 72% do get regular work but over 11 million get less than 183 days of work in a year. This is a higher proportion than non-migrants. Independent NSS data from 1999-2000 indicates that migrant workers take up regular or casual employment or self-employment in nearly equal proportions. Around 8.1 million of the migrants were reported as available for or seeking work.

The census data may not fully reflect seasonal or circulatory migration, estimated to be up to 10 million by the National Commission on Rural Labour. Seasonal migrants are usually dalits and other highly impoverished sections that go out to work in harvesting seasons or on construction sites, in brick kilns, salt mines etc. They go out to pay their debts and to survive.

Checking Migration Problems in South Asia Article Summary

Migration is a kind of population dispersion. It involves movement of population from one place to another or from one country to another. Most two-way migratory movements are rhythmic processes of population. Regular periodicity is a common feature of such movements.

The social transformation that affects migration is felt in various countries in different ways. The situation results in what are referred to as mobility transitions, which are meant to stress that there is no single mobility transition.

Migration is an outcome of economic and political change. Economic growth creates inequalities which encourage movements from places of fewer opportunities to more ones.

Usually, migration of population may occur for food, shelter and other basic needs. In such cases, mortality of many individuals may occur due to different ecological risks such as temperature fluctuation, food scarcity, etc.

Despite continuing efforts over the past few decades, substantial economic and social developments are not evident in South Asian countries. It can be realized only in the more accessible and most profitable parts of these countries where investments have only brought profit to urban areas. People of undeveloped sectors, hills and mountains, faced with demographic pressures, leave their villages and go and settle in the more advanced regions of the country.

Migration within each country and between the countries of South Asia will become a greater problem than it already is. Intra-country migration has already caused problems in this region, straining the social fabric and creating social tension.

The Maharastrian versus the non-Maharastrian conflict in Mumbai city or the insider-outsider conflict in northeast India for many years or the Sindhis versus Mohajirs in the Sindh Province of Pakistan reflect the tension inherent in the migration process within each country.

Indo-Nepal migration is unique. In accordance with the Nepal-India Treaty of Peace and Friendship of 1950, Indian nationals can enter Nepal for any purpose, stay in Nepal for any period of time and either leave or settle permanently if one chooses to do so. In this regard, no documents are required, no registration is done at the border check-posts and by and large no questions are asked. The treaty established open border for people's movement without any travel documents such as passport or visa. But migration seems to be high on the agenda and is likely to continue as a major irritant in Indo-Nepal relations.

The influx of Nepal's terai migrants from the hills and Indians from across the border, some Bangladeshis'' crossing into eastern Nepal after being pushed out from Bihar and West Bengal, will eject the local population. Consequently, this will create conflicts among the different categories of people.

The Indian state of Assam has been complaining against the impact of influx of migration from both Bangladesh and other Indian states. Since Assam's population has increased considerably, Assamese feel that they are virtually in the process of extinction due to the exodus of immigrants.

South Asia's intra-country migration is politically dangerous. Actually, the Indian sub continent's partition in 1947 has not been able to create stable domestic conditions. About 6.5 million Muslims migrated from India into Pakistan and nearly 5 million Hindus from Pakistan into India between 1947 and 1951. Intra-country migration still continues in South Asia. Such migrations, whether in the eastern parts of the subcontinent between India and Bangladesh or in the terai region afflicting Nepal or India or between Nepal and Bhutan or the neighboring areas or Sri Lanka, create political and social problems.

According to a previous study ago, Bengali Muslim immigrants possibly exceed one million, most in Karachi city. This city is also

the destination of about 0.2 million Burmes. During the last two decades or so, about half a million Indian Muslims crossed the Pakistani border illegally in order to join their relations in Pakistan.

Given the fact that South Asian countries, apart from Sri Lanka, will reach replacement rates much later, only after two decades, net rural to urban migration will contribute 25-40 percent urban growth in this region, except in Bangladesh and Nepal.

Cities such as Bangalore, Delhi, Dhaka, Kathmandu and Karachi may receive more migrants in comparison to other countries. However, there is little proof to support the frequently heard complaints that most South Asian countries are swamped by migrants.

The concentration of such migrants in some specific localities of the above-mentioned cities may give a contrary impression. It will seriously strain the provision of services and urban administration.

Migration has caused violence in various parts of South Asia. Fear of changes in the population structure has led to widespread resentment against migrants. In some places, the situation has become contentious because the migrants compete with locals for jobs and other economic benefits.

The unemployed youths, frustrated in their attempts to find jobs, become receptive to vicious propaganda against migrants or outsiders. The demand for expulsion of the hated migrants or outsiders is the common theme of all secessionist movements in South Asia.

South Asia has become a helpless spectator of unending violence. Instead of solving people's problems, these regions' politicians find it easy to divert public attention by indulging in indecisive rhetoric. They realize that there are no quick solutions to the growing problem migration which has become an urgent need to check migration trend in this region.