

Population and Economic Development In India

N. R. Narayana Murthy



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"Free Enterprise was born with man
and shall survive as long as man
survives".

-A.D. Shroff

1899-1965

Founder-President

Forum of Free Enterprise

Introduction

In the 1950s ominous clouds of socialism had gathered over the Indian horizon. A few industries had been nationalized and there was genuine apprehension that a few more were likely to come under state control. There was a growing sense of nervousness among businessmen but they could not muster enough courage to take on the government.

Disillusioned by the general apathy a few intrepid businessmen got together under the leadership of the late A.D. Shroff, to form the Forum of Free Enterprise. The Forum's basic object was to create national awareness of the enormous contribution which our early pioneers had made to establish industries in the pre-independence era in the face of heavy odds. It was also intended to propagate the role free enterprise could play in the rapid economic and social development of our country. The Forum also formulated a very comprehensive Code of Conduct for businessmen way back in 1957. Fortunately, in those days the media was very receptive to the Forum's mission.

The late A.D. Shroff was no armchair critic. He was a man with formidable background of finance, industry, banking and insurance. He had a large stake in the corporate world as Promoter, Chairman, and Director of several public companies. He consequently took enormous risk in attracting the ire of the Government. Thanks to the foresight of men like him and later the redoubtable late Nani Palkhivala, who led the movement

forward for three decades with great vigour, liberalization gathered momentum and the fruits of which we see today.

The late George Woods, Past President of the World Bank, commented "Nobody could accuse Shroff of hiding his opinions and very rarely were these opinions fashionable in India. Yet few patriots did more than he to make friends for the Indian nation and to build confidence in that nation among those throughout the world whose business is to provide capital".

To carry this message forward the Forum organizes Annual Lectures in memory of the late A.D. Shroff by distinguished speakers. The 38th Lecture in the series was delivered by the internationally acclaimed corporate chieftain in the person of Mr. N.R. Narayana Murthy, Chairman and Chief Mentor, Infosys Technologies Limited, on, "Population and Economic Development".

Mr. Narayana Murthy is, indeed, an epitome of what free enterprise can achieve, given a congenial and enabling environment. What is most admirable is that he has attained dizzy heights without a godfather or family name and wealth. He is a man with a mission backed by enormous confidence and tenacity. Most commendable has been the team of exceptional professionals he has helped develop and in the process spawned hundreds of multi millionaires in his Company. The norms of Corporate Governance which Infosys has set, have become a model for those who wish to pursue them in spirit.

In his stimulating Lecture Mr. Narayana Murthy has comprehensively addressed the sixty-four million dollar question – whether a very large and rapidly growing population in India was really a drag or an opportunity. The illustrations of India and China, the only two really large and comparable countries, are telling. According to him family planning and family welfare in India were not as successful as originally intended as the will was lacking and the implementation tardy. Besides there were frequent changes in policy, depending on the ideological complexion of the government of the day.

He has succinctly dealt with the Indian scenario. While the current rate of growth of population has declined to 1.5% from 2.2% three decades ago, it still means an addition of 16 million a year. In contrast growth rate in China was only 0.8%, about 10 million a year. Consequently India will equal China's population by 2035. Further India presented a very mixed picture. While the average fertility rate had come down to 3.3 per family, it was widely skewed with a high of 4.3 in the Bihar States and around 2 in Kerala, Tamil Nadu, Karnataka and Andhra Pradesh. In fact in Kerala the fertility rate was way below the reproduction rate and the population there is likely to start declining in the next decade. The important single contributing factor was the high level of female literacy, almost touching 90% in many districts in Kerala. Mr. Narayana Murthy has emphasized that far greater importance must be given to primary education, health care and family planning, which would lead to reduction in maternal and infant mortality rates.

Mr. Narayana Murthy has also given a brief resume of the factors contributing to the economic growth in the tiger economies of South East Asia in the last three decades, and has emphasized that merely large number of hands was not enough to propel growth per se. It was good human capital, which contributed to higher productivity and entrepreneurship. He has referred to a surplus of 47 million working age people that India was likely to have in 2020, compared to acute shortage of labour in the developed countries, like USA, and Japan and even in China.

Hence it is imperative that India's economic growth rate should be stepped up to 8% and more and this vital resource be galvanized to great advantage. Unfortunately in India job creation has lagged far behind. There was imperative need for bringing about labour market flexibility to generate greater employment opportunities. Unless active measures are taken to achieve population stabilization in the next 25/30 years, India will face serious socio-economic problems. The speaker has also referred to the transition from a survival to a consumption society and the resultant pressures on infrastructure in urban areas, as a result of migration.

Given likely growth of 30 million middle class per year, energy needs will grow at an even faster pace, and the quality of life is likely to worsen as a result of increased urbanization. Water will prove to be our scarcest resource unless urgent steps are taken for rationalizing its usage and conservation.

Mr. Narayana Murthy has offered several very pragmatic solutions to grapple with these issues. The text of the lecture, reproduced herein, makes fascinating reading not only to informed students of economics but also to the lay citizen. We are beholden to him for bringing to the fore the dimension of the demographic problem staring the country. He ends on an optimistic note – we are a nation of great talent and have the capability to transform India.

The Forum is grateful to Shrenuj and Company Limited for sponsoring the Lecture and also this booklet. We trust the text will receive the attention of our planners and the government.

Mino R. Shroff

President,

Forum of Free Enterprise

16th April, 2005

Population and Economic Development In India

**by
N.R. Narayana Murthy***

It is an honor to speak at the A. D. Shroff memorial lecture. Ardeshir Shroff, eminent industrialist, banker and economist, was a person of great integrity and moral courage. He was a brilliant, independent thinker. He was fearless and outspoken, and frequently expressed views contrary to popular opinion.

He was critical of India's post-independence socialist ideology, and was one of the earliest exponents of free enterprise in India. His strong beliefs in free enterprise were vindicated by the economic reforms in India in the 1990s. The Indian economy has shown remarkable progress since reforms, averaging 6% GDP growth in the past decade. Today, India is one of the fastest growing economies in the world.

India's low-cost, skilled labor force has been an important driver in its economic growth. India today has the second largest population in the world. In the 1960s, India's population was 548 million, with an annual growth rate of 2.2%.

Population growth rate peaked at 2.22% in the 1970s. The growth rate began to fall in the 1980s, with the introduction of family planning policies. The growth

*The author is Chairman and Chief Mentor, Infosys Technologies Ltd., Bangalore. The text is based on the 38th A.D. Shroff Memorial Lecture delivered in Mumbai on 8th April 2005.

rate slowed to 1.8% in the 1990s and has slowed down further to 1.5% since 2000.

However, India's population is still growing at twice the rate of China's annually. India contributes 21% of the world's annual population growth, and its population stands at over one billion today.

Jawaharlal Nehru believed that India's large population was an important asset, and "the key to the economic future of our nation". Development models link human assets to economic growth. The macroeconomic development model pioneered by A. J. Coale and E. M. Hoover indicates that, the rate of economic growth in a developing country is primarily determined by two factors: the growth in labor force; and the amount of capital available per laborer.

Today, 36% of India's one billion population is below the age of 15 years. This means that by 2020, 325 million people in India will reach working age. India will have the largest working population in the world. This expected rise in India's working population comes at a time when the developed world is faced with large, ageing populations.

Europe's ratio of working population to retirees, for example, is set to fall to just 0.9, compared to a ratio of 6.9 in India. It is estimated that by 2020, the US will be short of 17 million people of working age, China 10 million, Japan 9 million and Russia 6 million. Against this, India will have a surplus of 47 million working age people.

Such a demographic opportunity for India – a time during which the high growth rate of the working

population can be a fuel for faster economic growth – is a ‘demographic window of opportunity’ for the country. It is estimated that one-third of the economic growth in East Asia between the 1950s and 1990s came from the demographic window in these countries.

A report by Goldman Sachs predicts that of the four big emerging economies – Brazil, Russia, India and China – India alone, equipped with the advantage of a large, vibrant workforce, will grow at more than 5% a year until 2050.

However, economic growth and prosperity is not ensured by an expanding population, but by what economists call ‘good human capital’: a population equipped with the skills and resources to participate in the economy. Good human capital contributes to high levels of labor productivity and entrepreneurship, which in turn drive growth in the economy.

The key to creating good human capital is human development, supported by the right policy environment. Critical policy areas include education, public health, family planning and economic policies such as labor market flexibility. However, key indicators show how India has fallen behind in its efforts in human development.

We rank 127th among 177 countries on the Human Development Index. Adult illiteracy in India is 39%, compared to 9% in China. In absolute terms, over 300 million people in India are illiterate. India, according to Amartya Sen, “is in danger of becoming one of the most illiterate parts of the world.” 25 million children in India are out of school – accounting for

one-quarter of the world's 104 million children out of school. Malnourishment strikes 64% of children in India.

China pulls one percent of its population out of agriculture every year and puts them into construction and manufacturing. Such large-scale job creation has failed to happen in India, due to labor market inflexibility and curbs on investment. The poverty rate in India stands at 26%, compared to 11% in China. The absolute number of poor in India is still over 260 million people – 193 million in rural and 67 million in urban India.

With limited progress in human development, India's large population can become a liability rather than an advantage. India's present rate of population growth translates into 16 million more Indians every year, rising to almost 18 million a year by 2016. India's population is expected to overtake China's by 2035, when both countries have populations of around 1.5 billion.

A failure to stabilize India's population will have significant implications for the future of India's economy. A comparison of India and China's GDP growth versus purchasing power indicates the impact of population growth on per-capita income.

Measured by purchasing power per person, China and India were at the same level at the end of the 1980s. In the 1990s, both economies saw spurts of growth. India's real GDP grew by 5.8% a year from 1991 to 2003. China's GDP grew 9.7% between 1991 and 2003. However, GDP per person diverged faster than economic growth. China's GDP per person grew by an

average of 8.5% between 1990 and 2003, India's by 4%.

As a result, adjusted for GDP per person, China has grown to be 70% richer than India between 1990 and 2003. China's national income per head in 2003 was \$1,100, compared with \$530 in India: a considerable gap achieved in one decade. At the current rate of population growth, India must average an annual 9% GDP growth rate till 2016, to achieve Indonesia's 2004 per capita income level of \$980.

Today, high population densities have led to overloaded systems and infrastructure in urban areas: 27% of India's urban population today lives without sanitation; 24% lives without access to tap water. The population of India's major cities is expected to increase by an average of 25% by 2015. Mumbai, for example, one of the world's most densely populated cities, is expected to grow from 18 million people today to 26 million people by 2015.

India's population will be 72% urbanized by 2030. It is estimated that India will require the construction of 3.6 million housing units in urban areas every year, to address additional population requirements.

The annual growth in India's population alone is estimated to require the opening of 66,000 new primary schools and 3,000 new health centers every year. To provide for the food requirements of the additional population, India will have to consistently increase food production by 3% every year.

Population growth today will have a key impact on India's future demographics. In 2003, less than 8%

of India's population was over the age of sixty. However, by 2050 over 26% of the population will reach retirement. India's ratio of working population to dependents will fall to 0.9. Consequently, the burden of the ageing population on India's economy will increase significantly.

The population impact on India's resources has been severe. According to the World Bank, resource degradation costs the Indian economy 4.5% of GDP annually. Common property such as grasslands has declined by 25%, through encroachments and over-cultivation.

The water table in India is falling by an average of six feet every year. It is predicted that India will cross into water scarcity by 2025. An estimated half of India's 329 million hectares of soil is degraded. India will lose all its productive land to desertification within 200 years, if the present annual loss of land continues.

The implications of future consumption on India's resources are significant. Today, the per-capita consumption level in India is one-twentieth that of Europe. However, with economic growth, approximately 30 million people are entering India's middle class every year. India's household consumption spend is expected to double to \$510 billion by 2008.

India is undergoing what the economist Stuart Hart calls the transition from a 'survival economy' towards a 'consumption economy'. The demand of India's population on resources will, as a result, increase significantly. China's consumption demands, for example, have soared with economic growth.

China saw 11,000 new cars enter its roads everyday last year. In 2004, China accounted for 20% of world consumption of aluminum, 35% of global demand for steel and coal, and 45% of worldwide purchases of cement. In fact, according to the *Economist*, Chinese demand was primarily responsible for the 50% rise in the magazine's commodity-price index over the past three years.

The future energy demands of India's and China's populations will put significant constraints on world resources. China's present demand of one million barrels of oil a day is estimated to have been a key factor contributing to the rise in oil prices in 2004.

Goldman Sachs estimates that India's contribution to global oil demand growth will overtake China's within 15 years. The related environmental stress will be unprecedented. According to the International Energy Agency, China and India will produce about one-fourth of the world's emissions of carbon dioxide by 2010.

The environmental impact of economic growth in China is already significant. The World Bank estimates that environmental and resource degradation costs China 12% of its GDP annually. 70 million "environmental refugees" – people driven from rural land due to soil degradation and drought – are floating labor in China's cities. In 2003, water scarcity cost China \$28 billion in lost industrial output; acid rain cost the economy \$13 billion; and desertification cost China \$6 billion.

The rapid growth in emerging economies cannot be sustained in the face of mounting environmental deterioration and resource depletion. The consumption

model of the European and US economies would have an irreversible impact on resources and environment in India and China. Consequently, the challenge for India today is double-pronged: to stabilize population growth; and combine economic growth with a 'sustainable economy'.

To stabilize India's population by 2045 at 1.7 billion people, India needs to achieve the replacement level of growth – a fertility rate of 2.1 versus the present 3.3 – by 2010. I believe this can be done. To quote Martin Luther King, "The plague of overpopulation is soluble by means we have discovered, and with resources we already possess."

Efforts to bring down India's population growth rate must implement a combination of short and long-term goals: drastically reducing birth rate in the short-term; and implementing long-term policies to bring down fertility rates. India's family planning policy has only been partly successful in controlling birth rates.

There has been a failure at the state-level in implementing family planning programs. The unmet need of contraception, for example, is nearly 20% in Uttar Pradesh. There has been little analysis of the effectiveness of India's family planning programs. Haryana, for instance, has implemented incentive-based population programs; but the state continues to have fertility rates higher than the national average.

Local government bodies and NGOs must be consulted for better implementation, and to create more effective programs. Localization of family planning programs will also help address specific needs of the local population, and create greater accountability.

The government must focus on creating a network of information management programs to educate families on various contraceptive methods. Involvement and education of women in family planning is critical to increasing the use of contraception in families. Short-term, state-level performance targets are required, to assess real progress.

Family planning policy must also focus on long-term goals. In the long term, a focus on human development – improvement in literacy rates, and women’s and children’s health – brings down fertility rates and population growth. For example, it is India’s poorest and most illiterate states – the states of UP, Bihar, Rajasthan and MP – that have the highest average fertility rate of 4.3.

A decrease in population growth, however, has been marked in the southern states of Kerala, Tamil Nadu, Karnataka and Andhra Pradesh. Today, these states have fertility rates equal to or slightly higher than the replacement level of 2.1. Governments here focused on human development, opened up local economies and improved social services faster than in the north.

Rising female literacy in these states also contributed to family planning. The economist, Wattenberg, has shown that worldwide, the correlation between falling female illiteracy and falling female fertility is nearly exact. A focus on women’s and children’s health also contributed to population control. A decline in maternal and infant mortality rates led to a fall in fertility rates. In Kerala today, the maternal mortality rate is 30; in Madhya Pradesh it is 200.

Clearly, human development goes hand in hand with lower population growth. To maximize human capital, we must empower people by creating access to key resources.

In the words of George Eliot, "The strongest principle of growth lies in human choice." People should be given the skills and resources to make employment choices. This means creating access to health and education resources, improved access to infrastructure, and job-creation.

India cannot afford to ignore the implications of unsustainable economic and population growth. Today, we need strong, effective leaders, who will create an urgency for change.

The first step towards change is awareness. Leaders must encourage public dialogue on the implications of India's population growth; the successes and failures of our population policy; and the need for sustainability.

Leaders and policy makers must encourage research towards solutions to stabilize population, and achieve sustainability. India's focus on sustainability must change from piecemeal projects aimed at controlling pollution, to long-term solutions with a broad focus on pollution prevention, conservation of resources and innovation for clean technology.

The environmentalists, Paul Elhrich and Barry Commoner, observed that the environmental and resource burden of a population is a function of three factors: consumption, population size, and technology.

Consequently, when population size and consumption levels are high, the key to reducing the resource burden and creating sustainability is innovation in technology.

India has the opportunity to leapfrog old, inefficient technology and focus on new, sustainable solutions – more efficient transportation and sanitation systems, clean-fuel vehicles, better product and process technologies in manufacturing, and bioengineering of crops rather than the use of fertilizers.

The government must focus on conservation-friendly policies. For example, subsidies on conventional fuel which make it difficult for renewable energy sources to compete; and flat-rate electricity pricing which results in over-pumping of groundwater, should be removed. The government can play a key role as a regulator in making Indian industry environmentally responsible.

As a country, we have significant social and economic challenges ahead of us. We face unique problems, which will require new, innovative solutions. In the words of Albert Einstein, "In the middle of difficulty, lies opportunity." We are a nation of great talent. I believe that we have the capability to face these challenges, and the opportunity to transform our nation in the process.

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*The views expressed in this booklet are not necessarily
those of the Forum of Free Enterprise.*

"People must come to accept private enterprise not as a necessary evil, but as an affirmative good".

-Eugene Black

FORUM OF FREE ENTERPRISE

The Forum of Free Enterprise is a non-political and non-partisan organisation started in 1956, to educate public opinion in India on free enterprise and its close relationship with the democratic way of life. The Forum seeks to stimulate public thinking on vital economic problems of the day through booklets, meetings, essay and elocution competitions and other means as befit a democratic society.

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