THE GROWTH PASS

The dichotomy of growth and development

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THE TIMES OF INDIA
Companies snap up non-IIM B-school grads

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7th March, '09: New Delhi: IIPM has managed to place 1,442 students from its campuses across the country in 400 companies... last year, of the 2,600 students, 1,800 had got offers by this time... In 2008, while IIPM had the second highest international placements (165) among the B-Schools in India, its Delhi campus boasted of the highest (125) no. of international placements as a single institute...
“A Society where man is at the centre of all activities, a society where exploitation of man by man has been abolished, where he is cared for as an in a family, where “to each according to his need” is practised, a society where non bureaucratic National Economic Planning is given due importance for sustainable optimum growth, where adequate social safety net is a reality and yet market’s advantages are fully taken care of for creativity and entrepreneurship, such a society can be truly described as humane society and the vision as “Humanism”.

Dr. M K Chaudhuri
The Great Indian Dream, 2003, Macmillan India, New Delhi

“Let us together dream of a country where poor are not just merely reduced to statistics but where there are no poor. Let there be a day when small children are taken to a poverty museum like science museum where they shiver at the plight of the way people used to live in the last millennium. Let this dream take the form of a revolution and as long as our dreams keep outweighing our memories, India would remain a young and dynamic nation on this path to global equality. And for this let the wait not be for eternity. Let us together achieve this in the next 25 years.”

Prof. Arindam Chaudhuri
The Great Indian Dream, 2003, Macmillan India, New Delhi
IIPM: THE FUTURE IS HERE

Since its incorporation (1973), IIPM has been an institution with privileged traditions, in the diversity of its fraternity, its global outlook, its world class research and its commitment to alternative national economic planning process.

It can be said, without much oversimplification that there are no ‘underdeveloped economies’. There are only ‘under managed’ countries. Japan 140 years was ago was an underdeveloped country by every material measurement. But it very quickly produced management of great competence, indeed of excellence. The policy inference is that ‘management’ is the prime mover and ‘development’ is the consequence. At IIPM, every one considers that development is a matter of human energies rather than economic wealth. And the generation and direction of these human energies is the task of ‘management’. Accordingly, we formed The Great Indian Dream. Unlike any other dream, this is one dream which each one of us are determined to realise and that too in our own lifetimes. Each bit of cynicism and condemnation from pessimists makes us evolve even stronger and determined.

All our endeavours and initiative is towards realisation of this dream, where in we produce committed ‘bare foot’ managers and entrepreneurs who are needed by nation, on an consistent basis. As an educational institute, we aim at initializing a three dimensional personality in IIPMites, viz.

- Pursuit of knowledge in economics and management
- Commitment to economic, social, political and technological upliftment of masses and
- Cultivation of taste for literature, fine arts and etc.

Economists often have limited access to the practical problems facing senior managers, while senior managers often lack the time and motivation to look beyond their own industry to the larger issues of the global economy. It has set before it the twin tasks: to reorient education and research towards the needs of both the private and public sectors and to establish the link between the National Economic Planning and the development of private enterprises in Indian economy. IIPM dares to look beyond, and understands that what we teach today, other adopt tomorrow. IIPM’s service output (education, research and consulting,) is a unique combination of two distinct disciplines: economics and management. Through this integration, IIPM helps guide business and policy leaders in shaping the Indian and global economy, bringing together the practical insights of industry with broader national and global perspectives.

A hallmark of IIPM is that it is armed with the comparative advantage of engaging the committed, passionate and brightest management post graduates and undergraduates, who pursued the education at IIPM and subsequently joined it, to realise the dream. IIPM alumni, spread across the globe, holding crucial decision-making positions in the corporate sector, are bonded by the one ideology of making a positive difference, turning that ideology into a movement itself.

The India Economy Review is another humble initiative towards the realisation of the same and more distinctly, engaging the broader publics and pertinent stakeholders.

SEARCH, SIEVE, SCHEME...

In economics, like in everyday existence, it is imperative to hear, perceive and consider what others have to say. Each issue of The IER brings together a collection of important contributions on a particular theme, authored by some of the brightest minds in different areas of Indian economics. The provocation for publishing these issues arises from the fact that over the years economic journals have become copious, exclusive and expensive. Most of the journals and a good many of the books have gone beyond the cerebral and financial reach of general students and other scholars. It is for them that these issues are primarily being raised and debated here.

Much about India is transparent enough. One does not require detailed criteria, cunning calibration or probing analysis to pinpoint India’s problems and recognise its antecedents. There is in fact much that is perceptible about India. But not everything about India is even if simplistic is so simple. The learned reader would appreciate the fact that India is like an elephant that looms too large to be grasped within a distinct structure and paradigm the constituent parts of which would fail to reveal the entirety. Obviously and observably, no suggested solution to any protracted and complex socio-economic problem will satisfy all sides and stakeholders evenly. Consequently, there exists an enormous diversity in economic thinking and perspectives, as is also reflected in the viewpoints of different expert contributors in this issue. The intended outcome of this exercise is to facilitate the invention, improvement, deliberation and dissemination of innovation in economic thinking and national economic planning, insisting merely on well-grounded, open and unbiased debates, without predetermined outcomes. It is impossible to do justice to the entire field of Indian economics in a single issue. The topics selected for this issue are those which are of critical and immediate importance to India. Majority of them were freshly and exclusively written. Encapsulated, it is a constructive attempt aimed at helping India actualise its promises and potential. The editors hope that this issue of IER proffer the reader a flavour of dynamism and excitement and persuade her/him to participate in the journey towards realising ‘The Great Indian Dream’. At the same time, it illuminates the terrible, practical problems of India and Bharat.

ACKNOWLEDGEMENTS

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Dear Readers,

Economics is funny! I remember my professor used to say that instead of conducting classes in air-conditioned rooms with lights on devoid any ventilation, it is much better to conduct the same in open areas. By doing that, the later adds to our health while the former adds to our Gross Domestic Product (GDP). The more we burn power and thereby health, the more the economy grows! Funny, isn’t it? Well, the fact is that almost all critical social indicators viz. poverty, unemployment, health, environment and many other are comfortably swept under the carpet, in the veil of burgeoning GDP rates. With so much hype around economic boom, GDP has apparently come out as the only convenient panacea for all social imbalances. Whereas the fact remains that the GDP figure fails to depict a true picture of any economy. Thus, it is imperative that we need to institute a more holistic index which portrays the real economic picture. A Genuine Progressive Index (GPI) not only breaks the myth of economic growth that is fuelled by lopsided growth but also takes into account numerous other variables that play a major role in socio-economic well being, but had been largely sidelined on account of prevailing GDP calculations.

Let’s go step by step and understand that what this mad race of attaining higher growth has given us. It is no secret that despite India Inc. increasingly entering the billion dollar club and finding its place in the fortune 500 list, the gap between the executives and workforce has been consistently widening. In simple words wealth creation does not equate to wealth distribution, yet it adds to the GDP. Another case in point is the incidence of crime, which is quite rampant in India. GDP treats such expenses (money spent on court cases, lawyers, divorce cases) as additions to wellbeing while the GPI subtracts the costs arising from crime and related activities. In the same lines GDP ignores the contribution by household and volunteer work while the GPI includes such variables as the approximate cost incurred if the same work is done through professional contracts. A report by the Evangelical Social Action Forum and Health Brigade estimates that “the economic value added by Indian housewives would be nothing less than $600 billion annually that is equal to a staggering Rs 28,20,000 crore. In simple terms, it means that on an average an Indian housewife adds Rs 78,000 per year to the economy.”

Even the fluctuation in income distribution finds its place in the GPI. The GPI rises when the poor receive a larger percentage of national income and vice versa. This gain is significant. As per the UNDP HDI Report 2007-08, the poorest 10 percent had three percent share of the national income, the richest 10 percent enjoys 31 percent share on national income. Depletion in resources due to economic activity is seen as current income in GDP while, the GPI counts depletion as current cost. Same goes for pollution. GDP counts pollution as a double gain but the GPI subtracts the costs of pollution as measured by actual damage to the ecology. Just land degradation and deforestation itself lead to a loss of five percent in GDP of India! GPI also considers the loss due to climate change and the management of nuclear wastes which have no place in GDP calculations. Another significant aspect is productivity and man-hours. A one day productivity loss cost the nation Rs 13,000 crore, which again dents the economy to a large extent but does not feature in GDP but is a chief decider in GPI. Latest official reports reveal that 2.5 million man-days were lost in 2008. So, in order to gauge a true growth rate and steer the agenda of inclusive growth in right direction, it is important to focus on GPI that considers humanitarian and environmental costs along with the cost of inequities and environmental damages, unlike GDP. All in all, there is no doubt that economics is funny, but to embark on the path of something as lopsided as GDP calculations, is funnier!

Happy reading.

Best,

Prasoon S. Majumdar

(As it appeared in The Sunday Indian)
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Political interferences in developmental agendas have not only diluted the entire essence of the plans but also has led to embezzlement of funds and wrong representation of outcomes at Budgets.
The word ‘development’ in recent times has become more politicised than being agenda-centric. Development or shall I say ‘Inclusive Growth’ is a term that can be seen that is reused, abused and misused widely during election campaigns and budget sessions. In last six decades, we've seen our government rolling out numerous developmental programmes aiming towards refurbishment of tainted socio-economic fabric.

Even after six long decades of developmental plans, India’s dream of being a developed and equitable society by all virtues remains a distant dream. Given the multifarious and sullied rivalry among political satraps, the proper implementation of development agenda in all likelihood looks infeasible.

The issue here is not much about the futility of the schemes but more about how these are implemented. Surprisingly, most of tried and tested developmental schemes fail to reap benefit in India. Be it SEZs (Special Economic Zones) or NREGA (National Rural Employment Guarantee Act) — that have done wonders in other nations — none of these plans have shown a desirable and impressive outcome despite huge fund and resource allocations. Despite huge budgetary allocations year after year, the developmental plans fail to deliver. Either they fall short of funds or funds are returned to the central government at the end of the fiscal year. Most of our schemes suffer from huge political interferences and non-uniform mode of operating, so that they show different results in different states. Take for instance, NREGA. On the one hand where it failed in states like UP and Bihar, on the other hand it proved to be blessing in southern part of India. It’s no hidden fact that huge sums of money is directed and channelised towards middlemen and into the coffers of politicians. A brief glance through Controllers and Auditor General’s (CAG) report would be enough to gauge the rampant theft of funds. From money meant for Mid-day Meal Scheme to funds allocated for teachers’ recruitment, a huge fraction of money is seen being engulfed away in the delivery process by the middlemen and corrupt politicians.

Beside this, political interferences and ego-clashes also lead to delays and disturbances during implementations. The implementation of TATA Singur plant or Women’s Reservation Bill are case in point. Even DDA flats allocation a few years back, CWG flats sale and Adarsh colony scam speak volume about the menace political interferences cause in developmental plans. Plans like Common Minimum Programme or the much touted Millennium Development Goals that were launched with huge pomp not only failed to keep up to its promise but also became an avenue for corrupt officials to steal and embezzle funds. Recently, the Telangana issue rocked the nation to an extent that it paralysed the entire functioning of the state and made it unattractive for foreign investors. Development is so discreet and non-uniform that states like Kerala enjoy high literacy rate but
be the backbone of economy, found itself being ping-ponged between political leaders. When Laloo headed the ministry, all trains started from Bihar. But with Mamta becoming the new head, all new railway services departure point shifted to Bengal. Riots and religious discrimination, shutting down projects initiated by the previous government and creating turmoil in parliament even for issues of national concern are not only rampant but lead to a huge cost and time overrun.

**Pitfalls in Poverty**

The beneficiaries of poverty alleviation schemes are often been eluded of their rights because of corruption, party favoritism and class prejudice. In Indira Awas Yojana (IAY) for example, there are multiple incidences of bottlenecks in its smooth and effectual execution. First of all, target set by IAY is much below the demand and more importantly, there are complaints of corruptions that is threatening to undermine the very scheme. For instance, the scheme implemented through Panchayat is not transparent to the villagers. Also, the list of beneficiaries prepared by Sarpanch and Panchayat Secretary are manipulated in favor of their relatives, friends, sycophants and people affiliated to the ruling party. For example, in Kagachira village in Malda in West Bengal, the houses to be built under IAY are under financed. Also, the list of recipients has been curtailed. There are discrepancies under Swarnjayanti Gram Swarojgar Yojana (SGSY) as well, as was found out Gopalpur Village in Cooch Behar, West Bengal that a pond and a well that was supposed to benefit the poor are instead being constructed for middle class people who are not eligible beneficiaries in the first place. Then, there is Below Poverty Line (BPL) list which is also alleged to be manipulated in its construction; as there are many instances of non inclusion of poor and inclusion of non poor.

Even though there are more than 100 poverty alleviating schemes in India, the hierarchy of bureaucrats that sits on it (ranging from district and sub district officials to NGOs and flatterers) skims off 85% of the funding, just to keep the mechanism in place! Furthermore, there is a serious lack of knowledge among the poor, let alone any participation.

**Endangering Employment**

The success and opportunity to earn a living that NREGA provides are based on two principal prerogatives. First, the work is of 100 days. And second, compensation is in minimum wage. These two entitlements in union form the minimum level of income for a rural household. The wage rate can be fixed either by Central Government or by State Government. However, it is the prerogative of Central Government to fix it and if they fail — the minimum wage rate of State Government will be implemented. Between August 2005 and January 2009; no notification from the Central Government regarding wage rate was made, compelling State Government’s minimum wage rates to be implemented throughout the nation. However, the State’s mandated minimum wage is routinely contravened and dearth of law enforcing mechanism in India has led to the need of intervention at a market level to lift the wages. Because of the fact that the cost of the wages is borne by Central Government — the State Governments before elections or in other opportunistic times
raise the wage rates as a measure of populism to their electorate. To counter this, the Central Government has fixed the rate at Rs. 100 in January 2009 and even though inflation is high in last two years — the rate is frozen at that level.

One of the most conspicuous examples of flouting State Government’s minimum wage rates happened in Tonk district of Rajasthan, where 99 workers were paid a mere Re. 1 per day for 11 days of work! There was also rampant delay of payments before it was fixed at 15 days. As consequence to that “Mazdoor Haq Satyagraha” had staged a protest rally in Jaipur for 47 days to demand proper enforcement of the legalities of NREGA by the state government; so that they have the right to earn the minimum wages. In case of districts like Tonk, Dungarpur, Dausa and Hanumangarh, NREGA funds were used for purchase of desktops and laptops worth Rs. 3.83 crores. Still, the matter after initial euphoria has gone to the back burner.

In Jharkhand an NREGA activist, Niyyamat Ansari, was murdered allegedly by a local contractor who enjoys protection from local politicians. Therefore, police was reluctant to investigate and in the contrary, they blamed Ansari for having criminal records! A few years back, the CAG report also indicted the government for making available only 37.05 man-days of work against the promised 100 man-days. For the year 2007-08, the more shocking revelation that was made by CAG was that while the government had allocated more than Rs 51,000 crores to NGOs for implementing welfare schemes, the government literally doesn’t have any record about where or whether that money has at all been spent. These cases are politically motivated with interest to fudge NREGA funds.

Erratic Power Supply
Politics and corruption in significant power sector has become a regular feature in post-liberalised India. In Maharashtra, Shiv Sena — BJP combine after coming to power in 1996, first over-turned then again approved $2.5 billion power project by Enron, in a complex network of events. Then Chief Minister Manohar Joshi scrapped the 2,015 megawatts of power project deal, calling it anti-people as he claimed the rates of Enron was much higher than the affordability of a common man! Enron was portrayed as symbol of Western abhorrent and clamped with
same image as MTV, Pepsi Cola and Kentucky Fried Chicken! He also alleged that Enron plant will destroy the coastal environment. However, after long negotiations mostly carried out by Enron’s glamorous CEO, Rebecca Mark, finally the government capitulated and the deal was reclaimed though altered; as the rates were lowered and project cost brought down from $2 billion to $1.8 billion. In a similar kind of politics, in Orissa, Environment Minister Jairam Ramesh in January 2009 expressed his concern over the complete failure of privatisation of power sector. The transmission and distribution loss is at a soaring 49% against the national average of 34%.

In a different kind politics that goes in the capital regarding power, there is a stiff resistance against the proposal of privatising Delhi Vidyut Board (DVB), by their employees itself, as an income loss for them is imminent to the tune of Rs 250,000 on average. In something which is quite alarming, almost half the electricity in Delhi is lost; technical losses can be at most 10-12% and the rest is lost to power pilfering and unpaid bills! The magnitude of such loss will not be less than Rs 2,500 crores. It is indeed not possible for such high level of corruption without a conspiracy by DVB’s employees across the hierarchy and of course involvement of politicians in it. The combined misappropriation is Rs 500 crores; considering half of it is pocketed by politicians. The employees are still left with Rs 250 crores for 10,000 employees, which work to Rs 2.5 lakhs per year per employee. No wonder they are trying to sabotage privatisation.

**Wandering Women Empowerment**

What can be worse than political intervention in women’s empowerment? A nation that is suffering from female feticide, honour killing, high mortality rate, low women literacy and huge gender divide — an act of politicking women empowerment is nothing less than a criminal offence. The latest one being the women reservation bill that promises one-third seats being reserved for women in parliament. However, when one compares the ratio of the nation’s total women population to that of women in the parliament, the statistics reveals a different picture altogether. In the case of India where women population is around 50 crore, a mere 61 women in parliament depicts a poor picture of the status of women in India. The ratio boils down to one woman representative for every 81 lakh women. Going by the researches, most of the women MPs had got ticket because of their political lineage. Ironically, the very parties that are in favour of women reservation have low women representation at party level. Political parties had only 6.88% women candidates. The CPI had only 7% of total contesting candidates as women. Likewise, Congress Party’s had 10% women candidate while the BJP and Samajwadi Party had 11% and 6% respectively! As per researches, in 2009, the following was the share of their women contestants — BSP had 28; SP had 15; JD(U) had 3 and RJD had 2. This is in spite of huge hue and cry for women reservation bill in parliament. Women do play a major role in economy of a nation. For the matter of fact, if we were to add the contributions made by housewives to their respective households — to the National Income — then Indian GDP would go up by a staggering four folds! Going by the assumption that if housewives work for around 10 hours per day *which again is a conservative estimate, as most of them are found working for more than 12 hours a day* and if these women were paid for their daily work, even simply at par with wages set by the government under the Minimum Wages Act, a single women ends up adding a minimum of Rs 2,500-3,500 per month per family. Shamefully, neither do we give space to women in politics and not in economy, but yes, when it comes to appointing them as puppets at different positions, our politicians don’t even think twice.

**Humiliating the Health**

NRHM (National Rural Health Mission),
which was established in 2005, implemented in 18 states, with primary goals of greater access to public health services, reducing infant and maternal mortality rates, avoidance and control of diseases and encouraging different lifestyle and medicine systems. The implementation on NRHM has been a failure in most of the states, as is indicated by the figures of Uttar Pradesh with highest neo natal mortality rate with 96 deaths in 1000 births, followed by Madhya Pradesh with 94, Orissa with 91, and Rajasthan with 85 deaths. Government has been largely nonchalant with this disturbing statistics, as Union Women and Child Development Minister Krishna T eerath simply intoned “We will take this up with the Health Ministry.” The above figures are nowhere near the NRHM target to bring down the infant mortality rate to 30 per 1,000 births by the end of 2012. But there is no answer from Union Government to reprimand this sorry state. While allocating funds for NRHM, the government has allotted lesser funds to states where health infrastructure is almost in ruins. States like Bihar and Assam got very little allocation compared to Gujarat, Tamil Nadu and Kerala. Then there is arguments and blame-game among political parties in implementation of NRHM. The Politobureau member and a leader of CPI(M), Brinda Karat has accused the implementation of the health program by injectable contraceptives as harmful to women. She wrote a letter to Union Health Welfare Minister, Ghulam Nabi Azad stating the danger NRHM poses to women by damaging invasive hormonal contraceptives into the health system. She insisted Mr. Azad to reconsider the decision, as she stated “You are aware that a similar proposal in the 1990's had to be ultimately withdrawn because of legitimate objections from women's organizations and public health experts and activists. The reasons are still valid.” India’s Public Accounts Committee (PAC) Chairman, has called NRHM as a “fiasco”, as the report stumbled on to find untrained personnel, substandard conditions, misuse of government properties and nonexistent monitoring and review mechanisms. A few months back CAG found out that five regulators viz. SEBI (Securities and Exchange Board of India), IRDA (Insurance Regulatory and Development Authority), PFRDA (Pension Fund Regulatory and Development Authority), CERC (Central Electricity Regulatory Commission) and PNGRB (Petroleum & Natural Gas Regulatory Board), retained their surplus funds to the tune of Rs 2,142.47 crores outside the government accounts instead of utilising it. In another case in MP, more than Rs 1.37 crores meant for improving medical facilities was siphoned off. Since last four years, the state government has been depositing Rs 10,000 in the bank account of the village health committee but then there is no account of where the money has disappeared. It comes as no surprise that 40% of people are pushed below the poverty line due to out-of-pocket expenditure in healthcare and why not when the money meant for these poor people goes into pocket of a few ‘power that be.’

Outlays are given priority than outcomes, which is like misrepresenting development through numbers

Erasing Education

India has made progress in terms of increasing primary education attendance rate and expanding literacy to approximately two-thirds of the population. India’s improved education system is often cited as one of the main contributors to the economic ascent of India. But the paradox gets unearthed as soon as one goes through our budgetary allocations for education. India is amongst the lowest spenders on education. Couple this with the fact that India also houses the maximum number of illiterates in the world!
Putting the numbers into perspective, if the total allocated money (Rs 31,036 crores as per the budget 2010-11) were to be disbursed directly to 192 million children (or 19.2 crores children) who officially come under the ambit of SSA (Sarva Shiksha Abhiyan), then each student would receive more than Rs 1600 each this year. Considering that a student generally has to pay an average monthly fee of Rs 100 (actually ranges from Rs 70-150 in rural areas) at rural elementary schools in India, giving Rs 1600 annually to students directly would enable them to pay the annual fees. Also, ASSOCHAM studies show that most of the middle-class families generally end up spending a staggering 30% of their total income on the private tuition of their children beside hefty school fees. This system is unique to India. Republic of Korea has prohibited any kind of private tutoring. Likewise the Government of Mauritius and Hong Kong has regulations in place to limit the commercialisation of extra coaching business.

In addition to that one more prominent setback of Indian education system is corruption. The UNESCO’s International Institute of Educational Planning study on corruption in education revealed that at 25% teacher absenteeism in India is among the highest in the world (global average of teacher absenteeism is about 20%), second only to Uganda. All the elucidations to these problems come to focus only during election campaigning. In their latest manifesto, BJP has made promises to strengthen SSA besides ensuring universalisation of secondary education. Congress camp vows for the deprived communities. The party said education at primary, secondary and university level will be free in all respects for boys and girls belonging to Dalit and Adivasi communities. But the irony is that these promises are forgotten even before election results are out. Of course, what else can be expected in a nation where one can find 2.4 million temples but only 1.5 million places of education (62.5% of place of worship)!

Development agenda in current times has got confined to the definition of growth. Mere numbers and statistics are used to represent development in terms of rosy growth figures without taking into consideration the perforated delivery mechanism and output to real beneficiaries. In simple words, outlays are given priority than outcomes, which is more like misrepresenting development through numbers! High time India stops pretending that the trickle-down theory works in India, that 8-9% growth in GDP annually will remove poverty and attendant ills of the economy and the society. Need we remind ourselves that the menace of naxalism is spreading further in India, forcing even the PM to acknowledge that it is the single biggest problem India is currently facing.

In essence, politics in development is strengthening its presence where as developmental politics is losing its ground. Well, this is the true manifestation of development deficit.

(With research assistance from Sayan Ghosh, Research Associate, The IIPM Think Tank)
Pro-poor Governance for Development
Remains Sole Agenda

ng Nations
India is the fastest growing economy with all the states contributing immensely. The country is making advancements in all spheres and a number of social sector and poverty alleviation programmes like Mahatma Gandhi National Rural Employment Guarantee Act (NREGA) have caught attention of developing nations. The only challenge is to reach out the deprived and weed out corruption. Preventing the leakage of public money is the most urgent task before the nation. Indian states need to come forward and prescribe effective, innovative and replicable strategies. Public service delivery systems need fundamental improvements and innovative remodelling. A vast country like India needs effective governance, IT-enabled transparent systems, innovative people-centric programme designing and pro-poor approach to policy making. We are striving to make Madhya Pradesh a model in pro-poor governance. The reason is that the benefits of economic growth must reach out to the deprived.

There is no other country like India that having socio-economic and cultural diversity. The ethnic diversity posts challenges before the policy makers as every community needs specific development interventions and for every initiative requires a specific implementation mechanism. We have pursued the concept of Antyodaya that means economic rising of those un-reached so far. The Public Service Delivery Guarantee Act 2010 serves a unique example in the country to ensure timely services to people. We are the first among Indian states to have enacted this path-breaking law. The objective is to make administration responsive and accountable to people. There is a time limit for every service. In case of delay, the officials responsible for delivery of services will be fined Rs. 250 per day until the delivery of services. Tendency of delaying the services on the part of concerning officials may invite disciplinary action. Within six months of implementing the legislation, enthusiastically prompt disposal of applications seeking different services from nine key departments was reported. So far, 48 lakh applicants taking help of the Act have been got services within time frame. Now Bihar, Uttar Pradesh, Jammu and Kashmir, Goa, Delhi Governments are adopting the Act due to its effectiveness. I describe it as a pioneer initiative as it would promote a work culture answerable to the common people.

To me, corruption is a world wide phenomenon. All developing nations are suffering from menacing corruption, which halts development process. We can make stringent laws to prevent corruption but can not motivate persons to shun their greed for money. It is only by creating models and examples, the possibilities of corruption can be averted and gradual evolution corrupt practices can be checked. Recently, we enacted radical legislation that enables the state government to confiscate properties of corrupt public servants amassed by illegal means. The confiscated properties can be used as public asset.

Mechanism for direct cash transfer to the stake-holders is another way to prevent leakage of public money. This avoids chances of corruption as money reaches out directly to the needy. Madhya Pradesh is the only Indian state to have tried it with encouraging success. Thousands of wheat growing farmers are receiving the remuneration of their produce directly into their accounts immediate after sale in the
scale for the rural and urban youths is an urgent task. The idea of social justice is deeply embedded into the governance systems in India. The preamble of the Indian Constitution itself is an embodiment of the concept social justice. Mechanism for delivery of social justice, precautionary legal measures and social safeguards suggested in the Constitution for protection of human rights have been demonstrated well in the public policies and programmes.

The biggest question is that who needs social justice and whose human rights are denied. What makes service delivery systems and administration of social justice defunct? Legislature makes laws that reflect people's aspirations. Executive implements them in letter and spirit and Judiciary protects legal rights and entitlements bringing justice to the needy. These organs of India's parliamentary democracy function according to their specific mandate. Now it is the time to improve governance systems for effective delivery of social justice and creating a congenial environment in which there is not a slightest possibility of violation of human rights.

The States have been given enough powers and flexibilities to evolve their own governance practices. Many have performed well. We have novel schemes like Ladli Laxmi and Mukhya Mantry Kanya Dan. The former assures education of daughters of poor families and later is about marriage of daughters, whose families can not bear the expenses of marriage ceremonies.

The only problem states face is the understaffed service delivery system and geographical distance between service delivery system and the physical dwelling of the prospective beneficiaries. The composition of village also creates a problem. In states like Madhya Pradesh, one village is composed of even seven to eight hamlets and distance between two hamlets is sometimes more than 10 kms. In geographical constraints like this, the only solution is to reach out to the needy populations.

It's time to improve governance systems for effective delivery of social justice and creating a congenial environment.

(The views expressed in the article are personal and do not reflect the official policy or position of the organisation.)
Growth Experiences During Post-Reform Period in India

Some backward states in the north and eastern India like Bihar, Madhya Pradesh, Uttar Pradesh and Odisha became epicenter of poverty and volatile growth.

India continues to face the paradox of some backward states in the north and eastern regions of the country with abject poverty while some progressive states in west and southern regions registering dynamic growth. Though overall economic growth has been dynamic for the economy as a whole and in some states, having better infrastructure, sectoral growth and state specific policy and better governance some laggard states remain backward despite of liberal macroeconomic policy environment. While few sectors like in services and non-farm sector and in urban areas exhibited faster growth, poverty is concentrated in agriculture and in rural areas. Till recently, some backward states like Bihar, Madhya Pradesh, Uttar Pradesh and Odisha became epic center of poverty and volatile growth. On the other hand, states like Gujarat and Tamil Nadu have experienced higher economic growth and rapid re-
Inclusive growth has been focused to achieve twine objectives of growth and equity which reduces poverty and researchers. To achieve twine objectives of growth and equity that translate growth into faster poverty reduction and human development focus has been on inclusive growth.

Post-reform macro development experiences in India show that higher rate of economic growth has been achieved with disproportionate poverty and inequalities across groups and regions leaving more space for socio-economic exclusions to continue, especially in lagging states and regions. Though importance of inclusive growth on faster poverty reduction has been debated over period varying results at sub-national and sub-regional levels during last few years, the post-reform period growth experience of many backward states found not only low but instable and highly volatile. In this context, the present paper discusses some on key inter-related elements of inclusive growth: performance of agriculture, poverty reduction, human development and regional disparities in some backward states in India in general and examines the performance of Odisha in particular.

Though the backward states such as Odisha, Bihar and UP were the late-comer to experience high growth but their performance continues to be a major concern. Here we have made a modest effort to discuss some trends of growth and poverty in India vis-à-vis five major poor states (Odisha, Bihar, UP, MP and Rajasthan) during post-liberalization period. Since three major backward states are located in Eastern region which accommodate more than two third of total poor in the country the analysis pertains to the eastern India.

There are good numbers of studies are available on inter-state growth variability and performance of progressive and backward groups of states in India but much is not known about it, especially among major backwards states. For better understanding of the growth and poverty nexus in India we have focused on growth and poverty performance of these states during the last two decades. Mathur (2001) found a steep acceleration in the coefficient of variation of per capita incomes in the post-reform period of 1991-96. A tendency towards convergence was noticed within the group of middle income states, while divergence was evident within the groups of high and low income states. Kurian (2000) attempted a comparative analysis of 15 major states in respect of inter-state disparities in demographic characteristics, social characteristics, magnitude and structure of SDP, poverty ratio, developmental and non-developmental revenue expenditures bearing on social and economic development. He found a sharp dichotomy between the forward and backward groups of states. Bhide and Shand (2000) pointed out the stark differentiation between “progressive” and “backward” states in India. While four fastest growing states (Maharashtra, Gujarat, Tamil Nadu and West Bengal) together accounted for 56 percent of the growth in real NSDP in the 1990s and experienced high growth in all three major sectors of agriculture, industry
and services, laggard states such as Odisha and Assam fared badly in all the three sectors. Dholakia (1994) found that the patterns of SDP growth in Indian states over the 30-year period 1960-90 were indeed very diverse. Majority of the states experienced shift in the growth rate either in later 1960s or in early 1970s, many years ahead of the shift in the growth rate at the national level in 1981-82. Only five states (Haryana, Punjab, Rajasthan, Tamil Nadu and Arunachal Pradesh) experienced the growth rate remained stable while in backward states it decelerated at different time points. For instance it declined in Odisha in 1967-68 despite of high growth rate for the state 1960-61 to 1967-68. Similarly, in Bihar the growth rate accelerated from 1967-68 by 3.6 percentage points and in West Bengal from 1982-83 by 2.6 percentage points. Krishna (2004) argued that the growth rates for the different states calculated by Dholakia (1994) are not consistent because of the price deflators used for obtaining constant price series appear to be different from the ones used by others. The absence of appropriate state-specific price deflators is a serious problem faced by users of SDP data series for Indian states. The data for the different states and all-India may not be entirely comparable and this fact has to be kept in mind in any analysis using these data bases. However, there has been some improvement in SDP data over period. Krishna (2004) found that while in the 1980s all states improved their growth performance relative to the previous two decades, the performance in the 1990s was quite uneven. With acceleration of growth rate at all India level some states like Tamil Nadu, Karnataka, West Bengal and Kerala fared exceedingly well some others managed to improve their performance (Gujarat and Maharashtra) during the 1990s. On the other hand some better performed and pro-reformed states (Haryana, Punjab and Andhra Pradesh) suffered in the early 1990s. As regard to backward states there was a deceleration of growth in Bihar, Odisha, Rajasthan and Uttar Pradesh. The interstate variability of growth rates in this period also increased indicating instability of growth (Krishna, 2004). Sachs et al (2002) note that there are major differences across Indian states in the area of policy reform and many socio-economic factors in convergence. While most of the studies have achieved some success in accounting for the differences in growth rate differences across states (and over time in the case of panel regressions), they have not helped in reaching a consensus on convergence or divergence or in identifying the growth determinants.

Growth Poverty Nexus in Backward States in India

Economic growth has often been perceived by development economists and...
policy makers as key to handle persistent poverty and stagnation at macro level and convergence. In particular, growth theory is not so concerned with poverty and inequality between rich and poor groups within a society. Economic growth is necessary for poverty reduction, but the link between the two is not automatic. In Indian context the economy has registered sustained high growth rate of 7-9 percent during post-liberalization and post-financial crisis period. Unfortunately, the growth has been uneven during last two decades across states and sectors. It has multiplied incomes but also caused increasing insecurity, particularly, among low income groups and in rural areas. Though higher growth is required for stability in the system and to improve people’s lives but benefits of growth has been uneven and it resulted in widening gap between groups and regions. The means to provide social protection for all now exist, what is required is an effective system to reach the benefits.

Poverty started a pronounced and steady decline in India as of the 1960s and 1970s (Datt and Ravallion 1998). The contribution of agriculture in terms of improved farm technology and green revolution resulting boost to productivity in agriculture that made poverty reduction in the 1970s but it did not continue in the 1990s and 2000s. Though, the declining poverty trend has been sustained after 1980s, despite of productivity impact of the green revolution had been exhausted in agriculturally developed states, poverty reduction was also found slow or halted in agriculturally backward states, when their growth was lower than national average. It resulted in increasing inter-region and inter-sector inequality across the country. The data presented in the table-1 substantiate it.

Growth Pattern in Backward States

It may be seen the data presented in table - 1(A) that the growth pattern among select backward states was quite dissimilar and more so during post-reform period. It was mostly characterized by considerable instability. While many states from both forward and backward groups improved their growth performance considerably in the 1980s some backward states received a setback, particularly, in the second half of the 1990s. Among backward states, while MP and Rajasthan forged ahead with better growth performance, Odisha and Bihar experienced dismal growth after mid 1990s.

On the other hand, volatility of growth appears to be a dominant characteristic of the Indian states apart from instability. Krishna (2004) found three backward states (Odisha, Rajasthan and Uttar Pradesh) in the four most volatile states over the long period of 1970-71 to 1995-96. While the volatility of growth at the national level was lower in the 1990s than in the 1980s, two backward states (Madhya Pradesh and Odisha) were among the most volatile states. The trend continued during 1990s, as Odisha and Bihar experienced sharp increasing in volatility in contrast to decline in volatility at the national level. Its adverse impact on poverty reduction was also experienced in these states. We have discussed it in detail in subsequent sections.

The data presented in the Table - 2 shows that growth rates of backward states increased considerably in the post-
reform period as the coefficient of variation of growth rates increased in the 1990s. Growth was accelerated in the states where agriculture has performed better. However, growth of primary sector decelerated in the agriculturally backward states except Bihar during early 2000s. It suggests that agricultural growth has positive impacts on overall growth performance of backward states.

**Major Trends of Growth Pattern in Backward States**

- The growth rates at national level in the 1980’s and in the post reform period broadly similar at 5.6% - 6% per annum but it varies across states and among backward states.
- Deceleration in growth rate after mid 1990s was found in Odisha, Bihar, Assam and UP while other states experienced acceleration in growth.
- MP and Rajasthan suffered setback in the first half of the current decade whose performance was satisfactory in the 1990s.
- States which have grown faster in the post reform period do not show rapid reduction in poverty.
- Some of the states which did not grow very fast show higher reduction in poverty indicating impact of other factors on incidence of poverty.
- Even in high growth states which have done well in reducing poverty, some regions and groups get left out in the growth process.
- The links between agricultural growth and poverty reduction much more pronounced in backward states in Eastern India.

States taking advantage of the reforms of the 1990s which allowed much latitude in policy making at the state level appears to have performed better than other states. Within the backward group a tendency towards divergence was pronounced during reform period though it was also noticed within the groups of high income states. The reverse trend was observed in the 2000s.

Another important aspect of backward states lies in difference in growth strategies pursued by them. On the one hand, through their sectoral reforms and stringent fiscal measures as the case of Odisha, MP and Rajasthan have exhibited their effort to achieve high growth but did not succeed equally. Investment in agriculture in Bihar and UP has resulted in better growth performance and poverty reduction. Infrastructure promotion policies,
investment in irrigation and other social development policies in West Bengal, MP and Rajasthan has resulted in higher growth and faster poverty reduction.

Some high growth states have targeted their basic infrastructure on imitating the most progressive states, whereas some backward states followed over dependence on central assistance and minimizing expenditure on core areas such as farm investment, social sector development while exercising fiscal restraint during reform period as a part of structural adjustment policy. Some of these states lack capacity to absorb central assistance as there were incidence unutilized central fund in the backward states like Odisha (Rao, 2009). There is also lack of understating and capability to tune state level policy with national level policy to achieve the goal of sustained high growth and poverty reduction. This might have worked for the states like Odisha for a longer period and for others states in different sub-periods. This has weaken the regional growth performance driven by the under utilization of local resources and comparative advantages by a static view of poverty reduction.

From the above discussion it is evident that the need for higher and sustained growth is the way out of unacceptable level of poverty, particularly in backward states and in eastern region. The growth process needs to create adequate productive avenues and incomes in both urban and rural areas to accelerate local growth motors. High and sustained growth is necessary but following suitable state level policy is also important to benefit from macroeconomic policy reforms at national level. Failure of some backward states to implement state specific policy and continue it further to use central assistance effectively in the policy regime seems instrumental in divergence at state level and its impacts on poverty. Therefore, it is important to enhance capability of backward states in formulating suitable policies at state level and to benefit from the macroeconomic reforms effectively in order to realize meaningful growth poverty nexus.

**Poverty in Backward States In India**

There are debates around the intensity of antipoverty effectiveness of growth in the pre-reform and post-reform period in India and between progressive and backward states. But sharp inter-state differences among the backward states have not been much debated. While economic growth is trickling down very slowly at region and sub-region level, poverty has declined at different pace at different time interval within the poorer states.

The trend of slower poverty reduction in urban areas could be due to migration of poor from rural areas. The level of poverty across the backward states, in terms of the headcount ratio, is presented in Table-3. The poverty line was defined using per capita monthly expenditure, which varied across states both in the level and the reduction of poverty. As progressive reduction in income poverty is crucial in reducing non-income dimensions of poverty, variation in poverty level and reduction indicate the inter-state inequality, which pronounced in backward states.

In terms of poverty reduction Assam and Bihar performed better where people below the poverty line decreased by nearly 1.92% point annually in Assam and 1.2% point in Bihar during 1993-2005. Other states suffered slow or stagnant in poverty reduction. Apart from the slow reduction of poverty, government also worried about a lower decrease in poverty ratios in urban areas, compared to rural areas. The trend of slower poverty reduction in urban areas could be due to migration of the poor from rural areas. However, the rate of actual decline of poverty in rural areas could be over estimated. There are also fears that dipping state growth rates and poor performance of agriculture, as witnessed in the case of Odisha, MP and Rajasthan have added to the increase in the BPL population of respective states.

**Table 3: Poverty: Head Count Ratio in Backward States**

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<td>62.7</td>
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<td>M.P.</td>
<td>48.2</td>
<td>40.3</td>
<td>38.2</td>
<td>53.1</td>
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<td>34.4</td>
<td>49.2</td>
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<td>29.8</td>
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<td>W Bengal</td>
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<td>37.4</td>
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<td>31.5</td>
<td>23.2</td>
<td>18.5</td>
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<tr>
<td>All India</td>
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<td>42.3</td>
<td>32.6</td>
<td>26.0</td>
<td>44.9</td>
<td>36.0</td>
<td>28.3</td>
</tr>
</tbody>
</table>

Source: Compiled from Dev & Ravi (2007)
Among the poorer states, Odisha has the highest proportion of poor — nearly 50% of its population is below the poverty line.

Four backward states Odisha, Bihar, MP and UP turned out as the perennially poor states. Although, the average level of poverty of these states reduced significantly in absolute terms but, as per the recent estimate of poverty for 2004-05, their contribution to total poor in the country has been higher than their share in total population and it was increased substantially over period. This could be attributed partly to a higher rate of population growth as seen in Bihar and UP, and largely to lower rate of poverty reduction vis-à-vis other states.

Another crucial observation that could be made from the movement of poverty ratio is that for the states which had higher poverty ratio to begin with, experienced slower rate of decline in poverty during reform period. This is brought out strongly by the fact that the position of Odisha, Bihar and Madhya Pradesh. Data presented in the Tables 3 and 4 examine the veracity of such claims. The pace of poverty reduction in these states has generally been relatively slow and the level of per capita income also has not been adequate to facilitate faster pace of poverty reduction.

As regard to contribution of backward states in absolute number of poor in India it was increased in all backward states except Assam and Rajasthan during 1993-2005. Assam is the only states whose share in total population is higher than its share in total poor in the country. It shows the disproportionate share of poor in backward states and eastern India.

The data presented in the table - 5 indicates that there is no notable improve in reduction of degree of poverty as the proportion of very poor increased in MP and Odisha and more or less constant in UP, Rajasthan and W. Bengal. It implies that the economic reform does not appear to have triggered any phenomenal changes in the percentage concentration of very poor in UP, MP and Odisha where increase in concentration of the very poor was reported during 1993-2005.

The anti-poverty effectiveness of growth for each of the states analyzed here could be gauged by comparing their average annual rate of decline in poverty ratio. At national the average annual rate of poverty reduction after implementation of economic liberalization was little lower (0.70 percent during 1993-2005) than the rate of poverty reduction earlier (0.85 percent during 1983–93). Among backward states Assam and Bihar reported notable reduction of poverty during 1993-2005 and there was marginal improvement in UP. On the other hand in Odisha the average annual poverty reduction was drastically declined from 1.57% point during 1983-94 to 0.16% point during 1993-2005. There was also

Table 4: Distribution of Total Poor & Population across States & Regions (in %)

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Source: Same as Table – 3

Chart 1: Distribution Total Poor and total Population by States & Regions
marginal decline in pace of poverty reduction in Rajasthan and MP during the early 2000s. These two states had experienced high growth in the mid 1990s with faster poverty reduction.

In urban areas poverty reduction seem halted during post-reform period except in MP as all other backward states reported decline in poverty reduction in urban areas than national average during post-reform period. In Odisha it was increased from -0.78 percent point per annum during 1983-93 to 0.21 percent point during 1993-2005. The decline was lowest in Rajasthan of 0.16% point. In rural areas both Odisha and MP suffered setback in poverty reduction during 1993-2005 having only 0.21% reduction per annum where as their counterparts Assam and Bihar reported substantial reduction in poverty much higher than national average. However, its overall impacts may be different as UP and Bihar has large number of poor than other states. These differences imply that liberal economic policy measures in the 1990s had different impacts in terms of poverty reduction even within backward states which are often treated as similar kind.

Assam, Bihar and UP had been able to successfully reverse the rising trend in poverty in the pre-reform period as there was notable decrease in poverty in the post-reform period. For the other backward states, there has either been a moderate or negligible increase in anti-poverty effectiveness in post-reform period. All other backward states were registered a decline in effectiveness and in many cases in urban area. There has been a general decline in anti-poverty effectiveness in the post-reform period as compared to the pre-reform period. It is often argued why poverty persists in low growth and backward region despite of substantial central assistance. Part of a possible answer to this relies on the combination of three elements: inequality, agriculture, and human development which perhaps not addressed adequately at state level policy formulation, especially during the reform period.

From the above analysis it is evident that the economic reform process does not seem to have yielded benefit some of the chronically poor states like Odisha, Bihar and Madhya Pradesh both in terms of level of poverty and decline in poverty.

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Source: Same as Table - 3

Conclusion
Growth in the backward states during last two decades was characterized by instability and volatility with different degree at different sub-periods. It has corresponding impact on the pace of poverty reduction. Our analysis shows that there was wide variability and volatility of growth and poverty in select backward states in India during last two decades. Though the backward states like Odisha and Bihar were the latecomer to experience high growth but their performance in poverty continue to be major concern.
for the policy makers. An increase in poverty ratio in Odisha and Bihar during 2004-05 was reported with setback in agriculture and rural employment growth. We argued that impact of high growth at national level not percolated effectively to these states where poverty continues to concentrate even under more liberal national policy environment. The dispersion of growth rates of states increased considerably in the post reform period which influenced the pace of poverty reduction.

Here, new growth theories can shed light on this process.

The analysis of growth and poverty in backward states during pre and post-reform period reiterates that there is need to understand the state specific sectoral and regional growth dynamics and formulate policy accordingly than depending on national level policy to achieve and maintain higher growth and faster poverty reduction. This is necessary for convergence but it seems missing in some backward states, particularly, during post reform period. The paper argues that failure to prioritize sectoral and social development policies well before the reform period in the 1990s and sequencing reform policies in subsequent period could be one of the key factors for poor growth performance of theses states. It is reflected in terms of slower pace of poverty reduction, poor performance of agriculture growth, increasing regional disparities and uneven social and human development. However, few backward states like Madhya Pradesh and Rajasthan performed better than their counterparts. An increase in poverty ratio in Odisha and Bihar during 2004-05 was reported with setback in agriculture and rural employment growth. Interestingly, growth performance and poverty reduction was better under more conservative policy environment during the 1980s than the 1990s and 2004-05.

The reasons why these growth-enhancing factors are missing in some states and regions and not in others need more policy attention in regional perspective. Macro level policy interventions may not help all states equally because of their diverse growth potential and capacity to compete with others. For instance, among backward states Odisha, Rajasthan, and MP were more volatile states than UP, Bihar in contrast to notable in volatility at the national level. We strongly suggest suitable sectoral and regional growth oriented policy interventions for sustainable inclusive growth. For instance, policy focus on farm investment and rural infrastructure at state level, especially in agriculturally backward states where growth and poverty reduction has been slow or stagnant resulting in poor and human development could

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Source: Same as Table - 3
be more growth accelerating than macro level development programmes. However, achieving high growth is not adequate to maintain the pace of poverty reduction in the backward states. Growth should create adequate productive employment and ensure equity. Tardy and high volatility in growth performances of backward states show that they fail to appropriate the benefits of new liberal policies due to lack of state specific sectoral and sub-regional policy approach and they continue to bear disproportionate share of poor people with dismal performance of agriculture. The paper strongly argues that calibrated effort is needed to correct some growth retarding factors at state and sub-regional level and prioritize sectoral development policies that augment growth and facilitate equity and faster poverty reduction.

End-notes
1 Kurian (2000) classified the states into “Forward” states consisting of Andhra Pradesh, Gujarat, Haryana, Karnataka, Kerala, Maharashtra, Punjab and Tamil Nadu, while the “backward” states consist of Assam, Bihar, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh and West Bengal
2 The Very Poor is defined as people whose per capita expenditure lies below three fourth of the poverty line.

References and Additional Thinking
• Bhalla G.S, and G. Singh (2009), Economic Liberalization and Indian Agriculture: A State wise Analysis, Economic & Political Weekly, No.52, December 26

(BASANTA K. SAHU is a faculty member in Economics & Trade Policy, Indian Institute of Foreign Trade, New Delhi. He has about fifteen years of professional experiences in policy research & analysis, teaching and research guidance. Some of his current research works include pro-poor development policy, regional growth & poverty, household risk coping behaviour, drought & food insecurity and micro-finance. He has extensively worked on agrarian constraints, non-farm sector, gender and livelihood issues. Some of his select research projects are funded by ICSSR, IRRI (Manila), The World Bank, ADB, NABARD, Planning Commission of India.

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Financial Inclusion

Global Financial crisis has highlighted the importance of consumer protection and financial literacy for the stability of financial sector to ensure inclusive growth.

More than two billion people worldwide go without access to formal financial services, many of them are the world’s poorest. Until the recent global financial crisis, the global economy was adding an estimated 150 million new consumers of financial services each year. Most of these new consumers are in developing countries where consumer protection and financial literacy are still in their infancy. Household use of financial services has been rising rapidly in emerging countries, yet consumer protection and financial literacy remain weak. The recent global recession had further worsened the plight of consumers. The global financial crisis has highlighted the importance of consumer protection and financial literacy for the stability of the financial sector.

Financial Inclusion and Inclusive Growth

Financial inclusion refers to ensuring access to appropriate financial products and services needed by vulnerable groups, such as weaker sections and low income groups, at an affordable cost in a fair and transparent manner from the mainstream service providers.

The biggest challenge India is facing today is to ensure inclusive growth. It is important to ensure that while the Indian economy grows rapidly; all segments of society are part of this growth process, preventing any regional disparities from derailing such growth. Thus, there is an urgent need today to link all households that are excluded from formal financial services.

Financial inclusion includes access to financial products and services such as no frill bank account, check in account, micro-credit, savings products, remittances & payment services, insurance, healthcare, mortgage, financial advisory services, entrepreneurial credit, pension for old age, business correspondence and self-help group branchless banking etc. Lack of access to financial services are due to several reasons such as shortage of sourc-
es of financial services in our rural areas, high information barriers and low awareness, inadequate access to formal financial institutions etc. among many others. Those who are excluded are: marginal farmers, landless labor, workers in unorganized sector, urban slum dwellers, migrants, ethnic minorities and other socially excluded groups.

**Extent of Exclusion in India**
However the reality is that out of 1.21 billion Indians, only about 40 percent citizens have access to banking services. Only 38 percent (32,000 branches) of the bank branches are in the rural areas. More importantly, rural India accounts for just nine percent of total deposits, seven percent of total credit, 10 percent of life insurance and 0.6 percent of non-life insurance business. In rural areas 39 percent of the population is banked against 59 percent in urban areas. The un-banked population is higher in the poorer regions of the country, and is the worst in the North-Eastern and Eastern regions. It is well-recognised today that the lack of formal banking facilities has led to non-banking channels as the only available source of credit for large sections of the rural population as well as the urban poor. This has resulted in very high costs of credit delivery to the poor.

In addition, information asymmetry between consumers and banks regarding financial products and services puts customers of financial services at a disadvantage. This imbalance is greatest when customers are less experienced and the products are more sophisticated. Progress on financial inclusion therefore carries the risk of producing more inexperienced and vulnerable customers.

**Financial Consumer Protection: Major Concerns**
Value for money, safe in use, full disclo-
sure of the product specification etc. are some of the minimum expectations of common consumers with regard to financial services. However, the major concerns are: violation of data privacy, hidden or inflated charges or fees, unfair contract terms and conditions (including unfair variation of contract terms, interest rates or charges), undisclosed level of financial risk passed to the consumer, contract terms not explained clearly at point of sale, violation of data privacy, after-sale customer service falling below expectations, aggressive or invasive sales techniques, breach of contract by the service provider, failure to deliver the services, exclusion from service etc.

Findings of a survey conducted by CUTS International in Rajasthan in 2010, on the theme ‘Our money, our rights’, shows that an alarming 87 percent of the consumers surveyed expressed that they are not fully aware about the details or about the terms and conditions of the financial scheme/product in which they have invested their hard earn savings. 85 percent said they are not satisfied with the services rendered by the banks and 43 percent said they face discourteous treatment from the providers. With regard to credit cards, 80 percent feel the interest charged is heavy. Similarly about interest charged on loans, 51 percent have expressed their dissatisfaction. A shocking, 52 percent consumers of financial services are not aware about the existence of any grievance redressal mechanisms with regard to financial services.

The financial consumer protection framework in India consist of: the information dissemination to customers mandated by the Banking Codes and Standards Bureau of India (BCSBI), Fair Practices Code adopted by the banks, grievance redressal mechanism with in the banks, Banking Ombudsman, Courts set up under the consumer protection act at district, state and national level etc. However, most of the consumers are not aware about the existence of these mechanisms or don’t know how to avail the services of these agencies.

Balancing the Asymmetries
Consumer education can help balance information asymmetries between consumers and providers of financial services. New, inexperienced entrants to the market are especially in need of education about their rights and responsibilities. Consumer education may be delivered by government agencies, consumer associations, or the industry, but most often consumer education programs are provided through public campaigns that use the Internet; print, radio, and television media; advertising; publications; and training.

Financial inclusion and financial literacy are twin pillars where former stimulates demand side latter supply

Financial inclusion and financial literacy are twin pillars. Financial literacy stimulates the demand side, making people aware of what they can and should demand. Financial inclusion acts from the supply side, providing what people demand in the financial market. While we have traditionally focused more on addressing financial exclusion through many supply-side measures so as to help “connect people” with the banking system, we have come to recognize the demand side imperative also, that financial literacy and education should be developed hand in hand with improving access to financial services.

Increasing Competition
The financial services sector in India has grown rapidly in the past two decades after the economic reforms initiated by the government in the early 90s. Increasing competition from private sector banks and multinational banks has forced the state-owned banks to revamp their marketing strategies and revamp their operational models. Promoting competition in financial services is a key element in ensuring good consumer protection. The creation of a more competitive environment in banking was one of the explicit objectives of the banking sector reform in India and the degree of competition has increased to some extent within the banking system. Several new private banks have started operations and foreign banks have also been allowed to expand their branches more liberally than in the past.

Innovative Technologies and Alternative Business Models
Recent developments in technology have transformed banking from the traditional brick-and-mortar infrastructure to a system supplemented by other channels like automated teller machines (ATM), credit/debit cards, internet banking, online money transfers, etc. The most recent development of internet-based non-bank financial services (including money transfers) mobile-phone-based financial services etc. Mobile banking is one of the
models, which is gaining momentum across the world.

Globally, about four billion mobile phone subscriptions were reported in 2009, well over half of them in the developing world. Mobile phone penetration in developing countries has almost tripled in the past five years, with Asia in particular showing high growth rates. As on February 2011, India alone accounts for 752 million mobile users. Out of this only 54 percent (406 million) are having Bank accounts. Hence proliferating mobile phones open another delivery channel for basic financial services to poor people. This technology drastically reduces the costs of convenient and real-time financial transactions, expands access points, lessens the need to carry cash and attracts previously unbanked customers. Several country cases illustrate the promise of mobile payments for financial inclusion.

**Road Map**

Many a times, the poor, migrants, disadvantaged and marginalised people, struggle to open a bank account in the absence of a proper identification or address proof. Even the onus of proving identity has been transferred to the individual. Hence they are cut off from the formal chain of financial services.

Hence a key facilitator for enabling the country’s banking system to spread its reach in the coming days can be the Unique Identification (UID) number. UIDAI (Unique Identity Authority of India), targets to provide unique identity to 600 million residents in next five years, which will address many of the current challenges faced by the banks in delivery of financial services. UIDAI have identified financial inclusion as the main driver for UID and enabling e-governance.

Today, the most popular vehicles of taking Micro Finance to the rural hinterland are the Self Help Groups (SHGs) and the Micro Finance Institutions (MFIs), bank linkage models. The model enables members of an SHG to make small, but regular, savings, which are then revoked or loaned to its members. But recent issue of MFIs charging high interest rate in Andhra Pradesh, resulted in over regulation of the sector by the state, need to be noted.

The concept of ‘bank account number portability’, which is in practice in some countries, is that consumers would own their identity reference and could move it between Banks. It is the same way mobile phone numbers are portable and would further stimulate competition within the banking industry. Once gain momentum this would be a dramatic shift forward for consumers of financial services.

**Efforts at International level**

In the G20 summit held in South Korea in November 2010, the leaders recognized financial inclusion as one of the main pillars of the global development agenda. This prominence and commitment was manifested in a concrete action plan endorsed by all parties, who also agreed to report back on their progress in one year’s time when France hosts the summit in 2011. The main implementing mechanism of the action plan is a new Global Partnership for Financial Inclusion (GPFI). Financial Stability Board (FSB) is entrusted with the responsibility to examine the issue in collaboration with other international organisations, and to report back to the next G20 Summit. The GPFI will be an inclusive platform for G20 countries, non-G20 countries and relevant stakeholders for peer learning, knowledge sharing, policy advocacy and coordination. The G20 recognizes the importance of enhancing the role of developing countries in deepening and stabilizing the global financial system and accelerating economic growth to eradicate poverty. So the consumer groups and organizations across the world need to make use of this opportunity to raise concerns of the consumers of financial services and to demand to put in place an effective mechanism to deal with it.

(GEORGE CHERIYAN is currently the Director of CUTS International, an Indian origin International consumer organization, and heads the CUTS Centre for Consumer Action, Research & Training (CUTS CART). Presently George is representing CUTS, in the Consumers International’s (CI) international working group on financial consumer protection, and involved in the G20 financial services global campaign to increase consumers’ access to stable, fair and competitive financial markets. He has written and published a number of articles in leading national news dailies, news magazines, journals, periodicals etc. and edited books.

The views expressed in the article are personal and do not reflect the official policy or position of the organisation.)
Growth is not only important but also essential yet if growth does not benefit or out-reach to those who are in need, it becomes elusively formless and insignificant.
In his recent speech the IMF boss Dominique Strauss Kahn has raised some reservations as he seems to be quite puzzled by the nature of the post-recession growth — a growth characterized by joblessness where he feared that it might cost a lost generation. Well, this paradox seems to be quite unusual. Indeed, he has mentioned that the global recovery is not creating enough jobs for the younger generation. While the developing nations are now almost plagued by this dilemma of jobless growth, it becomes stickier for emerging economies particularly for those of the Arab States and in general for India, which is currently undergoing fast and radical changes with increasing rate of productivity following few generations of regime changes and policy-induced liberalizations. From a more agricultural dependent economy, India has moved up the ladder to the forefront of a manufacturing and trading economy. The Indian economy posted on an average of 7-8% GDP growth from 2003-2007 where the per capita GDP growth has doubled from 3.7% in 1980-91 to 7.3%. Yet, the general consensus among some noted economists, including Amartya K. Sen, according to whom, this growth is not enough and chides those who excessively focus on growth. Indeed, there is some factual allegory about these premises. Despite having been inside the growth trajectory for the last couple of decades, the annual reduction in poverty level has just been -3.3% and if one is to go by some recent surveys by the IMF chills out that around 80% of India’s population lives under two dollars a day! Another study by Oxford University-group finds that around 410 million people in India live below the poverty line. As such, one may linger into one’s own mind and ask: Is this “growth enough”? If there is growth then why there remains so much “inequality”? These prominent economists, like Kahn, fears that this dark and gloomy side of growth in the short run, it may get worst in the long run. Thus, the impact of such high short run inadequacies cannot be justified even if there is high growth.

This background painting customarily calls for an alternative characterization of growth — in a sense, to broaden the perspectives of growth under the domain of economic theory. An “Inclusive Growth-Theory”, which answers queries related to unfairness and inequality in socio-economic issues. A growth which is aimed not just to fulfill the criteria of its definition, but to include in its definition, a certain level of embodiment and mellowness for the growing economy where the benefits of rising affluence levels are to be allocated efficiently among the masses. There has been a common notion that if there is growth, there are jobs, and reciprocally it is even factual that job creation supports growth. But it is even more realistic to note that growth is needed, which if not, would vilify all the notions of a dynamic economy. This has been echoed by the proponents of trickledown theory, who conceives that growth...
is all that is required. Thus so far, to generalize that inclusive growth is more than broad-based growth, which is a subset of economic growth basically a labor-intensive growth let us see how this fits our definition in the Indian context given that we have already been in the historical growth trajectory for the last two decades, but whether if it had been a real inclusive growth, might have had presented a scenario somewhat different than what it looks today.

Long-Term Growth Perspectives — Bhagwati’s View

Prof. Jagdish Bhagwati has painted a lucid picture about the long-term growth perspectives for the Indian economy by enumerating out several points of reference relevant to the current context. Although he has laid more stress on the “pure” growth aspects, it is imperative to point out several behavioral aspects of growth in the light of economic theory, which is perhaps, more highlighted by Prof. Sen. Post-independence, India evolved, although at a snail’s pace, from a highly-protected and retracted economy to a more liberal one, from capital immobility to capital account liberalization that marked an end of depreciation era. Historical accounts of poverty show that the poverty level which peaked to near about 63% in 1953-54 and again to 65% in 1967-68 (Virmani, 2009) came down to 45% in the late nineties. This has been led by the innovation frontier lit by capital investment and mobility, product and process development and new investments in the old economy. In-fact, following crisis year (1990-91) reform initiation led to FDI and foreign investment liberalization aided by technology adoption and adaptation, that helped India’s growth trajectory change permanently, characterized by rising growth trend and rise in productivity. Growth accelerated on several frontiers as seen from increase in average income per capita, increase in average private consumption and doubling of per capita GDP growth from 3.7% in 1980-91 to 7.3% in 2003-2007. However, a deeper look into this paradigm is required for a thorough understanding of behavioral approach through “growth-inclusive growth” or managed growth.

Financial Inclusion: Push the Button Now

According to a recent Asian Development Bank (ADB) report, the Institution has set some strategic development objectives (SDOs) aimed at inclusive growth that would oversee growth strategies in the emerging economies. They have outlined three pillars of new strategy for 2020 as agendas in their comprehensive strategic development objectives: These are,

i. Strategic growth

ii. Inclusive growth, and

iii. Operational growth

The primary agenda thus, seems to circumvent around operationalizing inclusive growth (Klasen 2010) in the infrastructure, healthcare, transport, agriculture and the energy sectors, the sectors which are considered as implicitly contributing to the economic growth momentum. However, in need to operationalize such initiatives, the demand for investment capital remains high. The importance of such capital import can however, be justified since in emerging and fast developing countries, there occurs
intense demand for funds to establish industry, infrastructure and transportation. Beyond this, in the long run, inclusive growth must endeavor the primary and higher education sectors by implementing youth oriented programs aimed at quality education to foster entrepreneurship and innovation for the future generations, which would in turn, may prove to be some kind of buffering; or, pre-emptive measures to counteract the cost of a severe recession, if any such strikes ever. The benefits of such inclusive growth can be accrued to;

i. Decline in inequality
ii. Increase in income among the poor and debt stricken
iii. Pro-poor growth programs to include those who are left out

Optimism Bias

The economic performance of India has a better shape as per statistics than her peer neighbors, excluding China, and the current drivers of economic growth seems to put her on the right track. From policy makers to “aam admi”, most of us are quite optimistic about the growth prospects that India presents to the world. According to a Citi research report Indian economy will reach a figure of nearly $85.97 trillion on PPP basis by 2050 as against the current size of $3.92 trillion. India is also expected to become the third largest nation in terms of GDP growth by 2040. But the current realities far outlay such grandeur prospects, and if India needs to achieve those targets and transform those visions into realities, several factors need to be highlighted at the present context. Most of us are well aware of the anti-poverty programs being initiated by the state functionaries, i.e., in terms of “Yoyonas”, and “Parisevas” through 5-year planned strategies. But the present volatile global economic situation with periodic booms and busts with energy prices skyrocketing may act as a drag on demand due to high inflation and may further widen the gap of inequality, if ideological opinions are not left aside.

One may be able to foresee from the pace of innovation and technology growth of today how we may brace ahead of time in the next few decades. Along with that, there will also tend to be some real fierce competition among markets for resources which would virtually become too scarce, and hence, expensive. The world would perhaps have had exhausted some of her most valuable and potential resources by the mid of this century. However, the only resource that would be available widely and in common is, perhaps, information and knowledge; although, the cost of acquiring such information and processing of such may become highly competitive. In this regard, India needs to leverage her large talent pool to motivate and impart them with quality education and training to generate the largest pool of skilled professionals and thus, leave little

Strategic growth, Inclusive growth and operational growth are outlined three pillars of new strategy for 2020

Although the nature of economic growth has transformed in India, from being a predominantly agriculture driven growth in the 1950-1975, to service and manufacturing and trade driven growth onward 1992-2010, this would, nevertheless, throw open questions about India’s growth prospects and her commitment toward fast and inclusive growth in the coming years. Another challenge that remains of what in proper terms may be, in transforming India from an outsourcing to specialized manufacturing hub, since India have a large yet untapped base of talent pool still unexploited (Dey, 2010). This may well be possible through large-scale training and education of labor force to place them in jobs that they are suited for, to sustain the increased rate of productivity and hence, overall growth. In paper, however, India still lags behind China, South Korea and Singapore in investing in their people during economic boom times. It is thus evident that financial inclusion is the new buzzword and mantra for the new generation of policy makers who would provident on such essence to maximize welfare for its subjects.
room for any such “lost” generation, as feared by Kahn and others. This would only become reality in the realms of sustained inclusive growth (Chhibber et al. 2009) through continued policy reforms that would not only help sustain the current growth dynamics, but would further propel the growth engine. Suppose that even if Citibank’s assumptions are to go right, then, average income would need to grow by 3-4 folds in every ten years. Domestic consumption needs to be boosted given the fact that India has a large savings base, and thus needs to mobilize their savings into more productive investments. Favorable and ambient environment needs to be created to boost investment-led aggregate growth. In effect, investment growth rate has doubled in the last decade and there has been more participative roles being played by private consumption. The role of investment and savings are important, since these two are pillars of economic growth acceleration. This would contribute to demand since a rising income/investment would cause a rise in savings too, when considered that average income to double every 6-7 years.

However, there remain some existential threats or risks that may dampen the current mood if remedial measures are not sought for at this juncture. These may be summarized in the next sub-section.

**Existential Risks**

The primary form of existential threat or risks that may arise is due the enormity of such problems of inequality. This has two reasons; part political, and part economic. Political in the sense that policy reforms aimed at maximizing welfare lacked cognitive aspects, whilst, economic measures were aimed solely to promote growth, where, the inclusive aspects were long overlooked. Although India has virtually eliminated major famines since 1943 (Sen, 1997), perhaps, malnutrition has taken its place compounded by deplorable healthcare provisions in rural areas, particularly in most rural parts of India, where the gross family income above the subsistence minimum is still a luxury. Credibility for this stands on account of generalized apathy of the state functionaries in alleviating such miseries. Bhagwati clarifies that such inequality within states contributes much more toward national inequality, when compounded. Another aspect that compounds this problem is bureaucratic loopholes and the corruption woe. Actually, corruption further compounds the systematic crises of a public welfare state that tends to appreciate the erratic problems of inequality and social injustice.

Incidentally, a developing welfare state may face normatively a multitude of problems. The goal of policy makers in general, is to identify and remediate such problems. While unearthing some deeper challenges in terms of socio-politico dissensions entangling systematic crisis of class insurgency, it is evident that such dissensions were mounted and targeted toward the state machineries. Whether this is a crisis of fundamental nature requiring radical remedies or, crisis of structural nature calling for conservative treatment is, however, debatable. This is also evident from the fact that recent episodes of public dissensions in the form of mass movements against corruption runs the risk of spill-over effect of this danger into the deeper social masses that still remains sociably vulnerable and economically weak. In such parlor, policy makers should be able to diagnose fundamental disorders in state functionaries and prescribe appropriate structural remedies. Advocating such actions against symptoms of social inequality in advance as a preventive measure would do a lot good in the long run. What it calls for, is to oversee optimal wealth distribution and providing social security at the grass-root level. What is required is to identify the signals of these inculcated maladies as the socio-economic crisis of the state before it is too late. More stress should be laid on gender equality and empowerment of women (Murthi et al., 1995) by encouraging greater participation (Boserup, 1970) in policy making thus, including them within the ship of inclusive growth with large-scale involvement. The malady of social injustice confining the female gender should be looked upon and dealt radically and this requires transparency in the social justice system. The society at large looks at law to fix unfair applications of law—which is but to offset corruption, and, this malady of corruption should be mooted out from its root altogether. Thus, according to Rachel E. Barkow, “When laws are fairly applied, legal cultures prolif-
erate better”. One would expect that the last place there should be injustice is in the justice system. In India, there should not be a problem of enforcement of such since there is public mandate as well as non-interference policy of the government. These steps would invariably induce an ambient atmosphere for investment since it shall be noted here that if efficiency of investment allocation drops, it may reduce growth of the economy.

Meticulous Balance of Decision Making
It shall be born in mind that a welfare state is as much dependent on its subjects as its people on their government. This mutual interdependence is affirmative if, and only if, by virtue of trust and synergy that the state reforms and performs in the very best way that would empower its subjects with conscious thought and unenclosed endeavor to work amicably and harmoniously together for a greater cause. It would be pity for any democratic state to see that its vast body of productive resources, both men and women, lay idle and remain unproductive. In pre-allocation of resources. Hence, there should be optimum balance between social expenditures and economic growth, yet, these two are interrelated. Share of national income spent on social services in the impoverished regions should be optimum so that it does not invite dissensions, and state functionaries should take frontal initiatives in development by charting a roadmap of inclusive growth as well, avoid allocations which are suboptimal with respect to welfare accrued.

Growth Vs Inclusive Growth: Which (is) Rational?
Before concluding this article, I would like to invoke the main theme of this subject-growth vis-a-vis inclusive growth; of, which is correct or at least rational. Well, the quandary is that, and there is at least a general consensus that, growth is important, not only, but vital, and essential. Yet, if growth does not benefit or outreach to those who are in need, indeed, it becomes elusively formless and insignificant. Consider an example, that a farmer sows her harvest of banana plantation and when they are fully grown, does not yield the fruit!

Favorable and ambient environment needs to be created to boost investment-led aggregate growth

...tense, that would cripple the very art of governability and morality of the social forces. The word and deeds of the welfare state shall be and as always has been, to empower and equip its inhabitants to compete with equity in both domestic and international markets and redeem their share of respective fruits of hard labor and practice in a more equitable vanity. Meticulous balance in the choice of strategic decisiveness on the part of the policy makers would help overrun such tactical difficulties of optimal pricing. This would also regiment the complementarities of labor shortage in a balanced-economy advocating platforms to alleviate income distribution problems. In this scenario, unemployment reduction is an explicit avenue of poverty alleviation in developing nations and one should find positive correlation between employment growth and literacy rate, investments and output, and income growth and industrial growth rate (Bhagwati, open economy, India or China). Prof. Bhagwati also stresses that neoliberal market reforms could further boost India’s growth rate while triggering down on competition between India and China. But here again, he stress more on the growth aspects, whilst in much analogous tune, Prof. Sen (1997) acknowledges the importance of stocks of educated manpower and how knowledge dissipation eradicates illiteracy-induced class struggles and class bitterness among the social masses and empowers them with inestimable boon. The reason why knowledge dissipation is of paramount importance is because of a sense of intellectual decency that it empowers in the mind of its learners (Houthakker, 1959) and also prevents the society from fractal degeneracy. Borrowing this concept from Prof. Sen (1997) who elucidated the benefits of equality, it can be enumerated that the greatest burden of a civil society is perhaps not ignorance, or even if, then yet, an empty stomach that cannot feed the needy brain and the brain cannot seek in proper terms remain guided to its path of rational morality if impoverished for too long.

Developmental Paradigms, Ideation and Implementation: Summary
In concluding this article, I may propose some common minimum agendas which may be summarized as;
• Social protection of agricultural worker, education and information drive among them
• Subsistence farming and income from its production
• Fairness and equity in global trade through multilateral trade negotiations
• Empower with inclusive education and training using mass media
• Extend some degree of social security services and enhance health standards of all
• End of political subjugation and deceitful acts
• Use of violence to be justified pre-sense before it is applied, since more violence is required to suppress violence which compromises the social cost of enforcing equality
• Raise the moral standards and rekindle inherent state of intellectuality through independence in research and development
• Stop commercial exploitation and political zeal
• Increase the role of media
• From outsourcing to Hitech manufacturing hub
• Reverse outsourcing, where, India will be in a position to outsource to other smaller economy, in a much two-sided self-supportive way.

Let not the “Lingua franca” of the less educated be the 3Ds (dissension, dissident and discord), but a sense of understanding with bestowed responsibility that, “they need to perform tasks that are necessary to the state’s existence”— literally, meaning the 3Cs (consent, conformist and consensus) of social and economic integration rather than political subjugation. Hence, an all encompassing inclusive growth in which the larger and the isolated find subsistence is the suo motto.

If these advocacies are well accommodated, we may remain optimistic about Citigroup’s projected target of achieving $85.47 trillion by 2050. [1]

End-notes
1 The Eleventh Five Year Plan Strategy is ‘Towards Faster and More Inclusive Growth’. See M.H. Suryanarayana, IG-IDR “Inclusive growth: what is so exclusive about it?”

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(SIDHARTA CHATTERJEE is an independent researcher with interest in economics, cognitive sciences, behavioral sciences, behavioral economics, neuroeconomics, statistical finance, strategic management and decision making. The author has been invited as Chair of Finance Session in the last concluded GABER Conference held in Bangkok, 2008. He is also the proponent of Global “Topographic Volatility Mapping”, a project conceived by him to study cross-sectional volatility across different markets using topographic schemes (TVM).

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Figures, Charts And Diagrams: Use of figures, charts and diagrams should be kept to the minimum and text should indicate where the same will appear. All tables, charts, graphs should be typed on separate sheets. They should be numbered as Table-1, Table 2, etc. The graphs must have the minimum amount of descriptive text and the axes should be labeled with variable written out in full, along the length of axes.

Abstract And Key Words: An abstract within 100 words and three key words should be submitted.

Author’s Bio-data And Photograph: A brief bio-data with full postal and e-mail addresses and a coloured photograph should be sent along with the articles.

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Submission: The submission should be sent to Sray Agarwal at sray.agarwal@iipm.edu
India’s economy has been, soon after liberalisation in 1991, growing at an enviable eight percent and above. The growth of population has slowed down; it has come down from 2.8% to about 1.7% per annum. These rates help doubling of the per capita income (PCI) in about 12 years. This is in contrast to the miserable 3.5% annual growth in GDP and 2.8% population growth per annum before 1991. At those rates it would take 70 years for PCI to double! The pre-1991 miserable performance was due to the Nehruvian permit-licence-quota socialism which stifled the initiative of the growing number of enterprising engineers, MBAs and other highly qualified young people. Is economic growth a sufficient condition to build a prosperous, powerful, intellectual and ethical India? The prosperity should not be only for the few enterprising people. If that is so, the great wealth that is being created will be concentrated in a small section of our population. Inequality as between the enterprising and wealth creating sections of the people and the hardly educated, unemployable masses would grow. Growing inequality creates envy and instability in the society. These are the fuel for the Maoist above-ground intellectuals and underground guerilla armies and casteist groups (some of which are fostered and financed by multinational conversion (MNC) enterprises) to indulge in militant socially disruptive and destructive activities. The public policy of all political parties and governments should be to contain this inequality and help the economically lower strata of people to lift themselves up into prosperity. There has been however an unpardonable negligence on the part of all political parties, especially the growing regional casteist and communal politicians (who have made politics a profession of benefit and profit) in building capability among the poor to raise themselves up with some help from the State. A few practices that have been the reason for India to be still a developing country even after 64 years of independence will be examined in this paper.

- Socialism as practised in India has been a fraud. Our brand of socialism did not result in transfer of wealth from the
rich to the poor but only from the honest rich to the dishonest rich.

- The sleeping sickness of socialism is now universally acknowledged — but not officially in India.... The public sector enterprises are the black holes, the money guzzlers and they have been extracting an exorbitant price for India's doctrinaire socialism.

- History will record that the greatest mistake of the Indian republic in the first 50 years of its existence was to make less investment in human resources — education, family planning, nutrition and public health — than in brick and motor dams and factories.

— Sri Nani Palkhiwala

**Neglect of Education**

Malaysia, South Korea, Indonesia, China & Sri Lanka gained independence from colonial and exploitative rule later than India. Korea was devastated by the war of attrition between the North and South and then, between the US and China. Almost every productive industry has been destroyed. Malaysia gained independence in 1957 from the British masters. It was wrecked by communist insurgency for over five years after it gained independence. Its population has also been furiously increasing. Indonesia gained independence (*from the Duetch*) later than India. It was occupied by Japan and exploited. Sri Lanka too got independence from Britain later than us. The per capita GDP in South Korea is $29,836; in Malaysia $14,670; in Indonesia $4,394; Sri Lanka $5,220; in China $6,828; in India it is $3,389 (*these figures are on purchasing power parity basis*).

Why is Indian’s per capita income so much lower than all these countries? China became truly independent and united in 1949 after a devastating civil war and Japanese occupation in 1949, two years later than us. Today China is a near super-power. Why is it that India, which had a better scientific and industrial base and even better educational institutions compared to every one of above countries, lagging behind everyone of them as regards per capita GDP and also has the highest percentage of people below poverty line. The main reason is that while the countries mentioned above have all succeeded in making their people literate to the extent of 90% within ten years, in India our literacy is still low at 70% after 60 years of Independence. Our matriculates are about 25% and graduates are about 12%. As in no other county in the world, Dr. Ambedkar saw to it that the the state has a duty to impart free compulsory education to every child between ages 6 and 14 years. Despite this constitutional direction, successive political parties running governments in the states and in the center have neglected education. Education liberates people from ignorance and incapacity from misery; education gives the choice of profession and does not condemn a person to the ancient profession of his caste into which he is born.
Education gives the choice of profession and frees a person from the confines of the age-old profession related to caste. Economic development gives opportunity for the educated to quit their villages and move to anywhere in Indian or outside to prosper. The rigours and disadvantages of the inherited caste can be overcome only by education for all and economic development. Education should be of such quality and kind which will provide a job for everybody provided, he is employable.

The crime of the highest order committed by the political class is the neglect of education. What it takes India to achieve what these days is fashionably called inclusive growth is good quality education for all at governments cost upto matriculation and thereafter, financially assisted education for those who want to get into different professions. Since government has yet not achieved the goal of free compulsory education for all children between ages 6-14 whatever resources it can spare for education should primarily be utilized for universal pre-university education. Higher education can very comfortably be left to private sector just as telecom, civil aviation and ports sectors which are high rates of growth and spread.

De-valuation of Merit and Intellect

Indians living in India during the British rule got Nobel prizes but after Independence, no Indian (Mother Teresa is not an Indian, she was here on a conversion mission through the device of looking after the indigent) got a Nobel prize. But Indians denied jobs and opportunity within India and therefore had gone abroad, have been getting Nobel prizes. Sir V.S.Naipaul, the grandson of indentured labourers from the Hindi belt of India has, as a citizen of Trinidad and Tobago got Nobel prize for literature (Rabindranth Tagore got one when India was still British-ruled and none living in India after him), Hara Govind Khorana, Chandrsekhar Subramanian, Ramakrishnan and Amartya Sen are all of Indian origin living and working abroad. They got Nobel prizes for their work while abroad. Why is it that no Indian living in India is getting a Nobel prize? It is because we have devalued merit through the instrument of reservations. This is a very sensitive subject and yet if we are honest, we should express our thoughts freely on the subject. People of SC & ST had been, by design subjected to adverse discrimination and conditioned to perpetual poverty. In order to correct this historic crime, we are paying reparation. We have provided reservations for admission to educational institutions, recruitments to government jobs and created special finance corporations and other organs of state to advance them rapidly. Reservations were inscribed in the Constitution first for 10 years from

Table 1: Stock of SC & ST Engineers & Doctors in Andhra Pradesh

<table>
<thead>
<tr>
<th></th>
<th>Total in the State</th>
<th>Of which</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>SC</td>
</tr>
<tr>
<td>Engineers</td>
<td>3,27,032</td>
<td>19,590 (6%)</td>
</tr>
<tr>
<td>Doctors</td>
<td>63,325</td>
<td>3,943 (6.2%)</td>
</tr>
</tbody>
</table>

Source: Andhra Pradesh: Census 2001
1950 when we adopted the Constitution. But this is being extended decade after decade without demur from any quarter. Anyone adversely commenting about reservations is dubbed a communalist and Hindu fundamentalist. This is unfortunate. The way we have been implementing reservations has created a new caste — Government Brahmins; that is, privilege by birth. Those SCs & STs who, because of reservations got good education and good government jobs are having their children & grand children also getting reservations for government jobs and admissions to colleges. Opportunities for employment in government and semi-government organizations are becoming a fraction of those in the rest of the economy. If reservations for the SCs & STs are restricted to one generation or at best for two generations, that is self, son and grand son, and those too for two people in any generation of the first beneficiary, then by now together with free and compulsory education for all, every SC, ST would have had an opportunity to lift himself from the disadvantages of poverty and would have come abreast of everybody else in the society.

The demand for reservations has extended to almost every section of the population. For example, in Andhra Pradesh Js. Puttaswamy Commission which went into the claims of several castes in Andhra Pradesh for inclusion in the backward class (B.C) list found that excepting Kammas (chowdary) and Velamas (called Raos in Telengana areas), every other caste demanded to be included in the backward caste list. Even the Brahmins demanded to be included in the BC list. The reason they gave was “all those who are forwarded among us had gone to the US. Only the backward are left in India. Therefore we must be declared BC”. As if BC classification is not sufficient, caste groups have been demanding that there should be further classification into ABCD groups. The most disadvantaged are to be declared the extraordinarily backward castes (EBCs). Thus the Hindu society is being splintered into castes and more castes. When the Kaka Kalekhar Commission went into the question of reservations for BCs in 1955 it enumerated 2,399 castes as BCs. The Mandal Commission in its report in 1980 enumerated 3,743 B.Cs and now if the claims of all those who demand to be declared as BCs are added up, castes will be more than 6000. Is it not strange that castes go on increasing? This is because politicians have been using caste for building up vote banks.

Now reservations are sought to be extended to non-Hindus; to those SCs who had converted to Christianity on the promise that in Christianity there are no castes. Although they are Christians for generations, the ex-SCs and leaders of Indian Christianity are demanding that they be equated to SCs of Hindus and given reservation. More surprising is that Muslims who claim to have ruled India for several centuries are saying that among them also, there are castes equivalent to Hindu SCs and Hindu BCs! There are enough number of politicians, mostly casteist and regional, who are supporting everybody’s demand for inclusion in the BC list. In fact, the claims are for declaration as backward, more backward, most backward, utterly backward, totally backward to be included even in the ST category! (eg: the Gujjars in Rajasthan and Jats in UP and Kapus in Andhra Pradesh). Now this reservation mania has gone to such an extent that even amongst SCs, there are some wanting further classification. For eg, in Andhra Pradesh there are 54 SCs. The most prominent among them are Madigas and Malas. Most Malas have converted to Christianity but they don’t declare their conversion to avail of reservations. Because of better educational facilities for the converts, the 30% Malas among the SCs are getting 70% of the jobs reserved for the entire SCs. Therefore, Madigas who constitute about 60% of the SCs, are

Politicians, mostly casteist & regional, are supporting everybody’s demand for inclusion in the BC list
agitating, sometimes violently, that there should be sub-classification among the SCs, and that the 15% reservation should be split up sub-caste-wise depending upon their population. These demands are supported by all parties but the government finds itself in a constitutional bind.

It is not only at the entry level that reservations are provided. They demanded and got reservation even for promotions, for SCs, STs, BCs & EBCs. Therefore arises a ridiculous situation like a professor of medicine is superceded by an SC or ST person whom he taught. The doctor is devastated that a student who entered the college in a reserved quota and just passed and got a government job in the reservation quota superceded him and becomes his boss. Such things detract from meritorious performance of one’s duty.

There does not seem to be an end to reservation. They are being demanded and extended for more years, for more and more sections of Hindus and perhaps to Christians & Muslims also. Hindus will be divided and ranged into mutually opposed castes while minorities (Muslims & Christians) will be untied by religion. They would therefore rule the country as in the medieval period.

That reservations for admission to professional colleges for SC & STs are not producing desired outcomes is evident from the figures in Table 1.

When 15% and 7.5% of seats are reserved for SCs & STs respectively and fully filled up every year, why is their percentage in the outcome highly less than 15% & 7.5%? They pay no fees; no mess and lodging charges; text books are given free. Without studying why the outcome is so poor and costly, what is the sense in continuing the system without reform?

The remedy, if at all it can be achieved by the political system in the country, is to put a sunset date for all reservations, leaving them to one or two generations and that too for one or two children in a family and do them away in the matter of promotions and restrict them to entry level, for colleges and government services.

Opium Feed to the Poor

Soon after independence, the budget of the Government of India was a total of about Rs. 110cr.; by the year 2011-12 the tax revenues are over Rs. 8 lakh cr; Government will borrow Rs. 4 lakh cr. The budget is a total of 12 lakh cr. In the early 1950s there was very little social sector spending. It has now risen to over Rs. 4 lakh cr. There are subsidies for agriculture. These could be justified as food and its availability to all people is essential. On the amount of debt government has so far incurred, it is paying interest of over Rs. 2 lakh cr. Obviously, this amount goes to the rich who alone could lend to the government. There are certain social merit goods for which subsidies are justified. Education upto matriculation is such a social merit goods. But what is known as fee reimbursement in Andhra Pradesh to over 25 lakhs of university level students is a total mis-spend. It is primarily aimed at getting votes. For eg: the annul intake of students into engineering colleges in Andhra Pradesh is 2,75,000. (all over India it is about 13 lakhs). About 75% of these are unfit to be employed as asserted by various professional and business associations and companies. Why should such students be subsidized?

The entitlement — wallahs (those who assert right to life, right to house, right to wife, right for a degree, right for free rice) and the subsidy justifiers say that this is for social justice, for inclusive growth, for giving access to education. When education upto matriculation for all itself is a constitutional requirement but is not yet attained, giving total fee reimbursement to millions of university level students excepting about 15%, is a criminal misapplication of the resources of taxed people’s
money by government. What good are these unemployable engineering and other graduates going to do the society in return for the tax money spent upon them? Would not a loan be a better option to deliver access to degrees level education? Would not merit scholarships be better so that the meritorious who are employable can return something to the society which is spending upon them?

Another give-away is the National Rural Employment Guarantee (NREG) scheme named very exceptionally (most schemes are named after Rajiv Gandhi or Indira Gandhi) after Mahatma Gandhi. It is a great waste. Every year about Rs. 40,000 cr are being spent. The example of my own village will illustrate the waste and harm of the NREG. There are 400 people (of about 1200 house holds) enrolled under the NREG. Instead of Rs. 100 per day they are now paying Rs. 125 for 125 days (instead of 100 days earlier). 50,000 man days of labour every year in a village with a population of 5000 to produce any social good is unthinkable. They don’t have any work. The non-governing government of Andhra Pradesh, under threat of political instability has increased the daily wage from Rs. 100 to Rs. 125. The result is the men just come to some office at about 10.00 Hrs mark their attendance, go away and get money. The wages for agricultural labour have shot up from Rs. 100 per day to Rs. 400 to 500 during the season of harvesting and such works which have got to be done only during a particular period. The result is farmers who are not even rich — the average holding in my village is 4.5 acres per family — are distressed and are wanting to abandon farming. They would rather lease their holdings to corporates. Sooner the corporate farming becomes a practice, the better. Then there will be relief for the distressed farmers.

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As time passes, political parties will have to promise more and more welfare competing with one another
former Chief of Staff wrote that we would have to fight two and a half wars simultaneously against China, Pakistan and Maoists within the country. When we are overwhelmed by a three to one superiority by China alone, imagine what could happen to India if we are to wage war with all the three which is not inconceivable.

Loan Melas
Another give-away is the waiver of debts, Rs. 70,000 cr for farmers. A moratorium would have been better. Taking a cue from the central government, Andhra Pradesh government waived another Rs. 5000 cr to farmers who have paid the debts to bring them to parity with those who have defaulted and got the loan waiver. In Andhra Pradesh there was a debt waiver mela — over Rs. 1900 cr for the SCs, Rs. 450 cr for Muslims, Rs. 350 cr for weavers and so on. Government of Andhra Pradesh (I am sure many other governments also) are urging people to take loans like for example when the former Chief Minister Y.S. Rajasekhar Reddy gave a lakh of Rupees as loan to one crore women to make them lakhpathis. Now when they are due to repay, political parties including Congress are agitating that these loans should not be collected. So governments and political parties are urging people to take loan and at the same time, they are organizing them for waiver of the loans. These actions are subverting the work ethic, the saving ethic and instead promoting dependency ethic; that is, government should give free housing, non-repayable loans, free provisions — from rice at Rs. 2/Kg; then Rs. 1/Kg; and now 35 Kgs free per month, marriage, pregnancy and child-birth grants; old age pensions. Government does not expect anything from them. It is promoting laziness. No nation which has spent more than what it produces has lasted for long as a great nation. For example, we see the decline of America because an average American addicted to credit card use is indebted to the extend of 18 months of his PCI. That is the reason why American power is declining.

A Few Right Actions
What is right is work must be got from people availing NREG but not in the village where they are. Work must be guaranteed for those who are willing to work at project sites where dams and canals are being built, where houses are being constructed, roads are being laid. They can be transported at government cost and housed in tents with their children also being looked after by government. That means instead of simply paying money for doing no work in the place where they are, they should be prepared to move. Only those people willing to work at sites shown by government should be guaranteed a job.

In addition to this, government must have program of totally stopping all welfare for families who have more than two children; that is the moment a third child is born all welfare must cease because that is an unsupportable burden on the rest of the people. If somebody says that God is
giving them children, then they should apply to God for welfare and not to the poor government and poor citizens. It is this Mantra that China has been following one-child norm since 1978. It is because of this that there is hardly any growth in its population and that it has been able to build prosperity and power and become the second largest economy in the world in the shortest span of time and is poised to over-take the USA in the next few years. Government, leaders and responsible citizens must constantly emphasize the virtues of education and its quality work and saving ethic. They should say that people should try to live within their ability to earn and during the period of development, they should have only one or two children. That is one by choice and the second only by mistake.

Slogans like garibhi hatao, inclusive growth, Muslim First and social justice are all sweet words. They are unethical and totally populist. The purpose of populism is to get votes; the purpose of vote gathering is to get elected to legislative and ministerial positions cover up the real intention of feeding welfare opium to the people to keep them away from movements against corruption, inflation, loot of public money and its stashing in Swiss banks and for building vote banks. Pre-election promises of give-aways are no different from I.O.U.s and should amount to distribution of cash for votes; hence punishable.

If the huge wealth our entrepreneurs are creating of which governments are getting about a third is used properly to build up human resources, through education and health and housing and drinking water, limited families then our nation can really become prosperous and powerful. Education rid of unnecessary and unjustifiable reservations will be productive of intellectual property (IP) that the country needs to sustain its prosperity and power. And above all, ethical and moral values like that one should live within one’s own means, one should not covet wealth without work, one should not produce children who will be a burden upon the society are what should be taught in the home and school and at large by all responsible people. This nation cannot afford wealth creation with increasing inequality. This nation should not create opportunities and incentives for the wealthy to take away the money and keep them in Swiss bank.

“You cannot bring about prosperity by discouraging thrift. 
You cannot strengthen the weak by weakening the strong. 
You cannot help the poor by destroying the rich. 
You cannot establish sound security on borrowed money. 
You cannot keep out trouble by doing for them. 
You cannot build character and courage by taking away man’s initiative and independence. 
You cannot help men permanently by doing for them. 
What they could do for themselves.”
— Abraham Lincoln

If we make a mockery of reservations, launch festivals like loan melas and their waivers; if we bribe people by give-aways like in NREG, indiscriminate and unreasonable fee-reimbursements; cash grants for marriages, pregnancies, child-birth and pilgrimages while those in government loot money in collusion with contractors, licencees, land-gainers (in the name of SEZs which are later utilized for real estate activity), we will surely be incubating popular, deadly up-rising as in Algeria, Egypt, Libya.… The political class and the collusive greedy get-rich-quick business operators will be bringing disaster upon our country even as our “friendly” neighbours undermine our sovereignty and plan to slice off our territory in the north-east and north-west. IER

(DR. T.H. CHOWDARY held executive, managerial and directorial positions (General Manager, Deputy Director General) in the Departments of Information and Broadcasting and Telecommunications, of the Government of India. He was the founding Chairman and Managing Director of India’s Overseas Communications Corporation (VSNL). He was Governor, INTELSAT, (Washington) and Executive Director, IN-MARSAT, (London). He was Senior Expert of the International Telecommunications Union in Guyana and Yemen and was engaged by the CIDA (Canada) for writing the Green Paper for restructuring of Telecoms in South Africa and for drafting Information and Communications Policy in Nepal. He was Member of the Prime Minister of India’s National Task Force on Information Technology and Software. Dr Chowdary was Information Technology Advisor in the rank of Minister of State to the Government of Andhra Pradesh, mentoring the State’s extensive programmes for e-Governance, Government to Citizen services (e-Seva), establishment of Internet Kiosks, computer education in schools and colleges and broadband applications. Dr Chowdary was Fellow of Satyam Computer Services and the founding Director of the Center for Telecom Management and Studies and also serves as a Chairman of Pragna Bharathi. He is the author of several books on telecommunications, information technology, Indian culture and politics.

The views expressed in the write-up are personal and do not reflect the official policy or position of the organization.)
Why have recent high rates of growth failed to create noticeable effects on India’s poor people? Why is the funnel through which the proverbial ‘trickle’ is to drop down so constricted? I will like take up one of the reasons here. It is a structural feature of our economy, the informal sector.

The informal sector usually refers to units with the following features. They are engaged in production with the primary goal of generating employment and income for a group of persons, rather than profit. They work on small scale with non-contractual employment mostly based on kinship and personal relations. Often the supply of labour and capital cannot be clearly distinguished. In most cases production activity is difficult to separate from other economic activities of the persons involved and hence production accounting is blurry. Concerned persons raise finance at their own risk and are fully liable for any debts and other payables. I will stretch the scope of my discussion a bit by including small units that do produce for profit but share most of the other features mentioned above. I will use the phrase informal sector to refer to this bigger group.

We do not have good estimates of the size of the informal sector’s output and employment. But there is statistical information on the unorganised sector which, as defined by the National Commission for Enterprises in the Unorganised Sector (NCEUS), includes all private unincorporated enterprises employing less than ten workers. This includes several types of units in which we are not interested in this essay, like cooperatives, trusts, private and limited companies. The informal sector as I described above is a subset of the unorganised sector of NCEUS. Based on 2004-
2005 data, NCEUS estimated unorganised sector employment around 393 million of the country’s total employment of 457 million for that year. From the same sources, 50% of the GDP came from the unorganised sector. It would mean that unorganised sector labour productivity was around a sixth of that of the organised sector. Even if we leave agriculture out, which hardly produces any formal employment, 72% of Indian work force was in the unorganised sector. There is no reason to believe that the ratio of unorganised and organised employment and that of their productivities have changed very much in the last few years. Further, we should expect labour productivity and income of the informal part of the unorganised sector to be less than the unorganised sector average. This low productivity is directly reflected in the abysmally low income of a large majority of our employed work force.

Let us look at the informal sector units along the ascending order of their operating surplus. Those at the bottom end: farm labourers and the so-called ‘own-account enterprises’ like rickshaw-pullers, street vendors, and others in similar activities form the bulk of the people below and close to the poverty line. Those with somewhat more (but nevertheless very low) operating surplus work with family labour and a few outsiders hired at abysmally poor wage rate. From this end as we move towards higher levels of operating surplus, wage does not increase all that much. Relatively prosperous informal units that work for profit in construction, food processing, garments, gems & jewellery, leather goods, restaurants, transport and retail trade are notorious for the low wage, poor working conditions and the lack of employee benefits.
It is expected that rapid income growth, like we are experiencing now, would generate effects outside the sectors where the initial stimuli originate. The transmission of growth from the formal to the informal sector, if there is any, has been termed as trickle down. The transmission is expected through consumption demand and the demand for production inputs. Also, the growth of infrastructure, transport and communication in the organised sector and any improvement of governance services are expected to create supply side effects. All these effects have been working within the formal economy over the last two decades. But they have failed to create comparable effect in the informal economy. Hence the widespread belief that the so-called trickle down does not work.

However the transmission of demand from the organised to the informal sector has not been entirely absent. But this demand fails to create much income change in the informal sector. Let me outline the strands of the transmission process to explain why the increase of demand fails to raise income significantly.

(i) Income growth in the organised sector creates consumer demand increase for several informal sector products. Relevant goods and services include transport, retail services, eateries, processed food, and garments and so on. But this does not produce proportionate impact on poverty for several reasons. First, value added as a ratio of price being very low in these activities the demand produces a relatively small change of income. Secondly, the increase of demand attracts more own-account producers to join informal production. For example rapid growth has led to an explosion in the number of rickshaws in our smaller towns; the same is true of street vendors, road-side eateries, domestic help and so on. As long as a local market allows income to exceed the reservation income, it tends to attract more actors. Hence in equilibrium, the income of own-account producers remains at that reservation level close to subsistence. Thirdly, in most cases entry require the permission of local mafia or political bosses and hence new entrants have to part with some income. Further, they rarely own the ‘means of production’— the rickshaw, the hand cart, the three-wheeler or the taxi for example. These are owned by renters to whom they have to surrender a part of the income. The result is that a significant part of the increased income is siphoned out, leaving the workers not much better off.

(ii) Like consumption goods, there is also increase in the demand for informal goods and services to be used as input into formal production. Agricultural goods in general, processed food, fruits, flowers, forest products, handicrafts and a variety of ethnic and cultural items are used as inputs in formal sector. But because of the relatively low value added the effect on informal income, and particularly wage income, is not significant. Similarly, services like security, local transport, hosting and event management, cleaning and laundry, cooking etc are bought by the organised sector as inputs. But these services are mostly provided by informal enterprises that employ contract workers on very low wages.

(iii) A range of informal enterprises link more directly with the formal sector. They are small units working for profit. They produce items like auto parts, electronic goods, metal products, and engineering goods and provide services like repairs, assembly, printing, copying, and publishing and so on. We come across two types of relations here. In one they supply the products which are then processed by the formal sector. In the other, they produce as sub-contractors for formal sector firms. In spite of these linkages, the benefit generally fails to trickle down significantly because of the small wage component in value added. We should note that many of the small profit-making units are in the informal sector by choice. A major reason is to escape the organised sector wage and
employee benefit norms. Increase in their activities therefore does not translate into significant increase in workers’ income and benefits.

In all cases, the transmission of income is hampered by the abysmally low wages prevailing in the informal sector, which results from low labour productivity. For formal sector growth to have more substantial effect on the majority of the working people, we need ways to increase the labour productivity of the informal sector.

To Increase Productivity

We can think of a gearing ratio to describe the relation between the growth of the organised sector and the resulting effect on the informal sector. We can define it as the incremental growth of the informal sector income attributable to one percent growth of the organised sector. To get more from the organised sector growth we need policies for increasing this gearing ratio. I will discuss the broad outlines of a number of strategies. Their details need to be thought out at the level of application as the challenges at the ground level can hardly be anticipated. Relevant policies would be different depending on the income status of the units. I will start from the poorest.

Farm Labour and Own-account Units:

Farm workers and own account enterprises have the lowest labour productivity and are the poorest. Contributing factors are the lack of appropriate capital equipment, poor organisation of economic activity, poor health, nutrition and education. Good healthcare, nutrition and education can increase the productivity of these workers significantly. These services also work as public goods, producing external effects on the effectiveness of local governance and hence a second round effect on productivity. The services are in an appalling state almost everywhere in the country. Though significant central government resources have been made available, indifferent management and misuse of funds afflict these sectors. So it is vital to develop purposeful and effective management at the ground level.

However, healthcare and education improve productivity with a significant lag. In the mean time, it is necessary to ensure certain minimum income. For this, the political system has to give its sincere consent to a statutory minimum national wage to be accepted in all states. We also require a statutory list of minimal working conditions and enforce it ruthlessly. NCEUS too has recommended the establishment of a minimum national wage and a minimal set of working conditions. It has further recommended an insurance-based approach to living conditions, calling for a national minimum social insurance that would cover for sickness, maternity, death or accident. In the NCEUS scheme, while the minimum is to be ensured by the centre, state governments would be called upon to top it up according to their financial ability. NCEUS has also recommended an old-age pension. Given that the targeted people have little land or property, income insurance is absolutely necessary as a safety net — not just as a growth strategy but also for reducing hardship. While these measures are eminently sensible as redistributive measures on their own, I want to emphasise that I am proposing them here as productivity-improving.

At the same time we require some strat-
The agencies mostly are afflicted by disinterested and corrupt officialdom and political favouritism at large

The agencies mostly are afflicted by disinterested and corrupt officialdom and political favouritism at large. There exists a range of agencies of the central and state governments as well as those run by NGOs for assisting with these issues. But it is fair to say that they do not measure up to the task, and very few are at all effective. In most instances the agencies are afflicted by the country’s general problem: disinterested and corrupt officialdom and political favouritism. Nor are the agencies organically related to one another so as to develop a co-ordinated vision or program. We require more integrated and visionary institutions. One possibility is to set up working stations at major habitats of small informal industrial units to attend to industry clusters in an integrated way. The stations should be multipurpose in nature, attending to finance, technology, marketing and managerial issues. They should be staffed by business/commerce graduates and experts in the production/technology of the products of the given cluster. Stations in a wide geographical area should be laterally connected with regular exchange of case experience and data, and should be part of a bigger regional organisation. Their work should include consultancy, counselling and persuasion even as they provide connection with financial institutions, technology, markets and business practices. They would not only liaise with local banks but also draw up strategies, together with the banks, for successful lending activity.

All this cannot be achieved without registration of the units and giving them formal identity. Registration, identity, and establishing the ownership of units are pre-conditions for getting organised sector

outside the Own-account: Small Firms: Small units in the informal part of the economy form the backbone of a number of important industries, like forestry and fishing; wood, wood products, furniture and fixtures; textiles and clothing; leather goods and substitutes; construction; beverages and tobacco products; plastic goods. They produce substantial share of output, employment, as well as export. But in spite of it, they transmit the formal sector growth process with but a very feeble gearing ratio. These units are known to be extremely competitive. But, unfortunately, competition is handled by wage repression and avoiding any spending on working conditions. Typically, the response to a rush of demand growth in these units is to stretch working hours and employ more underage workers at lower wage. Hence though formal sector growth creates increase in informal output, it does not create much income rise for the poor working people there.

With some exceptions, these units adopt wage repression as a way of business because they cannot afford new capital and technology to enhance their competitive edge. This in turn happens because they are cut off from the organised capital market. Financial institutions are wary of lending to unregistered units with scarcely anything to secure their loans with. Exclusion from organised finance results in worn out plant and machinery and lack of technical and organisational improvement. The only exceptions are units that subcontract for bigger firms or produce parts for them. They are helped with finance and technology by their collaborators. But it is the others that are more numerous. They have been in difficulty since liberalisation as they find it difficult to compete with imports with their outdated technology and equipment. Even when they manage to keep the cost and price down, they fail to match quality. While the decline of the struggling toy industry is well-publicised, that is not the only industry that has been challenged by imports.

To create an inclusive growth process we have to transform these small informal units into a vibrant group of forward looking, technologically up-to-date smart small firms. Small scale production can be very nimble and can pioneer new practices as the experience of a number of Asian countries show. In India too we have isolated examples of excellence and technical and managerial breakthrough among many small units. We should aim to bring the entire small-scale informal sector up to that standard. This can improve the gearing ratio between the formal sector growth and that of the rest of the economy dramatically. It requires a package of effective measures to provide access to finance and technology and assistance with skill development and upgrade.

strategies for improving the production of own-account units. Access to finance, technology, markets and trade-specific skills need to be strengthened. These are not new suggestions and in fact have become clichés. But it is necessary to restate them as they are not available in spite of repeated pronouncements. We need to establish efficient and clean agencies to deliver them. A large amount of ground work is required to develop government level and grass root level agencies with the right incentives and checks and balances. I will elaborate on them below.
finance. The units should be gradually persuaded into more formal accounting and making payments including wages through their banks. Obviously, all this would require a cadre of motivated and able workers, and their remuneration and incentives should be designed to attract and retain the best. Because we are talking about such a large proportion of the GDP and jobs, we can stake a significant amount of expenditure for establishing a dedicated cadre and chain of organisations. It is easy to have a rough idea of how much we might gain in terms of GDP for any given percent increase of the gearing ratio, given today’s parameters. That in turn would provide a guide to how much we can spend. Note that the changes would amount to modernising the economy in the true sense of the term.

**Some Misconceptions:** These recommendations amount to asking for ‘formalising’ our informal sector. This may not be liked by many of us who feel that modernising or formalising the informal sector would amount to losing our tradition and even our Indian-ness. First, there is a suggestion that the informal sector is necessary to preserve India’s traditional products and hence to protect the variety of its culture. It is also suggested that work and service based on personal rather than contractual relation is in some sense good as it nourishes healthy social relations. We should therefore preserve and nurture our informal sector as a matter of policy. A second idea is that the informal sector acts as a shock absorber in times of recession. Downswings would be much more severe if we had no informal sector.

These ideas are not convincing. To produce traditional, ethnic, and culture-based products and services, production units need not stay unorganised or informal. In fact better organisation, management, accounting and marketing using formal sector practices would increase not only their ability to generate more income but also their presence and profile. A very important result of industrialisation is to improve the organisation of production, for both large and small units. Successful industrialisation has progressively transformed traditional and informal production in today’s industrialised countries into organised production of higher productivity. North and West European countries handsomely illustrate that this does not result in any loss of the cultural richness of traditional goods and services.

Turning to the so-called ‘recession-proofness’, I would note that it is indeed true but that does not constitute a reason for nursing the informal sector. Recession-proofness is the result of the miserable labour productivity and income of the informal sector. It arises because a fall in informal sector income, even though it reduces demand for the informal sector, does not affect its income very significantly. For a given contraction of demand the corresponding contraction of informal sector income is much smaller. But this is just the obverse of the fact that when there is formal sector growth, informal sector income growth is much smaller. Both result from the low value added and poor productivity of the informal sector. It is odd to justify low productivity on the ground that it keeps people adequately poor so that their income would not matter much for economic cycles! If the productivity of the informal sector was to increase, surely recessions would have more ‘bite’ in this sector. But growth of the formal sector would also generate more growth here. Given that recessions are rarer than upward movement of income, the economy would gain by more formal organisation in the informal sector.

Informal units present a few other challenges for the economy and governance. The administration is powerless to regulate unregistered units who easily escape important regulations on environment and safety, labour conditions, child labour and so on. Given that the overwhelming majority of workers work in the informal sector, the inability to regulate these units leads to overall failure of regulation. Further, though most of the informal sector reflects a desperate struggle to earn just a living, there exist rogue units who use the sector as cover to escape scrutiny. They escape wage and workers’ benefit norms and taxes apart from other regulations and even steal land and power. Some of them help formal sector businesses to hide their output and profit and thus work to produce black income.

Overall, I take the position that an important step for making our growth more inclusive would be to reform the informal sector. If that is done, forums of the future would discuss horizontal income transmission across the economy, not ‘trickle downs’ — a phrase that would lose currency.

(MR. AMAL SANYAL is associate professor in Economics at Lincoln University, New Zealand. He had also been a former holder of State Bank of India national chair on public policy, former Economic Advisor to the Ministry of Economic Planning in Mauritius and consultant in demand modeling and pricing strategy for core sectors like power, coal, petroleum and steel.

The views expressed in the write-up are personal and do not reflect the official policy or position of the organization.)
Although India's growth story appears to be rosy and impressive but sustainable growth is not possible without inclusive growth and better governance.

In the past, theories of development focused on level of domestic production in the economy, the trade balance of the country, or its current account deficit and such other macro economic factors. We hardly find any mention of finance as an important growth factor. Slowly and gradually financial inclusion is finding its way through into mainstream economics. Government is directing its policies not only towards achieving economic development but also focuses on micro level, social upliftment in order to bring about holistic growth.

**Financial Inclusion**

Public goods and services are non-rival and non-excludable in nature. In other words, these are goods and services which cannot be withheld from any individual and must be supplied communally. Banking services are in the nature of public good therefore, it is important that these services should be made easily available to every citizen of the country at affordable costs.

In India, financial inclusion is confined to ensuring the bare minimal access to a savings bank account without frills, to all. However, internationally financial inclusion is viewed in a much wider perspective. Recognizing this, the Central government has relooked at the definition of financial inclusion as not just opening of bank accounts, but also provision of banking services such as credit, remittances, and overdraft facilities and so on.

The Committee on Financial Inclusion, set up under the guidance of Dr. C. Rangarajan defines Financial Inclusion as follows:

“The process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost.”
Financial Exclusion — A Reality

Last five decades have seen the banking industry grow tremendously in volume and technology, with introduction of automated teller machines (ATMs), debit/credit cards, internet banking to online money transfers and soon. However, the unresolved point is that the access of these services is constrained to only a few segments of the society. This is evident from the fact that there are 60,000 ATMs in India, of which only 20,000 are in the rural and semi urban regions. With various services like privileged banking or priority banking, focus is mainly on the high and upper middle class income populace. However, there is a considerably large segment of the population which is unaddressed. People with low income do not have access to even the basic banking services. Banks in order to satisfy their profit appetites have ignored this low income segment of the society. This financial exclusion is one obvious truth that is staring us in the face.

Exhibit 1 illustrates the widespread income disparities among the rural and urban population in the country. States like Haryana and Delhi show stark discrepancies in the income distribution among the rural and urban populace, followed by MP, Gujarat and Maharashtra. On the other hand, Kerala, Chandigarh and the north Eastern states reveal lower levels of discrepancy in the income distribution among its rural and urban population. States of Punjab and Chandigarh illustrate that the income distribution among the rural population is greater at around Rs. 2,00,000 and that among the urban population is at around Rs. 1,85,000. However, there is little need to be ecstatic about the discovery as this is mainly on account of wheat producing farmers in these regions being wealthy.

According to the Invest India Incomes and Savings Survey of 2007, 24% of the total paid workforce was in the low-income category, implying that nearly 80 million earners are in the low-income group. This survey further reveals that the average annual income of low-income earners was Rs. 21,000 with rural earners getting only Rs. 18,000.

Exhibit 1: Average Income Distribution across States (as on 2007)

Source: Invest India Incomes and Savings Survey of 2007

Further, the Human Development Index 2010 published by the UNDP states that India has performed poorly on almost all indicators like life expectancy, education, per capita income, infrastructure and so on and hence have ranked India at 119th position among 169 countries.

Steps Taken by RBI in order to Attain Financial Inclusion

RBI has made several contributions in order to achieve financial inclusion. Some of them are stated below:

- Creation of ‘no frill accounts’
- Liberalized branch expansion
- Overdraft facility in Savings bank account
- Undertook financial literacy programmes
- Introduced technology products and services and so on

The Finance Minister, Pranab Mukherjee, announced that an additional number of 73,000 unbanked villages, with a population of at least 2,000 would be brought under the purview of the banking industry by the end of the current fiscal, out of these 23,000 to avail banking services by the end of April.

Further, the Government has also under taken certain banking facilities like ‘Swabhimaan’ and ‘Swavalamban’ in order to target the unorganized sector.

Despite these numerous efforts, the ‘bottom of the pyramid’ population has not availed of the required banking facilities on account of several reasons. The most prominent problems are stated below:

Awareness Barriers

It is distressing to note the indifference among the masses about the formal
banking system. Even people who qualify as ‘banked’ population also have very limited understanding of the use the various banking services in order to enhance their financial security. There is widespread lack of knowledge that banking products can be used to build up wealth and ensure a comfortable life post retirement. There are numerous services provided by banks that help individuals keep away from frauds and losses from unscrupulous activities.

There is grave lack of awareness among the rural population in India about the banking services primarily on account of lack of access to facilities. There is a need to address these bottlenecks and create awareness among the masses about the benefits of banking services.

**Regional Barriers**

It has been found that there is demand for financial services however it is not being met in the rural regions and also in the interiors, where it is difficult to reach. Therefore, this unaddressed population has to rely on informal sources of finance namely money lenders. Since, these funds are availed at exorbitant rates these poor people are trapped in a vicious circle.

**Documentation Barriers**

A few banks have penetrated into the rural areas however, using these facilities requires providing various documents regarding a person’s identity, income, etc. It becomes difficult to attain these numerous documents from these poor people. This in turn de-motivates the poor population from availing financial services.

**Language Barriers**

Problem also arises from language barriers, where people are unable to comprehend the intricate offer documents and hence don’t come forward to subscribe to these facilities.

**Profit Barriers**

The cost of maintaining bank branches is quite high coupled with low volume of transactions in the rural areas makes branch based banking in such areas unviable. It cannot be denied that private and foreign banks focus on making their order books look more attractive. Hence, the high opportunity and operational costs act as de-motivating catalysts for these banks to reach out to the rural regions of the country.

It is important to note that for a speedy and sustainable development of India, the expansion of the rural population is crucial. It is vital to understand that only ensuring the well being of those in the urban/metropolitan will not bring about the required long term growth. A holistic approach is required where even the rural population reaps the benefits of advancement of technology.

It is critical to understand that although India’s growth story appears to be rosy and impressive, sustainable growth is not possible without financial inclusion. Therefore, financial inclusion for the bot-

### Table 1: Population Group-Wise Distribution of Deposits and Credits of SCBs

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<tr>
<td></td>
<td>Deposit</td>
<td>Credit</td>
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<td>Rural</td>
<td>2,20,170</td>
<td>1,19,805</td>
<td>2,40,218</td>
<td>1,38,754</td>
<td>2,69,566</td>
<td>1,63,099</td>
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<tr>
<td>% Share in Total</td>
<td>11.7</td>
<td>9.4</td>
<td>10.5</td>
<td>8.3</td>
<td>9.4</td>
<td>8.0</td>
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<td>Semi-Urban</td>
<td>3,11,052</td>
<td>1,44,705</td>
<td>3,21,707</td>
<td>1,64,116</td>
<td>3,84,521</td>
<td>1,99,932</td>
</tr>
<tr>
<td>% Share in Total</td>
<td>16.5</td>
<td>11.3</td>
<td>14.1</td>
<td>9.8</td>
<td>13.5</td>
<td>9.8</td>
</tr>
<tr>
<td>Urban</td>
<td>4,00,557</td>
<td>2,09,292</td>
<td>4,67,058</td>
<td>2,68,191</td>
<td>5,79,924</td>
<td>3,29,825</td>
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<tr>
<td>% Share in Total</td>
<td>21.3</td>
<td>16.3</td>
<td>20.4</td>
<td>16.1</td>
<td>20.3</td>
<td>16.2</td>
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<td>Metropolitan</td>
<td>9,49,639</td>
<td>8,07,006</td>
<td>12,59,585</td>
<td>10,99,310</td>
<td>16,19,815</td>
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<tr>
<td>% Share in Total</td>
<td>50.5</td>
<td>63.0</td>
<td>55.0</td>
<td>65.8</td>
<td>56.8</td>
<td>66.1</td>
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<tr>
<td>All India</td>
<td>18,81,418</td>
<td>12,80,808</td>
<td>22,88,568</td>
<td>16,70,371</td>
<td>28,53,826</td>
<td>20,40,907</td>
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<tr>
<td>% Share in Total</td>
<td>50.5</td>
<td>63.0</td>
<td>55.0</td>
<td>65.8</td>
<td>56.8</td>
<td>66.1</td>
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Source: Quarterly Statistics on Deposits and Credit of SCBs, RBI
Some Grave Statistics

Table 1 illustrates that the share of deposits has been declining in the rural, semi urban as well as urban areas from 11.7%, 16.5% and 21.3% as on September 2005 to 9.4%, 13.7% and 21.1% as on September 2010. In contrast, the share of deposits in the metropolitan areas has been increasing gradually from 50.5% as on September 2005 to 55.8% for the same period in 2010. The same peaked to 56.8% during September 2007. The share of credit is lower than that of Deposits in the rural, semi urban and urban areas, however the share of credit in metropolitan areas is greater implying that the resources get intermediated in the metropolitan areas. This indicates that banks earn greater margins and profits through investments in high potential areas as compared to focusing on priority sector lending to underdeveloped regions. The cost of operating a bank account and the cost of transaction for banking services, which includes deposits, withdrawals, credit and other banking products, is not only high for the consumers but also for the banks. This leads to little penetration and reduced delivery of services in order to bring the large number of potential unbanked/under banked population under the mainstream banking system.

Table 2 illustrates the distribution of SCB branches in India. Regional Rural Banks (RRBs), which are partly owned by the Central government (50%) and the State government (15%) along with a sponsor bank (35%), has grown to 15,127 branches from a mere 12 branches in 1975. Giving loans to farmers, artisans, etc was the main aim of RRBs. However, RRBs have not been able to achieve the desired results and need to enhance their penetration. It can be observed from the following table that as on March 2009, the Regional Rural Banks (RRBs) have 76.9% branches in the rural areas followed by the SBI comprising 34.6% of its total branches in the rural areas; Nationalized banks together have 34% of its total branches in the rural areas, whereas foreign banks concentrate in the metropolitan region with 79.5% of its total branches set up in the Metropolitan areas and about 1.4% in the rural areas. This brings out clearly the
need of foreign banks as well as private players to reach out to the underdeveloped regions.

**Recommendations**
The Government of India constituted a ‘Committee on Financial Inclusion’ under the leadership of Dr. C Rangarajan in order to address the problem of financial exclusion. The Rangarajan committee considered that steps must be undertaken as a mission to expedite the process of financial inclusion. Noting that the seasonal nature of the occupation in rural parts of the country the committee recommended a savings product suited to the seasonal income pattern of rural households, money transfer arrangements, small credit facilities, life and non-life insurance cover and other financial products and services as necessary for comprehensive financial inclusion. The committee has also suggested a National Rural Financial Inclusion Plan, an elaborate structure to operationalize this plan district level upwards and a National Mission on Financial Inclusion. The Committee stresses on the role of RRBs to extend their services to unbanked areas and increase their credit to deposit ratio.

**Conclusion**
The focus of the Government should be at gradually removing the supply side constraints arising because private sector banks are less forthcoming in the areas which have low scope of profit making. At the same time there is a need to create awareness amongst the rural population and address the demand side issues. It is seen that even today one third of the rural population depends on loans from traditional and usurious money lenders. Three fourth of the total farmer households do not use the institutional sources of raising credit. Hence, even after four decades of establishing the Regional Rural Banks and National Banks for Agriculture and Rural Development and various steps incentives announced by policy makers in the Government budgets, financial exclusion continues to be a blatant reality.

The scope of financial inclusion cannot be restricted to simple ‘no frill accounts’, it has a wider and a pivotal role to play in achieving a growth process that yields broad based benefits and ensures equal opportunities to all. Financial inclusion is ensuring every individual understands the use and the importance of a wide range of financial services made available to them.

(MISS SAMRUDDHA PARADKAR is a University Merit Holder in Economics. She completed her graduation in Economics from St. Xavier’s College and majored in Economics from Mumbai University. She is also a Visharad in Bharat Natyam. She has backed various prizes and scholarships for her excellence in academics and extracurricular activities. Currently she is working with CARE Ratings as an Associate Economist.

The views expressed in the article are personal and do not reflect the official policy or position of the organisation.)
Sustainable Development of Agriculture

Sustainable management of agriculture, forests, fisheries and ecosystem services is necessary for achieving the goal of both intra and inter generational equity.

The Brundtland Commission (World Commission on Environment and Development, 1987), defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Arrow, Dasgupta, Goulder, Mumford and Oleson (2010) take the view that economic development should be evaluated in terms of its contribution to intergenerational well-being. They show that intergenerational well-being would not decline over a specified time-period if and only if a comprehensive measure of the economy’s wealth were not to decline over the same period. By wealth they mean the social worth of an economy’s entire productive base i.e., not only reproducible capital goods or human capital but also population, public knowledge, and the myriad of formal and informal institutions that influence the allocation of resources.

The UN bodies and many governments
consider three dimensions of sustainable development — economic, social and environmental. Economic efficiency is necessary for achieving the maximum possible growth with limited resources. The social dimension is in terms of equity, particularly intra generational equity. Poverty eradication is one of the Millennium Development Goals (MDGs); it has become a global public good by global public choice. The environmental dimension captures internalization of environmental costs of pollution and natural resource degradation in decision making of all economic agents and intra generational equity. It is being realized that natural resource degradation and pollution are not just environmental challenges; they threaten poverty eradication and achievement of the MDGs.

Until recently, the major goal of India’s development had been economic growth. The Eleventh Plan (2007-12) articulated the need for pursuing an inclusive growth strategy. This broad vision includes ‘several inter-related components: rapid growth that reduces poverty and creates employment opportunities, access to essential services in health and education especially for the poor, equality of opportunity, empowerment through education and skill development, employment opportunities underpinned by the National Rural Employment Guarantee, environmental sustainability, recognition of women’s agency and good governance’.

Even though the linkages between growth and environment and between poverty and environment are known, they have not been incorporated adequately in Indian planning and public policies. Economic growth is subject to ecosystem constraints. Dasgupta (1993) explores the two-way links between poverty and environmental resource base. The Millennium Ecosystems Assessment (2005) depicts the strength of linkages between categories of ecosystem services and components of human well-being that are commonly encountered and includes indications of the extent to which it is possible for socioeconomic factors to mediate the linkage. It also notes that other factors — including other environmental factors as well as economic, social, technological, and cultural factors — influence human well-being, and ecosystems are in turn affected by changes in human well-being.

**Agricultural Growth, Employment and Rural Poverty**

During the first decade of the Millennium the rate of growth of agricultural output was lower than the planned output. The Planning Commission fixed a target growth rate of four percent per annum for the 11th plan. The target of four percent growth in GDP from agriculture and allied sectors was felt necessary to achieve overall GDP growth target of nine percent per annum without undue inflation and generate exportable surplus. Also global experience reveals that growth originating in agricultural sector is at least twice effective in reducing poverty as GDP growth originating in other sectors. There are forward and backward linkages with the non-agricultural sector.
The annual rate of growth of crop output during 2000-01 to 2004-05 was only one percent and during 2004-05 to 2009-10 it was 1.7 percent. These growth rates were close to the overall population growth rate during the decade. The growth rates of higher value added sectors (per hectare of land) namely horticultural, livestock and fisheries outputs were higher. This diversification is desirable as the shares of horticultural and livestock products increase in food budgets as households incomes increase. The forestry output growth rate was lower because of policies related to conservation and sustainable use for forest resources.

The share of agriculture and allied activities in gross domestic product at factor cost fell from 55.1 percent in 1950-51 to 14.6 percent in 2009-10. This declining share of agricultural sector is consistent with the development experiences of developed countries. What is disconcerting is the very slow shift of employment from agricultural sector to non-agricultural sector. Assuming the share of rural population at 70 percent (72.2 percent in 2001 census) and using an estimate of agricultural employment of 749 persons per 1000 persons employed from 61st Round of National Sample Survey, the share of agricultural employment in total employment is estimated at 52.43 percent. This means that the average value added per employee in the non-agricultural sector is about 6.4 times higher than the value added per employee in the agricultural sector. This order of magnitude widens income inequality between agricultural and non-agricultural sectors and suggests the need for policy changes to achieve the goal of inclusive growth.

In rural areas there has been a slow shift in employment from agriculture and allied activities to other activities. It may be seen from Table 2 that in 2004-05 about two-thirds of rural males and six out of every rural women depended on agriculture. While the percentage of male workers depending on agriculture fell from 80 in 1977-78 to 66 in 2004-05, the percentage of women depending on agriculture showed a small decrease from 88 to 83.

According to Tendulkar Committee report (Government of India (Planning Commission (2009)) rural poverty fell from 50.1 percent in 1993-94 to 41.8 percent in 2004-05; the corresponding change in urban poverty is from 31.8 percent to 25.7 percent. The Mahatma Gandhi National Rural Employment Programme, which began in the first year of the 11th Plan is expected

### Table 1: Growth Rates of Gross Value of Output in Agriculture & Allied Sectors

<table>
<thead>
<tr>
<th>S.No</th>
<th>Sub-sector</th>
<th>Share of value of output</th>
<th>Average growth 2000-01 to 2004-05</th>
<th>Projected growth for 11th Plan</th>
<th>Average growth 2005-06 to 2009-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Crops</td>
<td>42.4</td>
<td>1.0</td>
<td>2.7</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>Cereals</td>
<td>18.6</td>
<td>-0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pulses</td>
<td>2.7</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oilseed</td>
<td>6.2</td>
<td>6.2</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sugarcane</td>
<td>3.7</td>
<td>-3.0</td>
<td>-1.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fibres</td>
<td>2.8</td>
<td>7.7</td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other crops</td>
<td>8.4</td>
<td>2.5</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Horticulture</td>
<td>19.8</td>
<td>2.0</td>
<td>5.0</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>Fruits and vegetables</td>
<td>15.1</td>
<td>1.7</td>
<td></td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>Condiments and spices</td>
<td>2.1</td>
<td>5.9</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drugs and narcotics</td>
<td>1.5</td>
<td>-3.0</td>
<td>-2.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Floriculture, kitchen garden &amp; mushrooms</td>
<td>1.1</td>
<td>4.8</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Livestock</td>
<td>23.8</td>
<td>3.3</td>
<td>6.0</td>
<td>4.1</td>
</tr>
<tr>
<td>4</td>
<td>Forestry &amp; logging</td>
<td>9.6</td>
<td>1.4</td>
<td>0.0</td>
<td>2.6</td>
</tr>
<tr>
<td>5</td>
<td>Fisheries</td>
<td>4.5</td>
<td>3.7</td>
<td>6.0</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
<td>1.7</td>
<td>4.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

to reduce the percentage of people below the poverty line in rural areas.

**Agricultural Resource Base**

*Land*

The rapid increase in population and slow shift of labour from agriculture to non-agriculture is evident in the dominance of marginal farms. In 2002-03 nearly 70 percent of the operational holdings were marginal holdings with size less than one hectare; another 16 percent were small holdings with size between 1-2 hec. See Table 3. The small sizes prevent farmers from adopting improved agricultural technologies and create barriers for accessing credit and adopting improved agricultural practices.

India is facing serious environmental stress in her natural resource stocks. Land desertification and land degradation affect the quality of land, the major capital input in farming.

Based on land status mapping carried out for the entire country on 1: 500,000 scale, using multi-temporal Resourcesat AWiFS data, Ajai, Arya, Dhinwa, Pathan and Raj (2009) provide information on land desertification and land degradation in India. Of the geographical area of 328.73 million hec, 81.45 million hec (24.8 percent) land is degraded. The process wise details are given in Table 4. Another 105 million hec of land (32.1 percent of geographical area) is degraded. Thus 57 percent of the geographical area is either desertified or degraded.

**Water Resources**

The Eleventh Plan recognized the challenges of water resources management faced by India and the likelihood that these would only intensify over time due to rising population, expected growth in agricultural and industrial demand, the danger of pollution of water bodies and, over the longer term, the effect of climate stress on water availability in many parts of the country.

Referring to a study by Narasimhan and Gaur, the 11th Plan Midterm Assessment gives the following water budget for India:

<table>
<thead>
<tr>
<th>Water</th>
<th>billion cubic meters-61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual rainfall</td>
<td>3840</td>
</tr>
<tr>
<td>Evapotranspiration</td>
<td>2050</td>
</tr>
<tr>
<td>Available water</td>
<td>1340</td>
</tr>
<tr>
<td>Utilizable water</td>
<td>654</td>
</tr>
<tr>
<td>Current water use</td>
<td>634</td>
</tr>
</tbody>
</table>

During 1995-96 to 2006-07, on an average, the contributions of surface and groundwater to net irrigated area were 32 percent and 60 percent respectively. There has been a fall in ground water table due to rapid expansion of tube wells. Table 6 gives information about the degree of exploitation of ground water. There is deterioration in water quality. Biological contamination of surface water sources due to poor sanitation and waste disposal resulted in incidence of water-borne diseases throughout the country. Chemical pollution of groundwater, with arsenic, fluoride, iron, nitrate and salinity as the major contaminants is directly connected with falling water tables and extraction of water from deeper levels.

There has been a severe erosion of the financial status of the irrigation systems. At present irrigation revenues cover barely 15 percent of working expenses and only five percent of total costs and losses. As for agricultural pumps, zero marginal pricing of electricity and use of energy inefficient pumps in most states discourage energy conservation and overuse of water resulting in depletion of water and deterioration of the water quality. Vaidyanathan (2006) argues that access to irrigation leads to a huge increase in the productivity of his land and water should

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**Table 2:** Per 1000 Distribution of Usually Employed Persons in Agricultural Sector in NSS Rounds

<table>
<thead>
<tr>
<th>NSS Round</th>
<th>Rural Male</th>
<th>Rural Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>P S All</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61st (2004-05)</td>
<td>662</td>
<td>665</td>
</tr>
<tr>
<td>55th (1999-00)</td>
<td>712</td>
<td>714</td>
</tr>
<tr>
<td>50th (1993-94)</td>
<td>737</td>
<td>741</td>
</tr>
<tr>
<td>43rd (1987-88)</td>
<td>739</td>
<td>745</td>
</tr>
<tr>
<td>38th (1983)</td>
<td>772</td>
<td>775</td>
</tr>
<tr>
<td>32nd (1977-78)</td>
<td>804</td>
<td>806</td>
</tr>
</tbody>
</table>

Source: S. Chaudhuri and S.K. Roy (2008) Table 20

**Table 3:** Size Distribution of Operational Holdings

<table>
<thead>
<tr>
<th>Size</th>
<th>1960-61</th>
<th>2002-03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marginal (&lt;1 hec)</td>
<td>39.1</td>
<td>69.8</td>
</tr>
<tr>
<td>Small (1-2 hec)</td>
<td>22.6</td>
<td>16.1</td>
</tr>
<tr>
<td>Semi medium (2-4 hec)</td>
<td>19.8</td>
<td>9.0</td>
</tr>
<tr>
<td>Medium (4-10 hec)</td>
<td>14.0</td>
<td>4.3</td>
</tr>
<tr>
<td>Large (&gt;10 hec)</td>
<td>4.5</td>
<td>0.8</td>
</tr>
</tbody>
</table>


**Table 4:** Land Desertification: Processwise

<table>
<thead>
<tr>
<th>Process</th>
<th>Area Million hec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water erosion</td>
<td>26.21</td>
</tr>
<tr>
<td>Wind erosion</td>
<td>17.77</td>
</tr>
<tr>
<td>Vegetal degradation</td>
<td>17.63</td>
</tr>
<tr>
<td>Frost shattering</td>
<td>9.47</td>
</tr>
<tr>
<td>Mass movement</td>
<td>4.46</td>
</tr>
<tr>
<td>Salinity/alkalinity</td>
<td>3.97</td>
</tr>
<tr>
<td>Rocky/barrier</td>
<td>1.16</td>
</tr>
<tr>
<td>Water logging</td>
<td>0.66</td>
</tr>
<tr>
<td>Others</td>
<td>0.12</td>
</tr>
<tr>
<td>Total</td>
<td>81.45</td>
</tr>
</tbody>
</table>

Source: Ajai et al. (2009)
be treated like any other input and priced on the basis of the cost of supply, leaving it to the farmer to decide which combination of inputs (including quantum of irrigation) would be to his best advantage. The rate increases will also incentivize a more careful use of water and lead to choice of socially preferred cropping pattern. These perverse subsidies neither meet equity nor environmental sustainability criteria.

Fertilisers
At present the nitrogen, phosphatic, potassic mix is 0.637:257:106. The Midterm Assessment of the 11th Plan notes that the association between fertiliser consumption and food grains production has weakened during the recent years due to imbalanced use of nutrients and deficiency of micronutrients, which demands a careful examination and policy action. This imbalance in use of plant nutrients and neglect of micro nutrient deficiencies in Indian soils has led to declining fertiliser response and deterioration of soil health. Implementation of the new policy of nutrient based subsidy is likely to provide incentive for balanced use of fertilisers. Imports of fertilisers now account for more than 40 percent of the domestic consumption. Fertiliser subsidy as a ratio to the value of crop output, which hovered between 3 and 3.5 percent during 2000-06 has risen to more than 10 percent in 2008-09 due to a spike in the price of imported fertilizers.

Soil
A healthy soil is necessary to ensure proper retention and release of water and nutrients, promote root growth maintain soil biotic habitat and resist degradation. Decline in soil health causes low fertilizer and other nutrients responses resulting in low productivity. There is need for soil testing at farm level for determining an optimum mix of fertilizers and following sound crop management practices.

Policies for Sustainable Agricultural Development
Capital Formation in Agricultural Sector
After stagnation, gross capital formation as percent of agricultural GDP has been rising from 2004-05. The share of public investment in the gross capital formation has also picked up from 2003-04. See Table 7.

We need an expenditure switch from subsidies to investments which augment the quantities and qualities of natural resource stocks. The necessary additional resources for capital formation can be generated via (i) phasing out environmentally perverse subsidies such as high subsidies for urea, under pricing of irrigation water and very low/zero pricing of electricity for farm pumpsets; (ii) reducing leakages, and targeting subsidies in the public distribution system to people below poverty line; (iii) rationalization of irrigation charges and agricultural electricity tariffs; and (iv) introduction of user charges/payment for ecosystem services. The policy reforms involve a package of technological, institutional and incentive based reforms.

Technology
India has developed the institutional capacity for using remote sensing data for natural resources management. The National Natural Resources Management System (NNRMS) facilitates optimum utilization of the country’s natural resources through a proper and systematic inventory of the resource availability. The NNRMS covers agriculture, bio resources, water resources, meteorology, cartography and mapping, rural development and other areas. Some important applications of remote sensing technologies in the agricultural sector are preparation of hydro-morphological maps showing areas suitable for targeting points for locating drinking wells; mapping of wastelands into different categories; integrated surveys for combating drought; biodiversity characterization; disaster management support system; assessment of snow-melt run-off; forest

Table 5: Land Degradation: Processwise

<table>
<thead>
<tr>
<th>Process</th>
<th>Area (000 hec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water erosion</td>
<td>33,551</td>
</tr>
<tr>
<td>Vegetal degradation</td>
<td>31,660</td>
</tr>
<tr>
<td>Eolian</td>
<td>17,564</td>
</tr>
<tr>
<td>Frost shattering</td>
<td>13,209</td>
</tr>
<tr>
<td>Salinity/alkalinity</td>
<td>5,256</td>
</tr>
<tr>
<td>Mass movement</td>
<td>4,452</td>
</tr>
<tr>
<td>Water logging</td>
<td>989</td>
</tr>
<tr>
<td>Others</td>
<td>1,804</td>
</tr>
<tr>
<td>Total</td>
<td>105,418</td>
</tr>
</tbody>
</table>

Source: Ajai et.al (2009)

Table 6: Groundwater Development 1995 and 2004

<table>
<thead>
<tr>
<th>Level of Groundwater Development *</th>
<th>of total area</th>
<th>of total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-50 (&quot;Safe&quot;)</td>
<td>89</td>
<td>52</td>
</tr>
<tr>
<td>50-70 (&quot;Safe&quot;)</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>70-90 (&quot;Semi-Critical&quot;)</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>90-100 (&quot;Critical&quot;)</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>&gt;100 (&quot;Overexploited&quot;)</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>


* Level of groundwater development is the ratio of gross annual groundwater draft for all uses to net annual groundwater availability. Net annual groundwater availability is defined as the annual groundwater potential (total annual recharge from monsoon and non-monsoon seasons) minus the natural discharge during non-monsoon season (estimated at 5-10 of the total annual groundwater potential)
cover mapping; potential fishing zone forecasts; coastal zone mapping and crop area and production forecasts. The full potential benefits of the technology are yet to be realised.

The green revolution helped India in achieving self-sufficiency in food. Now there is a realization that this water intensive and fertilizer intensive technology, along with myopic and perverse pricing policies for fertilizers and irrigation water, are environmentally unsustainable.

We need an ecologically sustainable green revolution. We need more research on appropriate technologies for coarse cereals, pulses and horticultural crops, especially in arid and semi-arid areas. The National Mission for Sustainable Agriculture stresses the need for devising strategies to make Indian agriculture more resilient to climate change. The Mission has to identify and develop new varieties of crops and especially thermal resistant crops and alternative cropping patterns capable of withstanding extremes of weather, long dry spells, flooding and variable moisture availability.

India is emerging a leader in applications of biotechnology to agriculture, medicine and environment. Application of this technology to agriculture may result in improving yield, nutritional improvement, increasing shelf life of fruits and vegetables by delayed ripening, conferring resistance to insects, pests and viruses, tolerance to abiotic stresses (drought, salt, water-logging) and herbicide tolerance. There are also concerns about transplanting genetically modified seeds developed abroad in Indian soil.

We need technological inputs and institutional support for improving soil health.

**Out of the total geographical area in India of 328.73 mn hec, 186.45 mn hec land is either desertified or degraded**

The site specific Integrated Nutrition Management Programme envisages conjunctive use of chemical fertilizers, organic manures and biofertilisers to enhance nutrient use efficiency, soil health, crop yields and productivity. Gujarat government’s proposal of Soil Health Card Programme is an innovative programme. Under this programme, every farmer takes specimen of the soil from his land to soil testing lab in his district where the scientist examines it for mineral composition. Based on various components of the soil, the farmer is advised to cultivate crops which would get good yield on his land. All this information would be recorded on the soil health cards which would be issued to him. The government also plans to integrate the soil health programme with the e-governance programme which could provide information on nature of soil to farmer from a computer at the village panchayat.

We need public investment in rural infrastructures particularly on road and communication networks for access to markets and information. Public and private investment in post-harvest technologies will not only reduce wastage but also increase value addition and provide greater market opportunities. Kiosks and agricultural digital networks can help in reducing information asymmetries, reducing the intermediation costs and accessing agricultural services timely at lower costs.

**Institutional Changes**

Reclamation of salt affected lands, bioremediation of contaminated sites and conversion of waste lands to productive uses via agro forestry/corporate management/community based self-governing organizations can increase the cultivated area and create livelihood opportunities for the poor. Mahatma Gandhi National Rural Employment Guarantee scheme offers scope for cleaning of rivers, lakes, ponds and wetlands. Implementation of Forest Rights Act, Joint Forest Management schemes and access and benefit sharing provisions of the Biological Diversity Act would incentivize the stakeholders to adopt sustainable management practices.

**Policy Changes**

We need policies for crop diversification,
generation of non-farm opportunities in rural areas and development of agro-based industries. Other policy changes needed are (i) implementation of nutrition based subsidy scheme with fertilizer prices linked to minimum support prices (ii) creation of Water Regulatory Authority for allocation and rational pricing of irrigation water as recommended by the Thirteenth Finance Commission (iii) metering of electricity for pumpsets and phasing out electricity subsidies (iv) development of payment for ecosystem services e.g., between forest dwellers and farmers and local bodies in near-by regions for increases in the quantity and quality of water supplied (v) targeting agricultural subsidies and concessional agricultural credit only to small and marginal farmers using unique identification cards.

India, along with other developing countries, must argue in the WTO for immediate removal of distortions in agricultural markets of many OECD countries. The high levels of export subsidies and subsidies coming under amber and blue boxes depress the world agricultural prices and affect the agricultural exports of developing countries. India must enhance technical and institutional support to exporters of agricultural products for complying with the Technical Barriers to Trade and Sanitary and Phyto-sanitary regulations of the WTO.

India’s growth potential and export potential in horticultural products are very high. At present only about 0.5 percent of the value of horticultural products is exported. Accelerating India’s agricultural growth exploiting opportunities provided by globalization is feasible. Kallirajan, Mythili and Sankar (2001).

India along with other mega biodiversity countries is taking efforts for incorporation of country of origin, prior in-
formed consent and access benefit sharing provisions of the Convention on Biodiversity in patent registrations abroad. This would incentivize the guardians of traditional knowledge and biological resources for adoption of sustainable management practices.

Concluding Remarks
India’s agricultural subsidies are below the de minis levels set by the WTO. What we need is expenditure switching from current expenditures, particularly reduction of perverse agricultural subsidies which do not promote equity and environmental sustainability, to capital expenditures which augment the quantity and quality of natural capital stocks. We also need policies which signal farmers about the social costs of different natural resources and ecosystem services and incentivize them to adopt productivity enhancing farming methods and practices, crop diversification and post-harvest technologies for reducing wastes and better price realization. Subsidies must be targeted to achieve equity and environmental sustainability.

Sustainable management of agriculture, forests, fisheries and ecosystem services is necessary for achieving the goals of intra generational equity and inter generational equity. As the dependence of the poor on the natural resource base is relatively higher than for the non-poor, sustainable management of natural resources helps in poverty eradication. The poor also benefits more from greater access to clean water, non-timber forest products and other eco-system services.

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(U.SANKAR received Ph.D in economics from University of Wisconsin, Madison in 1967. His research interests have been in applied econometrics, pricing of public utilities, cost benefit analysis of India’s space programme and environmental economics. He was Coordinator of the World Bank-Ministry of Environment and Forests Capacity Building Programme in Environmental Economics in India during 1997-2002. He was President Indian Econometric Society in 1994 and Indian Council of Social Science Research National Fellow in 2003 and 2004.He was awarded the University Grants Commission’s National Swami Pranavananda Saraswati Award in Economics for 2006. He is Honorary Professor and Coordinator of Trade and Environment Programme of the Ministry of Environment and Forests at Madras School of Economics. He is Member Planning Commission Expert Group on Low Carbon Inclusive Growth Strategy, Member of the Steering Committee on Environment, Ecology and Wild Life for the 12th Plan and Fiscal Coordinator of Central Pollution Control Board’s clean Technology Project for SMEs.

The views expressed in the article are personal and do not reflect the official policy or position of the organisation.)
A Path to Sustainable Development

Venture capital, a form of risk capital, is associated with the creation and promotion of many economic activities both in developed and developing countries — the concept supports the path of sustainable development.
Intel, Google, Apple, Facebook, Digital Equipment Corporation, Genentech, etc. are the most popular corporations that have created history in the e-age. Before one could go into the success stories of these companies, there is a very interesting, but a new approach in financing these companies that can be observed. To be precise, these companies do business by encasing certain novel ideas that are highly tangible which had not formed the seed of business ventures earlier. Naturally, these new ventures were not started either with any bank loans or through other means of established finance sources. But they depend on a special means of financing called Venture Capital (VC). The concept and modus operandi of this financing requires thorough understanding when one aspires to use it for a sustainable future.

For a common man, one can say that the VC institutions are those institutions which come forward to finance any venture that carries a lot of risk with it for which normal financial institutions hesitate to offer any financial assistance. In a way, VC is a form of risk capital. Capital invested in a venture (can be a project or business or firm) with substantial element of risk relating to the generation of profit in future, assumes the form of equity investment with the expectation of the highest return. Precisely, VC is the financial capital provided to the early-stage, high potential, growth startup companies. The VC fund makes money by owning equity in the companies it invests in, which usually have a novel technology or business model in high technology industries, such as biotechnology, IT, Software, etc. The typical VC investment occurs after the seed funding round while growth funding round (also referred to as Series ‘A’ round) takes a vital shape in the interest of generating a return through an eventual realization event.

VC supports new ventures with limited operating history that are normally too small to raise capital in the public markets. In exchange for high risk, venture capitalists do come forward by investing in smaller and less mature companies. Venture capitalists usually get significant control over company’s decisions; in addition to a significant portion of the company’s ownership (and consequently value). This may seem to be a little silly. If such is the case, then how do these VC investments make profits? Here lies the beautiful solution. VC is associated with well diversified portfolios. Suppose, if it is invested in twenty projects at a time. Of this twenty, nineteen could fail, but the one that would succeed would cover up all the losses and would earn a huge surplus indeed. VC is associated with a sizeable creation of employment, output and income in both developed and developing countries. Above all, VC is a proxy measure to advancement in innovation and risk-bearing capability of an economy. Hence, it goes well with the typical characteristics of a developed economy.

The origin of VC is still unknown; however, one can trace for an earliest example of venture capital when Queen Isabella gave Columbus some money to find a route to India. The organized form of VC however began immediately after the World War II by American Research and Development

A VC institution is chiefly characterized by distinct features: Prudence, Patience and Perseverance.
Development Corporation (ARDC). The funds were invested in diversified areas; chief one being technology. When one talks of the Indian context, the first venture capital in India started during the 1970s in Gujarat. The present study is interested to know the scope of VC for green technology and its challenges in the path of sustainable development (SD). One should understand that a VC is different from other types of finance:

- The VC provides funding as well as guidance.
- It is equity funding in contrast to bank loans.
- It provides great value adding role, which is usually difficult to obtain from many institutions.
- It also provides several distinctive services which normal financial institutions would provide in general.

There are three important stages of VC funding:

- Early stage funding for setting up of a firm, a plant, etc.
- Expansion Stage for further developing of a firm.
- Acquisition/Merger, when one firm takes over the other.

Above all, a VC institution is chiefly characterized by distinct features: Prudence, Patience and Perseverance. Figures 1 and 2 show the sectoral composition of PE Investments in Cleantech by value and also by their volume of investments.

Picking up the straw from here, one can raise a question: Why not the VC institutions target at investments in Green Technology? If they could do so, it would certainly be a profit generating, corporate-social responsibility. Moreover, VC investments in Green Technology will work as a catalyst in the path of sustainable economic development. However, with the recession in its peak during the late 2008, the investments in Greener Energy have fallen down (See, Figure 3). With the labor market getting warmed up and money has become little inexpensive by 2010, investments in Cleantech are bound to increase in the future.

Role of Energy in Human Life

None can deny that humans need energy...
for all types of function they perform. Right from keeping their houses warm/cool to run an industry or to make agriculture contribute or even to keep the body of the individual warm or alive, energy is required. Energy is obtained from renewable and non-renewable sources. But, a large population of the world heavily depends on non-renewable energy sources, commonly known as fossil fuels. The non-renewability of these sources causes their prices to rise up\(^7\) and it may reach a point where they are no longer economically feasible. At present the price rise of fossil fuels can be attributed to increase in consumption and other demand side constraints while the supply of these being more or less fixed relatively to the increase in demand. It is also realized that burning fossil fuels is responsible for the impending crises that are high on the political agenda of modern Governments. Their concern is more about emission, acidification, air pollution, water pollution, damage to land surface, ground water contamination, ozone layer depletion, etc.

Notwithstanding the evil effects of fossil fuels, the world community is clinging on to them for its energy requirements for the simplest reason that the alternative sources of energy are relatively costly since the right kind of technology/innovation has not gone into them. Sporadic business ventures have taken place world over to go in for alternative sources of energy more with a view to mitigate the energy costs. A survey conducted by the Small Business Research Board found that health concerns are now overshadowed by worries about the impact of energy and fuel costs.\(^8\)

**Renewable Energy — the best Alternative**

The present day renewable energy indus-

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**Figure 4: Solar PV Global Productions and Cost per Watt**

![Solar PV Global Productions and Cost per Watt](http://www.ventureintelligence.in/pepulse-ct-2010.pdf)

**Figure 5: Renewable Power India**

![Renewable Power India](http://www.ventureintelligence.in/pepulse-ct-2010.pdf)

**Table 1: Growth of Renewables over the years (MW)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Wind</th>
<th>SHP</th>
<th>Biomass+ Bagasse</th>
<th>Solar</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
<td>4433</td>
<td>1747</td>
<td>868</td>
<td>2.74</td>
</tr>
<tr>
<td>2006-07</td>
<td>6315</td>
<td>1905</td>
<td>1112</td>
<td>2.12</td>
</tr>
<tr>
<td>2007-08</td>
<td>7844</td>
<td>2045</td>
<td>1324</td>
<td>2.12</td>
</tr>
<tr>
<td>2008-06</td>
<td>10242</td>
<td>2429</td>
<td>1751</td>
<td>2.12</td>
</tr>
<tr>
<td>2009-10</td>
<td>11907</td>
<td>2735</td>
<td>2199</td>
<td>10.2</td>
</tr>
</tbody>
</table>

try focuses on new and appropriate renewable energy technologies, which excludes large scale hydro-electricity. In many cases, this has translated into rapid renewable energy commercialization and considerable industry expansion too. The wind power, geothermal energy, biomass, and photovoltaic (PV) industries are good examples of this fact. Over the years it has been observed that the production of Solar Energy has been on the rise. Interestingly, the cost per watt has also been falling considerably which sends positive signal for investments in the solar energy (See, Figure 4).

According to the Renewable 2010 Global Status Report, renewables comprise fully one quarter of global power capacity from all sources and deliver 18 percent of global electricity supply in 2009. Investments in new renewable power capacity continue to increase, despite challenges posed by the global financial crisis. To be precise, the renewable generating capacity installed over the past two years accounts for nearly 50 percent of total generating capacity added to the world’s grids over this period. Moreover, half of the existing renewable power capacity is in developing countries. Another milestone in this sector is that in early 2010 more than 100 countries have framed some policy target related to renewable energy. Renewable markets are growing at rapid rates in many developing countries including China and India (See, Figure 5). Excluding large hydro, total investment in renewable energy capacity was about US $ 150 b in 2009.

The leading renewable energy private investors are First solar, Gamesa, GE Energy, Q Cells, sharp Solar, Siemens, SunOpta, Suntech, and Vestas. In India the Government is keen on promoting Solar Energy by offering security to the investments on this project. In support to this, PV installations have also become cheaper since the middle of 2009. This has lead to 40-60 percent investment cost per kilowatt and has made it cost competitive.

It is very relevant to note the increased growth of renewables over the years (See, Table 1). Being a land of renewable resources, there are huge opportunities that lie in the development of renewable energy in India. In 2000, VC investment in renewable energy was about one percent of total VC investment. In 2007, that figure was closer to 10 percent with solar power alone making up to three percent of the entire VC asset class of US $33 b. In 2009, the VC investment stood at US $6.4 b. The International Energy Agency (IEA) predicts US $ 20 trillion will be invested into alternative energy projects over the next 22 years.

Among the early investors in the sector, Kleiner Perkins Caufield and Byers happens to be a high profile venture capital investor in Silicon Valley. Its partner John Doerr opined at an energy conference in Stanford University that the single largest economic opportunity of the 21st century would be on clean technology.

Thus one can say here that there is a lot of scope for VC to flow in the domain of renewable energy, which is the first step towards Greener Future. The other potential area of attraction for VC to ensure a sustainable future is tackling the menace of e-waste. VC venture in the case of former is a forward move whereas in the case of latter, it is a counter-active move.

**E-Waste — the Fastest Growing Waste Stream**

High tech consumerism is growing at an unprecedented rate globally. It is contributing to the already existing, but increasingly urgent problem of e-waste. Anything that has a wire, a plug, a battery or runs on electricity that isn’t used over again comprises Electronic Waste. E-Waste is the by-product of technological revolution. When disposed off in a landfill, it becomes a conglomeration of plastic and steel casings, circuit boards, glass tubes, wires, resistors, capacitors, fluorescent tubes, and other assorted parts and materials. It is both valuable as a source of secondary raw material and toxic if not treated and discarded properly.

E-waste is one of the fastest growing waste streams, with people changing their electronic gadgets more frequently than ever before. It is because; the world of electronics exemplifies the dictum, out with the old, in with the new. It makes up five percent of all municipal solid wastes worldwide. So, it is of great relevance to all indeed especially in a world where sustainability is increasingly perceived as the benchmark of advancement. Though electronics and technology have revolutionized people’s way of life, some of its detrimental effects need to be addressed. E-Waste, contrary to its nomenclature, has a significant value attached to it too. If treated properly, it can be reclaimed and recycled for future use and converted into a significant new revenue stream. Inappropriate treatment of e-waste, on the other hand, poses a massive threat to the

**VC investments in green technology will work as a catalyst in the path of sustainable economic development**
world’s ecosystem and a pernicious threat to human life.

The amount of e-waste generated in India is expected to touch a whooping figure of one million ton by 2012. From the current level of 4.4 lakh tons per annum\(^1\), by 2015, two billion PCs are expected to invade Indian homes and our India’s mobile subscriber base is expected to expand to the tune of 450 million subscribers. The e-waste generated by these two segments itself would be staggering.

Science Daily reports that the sale of electronic products in countries like China and India and across continents such as Africa and Latin America are set to rise sharply in the next ten years\(^2\). It continues to emphasize that developing countries will be producing at least twice as much e-waste as developed countries within the next 6-8 years\(^3\). It foresees that by 2030, developing countries would discard 400 million — 700 million obsolete personal computers per year, compared to 200 million — 300 million in developed countries then.

At this juncture, the UN under Secretary General, Konrad Osterwalder opines that one person’s waste could become raw material for another\(^4\). From this angle, if one looks at the problem of e-waste, it can be a foot-hold or the transition to a green economy. In other words, what is called for here is the promotion of smart technologies and mechanisms with the support of national and international policies to transform this waste into wealth.

In addition, recycling\(^5\) the e-waste has a lot of potential to become alternate sources of energy. The traditional practice of mining involves extraction of metals and precious stones from the Earth, which is a very strenuous/complex procedure, involving high costs and titanic amounts of energy consumption. Besides, most of the natural resources are non-renewable. Hence, there is a need to lookout for alternate sources of energy. But, e-waste recycling not only saves inputs associated with manufacturing new products and virgin raw materials but also helpful in conserving and preserving many precious metals that are used in the circuit boards of many of the electronic items. A market study by ABI Research on e-waste Recovery and Recycling forecasts that the worldwide market for e-waste recovery will grow from $ 5.7 billion in 2009 to nearly $ 14.7 billion by the end of 2014, representing a compound Annual growth rate of 20.8 percent over the forecast period. This figure represents the amount of opportunity in monetary terms, generated through reclamation of valuable materials from e-scrap\(^6\).

While inaugurating Attero Recycling\(^7\), a private e-waste management company, former President of India, Dr. A.P.J Abdul Kalam noted, “a tonne of ore from a gold mine produces just five grams (0.18 ounce) of gold on an average, whereas a tone of discarded mobile phones can yield 150 grams (5.3 ounces) of the same.” According to Mr. Mark Small, Vice President of Corporate Environment Safety and Health
for Sony Electronics, mining produces approximately 300 times more waste than electronics does every year. He too opined, “e-waste is often richer in rare metals than virgin materials, containing 10 to 50 times higher copper content than copper ore. A cell phone contains 5-10 times higher gold content than gold ore.”

Researches show that out of total e-waste generated in India, only five percent goes to the organized recyclers. The e-waste disposal system in India is a flourishing business in the informal sector and the processes are often shoddy and extremely damaging. Another disturbing fact is that on account of poor environmental policy in India, it has become a preferred destination of dumping e-waste from all over the world. However the solution lies in creating awareness among the people of all walks of life to give a green burial (recycling) to electronic goods.

**Venture Capital and Greener Future**

To ensure a sustainable Greener Future, a well defined Energy Policy with a top priority to a wide spectrum of use of renewable energy is the primary requirement. It should go with a spontaneous political support for realizing the objective in record time. In addition, a massive programme of this nature calls for an effective public-Private Sectors partnership. Naturally, this effort will result in the rise in output, employment generation, sectoral development, expansion of markets and marked improvement in environment.

The UN on its part introduced the UNEP Green Economy Initiative (GEI) in October 2008 with a view to mobilizing and refocusing the global economy towards investments in clean industries and technologies and natural infrastructure by reducing environmental insecurity. It also wanted to ensure that sustainable wealth creation and achievement of the Millennium Development Goals (MDGs) must go with this initiative.

The financial-fuel-food crises that have engulfed the world economies in the last couple of years coupled with environmental problems paralyzed the progress towards the achievement of MDGs. One glaring cause for the 3Fs-crises happens to be the misplaced investments with selfish motive to make money at the cost of generating ill-fare in the world economy. GEI was initiated to counter the evil effects of these crises with an estimated investment of US$ 750b.

UN wanted to impress upon the world economy by preparing and presenting a Green Economy Report based on the data collected from a range of sectors, wherein GEI had been pushed through. In addition, it expected that less-developed countries to appreciate that GEI could bring economic recovery faster and lead to future prosperity by ensuring job creation and at the same time addressing the social and environmental challenges that have taken place for the past two years on account of GEI.

A few noted developments can be presented here:

* Climate change funding has been initiated the world over. For e.g.
  * IDB supports Peru’s climate change program
  * AFDB launches African Carbon Support Project.
  * Asian countries to get US $ 800 m from CIF (Climate Investment Funds) for investments in clean energy and low carbon growth.
  * ADB provides US $ 150 m to an urban transport Project in China that aims at cutting harmful Green-house gas emissions.

* Green Electricity Projects are encouraged and many developing countries are for them. For example,
  * World Bank has offered to Kenya to push through a project on this line to connect 1.5 m more people and businesses by 2015.
  * World Bank has launched a new National Accounting System wherein ecosystem valuation is ingrained into national accounting procedure of the developed and developing countries.
  * High priority has been given for investments in renewable energy and creating green jobs. For example,
    * The Green jobs initiative has been undertaken by UNEP, ILO, IEO and ITUC.
    * Wind energy alone could achieve up to 65 percent of the emission-reductions.
    * In tune with this, Kenya builds up wind farms in Africa with the support of African Development Bank (AFDB) at a cost of US $ 405 m.
    * Under the aegis of this initiative, by investing US $ 630 b in the renewable energy sector alone, by 2030, 20 m additional jobs are expected to be created. During 2008-10, 2.3 m people have found jobs in this sector.
    * Between 2008 to 2010, many countries (both developed and developing) have made use of these initiatives as opportunity amid crisis and have been benefited immensely.

* A few striking illustrations:
  * China has emerged the world’s second biggest user of Wind energy; the biggest exporter of photovoltaics. 10 percent of its households have solar water heaters and 1.5 m people are employed in its renewable sector.
In Brazil, the average area of green space per person has risen from one square meter to 50 square meters following GEI – creative and forward looking urban planning.

In Nepal, 14000 Forest user Groups have reversed the deforestation rates of the 1990s through GEI-community based policies.

Uganda has turned its agricultural operations fully organic based and it boosted its farm incomes and farm exports.

Bangladesh provides subsidized microfinance assistance to invest on solar heating systems. In this process, it aims at creating 0.1 m new jobs by 2015.

In Venezuela, an ethanol blend of 10 percent in fuels is expected to generate on million jobs in agriculture by 2012.

India, from its side, is not only for National green Accounting System”, but voluntarily decides to reduce the carbon intensity across the country by 20-25 percent from the 2005 levels.

Green jobs are created in manufacturing several tools required for promoting alternative sources of energy.

The initiatives to convert fossil-fueled transport system in metropolis to bio-fueled transport system in phased manner have created green jobs.

To be precise, India has proposed to generate 0.9 m jobs by 2025 in biogas sector.

In short, the UN is of the opinion that 1.30 b working poor (43 percent of workforce of the globe) in the world with an income of US $ 2 per head would be benefited from GEI in the next 10 years. This could happen because the different sectors of an economy would be supported by renewable power supply, energy efficient buildings and construction, bio-fueled transport system, GEI supported basic industries, agriculture and forestry.

**Green Investments for Green Future**

At present, green/clean technology is one of the fastest growing sector”. With increasing Governments’ support and growing public awareness and interest in eco-friendly products, many private venture capitalists are forth coming to invest in this sector and offer counseling for greener future. In their opinion, green technologies sell themselves and with the Governments’ pump priming policies towards these ventures, even developing countries like China and India are poised for green future. In other words, venture capitalists forecast that the field of green technology could be the largest economic opportunity of the 21st century and it is generating buzz in the venture capital community. More ever, the application of these technologies is quite varied and fundamental to human existence. It ranges from clean air to purified water, alternative fuels, and renewable energy and recycling. Since, the estimated demand for these is fixed at US $ 167 b by 2015, the venture capitalists are coming forward to give a fillip to innovations and encourage the market forces to meet the uprising world demand.

In addition to this, there is a lot of scope for a growing economy to use venture capital for Inclusive Growth without sacrificing the basic objective of greener future. In other words, a prudent community can build up its society or reorganize it by making the partners of society, political and economic system to work with a green consumer base by using the synergistic approach” to address the needs and up keep of the down trodden with the support of innovative approach and VC.

Of course, the VC initiatives, after the economic down turn around the world, have shrunk a bit”. But the modern governments are well focused to address the climate change as well as energy independence. This is bound to mitigate the intensity of the trend in melt down. At present, the VC investments have moved towards promoting solar energy technologies, green building applications and energy storage technologies.

**Conclusion**

In short, Venture Capital (VC), a form of risk capital, is associated with the creation and promotion of many economic activities both in developed and developing countries. In this study, an attempt is made to identify the scope of VC in promoting green technologies that support the path of Sustainable Development. Moreover, this study has surveyed the approach that mitigates the environmental crisis which has been engulfing the world community at present. Finally, it attempts to focus on ensuring energy security in a given time frame with the support of VC investments which have enormous scope to contribute and be profited thereby.

**End-notes and Additional Thinking**

3. For e.g. it accounts for 21 percent of the US GDP. See www.nvca.org (Site visited...
on Dec. 25, 2010).
7 The historic highest price of crude oil was US $145 on 14th July, 2008. It softened later and when economic recession is still holding the world economy, it is showing a rising trend and bringing the world economy to its knees. The crude oil price as on Thursday, the Mar. 3, 2011 is US $ 101.67. See, www.oil-price.net (visited on Mar. 3, 2011.
10 Ibid.
14 Green summit.com/assets/files/ecoll_presentation_Dec_06, 2010 (Accessed on 28th Dec 2010.)
16 Economic times.indiatimes.com (Site visited on 30th December, 2010); the Economic Times dated 1st October 2010.
18 Ibid. Dated April 29, 2010
19 See, Science Daily Dated 23rd February, 2010
20 This has involved greater diversion of electronic waste from energy-intensive down cycling processed to a raw material form.
22 This is an e-waste recycling firm started at Roorkee, Uttaranchal, with an investment of Rs. 30,000 crore, has the capacity of processing and recycling 36,000 tons of e-waste per annum. It has 150 clients in India to collect e-waste. See mygreenchannel.org (Accessed on 4th January, 2011.)
24 See, mygreenchannel.org (Accessed on 4th January 2011.)
27 www.unep.org/Realizing a Green New Deal (Accessed on 5th January 2011.)
28 Greeneconomyinitiative.com (Accessed on 31st January 2011.)
34 Betting on a Green Future. See www.wired.com
35 Ibid.
37 www.researchandmarkets.com (Accessed on 19th February 2011.)

(DR. G. BHALACHANDRAN is professor and head, Department of Economics, Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam campus, Prasanthinilayam. In 1993, he was awarded Ph.D in Economics by Sri Krishnadevaraya University, Anantapur. From 1982 to 2009 he was been a Member, from 2010, he has been the Convener, Board of Studies in Economics, Sri Sathya Sai Institute of Higher learning. He has published several articles and research papers in refereed journals in India and abroad. His area of research is quiet diversified, ranging from Income-Consumption Pattern to Agriculture, Energy Harvesting, Environmental Crisis and to the Models of Sustainable Development.

The paper has been co-authored by MR. G. NAGARIJUN (currently pursuing his 2nd year MBA at Sri Sathya Sai Institute of Higher Learning), MR. P. ARJUN PRASAD (currently doing his 2nd year MA (Economics) at Sri Sathya Sai Institute of Higher Learning) and MR. ISHUWAR SEETHARAM (currently studying Masters in Economics at the University of Warwick, United Kingdom.)

The views expressed in the article are personal and do not reflect the official policy or position of the organisation.)
Humanising Water
As water scarcity hits many developing regions of the world, there is now a renewed interest in understanding how growing threats to water security affects future progress in human development and economic growth of nations (Grey and Sadoff, 2005). The international development debate is, however, heavily polarized between those who believe that policy reforms in the water sector would be crucial for bringing about progress in human development and those who believe that economic growth itself would help solve many of the water problems, which countries are facing today (HDR, 2006: pp66). Such debates, that are often not healthy, are causing delays in deciding investment priorities in water sector, particularly in the developing world (Biswas and Tortajada, 2001).

The theoretical discussion on the returns on investment by countries in water infrastructure and institutions is rich (Sadoff and Grey, 2005). The evidence available internationally to the effect that water security can catalyze human development and growth

Hot and arid tropical countries should start to invest in large water resource system to maintain progress in human development and economic growth
is quite robust (World Bank, 2004; 2006a & b; Briscoe, 2005). But, the number of regions for which these are available is too small for evolving a global consensus on this complex issue. Till recently, there were no comprehensive database on various factors influencing water security for sufficient number of countries which are at different stages of human development and economic growth. This contributed to the complexity of the debate. The water poverty index (WPI), conceived and developed for countries by C. Sullivan (2002), and the international comparisons now available from a recent work by Laurence, Meigh and Sullivan (2003) for 145 countries enable us to provide an empirical basis for enriching the debate.

The WPI is a composite index consisting of five sub-indices, viz., water access index, water use index, water endowment index, water environment index and institutional capacities in water sector (Sullivan, 2002). In order to realistically assess the water situation of a country, which can capture the crucial attributes like access to water for various uses; level of use of water in different sectors; condition of the water environment; and technological and institutional capacities in water sector, a new index called Sustainable Water Use Index (SWUI) is derived from WPI. The paper provides empirical analysis using global database on SWUI and many other water and development indicators to enrich the debate “how water security is linked to human development and economic growth”.

The Global Debate on Water, Development and Growth

The debate on the linkage between water, growth and development is growing strong internationally. While the general view of international scholars, who support large water resource projects, is that increased investment in water projects such as irrigation, hydropower and water supply and sanitation acts as engines of growth in the economy, while supporting progress in human development (Briscoe, 2005; Braga, 2005; HDR, 2006). They harp on the need for investment in water infrastructure and institutions. Grey and Sadoff (2005) suggests that there is a minimum platform of water security, achieved through the right combination of investment in water infrastructure and institutions and governance, which is essential if poor countries are to use water resources effectively and achieve rapid economic growth to benefit vast numbers of their population. They suggest an S-curve for growth impacts of investment in water infrastructure and institutions in which returns continue to be nil for early investments. They argue that for poor countries, which experience highly variable climates, the level of investment required to reach the tipping point of water security would be much higher as compared to countries, which fall in temperate climate with low variability. But, they suggest that for developing countries, the returns on investment in infrastructure would be higher that in management and vice versa for developed countries.

Many environmental groups, on the other hand, advocate small water projects which, according to them, the communities can themselves manage. The solutions advocated are: watershed management; small water harvesting interventions; and community-based water supply systems; and, micro-hydro electric projects (Dharmadhikary, 2005; D’Souza, 2002).

The proponents of sustainable development paradigms believe that the ability of a country to sustain its economic growth depends on the extent to which natural resources, including water, are put to efficient use through technologies and institutions, thereby reducing the stresses on environmental resources (Pearce and Warford, 1993). Here, the focus is on initiating institutional and policy reforms in water sector. An alternative view suggests that countries would be able to tackle their water scarcity and other problems relating to water environ-

Policy reforms in the water sector would be crucial for bringing progress in Human Development

ment at advanced stages of economic development (Shah and Koppen, 2006). They argue that standard approaches to water management in terms of policies and institutions work when water economies become formal, which are found at an advanced stage of economic development of nations.

Objectives, Hypothesis, Methods and Data Sources

The objectives of the paper are to: (i) analyse the nature of linkage between water situation of a country, comprising improved water access and use, water environment and institutional capacities in the water sector, and economic growth of a nation; and (ii) understand the role of large water storages in boosting eco-
We have three propositions. First: improving the water situation through investments in water infrastructure, institutions and policies would help ensure economic growth through the human development route. Second: nations can achieve reasonable progress in human development even at low levels of economic growth, through investment in water infrastructure, and welfare policies. Third: countries need to invest in building large water storages to support economic prosperity, and ensure water security for social advancements. The hypotheses are: (i) improved water situation supports economic growth through the human development route; and (ii) countries, which are in tropical climates with aridity, can support their economic growth through enhancing per capita reservoir storage that improves their water security.

The values of Sustainable Water Use Index were calculated by adding up the values of four of the sub-indices of Water Poverty Index, viz., water access index, water use index, water environment index and water capacity index. The first hypothesis is tested using a regression of global data on: Sustainable Water Use Index (SWUI), and data on per capita GDP (PPP adjusted); SWUI and GHI; and SWUI and HDI. Since regression between SWUI and HDI showed a strong relationship ($R^2 = 0.79$), the causality, i.e., whether SWUI influences GDP growth or vice versa, can be tested by running regression between per capita GDP and a decomposed HDI, which contain the indices for health and education. The underlying premise is that if economic growth drives water situation, then it should change the indicators of human development that are independent of income levels, such as health and education, and that which are interrelated with water situation. The second hypothesis is tested by analysing the link between per capita GDP (PPP adjusted) and per capita dam storage ($m^3/annum$) of 22 selected countries falling in hot and arid tropical climate.

Data on per capita GDP and HDI were obtained from Human Development Report 2006. Data on GHI$^2$ for 117 coun-
tries were obtained from Wiesmann Doris (2007). Data on WPI for 145 countries were obtained from Laurence et al. (2003). Data on dam storage and human population in 22 countries were obtained from FAO AQUASTAT-2006.

**Water and Inclusive Growth**

Before we begin to answer this complex question of “what drives what”, we need to understand what realistically represents the water richness or water poverty of a country. A recent work by Kellee Institute of Hydrology and Ecology which came out with international comparisons on water poverty of nations had used five indices, viz., water resources endowment; water access; water use; capacity building in water sector; and water environment, to develop a composite index of water poverty (Laurence, Meigh and Sullivan, 2003).

Among these five indices, we chose four indices to be important determinants of water situation of a country and the only sub-index we excluded is the water resources endowment. We consider that this sub-index is more or less redundant, as three other sub-indices viz., water access, water use and water environment take care of what the resource endowment is expected to provide. Our contention is that natural water resource endowment becomes an important determinant of water situation of a country only when governance is poor and institutions are ineffective, adversely affecting the community’s access to and use of water, and water environment.

Examples are the droughts in Sub-Saharan African countries. This argument is validated by a recent analysis which showed strong correlation between rainfall failure and economic growth performance in these countries. That said, all the four sub-indices we chose significant implications for socio-economic conditions and are influenced by institutional and policy environment and therefore have human element in them. Hence, such a parameter will be appropriate to analyse the effect of institutional interventions in water sector on economy.

All the sub-indices have values ranging from 0 to 20. The composite index developed, by adding up the values of these indices, is called sustainable water use index (SWUI). It is being hypothesised that the overall water situation of a country (or SWUI) has a strong influence on its economic growth performance. This is somewhat different from the hypothesis postulated by Shah and Koppen (2006), where in they have argued that economic growth (GDP per capita) and HDI are determinants of water access poverty and poor (UNDP, 2006). This aggregate impact can be segregated with irrigation having direct impact on rural poverty (Bhattarai and Narayamoorthy, 2003; Hussain and Hanjra, 2003); irrigation having impact on food security, livelihoods and nutrition (Hussain and Hanjra, 2003), with positive effects on productive workforce; and domestic water security having positive effects on health, environmental sanitation, with spin off effects on livelihoods and nutrition (positive), school drop out rates (negative) and productive workforce.

According to the Human Development Report (2006), only one in every five people in the developing world has access to an improved water source. Dirty water and poor sanitation account for vast majority of the 1.8 million child deaths each year (almost 5,000 every day) from diarrhea making it the second largest cause of child mortality. In many of the poorest countries, only 25% of the poorest house-
holds have access to piped water in their homes, compared with 85% of the richest. Diseases and productivity losses linked to water and sanitation in developing countries amount to two percent of GDP, rising to five percent in Sub-Saharan Africa more than the aid the region gets. Women bear the brunt of responsibility for collecting water, often spending up to four hours a day walking, waiting in queues and carrying water; water insecurity linked to climate change threatens to increase malnutrition to 75–125 million people by 2080, with staple food production in many Sub-Saharan African countries falling by more than 25%.

The strong inverse relationship between SWUI and the global hunger index (GHI), developed by IFPRI for 117 countries provide a broader empirical support for some of the phenomena discussed above. In addition to these 117 countries for which data on GHI are available, we have included 18 developed countries. For these countries, we have considered zero values, assuming that these countries do not face problems of hunger. The estimated R square value for the regression between SWUI and GHI is 0.60. The coefficient is also significant at one percent level. It shows that with improved water situation, the incidence of infant mortality (below five years of age) and impoverishment reduces. In that case, improved water situation should improve the value of human development index, which captures three key spheres of human development such as health, education and income status.

That said all the sub-indices of HDI have strong potential to trigger growth in economy of a country, be it educational status; life expectancy; or income levels. When all these factors improve, they could have a synergetic effect on the economic growth. The growth which occurs from human development, would also be “broad-based” and inclusive. Hence, the “causality” of water as a prime driver for economic growth can be tested if we are able to establish correlation between water situation and HDI. This we would examine at a later stage.

Before that, we would first look at how water situation and economic growth of nations are correlated. Regression between sustainable water use index (SWUI) and PPP adjusted per capita GDP for the set of 145 countries shows that it explains level of economic development to an extent of 69 percent. The coefficient is significant at one percent level. The relation between SWUI and per capita GDP is a power function. Any improvement in water situation beyond a level of 50 in SWUI, leads to exponential growth in per capita GDP.

This only means that for countries to be on the track of sustainable growth path, the following steps are needed: (i) investment in infrastructure and institutional mechanisms and policies to: (a) improve access to water for all sectors of use and across the board, (b) enhance the overall level of use of water in different sectors, and (c) regulate the use of water, reduce pollution and provide water for ecological services; and (ii) investment in building human resources and technological capabilities in water sector to tackle new challenges in the sector. Regression with different indices of water poverty against economic growth levels shows that the relationship is less strong, meaning all aspects (water access, water use, water environment and water sector capacity) are equally important to ensure growth.

Major variations in economic conditions of countries having same levels of SWUI, can be explained by the economic policies of which the country pur-
sues. Some countries of central Asia viz., Uzbekistan, Kyrgyzstan and Turkmenistan and Latin American countries viz., Ecuador, Uruguay, Colombia and Chile have values of SWUI as high as North America and northern European countries, but are at much lower levels of per capita GDP. While North America and north, west and southern European countries have capitalist and liberal economic policies, these countries of old soviet block and Latin America have socialist and welfare oriented policies.

**Can Water Security Ensure Economic Growth?**

International development discussions are often characterised by polarised positions on whether money or policy reform is more crucial for progress in human development (various authors as cited in HDR, 2006: pp 66). If the stage of economic development determines a country’s water situation rather than vice versa, the variation of human development index, should be explained by variation in per capita GDP, rather than water situation in orders of magnitude. We have used data for 145 countries to examine this closely. The regression shows that per capita GDP explains HDI variations to an extent of 85 percent. But, it is important to remember that HDI already includes per capita income, as one of the sub-indices.

Therefore, analysis was carried out using decomposed values of HDI index, after subtracting the GDP index. The regression value came down to 0.69 \((R^2=0.69)\) when the decomposed index, which comprises education index and life expectancy index, was run against per capita GDP. What is more striking is the fact that 16 countries having per capita income below 2,000 dollars per annum have medium levels of decomposed index. Again 42 countries having per capita GDP (PPP adjusted) less than 5,000 dollars per annum have medium levels of decomposed HDI. Significant improvements in HDI values \((0.30 \text{ to } 0.9)\) occur within the small range in per capita GDP. The remarkable improvement in HDI values with minor improvements in economic conditions, and then “plateauing” means that improvement in HDI is determined more by factors
other than economic growth. Our contention is that the remarkable variation in HDI of countries belonging to the low income group can be explained by the quality of governance in these countries, i.e., whether good or poor.

Many countries that show high HDI also have good governance systems and practices and institutional structures to ensure good literacy and public health. For instance, Hungary in eastern Europe; some countries of Latin America viz., Uruguay, Guatemala, Paraguay, Nicaragua and Bolivia; and countries of erstwhile Soviet Union viz., Turkmenistan, Kyrgyzstan and Armenia have welfare-oriented policies. They make substantial investment in water, health and educational infrastructure.3

Incidentally, many countries, which have extremely low HDI, have highly volatile political systems and ineffective governance, and are characterized by corruption in government. In spite of huge external aid, consequently, the investments in building and maintenance of water infrastructure are very poor in these countries. Sub-Saharan African countries, viz., Angola, Benin, Chad, Eritrea, Ethiopia, Burundi, Niger, Togo, Zambia and Zimbabwe; and Yemen from Middle East belong to this category. Sub-Saharan Africa has the lowest irrigated to rain-fed area ratio of less than three percent (FAO, 2006, pp 177), whereas Ethiopia has the lowest water storage of 20 m³/capita in dams (World Bank, 2005).

How water security decoupled human development and economic growth in many regions of the world were illustrated in the recent human development report (HDR, 2006: pp 30-31).

The public expenditure on health and education is extremely low in these African countries and Yemen when compared to the other countries which fall under the same economic category (below US $ 5,000 per capita per annum). Over and above, the pattern of public spending is much higher in the countries which have higher HDI, as compared to those countries which have very low HDI (based on data in HDR, 2006, pp306-309).

Some of the striking features of these regions are high incidence of water-related diseases such as malaria and diarrhea, high infant mortality, high school drop out rate mainly due to lack of access to safe drinking water; and scarcity of irrigation water in rural areas4, poor agricultural growth, high food insecurity and malnutrition (based on HDR, 2006).

Consequently, their HDI is very low, as also shown by the international literature which illustrates how water insecurity decouples human development from economic growth.

**Table 1: Pattern of Public Expenditure on Military, Health & Education and Status vis-à-vis Water & Sanitation**

<table>
<thead>
<tr>
<th>Name of Country</th>
<th>2005-06</th>
<th>Per Capita Expenditure (US $) on</th>
<th>Percentage of Population Having Access to</th>
<th>Biomass+ Bagasse</th>
<th>Solar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Military</td>
<td>Health and Education</td>
<td>Water Supply</td>
<td>Sanitation</td>
</tr>
<tr>
<td>Armenia</td>
<td>106.626</td>
<td>180.444</td>
<td>92</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Bolivia</td>
<td>54.4</td>
<td>291.04</td>
<td>85</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Guatemala</td>
<td>17.252</td>
<td>146.642</td>
<td>95</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>38.7</td>
<td>127.71</td>
<td>77</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>Nicaragua</td>
<td>25.438</td>
<td>247.112</td>
<td>79</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Paraguay</td>
<td>33.69</td>
<td>317.66</td>
<td>86</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>68.136</td>
<td>289.578</td>
<td>83</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>Tajikistan</td>
<td>26.444</td>
<td>44.474</td>
<td>59</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Togo</td>
<td>24.57</td>
<td>58.37</td>
<td>52</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Yemen</td>
<td>59.202</td>
<td>19.734</td>
<td>67</td>
<td>43</td>
<td></td>
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<tr>
<td>Zambia</td>
<td>34.891</td>
<td>52.808</td>
<td>58</td>
<td>55</td>
<td></td>
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<tr>
<td>Burundi</td>
<td>42.651</td>
<td>39.943</td>
<td>79</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Ethiopia</td>
<td>64.26</td>
<td>51.408</td>
<td>22</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

Source: based on Data Provided in HDR, 2006: Table 19: pp 348-151 & Table 7, pp306-309

**Linking Human Development with Water Security**

Contrary to what was seen in the foregoing analysis, regression between sustainable water use index and HDI shows that it explains variation in HDI in a much better way than the level of economic development. This is in spite of the fact that human development index as such does not include any variable that explicitly represents access to and use of water for various uses; overall health of water eco-system; and capacities in the water sector as one of its sub-indices. The R square value was 0.79 against 0.69 in the earlier case when per capita GDP is run against decomposed HDI. Also, the coefficient is significant at one percent level. It means that variation in human development index can better be explained by water situation in a country, expressed in terms of sustainable water use index, than...
the PPP adjusted per capita GDP. Now, such a strong linear relationship between sustainable water use index and HDI explains the exponential relationship between sustainable water use index and per capita GDP as the improvements in sub-indices of HDI contributes to economic growth in its own way (i.e., per capita GDP = f(E1, HI) here E1 is the education index, and HI is the health index).

While an alternative to analyse the impact of a country’s water situation on its economic growth performance is to look at the historical data on: cumulative investments in water sector, water access and use by population in different sectors, change in water environment and economic conditions for individual nations, such data are seldom available on a time series basis. Under such a circumstance, the best way to go ahead is to analyse the impact of natural water endowment, i.e., rainfall on economic growth in a situation where investments in infrastructure and institutions and governance mechanisms for improving water access and use and water environment are poor. The reason is that under such situations, the water access, water use, and water environment would be highly dependent on natural water endowment.

There cannot be a better region than Sub-Saharan Africa to illustrate such effects. A recent analysis showed a strong correlation between rainfall trend since 1960s and GDP growth rates in the region during the same period, which argued that the low economic growth performance could be attributed to long term decline in rainfall which the region experienced (Barrios et al., 2004). Such a dramatic outcome of rainfall failure can be explained partly by the failure of the governments to build sufficient water infrastructure. Sub-Saharan Africa has smallest proportion of its cultivated area (< 3%) under irrigation (HDR, 2006). Due to this reason, reduction in rainfall leads to decline in agricultural production, food insecurity, malnutrition, loss of employment opportunities and an overall drop in economic growth in rural areas.

The foregoing analyses suggest that improving sustainable water use index, which is reflective of how good is the water situation of a country, is of paramount importance if we need to achieve inclusive growth in a sustained manner. It would be rather improper to assume that a country can wait till its economy improves to a certain level to start tackling its water problems. While the natural water endowment in both qualitative and quantitative terms cannot be improved through ordinary measures, the water situation can be improved through economically efficient, just and ecologically sound development and use of water in river basins.

Impact of Storage Development in Economic Growth in Arid Tropics

Water development has an important role in improving the access to and use of water, the two pre-requisites for improving the water situation of a region, though intensive water development in river basins might cause environmental water stress reducing the values of water environmental index. However, the amount of storage that needs to be created to improve access to and use of water depends on the type of climatic conditions. In temperate and cold climates, the demand of irrigation, the largest use of water...
sector, would be negligible as compared to tropical and hot climates. Hence, the storage requirements in such regions would be much lower, and would be mainly limited to that for meeting domestic/municipal water needs and water for manufacturing. Therefore, it is logical to explore links between storage development for meeting various human needs and economic growth only in tropical and hot climates.

But, as indicated in the Human Development Report of 2006, the sheer scale of water infrastructure in rich countries is not widely recognized and appreciated (HDR, 2006: pp-155). Many developed countries of the world that experience tropical climates had high water storage in per capita terms. The United States, for instance, had created a per capita storage capacity of nearly 6000 m³. In Australia, the 447 large dams alone create a total storage of 79,000 MCM per annum, providing per capita water storage of nearly 3,808 m³ per annum. Aquifers supply another 4,000 MCM per annum. China, the fastest growing economy in the world, has a per capita reservoir storage capacity of 2,000 m³ per annum through dams, and an actual storage of nearly 360 m³ per capita.

When compared to these impressive figures, India, which is still developing, has a per capita storage of only 200 m³ per annum. Though a much higher level of withdrawal of nearly 600 m³ per capita per annum is maintained by the country, a large percentage of this (231 BCM per annum or nearly 217 m³ per capita per annum) comes from groundwater draft and there are increasing evidence to suggest that this won’t be sustainable. Ethiopia, the poorest country in the world, has a per capita storage of 20 m³ per annum. These facts also strengthen the argument that economic prosperity that a country can achieve is a function of available per capita water storage.

Regression analysis of per capita water storage and the per capita GDP (PPP adjusted) for a group of 22 countries falling in the arid and semi arid tropics shows a strong relationship between level of storage development and country’s economic prosperity. The R square value is 0.55 and the coefficient is significant at one percent level. Such a relationship is understandable. Storage infrastructure reduces risks and improves water security. In many regions, investments in hydraulic infrastructure had supported economic prosperity and social progress, though in some regions had caused environmental damage (HDR, 2006, based on various authors: pp140).

The returns on investments in building water storages were quite visible in India. The analysis using panel data on gross irrigated area and rural poverty rate for 14 states showed poverty reducing effect of irrigation, with lowest rate of poverty found in Punjab which had the highest level of gross irrigated area, which reduced over time from 1973-74 to 1993-94 (Bhattarai and Narayanamoorthy, 2003). The Bhakra-Nangal Project had transformed the economy of Punjab. The almost perennial water supply from the project enabled farmers in this region to intensify cultivation with irrigated paddy and wheat, making it the country’s bread basket. In Gujarat state of western India, the impact of the yet to be completed Sardar Sarovar project (SSP) in reviving the agricultural production, after it experienced a major dip following two consecutive years of drought (1999 and 2000), has been remarkable (Kumar et al., 2010). The project which brings water from the water-rich south Gujarat, to the water-scarce regions of north Gujarat, Saurashtra and Kachchh, reduces the imbalances in water availability and demand in different regions of the state.

The potential positive impact of water infrastructure on economic growth in regions that experience seasonal climates, rainfall variability and floods and droughts can be better demonstrated by the economic losses that water-related natural disasters cause in the regions which lack them (Kumar, 2009). For instance, in Ethiopia, deviation in per capita GDP from the normal values during the 20-year period from 1980-2000 correlated with departure of annual rainfall from normal values (World Bank, 2006a). In Kenya, economic losses due to floods during 1997-98 were to the tune of 11% of the national GDP, whereas that due to droughts during 1998-2000 was 16% of the GDP (World Bank, 2004a and World Bank 2006b). In Gujarat, value of agricultural output dropped from Rs. 268.37 billion in 1998-99 to Rs. 189.0 billion in 2000-01 following the droughts in 1999 and 2000 (Kumar et al., 2010: pp 4).

Nevertheless, the overall economic growth impact of water storage would depend on the nature of uses for which the resources are developed, the effectiveness
of the institutions that are created to allocate the resource and the nature of institutional and policy regimes that govern the use of the resource. As we have seen in the case of incidence of hunger in Zambia and Zimbabwe, use of water storages for hydropower generation had not helped even to improve the overall economic condition of the people (Kumar, 2009). Though the per capita water storage in Israel is quite low (nearly 150 m³ per annum), the efficiency with which water is used in different sectors is extremely high. Nearly 90% of the country’s irrigated area is under micro irrigation systems. A large portion of the water used in urban areas is recycled and put back to use for irrigation. Water is not only priced on volumetric basis, water allocation for irrigation is rationed (Kumar, 2009).

One could as well argue that access to water could be better improved through local water resources development intervention including small water harvesting structures, or through groundwater development. As a matter of fact, environmental activists advocate decentralized small water harvesting systems as alternatives to large dams (Agarwal and Narain, 1997). Small water harvesting systems had been suggested for water-scarce regions of India (Agarwal and Narain, 1997; Athavale, 2003) and the poor countries of Sub-Saharan Africa (Rockström et al., 2002). But, recent evidence suggest that they cannot make any significant dent in increasing water supplies in countries like India due to the unique hydrological regimes and can also prove to be prohibitively expensive in many situations (Kumar et al., 2006; Kumar et al., 2008). Also, to meet large concentrated demands in urban and industrial areas, several thousands of small water harvesting systems would be required. The type of engineering interventions and the economic viability of doing the same are open to question. Recent evidence also suggests that small reservoirs get silted up much faster than the large ones (Vora, 1994), a problem for which large dams are criticised world over (McCully, 1996).

As regards groundwater development, intensive use of groundwater resources for agricultural production is proving to be catastrophic in many semi arid and arid regions of the world, including some developed countries like Spain, Mexico, Israel, Australia, and parts of United States (Kumar, 2007) and developing countries such as India, China, Pakistan, Yemen and Jordan (HDR, 2006), though some of the developed countries have achieved some degree of success in controlling it through establishment of management regimes (Kumar, 2007) with physical and institutional interventions like in western US, or through physical interventions alone like in Israel or through institutional interventions such as formal water markets like in the Murray Darling basin of Australia.

But in the basins facing problems of environmental water scarcity and degradation (Smakhtin, Revenda and Doll, 2004) due to large water projects, riverflows are appropriated and transferred for various consumptive needs. Some of these basins are the Colorado river basin in the western US; Yellow river basin in northern China; Aral sea basins, viz., Amu-Darya and Syr Darya in Central Asia; Indus basin in Pakistan and India; basins of northern Spain; Nile basin in northern Africa; basins of Euphrates, Tigris; the Jordan river; Cauvery, Krishna and Pennar basins of peninsular India; river basins of western India including Sabarmati, Banas and Narmada, located in Gujarat, Rajasthan and Madhya Pradesh in India. Most of the water demands they meet are agricultural. They are also agriculturally prosperous regions. Not only they meet the food requirements of the region, most of these basins export significant chunk of the food to other regions of the world, including some of the water-rich regions, within the country’s territory (Amarasinghe et al., 2004 for Indus basin and peninsular region in India; Kumar and Singh, 2005 for many water-scarce countries of the world; Yang, 2002 for China).

Strikingly, wherever aquifers are available for exploitation, these regions had experiencing problems of ground-
water over-draft, though some developed countries had developed the science to deal with it. The most glaring examples are aquifers in western United States, aquifers in the countries of the Middle East including Yemen, Iran and Jordan; aquifers in Mexico; north China plains (Molden et al., 2001); alluvial aquifers of Indus basin areas in India; hard rock aquifers of Peninsular India; and aquifers in western and central India (GOI, 2005).

Without these large surface water projects, agricultural growth might have caused far more serious negative impact on groundwater resources in these regions. In fact, it is this surface water availability, which to a great extent helps reduce dependence of farmers as well as cities on groundwater (Kumar, 2009). For instance, imported water from Indus basin through canal in Indian and Pakistani Punjab sustain intensive groundwater use in the regions, through continuous providing replenishment through return flows from surface irrigation (Ahmed et al., 2004; Hira and Khera, 2002; Kumar, 2007). In India, water imported from a large reservoir named Sardar Sarovar in Narmada basin in Southern Gujarat in India had started supplying water to rejuvenate the rivers in environmentally stressed basins of north Gujarat (Kumar et al., 2010).

**Due to droughts In Gujarat, agricultural output dropped from Rs. 268.7 bn in 1998-99 to Rs. 189.0 bn in 2000-01**

Direct impact on malnutrition, and infant mortality, the factors considered in estimating global hunger index, when we considered zero values of GHI for developed countries viz., United States, Australia and Spain for which data on GHI are not available (Kumar, 2009). Regression shows an R square value of 0.59. The relationship between per capita storage and GHI is inverse, logarithmic. It means greater water storage reduces the chances of human hunger. This inverse relationship can be explained this way. For the sample countries, the ability to cultivate the available arable land intensively would increase with the amount of water storage facilities available. As HDR (2006: pp 174) notes, “Water security in agriculture pervades all aspects of human development”. Increased availability of irrigation water reduces the risk of crop failure; enhances the ability of farmers to produce more crops to improve their own domestic consumption of food, and take care of the cash needs. Also, increased irrigated production improves food and nutritional security of the population at large by lowering cereal prices in the region in question as the gap between cereal demand and supplies is reduced (Hussain and Hanjra, 2003 as cited in HDR, 2006: pp 175).

This was more evident in India than anywhere else, where irrigation expansion through large storages had contributed nearly 47 million tons of additional cereals to India’s bread basket (Perry, 2001: pp 104). The most illustrious example of the recent times is the impact of Sardar Sarovar project, which is yet to be completed on food production and agricultural growth in Gujarat. Availability of surface water through canals had motivated farmers in south and central Gujarat to take up paddy and wheat and achieve bumper food grain production in the recent years. Shah and Kumar (2008) made a rough estimate of the positive externality it created in terms of lowering food prices for the consumers in India as US $ 20 per ton of cereals. One could also argue that rich countries could afford to import food. But, what is important is that water had played a big role for these countries to achieve a certain level of economic growth and prosperity, by virtue of which they can now afford to import food instead of resorting to domestic production. The exceptions are some of the oil rich countries of the Middle East, which do not have an agrarian base, but are economically prosperous.

Contrary to what was found from our analysis of 22 countries, countries such as Zambia and Zimbabwe have large storages, but have very high GHI (Kumar, 2009). They were not included in our analysis. These countries use their water storages for creating hydro-power, which is sold to the South Africa, and they earn revenue out of it10. Hence, storage development does not lead to increased agricultural production in these countries. The GHI values are very high for these countries (Wiesmann, 2006). In such a situation, the impacts on food security would generally be seen only after many years. But in the case of these Sub-Saharan African countries, three decades of droughts and rainfall reduction had significantly affected the hydropower generation as well (McCully and Wong, 2004).
Summary, Conclusions and Policy
Scholars have provided robust evidence to the effect that water security catalyses human development and economic growth. But, number of regions for which the evidence is available is too limited to evolve a global consensus on this complex issue. Water poverty index, conceived and developed by C. Sullivan (2002), and the international comparisons now available from Laurence, Meigh and Sullivan (2003) for 147 countries enable us to provide an empirical basis for the argument. A new index called SWUI was derived from WPI using four of its five sub-indices to assess the water situation of a country. Analysis was carried out using data on SWUI, GHI, HDI, per capita GDP and per capita water storage in dams to understand the nature of linkage between water situation of a country and its economic growth.

The analysis shows that improving the water situation can trigger economic condition in a nation. As this occurs through the human development route, the growth would be inclusive. This strong linkage can be partly explained by the reduction in malnutrition and infant mortality, with improvement in water situation. Further, nations could achieve good indicators of development even at low levels of economic growth, through investment in water infrastructure and welfare-oriented policies. Many countries of the erstwhile Soviet Union, and communist countries of Latin America, which have low income, spend a significant portion of public funds in health and education, against many poor countries of Sub-Saharan Africa, which spend much less for health and education and more for military.

Countries which fall in tropical semi arid and arid climate can improve their economic conditions through enhancing the reservoir storage. Greater storage provides increased water security, which reduces the risks associated with droughts and floods. Such natural calamities, which cause huge economic losses, are characteristic of these countries. Nevertheless, the impact of storage could depend on the nature of uses for which the resources are developed, the effectiveness of the institutions that are created to allocate the resource and the nature of institutional and policy regimes that govern the use of the resource.

Findings show that economically poor countries, which also show very poor indicators of human development, need not wait till the economic conditions improve to address water sector problems. Instead, they should start investing in building water infrastructure, create institutions and introduce policy reforms in water sector that could lead to sustainable water use. Only, this can support progress in human development and sustain economic growth which is inclusive. But, a pre-requisite for hot and arid tropical countries is that they invest in large water resource systems to raise the per capita storage. This will help them fight hunger and poverty, malnutrition, infant mortality, and reduce the incidence of water-related disasters.

End-notes
1 Beyond which the investment in water infrastructure and institutions yields positive growth impacts.
2 Indicator of the proportion of the population living in under-nourished conditions and the child mortality rate (Wiesmann, 2006).
3 For instance, the USSR had invested in a major way for building hydraulic infrastructure in central Asia (HDR, 2006). As a result, they attain high HDI even at low level of economic growth.
4 This includes economic scarcity as well.
5 As discussed in a recent work by Kumar (2007), many semi arid areas are already facing problems of groundwater over-draft, with serious socio-economic and ecological consequences.
6 Since 1920, the US Army Corps of Engineers had invested a sum of $ 200 billion on flood management and mitigation alone, yielding a benefit of $ 700 billion. The Tennessee Valley Authority, which built dams for hydropower, transformed a flood-prone, impoverished region in the United States, with some of the worst human development indicators, into an agriculturally prosperous region. In Japan, heavy post war investments in infrastructure supported rapid development of hydropower, flood control and irrigated agriculture. The returns from these investments were tremendous. Until World Water II, the floods and typhoons had resulted in losses often amounting to 20% of GNI, whereas since the 1970s, the losses never exceeded one percent of the GNI (HDR, 2006: pp 156).
Now, 90% of the cropped area in Punjab is irrigated, with paddy and wheat accounting for 3/4th of it. Despite having only less than two percent of the geographical area of the country, Punjab accounts for 10% of rice production and 20% of wheat production in India. Agriculture accounts for 40% of the state GDP in the state, which has the highest per capita GDP amongst all Indian states (Cummings et al., 2006).

Complex engineering interventions would be required for collecting water from such number of small water harvesting and storage systems, and then transporting to a distant location in urban areas.

In Murray Darling basin, 90% of the annual flows are diverted for agricultural use.

Most of it comes from just one hydro-power dam, named, Kariba built in 1955-59 in Zambezi river basin.

References and Additional Thinking


(M. DINESH KUMAR is a Ph. D in Water Management. He had worked with engineering consultancy organizations, national and international research/academic institutions and NGOs, and had worked very closely with many reputed international and national agencies, viz., UNICEF, the Ford Foundation, the International Development Research Centre (IDRC), the Aga Khan Foundation, New Delhi, Sir Ratan Tata Trust, Mumbai and Arghyam, Bangalore. He is currently the Executive Director of Institute for Resource Analysis and Policy (IRAP). He has nearly 120 publications to his credit, including three books; one edited volume; many book chapters; and several papers in international peer-reviewed journals.

The views expressed in the write-up are personal and do not reflect the official policy or position of the organization.)
Indus river flooding and other natural catastrophes suggests how our blind addiction to productivity is leading us down the path towards natural disaster and is increasing disparity between the rich and the poor
Last summer, as twenty percent of Pakistan lay beneath what once was a tamed Indus River, I recall reading a story of the plight of 40-year-old taxi driver Bakht Zada, who wondered aloud as he watched his livelihood, history and culture being washed downstream toward the Indian Ocean, "If this is not God’s wrath, what is?" The River he was watching flow through his town had, until then, been largely held in check by miles of levees and an upstream dam system that rivaled other modern engineering marvels around the world; in check, that is, until what United Nations officials are calling the worst natural disaster attributable to climate change drove the River beyond its banks, rendering the dams and levees meaningless, forcing thousands to flee and adding their desperation to the plight of millions in the region already in need of relief.

What we now know all too well is that the flooding, misery and desolation in Pakistan were not the wrath of a vengeful God but the direct result of frequently well-intentioned but typically misguided attempts to tame a River, and to put it to more “productive” use by exploiting its natural and human resources, and developing within its floodplains — all hampering the River valley’s natural resiliency and thwarting an innate human capacity to adapt and survive. And all perversely compounded by a climate run amuck at our own hands.

Pakistan was not alone in its misery while a fifth of its land drowned. At the same time, Russia’s drought-ridden landscape burned (and 700 people died there each day), China saw its worst flooding in decades, ice loss from Greenland’s ice sheet was expanding rapidly up its northwest coast, and Iowa in the United States was soaked by its wettest 36-
month period in nearly 130 years of record-keeping.

Climatologists are now openly saying what laypeople have been wondering aloud for years. Last summer’s Pakistani flooding and Russian heat wave, and the other extreme weather events occurring to this day around the globe are linked to and exacerbated by climate change. As the Indus River overflowed, sixteen of Australia’s leading scientists, speaking through the Australian Academy of Science and across a range of disciplines, pointedly confronted climate change deniers in an effort to set the record straight on climate science in the middle of a national election in which the validity of climate change had been hotly contested. At the same time that Russian farms, prairies and forests were aflame, scientists at the World Meteorological Organization reported that “the sequence of current events matches . . . projections of more frequent and more intense extreme weather events due to global warming.”

Researcher, writer and university professor Wolfgang Sachs once noted that “Nothing is ultimately as irrational as rushing with maximum efficiency in the wrong direction.” From where I sit, Professor Sachs has captured the human condition very well, as we heedlessly stroll down a road toward catastrophe at an all-too-efficient pace; wanting more, producing more and consuming more along the way. And all the while — as we want, produce and consume — the tempo at which we constrain and exploit nature ecosystems while pumping carbon dioxide into the atmosphere continues to increase, while evidence mounts daily that following such a path is folly.

The degree to which the Pakistani flooding and other extreme weather events are due to climate change layered upon more typical climatic cycles (or, even as Mr. Zada suggests, the wrath of God) is certainly debatable. However, that climate change is occurring at all can no longer be questioned by people of good conscious. Nor can we continue to rationally deny humanity’s historic and continued contributions to climate change. Yet, some still question and debate the latter point and still deny the former; fiddling, in effect, while the world — sometimes all too literally — burns.

**Scientists warn that ice mass of Greenland will disappear if the earth’s temperature rises by 2° Celsius**

The Idol of Productivity

That some still question (or concede but ignore) the human influence on climate change is ironic, to say the least, since the underlying cultural basis for rising greenhouse gas production — the perceived need for continuous economic growth built upon an ethos of ever-increasing production and ever-improving efficiency — goes largely unquestioned. In fact, the need for continuous growth and increased productivity is not only an unchallenged truism, but growth and productivity have been deified, particularly in western culture, where people take sophomoric pride in being proficiently productive. The more productive and efficient a people are, the cultural myth goes, the more likely we are to prosper as a nation, to survive as a culture and to be individually comfortable while doing so. We reach, yearn and strive for higher productivity; trying our utmost to do more, make more and consume more with less effort, less money, less guilt. And all the while we never even deign to question the precept that doing, producing and consuming more for less — all iconic measures of efficiency — are undoubtedly virtuous.

Many of our parents in Western society used to teach us as children that “cleanliness is next to godliness.” Today, we can add “productive” and “efficient” to the list of qualities that raise us closer to the divine.

And while we continue to bow to the god of economic growth, scientists warn that the entire ice mass of Greenland will disappear if the earth’s temperature rises by as little as two degrees Celsius; a group of nine Nobel laureates announce that
unless the world starts reducing greenhouse gas emissions within six years, we face devastation; the U.S. Geological Survey reports that many of Asia’s glaciers are retreating as a result of climate change; China’s state news agency declares that rising sea levels caused by climate change contribute to a growing number of coastal disasters; climate legislation has been officially pronounced “dead” in the United States; Canada has decided that it will delay greenhouse gas emission reduction efforts for at least another five years; officials in India assert that the nation will not agree to binding commitments to reduce carbon emissions; and Chinese analysts conclude that Western carbon dioxide emission reduction plans are inadequate and inconsequential.

Rachel Carson once observed that we live in a time “in which the right to make a dollar at whatever cost is seldom challenged;” seldom challenged, because we have elevated efficiency and productivity to a godlike status. Increasing factory productivity goes unquestioned, even if it means sacking workers who have dedicated themselves to a company for decades. Efficiently producing and employing ever-improved weapons of destruction go unquestioned, even when it results in shifting all-to-limited resources from life-giving endeavors to the killing of tens of thousands of fellow humans; civilian and military alike. Proficiently pumping pollutants into the air we breathe and water we drink is rewarded, so long as we are comfortable while productively poisoning the planet and one other.

“Any intelligent fool can make things bigger, more complex, and more violent,” Albert Einstein warned, “It takes a touch of genius and a lot of courage to move in the opposite direction.” What we need now is a little less intelligent foolishness and a lot more people of courage to question our blind devotion to the god of productivity: to ask “why,” when output is deemed sacrosanct; to question power, when the idol of unbridled growth goes unchallenged; and to speak truth in the face of torrents of misinformation. As we look forward toward a potential future steeped in growth and productivity, I humbly suggest that we reframe the ingrained perspectives and policy and preferences that suck our economies, cultures and lives down that untenable path toward oblivion; that we envision and then follow a different, sustainable course.

A Path Forward

Here’s what I believe is happening that directly and increasingly contributes to catastrophes like those in Pakistan and elsewhere around the world; while at the same time making it increasingly difficult to find a path forward toward economic and environmental sustainability — happening not just in the Indus River valley, but everywhere. We are divided into two camps. Put most simply, they are “yours” and “mine.” You may have heard them referred to in other terms: east and west, urban and rural, farm and city, business and environmental, young or elderly, immigrant or resident, liberal and conservative, rich and poor. The specific labels matter little, really; because, in the end, this vision of the world always comes down to “yours” and “mine.” That perspective must change before we can ever hope to let go of our need for control based on a principle of limitless production and growth. Before moving on to transform our deification of growth at the expense of others, in other words, we must ultimately transform our very notion of “otherness.”

Radical transformation is never easy; and change appears most threatening to those in institutional power; however, speaking from the figurative epicenter of global power in Washington, DC, I would offer that such reframing is necessary if we are to collectively move from an invalid model of infinite growth within a finite world, and toward a balanced, sustainable and equitable paradigm of society and its connections with the natural world.

The Bakiga people inhabit the mountains and valleys around Lake Victoria in what is today Uganda — at the very headwaters of another river as great as the Indus — the Nile. Over hundreds of generations, their ties to the land and water and each other have informed an ancient wisdom strikingly opposed to the “yours and mine” mentality sweeping much of
the world: “united jaws crush the bone.” That wisdom teaches that it has never really been a world of “yours and mine.” There’s not a world vision based upon “you and me;” but upon “ours” and “us.” The Bakiga teach that all are connected. Everything is connected. Everywhere there are connections.

This wisdom from the Bakiga is a lesson for us all. What the people of the Nile River valley learned so many generations ago is that neither you nor I am right or wrong; good or bad; evil or moral; friend or enemy. We are simply different. In each place we speak different languages, hold to different customs, connect differently, interact with government differently, relate to nature differently. This is just who we are and what we do as blessedly assorted human beings. And the solutions that may work very well in one river town or on one farm or in one city might not work so well in another. And the only way to really determine how to live sustainably together — to determine what will work and what might not — is to listen to people where they live and work and play: along the banks of the Indus River; in the steppes of Eurasia; within the cities of Europe; among the islands of Micronesia; and in every home and shop and hamlet around the world.

What we will discover if we truly listen to one another is that we have everything to learn and nothing to fear from each other. We will find that diversity of opinion, when embraced honestly, is what animates thinking and provokes imagination. We will discover that the irrational fears keeping us apart — keeping us from solving difficult but very solvable problems — are, in the end, simply fear of losing control — control over things we really cannot control to begin with. Just ask the people of Pakistan who tried in vain to hold back the rising waters of the Indus River.

To solve what seem to be intractable problems allied with the unrealistic vision of perpetual growth, we will need to provide the room and carve out the time desperately needed to listen to each other. To listen to store owners who cannot maintain their businesses; listen to city officials whose tax bases are eroding and to farmers whose soils and livelihoods are washing away; listen to the scientists who tell us the earth’s natural places are unique treasures; listen to the workers and their families who can’t make ends meet; meet with artists, talk to politicians, speak to industry leaders, join with teachers, pay attention to the children and the poor and our elders, because everyone is a member of the economic and ecological quilt that forms our rich human tapestry, and all have a part to play in its protection.

All of us, together — not “you,” not “I” — had better make sure that this listening and understanding and cooperation and innovation come to pass; before 40-year-old taxi drivers and 22-year-old mothers and five-year-old children and 60-year-old shopkeepers, just like Bakht Zada, watch as our livelihoods, and histories and cultures wash figuratively, if not literally, downstream.

If we do not — if we fail to cooperate as a global community; if we do not move from glorifying the mythic god of growth to bowing toward and respecting one another — then I fear that Pakistani taxi driver Bakht Zada will have been correct all along. And that humanity’s demise, in the end, will be the result of a god’s wrath, albeit a god of our own making. If that is not God’s wrath, what is?

(MARK GORMAN serves as Senior Policy Analyst for the Northeast-Midwest Institute in Washington, DC, USA, focusing on water and watershed issues in the Mississippi River Basin. Before working for PEC, Mark served for over 22 years with the Pennsylvania Department of Environmental Protection (PADEP). He was co-leader of the a pilot PADEP regional watershed team effort (focused on the internationally-renowned French Creek watershed), and later co-chaired PADEP’s Lake Erie, French Creek and Oil Creek watershed team. Mark is a trained mediator and facilitator, and served in that capacity for seven years on the PADEP’s statewide Alternative Dispute Resolution team. Mark also served a three-year term as a member of the Northeast SARE (Sustainable Agriculture Research and Education Program) Advisory Council (2006 to 2008), and two-year term on Pennsylvania’s Water Resources Planning Committee for the Lake Erie basin (2007-2008).

The views expressed in the article are personal and do not reflect the official policy or position of the organisation.)
Population and impacts of the two-child policy
Population growth has remained a development concern since Malthusian days. Although there is one school of thought that believes that population growth is a non-issue and negates the problem completely (Bauer 1981), a large number of scholars do acknowledge the problem and support reduction in fertility rate especially in countries like India where population has crossed one billion and the fertility rate is 2.7 (NFHS-3) which is above replacement level rate of 2.1. The second school of thought which acknowledges the problem is divided on the approaches that should be followed to bring down the population growth. Some population pressure groups believe that stringent, drastic and immediate measures are required to “control” population growth in developing countries otherwise there will be overcrowding, shortage of food supply, environment degradation, and ultimately the entire existence of mankind will be in danger as the planet will be short of natural resources to support growing population. This section endorses coercive measures for population control. The other section however advocates a more balanced approach and believes that cooperative measures are better and more effective than coercive measures. This section puts emphasis on access to education and health care services which will create and take care of unmet needs of contraception. The population literature is full of battle between these two sections within the second school of thought (Sen 1995).

Factors Affecting Population Growth
Most people in general and India urban middle class in particular believes that population explosion is due to poor and backward social groups, including some religious groups that do not understand and practice family planning. The only way to control the population is to compel these groups to adopt family planning (Visaria and Ramchandran 2002). In reality, a range of variables affect the growth of population and rate of fertility. Population growth has three main components of momentum, wanted and unwanted fertility. Momentum is the effect of young age structure of society which is a result of higher or above replacement rate of fertility in past. Since this age group will be young and in reproductive years, population will continue to grow due to this momentum effect even if TFR reaches 2.1. It is believed that India will attain replacement level of fertility and complete the demographic transition in next 20 years but population will continue to rise for 50-60 years due to momentum (Visaria and Visaria 2003).

Another important component of population growth is unwanted fertility which can be attributed to unmet needs of contraceptives. This means that despite the fact that woman in fact doesn’t desire a child; it is arrived due to lack of access to Reproductive and Child Health (RCH) facilities. According to NFHS-3 (2005-06), most Indian states including some
high fertility north Indian states, have reached replacement level of desired or wanted fertility rate. Thus, most women across India do not wish to have more than two children but the population is growing due to momentum effect and unwanted fertility. Visaria and Visaria (2003) estimates that momentum effect in India during 1991-2001 be as high as 69.7 percent and the contribution of wanted fertility to population growth to be as low as 5.9 percent. The role of unwanted fertility accounts for 24.4 percent. Thus, the popular notion that some groups want to produce more children and they have to be controlled is misplaced. It is very important to understand and decompose these three factors of momentum, unwanted and wanted fertility before taking any policy action.

**Role of Incentives and Disincentives**

Looking to the composition of factors affecting population growth (momentum, unwanted and wanted fertility); there is little empirical evidence in support of incentives or disincentives aimed at reducing fertility. Incentives and disincentives mainly target wanted fertility which in any case has reached replacement level as per NFHS data set. Thus, carrot (incentives) or stick (disincentives) may not be relevant or effective in bringing down the population growth rate (Sen and Iyer 2002).

Even in China, where a strong disincentive like one-child policy is believed to be instrumental in bringing down the fertility, of late it is believed that the role of other cooperative facilitating factors like access to education and health, more job opportunities for women etc. have also contributed substantially. In fact, it is also argued that these supportive factors alone could have reduced the fertility and it is not clear how much “extra lowering” of fertility can be attributed to compulsion and coercion of one-child norm. It is also claimed that coercion and compulsion can cut down fertility with great speed and voluntary or cooperative process in very slow. But the Kerala example, where the fertility decline is faster than China without any coercion, does not support such a viewpoint. In fact, it is believed that fertility is influenced by variety of factors like education, media, economic changes, urbanisation, infant as well as maternal mortality rate etc (Visaria and Visaria 2003). By now, there is a much wider consensus on the need to avoid authoritarian intervention in intimate and personal matters like reproductive behaviour (Sen 1995).

It is also argued that incentives are positive steps and are not coercive like disincentive. However, such a distinction between the two is over simplistic and the line is difficult to draw. For example, health insurance benefit to Below Poverty Line (BPL) family after sterilisation is seen as an incentive. Nonetheless, denial of the same benefit to others can also be viewed as a disincentive. Another debate in literature is on whether incentive/disincentive should be applied at group level or individual level. Any action at group level, according to some is less stringent as against action at individual level. But power relations within group, like dominant caste and religious groups within community and men in households, are not equal and it may result into dominant groups coercing the rest (Sen and Iyer 2002).

**India’s Population Policy**

India was the first country in the world to
start a family planning programme way back in the early 50s and the between 1970 and 2000 the fertility declined from around six to less than three. Although there are inter-state differences, rural and urban differences, socio-economic and education levels differences etc., fertility has declined across India.

The country is in the third phase of demographic transition where both mortality and fertility has been declining. However, different states will complete the cycle of demographic transition at different points of time as their fertility rates and the pace of fertility decline is different. All the four southern states (Kerala, Tamil Nadu, Karnataka and Andhra Pradesh) plus a small state of Goa has already completed this transition, on the other hand, north Indian states like Bihar, UP, Haryana, Rajasthan and the states of MP, Assam will take 10 to 15 years longer to complete their demographic transition (Visaria and Visaria 2003).

For more than four decades after inception, India’s family planning programme focussed on top-down method specific targets and policy makers also tried to take control of birth decision of families through authoritarian interventions especially during emergency period. Coercion was not part of official policy but pressures on “meeting family planning targets” resulted in tactics used by administrators that came close to compulsion. Example of such tactics include verbal threats, making sterilisation a pre-condition to access development schemes, depriving mothers of more than two children of maternity benefits and forbidding persons who have more than two children from contesting panchayat elections. The people who suffered most from these coercive measures were often among the poorest and less privileged sections of society (Sen 1995).

International Conference on Population and Development (ICPD) at Cairo in 1994 advocated a broader reproductive health approach that includes family planning only as a component. It was argued that the issue of population growth requires a holistic approach and variables like education, access to health care services, awareness about methods of contraception play a key role in the process of demographic transition. ICPD called for an approach that is voluntary and based on women’s human rights. India was signatory to the Plan of Action (POA) that was prepared during ICPD and a narrow, authoritarian “control” approach was replaced with more open, friendly and cooperative approach free of rigid targets, incentives and disincentives. This was the paradigm shift in India’s Family welfare programme.

Post ICPD 1994, Government of India introduced Target Free Approach (1996), the Reproductive and Child Health programme (1997), the community Needs Assessment Approach (1998) and finally the National Population Policy (2000). National Population Policy (NPP) called for an end to a regime of incentives and disincentives which had resulted into compulsion and coercion to accept family planning methods at the grass root level (Visaria and Ramchandran 2002). NPP 2000 affirms the government commitment towards voluntary and informed choice and consent of citizen while availing RCH services with a focus of target free approach (Sen and Iyer 2002). To offset the population disadvantage, NPP 2000 also recommended that until 2026, (which is likely to be extended beyond) the number of seats for each state in the Indian parliament will continue to be based on the number of seats for each state in the Indian parliament will continue to be based on the number of seats for each state in the Indian parliament will continue to be based on the number of seats for each state in the Indian parliament will continue to be based on the
population enumerated by the 1971 census (Visrari and Visaria 2003).

State Level
Population Policies (SPPs)
The draft of NPP 2000 was prepared by an expert group under the chairmanship of M.S. Swaminathan. The group had suggested formulation of state population policies (SPPs). Based on this suggestion, the government of Andhra Pradesh prepared a state population policy in 1997. Rajasthan came out with its population policy in 1999. The states of Madhya Pradesh and Uttar Pradesh introduced their population policies in the year of 2000. It should also be noted that although Tamil Nadu did not release a separate document called state population policy, it was in some sense was pioneer (Visaria 2002).

SPPs are expected to identify and resolve region specific population issues (Visaria and Ramchandran 2002). Unfortunately, while reading the text of some SPPs, the old population control mindset is reflected in stringent targets in general and incentives and disincentives in particular. Interestingly, all the SPPs have used the ICPD language of RCH and women empowerment but at the same time advocated incentives and disincentives like two-child norm as a precondition for elected representatives, observance of minimum age of marriage for availing government facilities and services, linking health insurance benefits to sterilisation and even proposing denial of food rations and free education to the third child. It seems that the old fear of galloping numbers, which was responsible for frightened reactions and coercive practices of family planning, is resurfacing once again. Although the coercive approach was explicitly rejected at ICPD, it is still lying somewhere in policy mindset and is reflected in indirect forms of incentives and disincentives. SPP’s implications in terms of equity, social justice and human rights are questionable (Sen and Iyer 2002).

Two-child Norm in Panchayati Raj Institutions (PRIs)
This paper has a limited objective of studying the impact of two-child norm for elected representatives of Panchayati Raj Institutions (PRIs) in scheduled areas of Gujarat. According to this new law4, people with more than two children can’t contest PRI and Urban Local Body-ULB election (However, they can contest elections at MLA and MP level). Moreover, while holding the position in PRI structure (panch, sarpanch etc.) if the person become parent of third child, S/he can be “disqualified” from holding the position. The Two-child norm was first introduced in 1994 in the states of Andhra Pradesh,
Haryana, Orissa and Rajasthan. As of now, as per the website of Ministry of Panchayati Raj Government of India, this norm is applicable in eight states (Madhya Pradesh, Chhattisgarh, Maharashtra and Gujarat apart from the four already mentioned). In case of Himachal Pradesh, the law was introduced in 2000 and was withdrawn in 2005 after the protest from civil society organisations. Gujarat is the most recent case of this norm and has not been studied for its impact.

There is a viewpoint that such legislation is not only violation of personal liberty and basic democratic right but also unconstitutional (Sen and Iyer 2002). But it has been upheld by high courts of state government as well as supreme courts. In a case between Mukesh Kumar Ajmera v. State of Rajasthan, Rajasthan high court observed “these provisions have been enacted by the legislature to control the menace of population explosion”. There was a petition in Haryana that two-child norm is against the personal law of religious minorities like Muslims but the court answered with dictum the “personal law is not a part of fundamental right” and added “The sarpanches are to set example and maintain the norm of two children. Otherwise what examples can they set before public?” (Sarkar and Ramanathan 2002).

Rationale for the Study

Eight states in India including Gujarat have passed two-child norm through state assembly. Such a move can affect the less privilege section of Indian community to a larger extent and can strangle their political and social mobility. There can be adverse impact on participation of women and weaker sections in government and can further worsen the sex ratio by increasing sex-selective abortions. Such a norm can result in exclusion rather than empowerment of SCs, STs and women. As per one estimate, more than 80 percent of the victims of this legislation fall in these categories (Mahila Chetna Manch 2003). Before the two-child norm is extended to other states, it is important to analyse and debate its grass root impact. The paper tries to do that by taking Gujarat as an example (a state youngest in introducing the norm and has not been studied for the impact) and adds to the existing literature of two-child norm impact study of other states like Haryana, Rajasthan, Madhya Pradesh and Andhra Pradesh (Visaria and Acharya 2006).

We have tried to study various dimensions of this norm by interviewing policy makers and affected people. An attempt was made to understand the perspective of policy makers by interviewing officials

Table 1: Different Categories of PRIs interviewed (N=276)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present PRIs</td>
<td>233</td>
<td>84.42</td>
</tr>
<tr>
<td>Past PRIs</td>
<td>43</td>
<td>15.58</td>
</tr>
<tr>
<td>Village Panchayat</td>
<td>144</td>
<td>52.17</td>
</tr>
<tr>
<td>Taluka Panchayat</td>
<td>67</td>
<td>24.28</td>
</tr>
<tr>
<td>Zilla Panchayat</td>
<td>65</td>
<td>23.55</td>
</tr>
</tbody>
</table>

Table 2: Social Profile of PRIs

<table>
<thead>
<tr>
<th>Age</th>
<th>Up to 30</th>
<th>29 (10.51%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 30-50</td>
<td></td>
<td>218 (78.99%)</td>
</tr>
<tr>
<td>51 and above</td>
<td></td>
<td>29 (10.51%)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td></td>
<td>196 (71.01%)</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td>80 (28.99%)</td>
</tr>
<tr>
<td>Caste</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher Caste</td>
<td></td>
<td>18 (6.52%)</td>
</tr>
<tr>
<td>Scheduled Caste</td>
<td></td>
<td>27 (9.78%)</td>
</tr>
<tr>
<td>Scheduled Tribe</td>
<td></td>
<td>230 (83.33%)</td>
</tr>
<tr>
<td>OBC</td>
<td></td>
<td>1 (0.36%)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td></td>
<td>4 (1.45%)</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td>80 (28.99%)</td>
</tr>
<tr>
<td>Secondary</td>
<td></td>
<td>135 (48.91%)</td>
</tr>
<tr>
<td>Higher Education</td>
<td></td>
<td>49 (17.75%)</td>
</tr>
<tr>
<td>Trained</td>
<td></td>
<td>8 (2.90%)</td>
</tr>
<tr>
<td>Family Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint</td>
<td></td>
<td>197 (71.38%)</td>
</tr>
<tr>
<td>Nuclear</td>
<td></td>
<td>79 (28.62%)</td>
</tr>
</tbody>
</table>
in state’s _panchayati raj_ as well as health and family welfare departments. Affected people have also been approached and interviewed to understand the issue from their perspective. The paper tries to find out answers to the questions like “What is the level of awareness about two-child norm in PRIs of scheduled areas of Gujarat? Who has been affected by this norm and what is the monitoring and implementation mechanism? What is the class/caste/gender and religious composition of disqualified people? What role local power politics has played? What is the impact on women and children? etc. The study with the help of field visits and interviews with affected individuals, tries to deepen the debate on whether this norm is needed, effective and fair or just from human rights perspective.

**Methodology**

To begin with, desk review of published literature, policy documents and press-clippings _from Google search on Internet_ was carried out. A total of 276 elected representatives from scheduled areas (_Surat and Dang Districts of Gujarat_) were interviewed with the help of interview schedule and a team of five field investigators in early 2010. Dang district has only one block and Mandvi block (a tribal block) from Surat was selected for survey. Of total of 276 interviews, 43 were past elected representatives. As can be seen from Table 1, more than half were from village panchayat.

But the next step of identification of elected representatives, affected by two-child norm in scheduled areas of Gujarat proved to be an uphill task. Although the norm has been introduced by the _panchayati raj_ department (under the _Panchayati Raj Act_), they do not maintain any list. We also approached the offices of state election commission, department of family welfare as well as block level offices of _panchayati raj_ department. Thus, attempts to procure an exhaustive, district-wise list of disqualified individuals from government departments failed and therefore systematic sampling couldn’t be done. Through informal links and snowball sampling, we could identify few disqualified PRIs for developing case studies but not all of them are necessarily from schedules areas of Gujarat.

The study is both quantitative as well as qualitative in nature and discussion guides were prepared for in-depth interviews with affected individuals (disqualified/inquiry ongoing/resigned). Informed consent was taken in case of affected individuals before beginning the interview and/or tape recording. Name of the individuals as well as villages have been changed (except where respondents didn’t want this and were fine with revealing their identity) to protect the privacy and respondents were assured anonymity. The idea is to capture and analyse the perceptions of those who have been affected and we believe that even this small number of interviews is representative (albeit not be statistically) of larger picture. However, no claims is being made that the analysis is applicable or true for all regions were the norm is in place. Date analysis of field notes has been done manually. Initially plan was to use qualitative softwares like N-Vivo or Atlas-Ti but due to the sensitivity of the issue, the idea of tape recording of the interviews was dropped and thus transcripts could not be made.

**Profile of PRIs from Schedules Areas of Gujarat**

**Socio-Economic Profile**

This section describes socio-economic as well as reproductive profile of surveyed PRIs. Table 2 shows details like age, sex, education, occupation etc. which is self explanatory. Since the study was focused on the schedules areas of Gujarat, naturally the proportion of tribal PRIs is quite high. Table 3 describes the economics status of surveyed PRIs with the help of variables like land ownership, occupation as well as income category. It can be seen majority of PRIs are engaged in agriculture and also own land.

**Reproductive Profile**

Coming to the theme of the study Table 3

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_Yet the norm has been introduced by the Panchayati Raj Department but they do not maintain any record_
explains variables like Marital Status, Age at Marriage, duration of marriage and number of Children. It can be seen from the data on number of children that only 14 PRIs (6.09%) have two or less children. A large majority (93.91%) have more than two children and thus are violating the two-child norm. However not all of them have been “disqualified” from holding position as action can only be taken if any complaint is received by government. It is quite clear from this data that if such a law is fully implemented then entire PRI structure can collapse.

**Awareness of the Two-child Norm Among PRIs**

Since the law has been introduced after the panchayat elections of 2006 no declaration about not having more than two children was required at the time of filing nomination at the time of 2006 election. This being the case, the general awareness about the law seemed quite low at the time of the survey in early 2010. Out of 276 respondents, more than half 151 (54.7%) were found to be unaware about the law and the possibility of disqualification process. None from our six case studies respondents knew about law when they were elected. For example, Dineshbhai Makwana (Ex-Sarpanch of Vareli in Surat District) is 32 years old and wanted to become a Sarpanch for working on development activities in the village. He contested the election on a general seat in 2006, won by a good margin (305 vs. 160) and took charge of office in January 2007. Dineshbhai was not aware about the two-child norm either while filing the nomination to contest election or at the time of becoming the Sarpanch. He only came to know when Dineshbhai got a notice from the Taluka Development Officer (TDO) informing him that as he had three children, he faced disqualification according to the Gujarat Panchayat Act 1993, Section 30 (m). Dineshbhai was taken by surprise and soon the news spread in the village.

It also seems that on part of the government, little efforts are made to inform the PRIs about this new law and its details. Many of our respondents have said that the problem is of lack of awareness as almost nobody knows about this law. Even the TDO in some cases was unaware initially. PRIs have suggested keeping a notice on Panchayat’s board.

### Table 3: Reproductive Profile of PRIs

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>265</td>
<td>96.01%</td>
</tr>
<tr>
<td>Unmarried</td>
<td>8</td>
<td>2.9%</td>
</tr>
<tr>
<td>Widow</td>
<td>3</td>
<td>1.09%</td>
</tr>
<tr>
<td>Deserted/Divorced</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age at Marriage</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 18 years</td>
<td>33</td>
<td>11.96%</td>
</tr>
<tr>
<td>Between 19-24 years</td>
<td>229</td>
<td>82.97%</td>
</tr>
<tr>
<td>25 years and above</td>
<td>14</td>
<td>5.07%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration of Marriage</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>3</td>
<td>1.09%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>57</td>
<td>20.65%</td>
</tr>
<tr>
<td>11-15</td>
<td>99</td>
<td>35.87%</td>
</tr>
<tr>
<td>16 and above</td>
<td>117</td>
<td>42.39%</td>
</tr>
</tbody>
</table>

### Table 4: Disqualification under the Two-child Norm

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process Completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Village Panchayat</td>
<td>58</td>
<td>45.7%</td>
</tr>
<tr>
<td>Block/Taluka Panchayat</td>
<td>59</td>
<td>46.5%</td>
</tr>
<tr>
<td>District Panchayat</td>
<td>10</td>
<td>7.8%</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>100%</td>
</tr>
</tbody>
</table>

| Process Initiated    |        |            |
| Village Panchayat    | 68     | 45.6%      |
| Block/Taluka Panchayat| 59   | 39.6%      |
| District Panchayat   | 22     | 14.8%      |
| Total                | 149    | 100%       |
Many also admitted that they wouldn’t have gone for the third child if they had any clue about the law and its implications beforehand. However, some (15 cases) reported that they withdrew from contesting elections when they came to know about this norm7 and some (12 cases) have reported that they have resigned from the post as they have more than two children.

**Disqualification**

As per our data a total of 127 respondents have been disqualified and majority of them are from village and taluka panchayat level. Very few cases have been recorded at the district level Table 4 gives details about disqualifications happened so far as well as disqualifications under process.

However, it also need to be pointed out that there is no centralised database with any department of government giving information about number of disqualifications and their profile. We approached various departments of state government...
at Gandhinagar as well as Surat and Dangs District Panchayats but failed to get any data and it seems that no record it kept which is surprising because studies done in other states some years back (Visaria and Acharya 2006) had also pointed out this anomaly. The study team this time also tried to use the Right to Information (RTI) Act to elicit information but that too failed.

Perceptions of PRIs on the Two-child Norm

While talking to the PRIs both during survey as well as qualitative case studies, a range of issues emerged and in this section we narrate their perceptions on the impact of two-child norm dividing in sub themes with the help of quantitative and qualitative data the study team has collected.

Discriminatory Nature of the Law

Most of the respondents (85.87%) opined that this law is discriminatory in nature as it is only applicable to PRIs and ULBs and not to the MPs and MLAs. There was a strong feeling that "big" people like ministers get away even if they have far more number is children and "small" people like PRIs have to suffer. Some also suggested that the law should also be extended to the government employees. A quote by PRI from one of the other studies by the same author summaries the situation, “Either the law should be for all from village panch to prime minister or it should not be there at all. Can population be controlled only by the PRI members? In fact "big" (MPs/MLAs) people should adopt this norm first before forcing PRIs. There is no point in harassing small people like us.”

Role of Local Power Politics

It is interesting to note that this law has no structured implementation mechanism and it only work through the complaint route. Therefore action will only be initiated if someone complaints about the third child. This has given a boost to local power politics at the village level and all of the disqualified cases are a result of such politics. Out of 25 interviewed complainants, 18 (72%) gave the reason ‘belonging to opposite party’ for filing complaint. Rest seven cases (28%) claimed that they filed complaint because the incumbent was corrupt. For example, Kantibhai who complained against the sarpanch of Vareli village and who is a now a sarpanch himself says, "I came to know about the two-child norm through a book on the Panchayat Act that was lying in the panchayat office. I also read about a similar incident in Lavana village of Diyodar block and became aware of its application in reality. I procured the birth certificates of all three children of Sarpanch from the school/panchayat and approached the TDO. My wife who works with the water department of the village panchayat was removed from her job because I had complained against three village panchayat officer bearers. Even the panchayat clerk was removed from his job as he gave me the birth certificates. Sarpanch did all this before he was finally suspended. My wife and the clerk are still not re-instated.”

However the disqualified sarpanch Dineshbhai says "I soon realized that this was done by my opponent from another political party who lost election against me. He had also managed to procure birth certificates of my all three children from Panchayat for using them as evidence. I approached local lawyers but they had no idea about this 'strange law' so I went to Ahmedabad to meet High Court lawyers. I got the advice that I have to surrender and the longest I could continue was for three months if I indulged into court battle, which would cost about 2 lakhs. This was beyond my means so I decided to surrender and also advised the same to Deputy Sarpaach and Member. People of the village were sympathetic and
also were ready to collectively meet the Collector/DDO but I told them that that was of no use as this was the law. My opponent had been losing all election for the past 15 years and since there was no other way to defeat me, he used this law and see, now he is Sarpanch!"

An ex-revenue chairman of Bardoli Nagar Palika (BNP) says, "One trouble maker from my own party complained. I am grateful to my opposition party for not indulging into such cheap games but I am sad that my own party member did this. I made no attempts to hide the fact and I didn’t even appeal. In fact, the collector told me that if I convince the complainant and if he withdraws the application, nothing will happen to me but I didn’t want to plead to him. I am sure he would have withdrawn the application had I offered him money but I don’t believe in all that as my image is clean. Today, I have not only withdrawn from BNP but also from my party...."

Yunusibhai, a suspended member of Kosamba Grampanchayat says, "The complainant (also from the same community) was part of our panel and she was insisting that we buy cement from her agency for all panchayat related development works. We always keep all tenders in front of gramsabha so we told her to participate in the process which she didn’t agree. She also wanted that we use advertising boards to display advertisement of her cement agency for free and was not willing to pay the required amount. Although she had lost election but wanted that we co-opt her in the panel which somehow couldn't happen. All this agitated her and through her brother (who is an advocate and has close connections with Taluka and Zilla Panchayat as well as collectorate) filed a complaint for two-child norm violation. TDO asked for explanation and I didn’t try to hide anything."

Since complaint is the only route to disqualification, two-child norm appears to have become a political tool in the hands of some for settling personal scores and eliminating political opponent or competitor (Visaria and Acharya 2006).

Role of Son Preference

In India’s patriarchal society, son preference is strong and almost universal. In most of the cases of two-child norm violation, the concerned person had two daughters and wanted a son for variety of socio-cultural reasons like lineage continuation, religious beliefs as well as old age support.

Ex-Deputy Sarpanch Aloksingh from Vareli village says, "I was happy with my earlier daughters but can my parents be ever happy with the absence of a son? I had registered my name for family planning but my father scolded me as I only had daughters."

Another PRI says, "One has to recognize the fact that ours is a male dominated society and everyone needs a son for line of succession, wealth etc. Women can't do everything, can she fight in army?"

Interestingly, many members and their families seemed to weigh the number and sex composition of children against the elected position in the village. Apparently, having a son outweighed the position in the village politics and so some willingly accepted their disqualification in favour of a son. For example one of the ex-PRI says, "I had only daughters and my parents wanted a son for continuation of the lineage. I would have gone for the third child (son) in any case even if I had known about this law as for me, son was more important than position."

The danger that lies in this situation is the possibility of sex-selective abortion as if the third child is going to be a daughter, her relative value vis-a-vis holding a position (which is a substantial source of power and income for many) becomes less important and can lead to the choice of abortion. This can lead to further skewed sex ratio.

Impact of Development Work

Most of the elected as well as now disqualified PRI members claimed that they decided the contest elections for the development of their village; some also had a family history of public service. After getting elected, PRI members participated in development works like building roads, drainage, street lights etc. It was claimed, in some cases that the pace of development works slowed down because of disqualification. Table 5 explains the views of PRI members on impact on development works.

For example, Vipul Vahiya is 38, stud-
ied up to 11th standard and was serving as a member of Mahuva Taluka Panchayat which falls under scheduled area (tribal block). Vipulbhai resigned after the arrival of third child. He says, "After assuming office, I did development related works like roads, water, electricity, solar energy for producing electricity and running water pump etc. I also managed to start four new health sub-centres including one in my village Bamania. After my resignation, the pace of development activities has slowed down and others don't have idea about grant management, rights and restrictions. Quite a bit of grant now remains unutilised. This law diverts the attention from ongoing development works and the disqualification process eats up lot of time."

Strategies Adopted to Evade Disqualification

Other studies have noted a range of strategies to avoid disqualification and retain the elected position. They included divorcing the wife, sending the pregnant wife to natal home for long time (so that no one in the village would come to know about the pregnancy and delivery), undergoing abortion, giving away the child for adoption, disowning the third child or claiming that the child is of some relative and they are only care takers, tampering with birth certificates and changing the birth date, etc. (Visaria and Acharya 2006). The present study also noted such strategies that have been reported in Table 6.

It is interesting to note that some of the strategies were suggested by lawyers to the PRI members in order to evade the disqualification. On the other hand, there were also cases where the PRI member didn't even wait for some of file a complaint and resigned voluntarily.

Table 6: Strategies Adopted to Evade Disqualification

<table>
<thead>
<tr>
<th>Strategy</th>
<th>No. of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deserting/Divorcing wife</td>
<td>4</td>
</tr>
<tr>
<td>Sending pregnant wife to natal home for long period</td>
<td>3</td>
</tr>
<tr>
<td>Abortion</td>
<td>2</td>
</tr>
<tr>
<td>Giving away the child for adoption</td>
<td>1</td>
</tr>
<tr>
<td>Refusing paternity of the child</td>
<td>0</td>
</tr>
<tr>
<td>Getting DNA test conducted</td>
<td>1</td>
</tr>
<tr>
<td>Declaring oneself simple as a care taker of the child</td>
<td>0</td>
</tr>
<tr>
<td>Declaring birth giving wife as relative</td>
<td>0</td>
</tr>
<tr>
<td>Tempering with the birth certificate</td>
<td>1</td>
</tr>
<tr>
<td>Tempering with aanganwadi vaccination reports</td>
<td>2</td>
</tr>
<tr>
<td>Other strategies</td>
<td>0</td>
</tr>
</tbody>
</table>

Minority Angle

During course of our fieldwork, we also came across some PRI members from minority community and they had strong views about this norm. For example Yunosbhai Gulambhai Khanji an ex-PRI member from Kosamba says, "I also produced a 'fatwa' (to the TDO) from our religious authorities that prohibits family planning for us and argued that this is against personal law. Nonetheless, I was suspended. We can't go for family planning as Islam doesn't allow us to do that. It is a question of right to believe and practice one's faith. Take the case of Sikhs, are they not protesting for retaining their turban in France? We believe in holy Koran and we won't go for family planning operation even if we die and some elected post is nothing before our faith. This is a conspiracy to eliminate the entire community from local governance."

As can be seen from the quote that there is lot of resentment for this law and it is being interpreted as against the religious faith in case of minority community. Such a feeling is obviously not good for healthy functioning of PRIs at village level and should be addressed.

Overall view

As mentioned before the most predominant feeling among interviewed PRIs about two-child norm is that of discrimination. PRI members feel that they have been targeted and MPs/MLAs go scot...
free. Although most PRI members are aware of India’s population problem they are unclear as to how this norm will address it. According to ex-Deputy Sarpanch Alok Singh, "I feel that in the good old days people had many children, sometimes even more than even 10. Do you ever see such a situation today? When situation is already improving than what is the point of having such a law? It is ironical that on the one hand, abortion is punished and on the other giving birth is also punished! What is all this?"

It is also interesting to note that the government is promoting the arrival of girl child through save the girl child and such campaigns as it checks the worsening sex ratio. However, PRI members who become parent of the girl child (as a third child) get punished through disqualification. Some PRI members themselves find this paradoxical. On the other hand, some PRI members (37%) also opined that people with only two daughters should get exemption from this law and they “genuinely” need “at least one son”.

Vipulbhai an ex-PRI member doesn’t agree with the logic of this two-child norm. He says, "Why having more than two children should be considered as disqualification? How can you say that only a person with two or less children will be good for public service? What is the logic in this? If some has a son as first child he may not have more children but that is just his luck. I think understanding of panchayati raj functioning is far more important for an elected representative than number of children."

Expressing his view on population policy he says, "There are many countries in the world that promote more children through various schemes as their population is declining. This hasn’t worked either. I believe that Mother Nature takes care of everything and the technology is also a great help. At the time of our independence our population was far less (35 crore) than what is today (more than a billion) but the rates of poverty, unemployment etc. were far more. Today we have better economic growth, education and health indicators despite the population growth. More and more people are using technology and living conditions have improved."

### Discussion and Emerging Concerns

On face of it, ‘two-child norm’ seems a rational policy measure pointing towards the population concerns of India. However, field level implementation of the norm has led to many complex issues discussed before including many adverse

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**Table 7: Pros and Cons of the Two-child Norm According to the PRI Members**

<table>
<thead>
<tr>
<th>Nature of Impact</th>
<th>No. of Respondent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive</strong></td>
<td></td>
</tr>
<tr>
<td>Attracted attention towards increasing population</td>
<td>127</td>
</tr>
<tr>
<td>Highlighted importance of small families</td>
<td>45</td>
</tr>
<tr>
<td>Encouraged people to adopt family planning</td>
<td>39</td>
</tr>
<tr>
<td>Effective in women empowerment</td>
<td>28</td>
</tr>
<tr>
<td>Health improvement among women especially rural women</td>
<td>28</td>
</tr>
<tr>
<td>Improvement in socioeconomic conditions of rural people</td>
<td>9</td>
</tr>
<tr>
<td><strong>Negative</strong></td>
<td></td>
</tr>
<tr>
<td>Encourage wrong methods to evade disqualification</td>
<td>27</td>
</tr>
<tr>
<td>Acts as political instrument against opponents</td>
<td>11</td>
</tr>
<tr>
<td>Eliminated community cohesion</td>
<td>1</td>
</tr>
<tr>
<td>Caste and class based animosity</td>
<td>19</td>
</tr>
<tr>
<td>Tool to blackmail</td>
<td>5</td>
</tr>
<tr>
<td>Forced persons to waste time and money to evade disqualification</td>
<td>55</td>
</tr>
<tr>
<td>PRI attention diverted from development</td>
<td>18</td>
</tr>
<tr>
<td>Weaker sections become easy victims while rich / powerful find easy escape</td>
<td>7</td>
</tr>
<tr>
<td>Views to child norm as anti-women as women has no say in deciding about no. of children</td>
<td>20</td>
</tr>
<tr>
<td>Endorsed overall adverse impact on panchayati raj</td>
<td>142</td>
</tr>
</tbody>
</table>

---
or unintended impacts. Our fieldwork in scheduled areas of South Gujarat raises several questions like would adoption of two child norm by a handful of elected representatives at the PRI level will have any impact on India's population? Do people see PRI members as their role models? Does family size of PRI members create any 'demonstration impact' on people at large? If yes, then why MPs and MLAs are excluded from this law? If no then what sense does it make to target only PRI members?

The entire implementation mechanism of this law is operationalised only through filing a complaint and in all of the cases the complaint was filed to settle personal position of a disincentive in the form of a two-child norm necessary? (Visaria and Acharya 2006)

The gender dimension also deserves attention here. The imposition of two-child norm in reality can become anti-women in more than one way. With the passing of the 73rd constitutional amendment, 33 percent of all panchayat seats are reserved for women. Having fought for this representation in the political process at the local level for several decades, the two-child norm disqualifies those women elected members who give birth to a third or higher order child after a certain stipulated period. Women are affected because even those who are elected to local bodies have little or no say in when to marry, whether, when or how many children to have (Hariharan, 2003). In addition, women are also adversely affected because the elected husbands, in order to retain their seats, can resort to measures such as abandoning the wife, denying of having fathered a child, deserting pregnant wife, asking the wife to undergo abortion (especially if the foetus is of a girl). If the woman is the elected representative and becomes pregnant with a male foetus, then her position can be sacrificed in favour of a son; her having to step down is of little consequence to the family since she would produce a male heir. All these practices are anti-woman and therefore the imposition of the norm should also be examined from the perspective of how it would impact women (Visaria and Acharya 2006). In the same way, concern for minority community impact also demands serious attention as they feel that they are being targeted and eliminated from PRIs.

It important to have a wider dialogue and debate about two-child norm of PRI members as there are a number of states implementing this now. Policy makers from both centre and state from Ministry of Panchayti Raj, Ministry of Health and Family Welfare, Demographers, NGO Activists, Women organisations etc. need to come together and discuss the implications of this norm.

End-notes

1 Total Fertility Rate (TFR) of 2.1 is considered as replacement level rate of population.

2 Some population pressure groups advocate that India should emulate Chinese one-child policy in this area.

3 Nonetheless, targets like achieving fertility rate of 2.1 by 2010 were kept and highlighted. Also some group incentives were retained.

4 Act 1993, Section 30 (m) amendment made in March 2005 which came in force from August 2005.

5 Unfortunately, we couldn't elicit any worthwhile view from this section that can expand the debate. Also a search about this norm on Gujarat Government's Panchayat Department, gave zero results.

6 We also used the Right to Information Act (RTI) and send an application to ZP Surat and Dangs for a list of disqualified PRIs. We didn't receive any response either to this application or to the appeal in Gandhinagar.

7 This is in a way surprising as the law
was not in place at the time of 2006 panchayat elections.

**References and Additional Thinking**

- International Institute of Population Sciences (IIPS) and Macro International (2007), National Family Health Survey (NFHS-3), 2005-06, India: Key Findings. Mumbai:IIPS

(AKASH ACHARYA has an interdisciplinary academic background in Economics and Management. After completing his masters in Management, he completed his PhD in Economics. Akash’s thesis analysed the equity impact of micro health insurance scheme run for poor women by Self Employed Women’s Association (SEWA). He has worked on collaborative research projects with Universities in West and his papers have been published in international peer-reviewed journals like Social Science and Medicine, Health Policy and Planning and Health Policy. His work has also been published in the Economic and Political Weekly (EPW). On invitation, Akash has visited Universities in the USA, UK and Germany. Akash Acharya is a faculty at Centre for Social Studies (CSS), Surat.

RAJESH G. BHAT is a development activist with special interests in rural poverty, Panchayati Raj and child rights. He was the Executive Trustee of Ahmedabad Study Action Group (ASAG) for 23 years. Apart from ASAG, he has been associated with Western India Forum for Panchayati Raj (WIFPR- a network active in Gujarat, Maharashtra and Goa), Railway Children Federation of India, Swapath Trust and AWARE Foundation, UK. Under his leadership, ASAG won an international award for post-earthquake rehabilitation work in 2004 (Sonpo prize from the IYSH committee in Japan).

The views expressed in the article are personal and do not reflect the official policy or position of the organisation.)
Evolution of Social Protection
Three major and broad sets of programmes viz. social assistance, social insurance and labour market regulations constitute social protection.

Social protection has become a buzzword among policymakers, particularly in low-income countries, engaged in designing measures to reduce poverty. Justification of social protection is often premised on the argument that it may not be possible to address the structural causes of poverty within the prevalent political and economic environment of many low-income countries. Most important structural causes of poverty are associated with unequal distribution of factors of production, mainly, land and capital. Such unequal distribution results in poor facing a limited supply of the factors of production making it very difficult for them to participate in the process of economic growth. Poor are also unable to adequately access the health and educational infrastructure due to their assetlessness and thus most often fail to build up their capabilities. The situation is compounded due to continued social exclusion and discrimination. Although a section of advocates of social protection acknowledge the structural cause of poverty they also argue that absence of social protection measures and safety nets for the poor and vulnerable perpetuates poverty among them. As the policymakers find it infeasible to correct the distributional aspects of poverty in the given politico-economic environment, they are increasingly realizing that availability of social protection measures may help in reducing the severity of the poverty situation to a large extent.

This paper attempts to analyze evolution of social protection mechanisms in India through various historical phases in the political economy perspective. The following section captures the developments and debates in the field of social protection that constitute theoretical background to this work. While concluding, the paper argues that much of current emphasis on social protection in India reflects the realization that economic growth in itself does not contain mechanisms to make it inclusive.

**Social Protection**

Social protection is an overarching term that includes ‘public actions taken in re-
The role and purpose of social protection may be to reduce social risk and market failures in the economy

Three broad sets of programmes, viz. social assistance, social insurance, and labour market regulations constitute social protection. Social assistance programmes are designed to support poor households, while social insurance programmes aim to provide protection against contingencies such as unemployment, maternity, sickness or old age. Labour market regulations enforce minimum wages for work and basic standards for working conditions (Barrientos and Hulme 2008). Social protection evolved in the late 1980s and early 1990s as a comprehensive set of programmes to respond to multidimensionality of poverty. Such a response also reflected an increasing recognition of the perceived inadequacy of social safety nets, which were criticised as ‘residualist and paternalistic’ (Sabates-Wheeler and Devereux 2008: 64).

According to Munro (2008), justification of social protection policies are justified on the basis of three different discourses. The risks and market failures discourse provides reasons of failures in insurance markets often due to informational issues, along with the failures in credit, human capital and labour markets to justify provision of social protection. The rights-based discourse advocates for social protection to fulfill the obligations to grant legally enforceable social and economic rights to its citizens on the part of the state. Needs-based discourse on the other hand invokes practical and moral arguments in favour of reducing and alleviating chronic poverty, and promotes employing social protection measures in achieving that. The constraints that the poor face may have different explanations resulting in different approaches towards social protection as means of addressing such constraints (Barrientos and Hulme 2008a). Thus the role and purpose of social protection may be to reduce social risk and market failures, satisfaction of basic needs, or contribute to human development through rights-based approach depending upon the strategies the policy makers adopt while addressing the aforementioned constraints. For example, market failure discourse was largely responsible for enhanced social and economic roles of the State and thus the growth of the modern welfare state.

Social Protection in Low-Income Countries

Social protection as a major attribute of the welfare state has existed in the industrially developed countries in the form of social welfare assistance, insurance, and employment generation and protection. Fallouts of structural adjustment programmes, economic crises, and effects of globalisation have motivated the low-income countries too to incorporate social protection programmes within their policy frameworks since the early 1990s.
Recurrent global economic crises and effects of increasing globalisation in trade and services have deteriorated the economic condition and bargaining power of the poor in low-income countries (e.g. Bardhan 2006; Basu 2006; Stiglitz 2002; Pritchett 1997). Structural adjustment programmes and influence of neo-liberal discourse have also limited the state’s role in providing health education services that adversely affected the informal sector workers and the poor (van Ginneken 1999). Social protection in such countries is therefore largely focussed on poverty reduction and relies increasingly on transfer of incomes in conjunction with employment generation, creation of assets and provision of basic services (Barrientos and Hulme 2008a).

**Politics of Social Protection**

Hickey (2008: 247) argues that the dominance of economics especially in the field of development studies has led to a more ‘technocratic focus’ on the social protection policies at the cost of political and political economic analysis of how such policies originated and were shaped. According to him, such an analysis is important as different forms of politics shape different dimensions of social protection programmes; the political factors responsible for initiating a programme may be very different from the politics needed to sustain them and that, in turn, may be different from the political issues associated with the identification of programme recipients. While analysing the social protection policies in Britain, France, and the US, Atkinson and Hills (1991: 105) also point out the ‘need for the analysis to range outside the purely economic’ factors and extend it to ‘understand the political influences on the design of policy’. Political support for a particular programme is very important for its sustenance. Political economy is thus crucial for the social protection (Atkinson and Hills 1991). It is also important, in relation to social protection, to distinguish a person’s entitlement and her being able to effectively enforce such entitlement. A person’s ability to effectively enforce her entitlements is influenced by a range of political economy considerations (Agarwal 1991).

The political and political economy aspect of social protection may be better understood in a framework of a social contract between the State and its citizens (Graham 2002) to consistently strive to improve the overall well-being and opportunities available to all the citizens (Barrientos and Hulme 2008). Expansion of tax-financed social protection after early 1980s in countries, such as Brazil can be interpreted as a consequence of a renewal of such a social contract (Barrientos and Lloyd-Sherlock 2003). Hickey (2008) argues that lack of such a binding contract may result in social protection policies being initiated due to factors such as political risk mitigation and become counterproductive. The concept of social contract is increasingly employed in social policy debates to justify State’s mandate to prevent injustice and promote equality (Jayasuriya 2002), while also justifying measures such as social protection (Ramia 2002). Thus, social contract not only offers an analytical tool to study the relationships of poverty with reduction of poverty, it also relocates social protection within the ambit of State policies to promote justice and equality (Ramia, 2002). Such understanding of social protection is important for it to be employed as a long-term measure to alleviate chronic poverty (Hickey and Bracking 2005) and promoted as a normative policy response to deprivation and vulnerability. A key challenge, in this regard is ‘to identify and support ‘politically progressive constituencies’, or drivers of change, that might begin to provide the forms of mobilization required to secure political contracts for social protection’ (Hickey 2008: 260).

Thus, to understand and contextualise the recent trends and developments within social protection, it is important to analyze them in microeconomic and political economy perspectives (Barrientos 2008). Against this background, this paper presents an analysis of the evolution of social protection programmes in India in the political economy perspective.

**Social Protection in Ancient and Mediaeval India**

There has been a considerable debate on whether social protection systems existed in the precapitalist societies in the ancient
and mediaeval historical periods. Moral economy approach, propounded by Scott (1976) argues that social protection systems encompassing all their members were inherent in the structures of such societies. Such a thesis is however strongly refuted by Popkin (1979) who insists that social protection was almost totally absent in many precapitalist societies. Platteau (1991) suggests taking a middle path while acknowledging that several social protection mechanisms were available in precapitalist village societies. Such systems had their own limitations but were still the ‘second best optima given the many constraints confronting these societies’ (Platteau 1991: 161). These systems however weakened due to emergence of modern forms of market and State. Moreover, the new economic realities, particularly those caused by market forces, generated new vulnerabilities, which could not be addressed through traditional systems (Gilbert 1976).

In traditional Indian society, parental responsibility as a value of joint family system was of paramount importance in protecting all family members (Bhattacharya 1970). Many social mechanisms also developed to protect the people from adversities. An example of such mechanisms was Shreni (guild) system prevailing during fifth century B.C. until about second century B.C. it provided decent livelihood to all its participants (Thaplyal 2001). State was also actively involved in securing the lives and livelihoods of its citizens in the ancient India as can be made out by Arthashastra. Chanakya’s treatise on finance, politics and public administration in the fourth century B.C. He advises the king that ‘in the happiness of his subjects lies the king’s happiness; in their welfare, his welfare. He shall not consider as good only that which pleases him but treat as beneficial to him whatever pleases his subjects’ (cited in Kannan and Pillai 2007: 8).

Kannan and Pillai (2007: 8-9) also describe Chanakya’s ideas on public welfare that made the king as well as the people responsible for such welfare. It was the responsibility of the head of the family to provide for the whole family. Nobody was allowed to become ascetic before ensuring the continued well-being of the other family members. The king was required to maintain social order, promote economic activities, protect weaker sections of the society, prevent their harassment, protect the consumers, and take care of aged people, children and women. King was also advised to ensure welfare of even the slaves and prisoners. The State was required to bear the maintenance cost of the family of a government servant dying in harness. Chanakya also advised the king to remain prepared to protect his subjects from the natural calamities. Extensive famine relief measures, such as public distribution of food grains and seeds at concessional rates, initiating public works and providing food as wages, were also suggested in the Arthashastra. Many remnants of public works created as measures of famine and hunger relief are still found all over the country. Interestingly, Chanakya was against giving any doles,
and the people receiving State help (such as widows, old prostitutes and convicts) were required to work in State-run cloth spinning units. In spite of such elaborate mechanisms described for public welfare, Chanakya does not mention provision of health and education as the duty of the State (Kannan and Pillai 2007).

Such ideas continued to guide the State throughout the ancient period after Chanakya as is borne out by Shukracharya’s treatise on justice, Shukraneeti, in the eighth century A.D. He further expanded the system to also include comprehensive welfare of the servants. It was suggested that the servants were entitled to old age and maintenance allowances.

Servants were required to be paid three-fourths of their usual wages for a maximum period of six months in case of their falling sick and being unable to work. Premature death of servants entitled their families an allowance equivalent to half of their salaries (Bhattacharya 1970).

Not much account is however available of the State’s role towards general welfare of the people during mediaeval periods. Such role is found increasingly performed by the religious organisations, charities, trusts, caste associations and the village communities during Mughal rule and post-Mughal period (Kannan and Pillai 2007).

Social Protection in Colonial Period
Colonial system witnessed a disruption in the traditional social fabric due to introduction of capitalistic mode of production and promotion of export of raw materials for the British industries. Such a change brought with it institutional developments such as modern legal and judicial systems, uniform administration, standardised land revenue systems, railways, and Posts and Telegraphs. These initiatives paved the path of uniting the Indians as a nation as pointed out by Karl Marx (1853), and raised their collective strength to demand more rights and greater welfare. Changes in agricultural production systems and production relations, along with some of the foreign policies of the British government in India, led to massive and recurrent famines (Bhatia 1985; Sen 1982). After initial reluctance, the government initiated famine relief measures that were successful in reducing mortality and frequency of famines and no major famine was encountered between 1902 and 1943 in the country. The last major famine that affected Bengal encouraged the government to control the trade in food grains.

After independence, next phase of spurt in Social Protection was witnessed in the later half of 1990s

Not much account is however available of the State’s role towards general welfare of the people during mediaeval periods. Such role is found increasingly performed by the religious organisations, charities, trusts, caste associations and the village communities during Mughal rule and post-Mughal period (Kannan and Pillai 2007).

The mainstream struggles for Independence, whether peaceful or armed, had reduction of large-scale poverty and inequality as part of their objectives, but the overarching objective was to achieve Independence. Although many movements including peasant movements in various parts of the country at different points in time did focus on economic issues affecting the common people, such issues were largely left to be addressed after the achievement of Independence (Nath 2006).

Social Protection Initiatives After Independence
Various aspects of social protection constituted an important part of the agenda of the Indian Freedom movement and the government of newly-independent India initiated several social protection programmes. Such programmes were considerably scaled up and new programmes were initiated in the late 1960s and early 1970s in response to various natural calamities, droughts and food shortages during that period. Next phase of spurt in social protection was witnessed in the later half of 1990s, when it was realised
that the gains from economic reforms and increased globalisation of Indian economy were largely bypassing a large section of the society. Results of the 2004 general elections were largely seen in political and media circles as the rejection of ruling coalitions’ policies focussing more on economic growth and less on reducing poverty and inequality (e.g. Breman 2010) despite some analysts such as Panagariya (2008) arguing otherwise. The new government therefore committed itself to the ‘growth with human face’, scaled up various social protection programmes and launched new programmes such as an ambitious National Rural Employment Guarantee Programme (NREGP).

After Independence, the policymakers sought to achieve poverty alleviation by way of economic and infrastructural growth through planning processes. Redistribution was also attempted in the form of land reforms. Land reforms were however not successful in most states beyond zamindari abolition, partly because they were introduced without considering the social and economic relationships between the landowners and tenants, and the general power equations in the villages (Osmani 1991). Labour regulations, on the other hand, acquired increasingly pro-labour character in response to continued pressure exerted by the trade unions.

Natural calamities such as droughts and food shortages in the 1960s and early 1970s necessitated a direct attack on poverty. Such emergencies, combined with the political developments at the Centre, led to initiation of garibi hatao (eliminate poverty) campaign consisting of various anti-poverty programmes, targeting the small and marginal farmers, landless labourers, and drought prone areas. The campaign also reoriented the planning processes towards taking direct measures to reduce poverty along with the measures for economic growth.

The 1974-79 Five-Year Plan proposed a National Minimum Needs Programme (NMNP) and identified areas including rural health, elementary education, rural water supply, rural roads, rural electrification, nutrition for young mothers and children, environmental improvement of urban slums, and housing for rural landless labourers. The next Five-Year Plan resulted in implementation of Integrated Rural Development Programme (IRDP) targeting the BPL households for subsidised credit for creating assets, inducting technology and imparting trainings, and rural employment programmes involving public works, such as National Rural Employment Programme and the Rural Landless Labour Employment Guarantee Programme. Due to emphasis on poverty reduction and resultant programmes, a considerable reduction in rural as well as urban poverty was achieved between 1973-74 and 1986-87. The rate of poverty reduction has slowed down since then due to economic liberalisation policies adopted to address the low rates of economic growth (Deaton and Drèze 2002; Datt 1999).

Panagariya (2008) strongly correlates the increase in the rate of growth of Indian economy to the process of reform and liberalisation and claims that it has also led to substantial reduction in poverty. Reports of the National Commission for Enterprises in the Unorganised Sector (NCEUS) however clearly show that the people engaged in informal employment, constituting 93% of India’s total workforce, are steeped in poverty and that their deprivation has not been reduced substantially during the period from 1993-94 to 2004-05 associated with large-scale reforms in Indian economy. According to such reports, the employment growth rate plummeted during this period to 1.85% on an average from over two percent on an average in the immediately preceding ten years. More importantly, such growth in employment was almost entirely limited to the informal sectors of economy. This did not help the people, additionally employed during this period, to come out of poverty. Real wage growth rate also fell during this period. NCEUS thus concludes that the substantial jump in the economic growth was not translated into employment generation and enhancement of incomes for a large number of Indians.

Garibi Hatao campaign consists of various anti-poverty programmes, targeting the farmers, labourers etc
ployment and social security further contributed to poverty among the informalised workers and deteriorated their living conditions.

Breman (2010) argues that the claims of poverty reduction due to economic growth caused by liberalisation of economy are largely based on the assessment of benefits accrued to the section of population possessing some means of production such as land, equipments or other forms of petty capital. Poor, however, lack resources and thus means of production, and sell their low-skilled or unskilled labour to earn livelihoods. They do not gain from increased growth rates in the economy. According to him, high levels of growth in Indian economy have greatly benefited the upper and middle classes, having means of production and/or formal sector employment, while a large section of population engaged in informal employment has not been able to participate in the Indian economic growth process. Increase in productivity with stagnating employment, during 1993-94 to 2004-05, as pointed out in the NCEUS reports, may also mean that the labour has been exploited even more during the period of high economic growth than before (Breman 2010). Topalova (2008) also demonstrated that the rate of reduction of poverty decreased substantially after introduction of the economic reforms.

Although economic performance of India has been observed to be much less affected by the global meltdown than most other world economies after 2008, the meltdown has severely affected informal sector workers adversely in terms of lack of employment opportunities and wage cuts, as is revealed by various micro level and sectoral studies (e.g. Hirway 2009; SEWA 2009). ‘In contrast to capital which is bailed out in the economic recession, labour seems to have taken the brunt in the policy dealing with the effects of the downturn (Breman 2010: 44)’.

On the issue of relationship of rising inequality with economic liberalisation, Panagariya (2008) does not have evidence to refute the claims of Deaton and Drèze (2002: 3740) regarding ‘strong indications of a pervasive increase in economic inequality in the nineties’. Deaton and Drèze (2002) further claim that this is an unprecedented development in the context of Indian economy. Role of capital, particularly in informal sector, may provide an analytical tool to explain the rising of market forces in order to maximize economic growth is adhering to a roadmap which produces more deprivation for the segments down below and more wealth for those higher up... (and additionally), the ongoing squeeze at the bottom is directly related to the accumulation of surplus at the top (Breman 2010: 45).

Concluding Remarks
This article has attempted to present an analysis of evolution of social protection in India through various historical eras in the political economy perspectives of such eras. It is argued that while labour regulations in the Indian organised sector were achieved due to a protracted struggle of workers, other measures of social protection involving workers in the unorganized sector were initiated after realizing that economic growth in itself does not contain mechanisms to make it inclusive. Variety and scale of such programmes was increased in response to the evidence that enhanced rate of economic growth caused by the economic liberalization is resulting in greater inequality. The recent initiatives towards social protection in India thus need to be viewed in the context of rising inequality due to economic reforms, persistent poverty in spite of the reforms, and the consequent political compulsion to provide additional policy spaces to those left out of the growth processes. However, as pointed out by Panagariya (2008), the economic growth did enable the government of India financially, with increased levels of government revenues, to initiate the new social protection programmes and upscale the existing ones.

End-notes
1 Arguably ‘the largest single national effort in the world to encompass the
characteristics and needs of what is known as the informal sector’ (an ILO official cited in Breman 2010: 46)

References and Additional Thinking

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ANURAG PRIYADARSHEE is an Indian Postal Service officer of 1989 batch. During the course of his career with Government of India, he has held various positions with the Department of Posts at Bihar, Uttar Pradesh, Rajasthan and Gujarat states. He has also been on deputation with International Fund for Agriculture Development (IFAD), a United Nations agency, and Azim Premji Foundation, a Non-Governmental Organization. Before joining Indian Postal Service, he taught Physics at Kanpur University. He holds Masters degrees in Physics and Economics. He has recently completed his PhD man thesis. Journal of Sociology (1), 49-68.


[The views expressed in the article are personal and do not reflect the official policy or position of the organisation.]
Socio-economic Status of Muslims in Western UP

Muslims are amongst the most marginalised communities in western up in terms of economical and educational indices and also in terms of political empowerment among the issues that have been subject to extended public debates and discussions in recent years has been the issue of ongoing marginalization and under-development of the Muslim communities in India. Though much has been written about various marginalized populations and the means by which empowerment has been pursued, little empirically-grounded research exists on the social, economical and educational conditions specifically effecting Muslims across the country. Need of the day calls for more data to be gathered pertaining to the situation of the Muslim community in order to effectively develop programs and influence policy-making that will promote the development and empowerment of Muslims in India. Additionally, this information would be of considerable value to NGOs seeking to work among Muslim populations.

The most populous state of India, Uttar Pradesh, also bears the highest number of Muslim inhabitants. Muslims comprise roughly 20% of the state’s entire population. Specifically, the districts of Aligarh, Bulandshahr, Meerut, and Moradabad in western Uttar Pradesh have substantial Muslim populations, and were thus chosen as the areas this study has focused upon. While Muslims comprise approximately 35% of the population within these districts, this fact does not protect them from being the most deprived and marginalised group by all social and economical indices.

Purpose of the Study
The purpose of this study was two folds. In the first case, this study examines the social, economical and educational conditions of Muslims in the four delineated districts, and to draw comparisons with other communities living in the same regions as well as comparisons with Muslims living elsewhere in the country. This includes the pursuit of a better understanding of the local, structural, and macro factors responsible for the relative depri-
vation of Muslims in the region and the identification of the causes of the deprivation and marginalization.

The second main thrust of this study was to identify local Muslim organizations and social activists working in these districts. This will enable NGOs and other like groups to establish links and develop joint activities for the empowerment of the Muslims in the area in an informed way. In relation to the above, this study also seeks to elicit the opinions of local Muslim groups about the felt needs of the community including which culturally appropriate methods of intervention are recommended for adoption by NGOs when working with local Muslim communities.

**Major Research Questions**

1. How do Muslims living in these four districts fare in terms of various social, economical and educational indicators?
2. How Muslims in these districts are placed vis-a-vis other communities in the region? What are the local and extra-local factors responsible for this difference?
3. How have a range of actors including politicians, and Muslim community leaders, as well as organizations such as the state bureaucratic system, and local NGOs responded to the fact of Muslim marginalization?
4. What sort of institutions and programs have local Muslim organizations developed to respond the need of community empowerment? What sorts of issues have they taken up? How effective have they been in pursuing their aims? What are the perceived drawbacks and difficulties faced? What primary needs do they see being felt by the community?
5. How do local Muslim organizations and social activists envisage the possibility of working with other NGOs to promote the development of the community? What culturally appropriate methods of intervention do they suggest?

**Methodology and Research Design of the Study**

This study has used both qualitative and quantitative methods of data gathering
and has therefore utilized several instruments and techniques. The instruments used are as follows:

1. **Questionnaires:** Questionnaires have been used to collect data from households in rural as well as urban areas. They have also been used in the preparation of the village, town, and city profiles. The questionnaires have not only generated quantitative data but also provided qualitative data by eliciting the perceptions of people.

2. **Interview Schedule:** Numerous people were interviewed to capture their views on the subject matter under study.

3. **Focus Group Interviews:** In seeking to capture the views and perceptions of specific groups within the Muslim community, focus group interviews were used. This methodological strategy enhanced both qualitative and quantitative data. The focus groups were comprised of women, youth, unorganized sector labourers, professionals, and the elders of the locality, etc.

In addition, this study also has taken into account the following secondary sources: official government data and reports, existing academic literature and literature reviews, reports on the community by various civil servants and organizations. Further data was gathered from government departments including the National Minority Commission, and the government Census report, Newspaper reports, etc. round out the secondary sources consulted.

**Scope of this study**

This study reports upon and addresses the status of Muslims in four districts of Western Uttar Pradesh (Aligarh, Bulandshaher, Meerut, and Moradabad) as of 2009. The focus of this study takes into account the education and socio-economic situation of the Muslim communities in the area and examines the data for exclusions that may exist. The intended outcome of this study was to provide data and useful information to NGOs, individuals, groups, and Muslim communities in order to develop strategies and action plans for development, integration, and enhancement of the community.

**Designed Study Samples**

Initially this study proposed to sample 100 Muslim households in each district identified. However, further data was gathered from non-Muslim households in each district, the need of which was determined by the researcher and indicated by the research objectives. This additional data served to situate the findings by providing contextually located comparisons with other religious groups living in the research area. Non-Muslim households comprised 20% of the total subject pool. The break-up of the 600 samples are given in Table 1.

The cities from which the data was collected were the district headquarters of each respective district. Within each city, samples were taken from 100 Muslim households and 20 non-Muslim households. The towns were chosen based on their substantial Muslim populations. The data in the towns sampled came from 200 Muslim households and 40 non-Muslim households. In terms of the villages, special care was taken in their selection and locations. Villages with high, mixed, and low Muslim populations were identified for sampling. The total number of individuals interviewed from such villages were 200 from Muslim households and 40 from non-Muslim households. Non-Muslim samples were taken from the “upper” caste, Dalit, and Other Backward Caste (OBC) households selected in accordance with the population percentage in the area. This was done in order to draw conclusions of comparative nature.

**Sample Characteristics**

In order to make the analysis comparative, both Muslim and non-Muslim residents living in the same localities were chosen. Of these respondents, 80% were Muslims and 20% non-Muslims. Of these, 18% of the respondents had been residing in the same locality between 1-10 years, 14% between 11 to 20 years, and 68% for more than 20 years. In terms of age, around 55% of the respondents were between 20 and 35, 36% were between 36 and 50, and the rest were between 51 and 66 years of age. As many as 65.8% of the respondents were males and 34.2% females. 28% of the respondents reportedly belonged to a caste categorized under OBC. It is possible that, some of the respondents hid their caste identity in order to pass off as belonging to a “higher” caste. Only 71% of the respondents possessed ration cards.

Apart from the sample survey, focus group discussions in selected villages and towns were conducted in order to collect

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**Table 1: Designed Samples from Each District**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Type of Area</th>
<th>Type of Respondents and Number of samples</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>City</td>
<td>Muslim 100 cases</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Muslims 20 cases</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Town</td>
<td>Muslim 200 cases</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Muslims 40 cases</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Villages</td>
<td>Muslim 200 cases</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Muslims 40 cases</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>600</strong></td>
</tr>
</tbody>
</table>
qualitative information. Those participating in the focus group discussions included women, artisans, teachers, youths, and local leaders, etc. in order to provide the opinions of a broad section of the local Muslim community. Prominent personalities from the Muslim community of the selected districts were also interviewed and their perspectives on the issues affecting the community were recorded.

Challenges and Limitations of the Study

There were several challenges the researcher faced during the course of this study. First, it was difficult to convince the Muslim respondents of the study’s purpose and efficacy. Many were very suspicious of the study and some mocked it convinced that “this kind of research is not going to make any impact to say the least.” Respondents were not highly enthusiastic and instead were pessimistic about any outcome much less any help coming to them from our government agencies.

Another major challenge was the availability of reliable data or reports on the socio-economic and educational conditions of Muslims in general, and particularly with regard to the districts in Western Uttar Pradesh. However, a comprehensive literature review of the works which do exist has been incorporated in the report.

Various surveys as well as government reports have shown that, in the country, Muslims are among the most socially, economically, and educationally deprived communities under the categorization of religious minorities. Yet, little has been written on the social, economic, educational conditions, and other problems of India’s Muslims. A 2005 study conducted by the Action Aid and Indian Social Institute mentions following reasons for this:

1. Indifference or even hostility on the part of sections of the bureaucracy and the political classes to Muslim concerns. This is reflected in the fact that although statistics concerning Muslim education is collected by government agencies, the results are not generally made available to the public.

2. Lack of overall development of civic sense among Indians including, a lack of internalisation of the values, ethos, and directives enshrined in the constitution of India.

3. Indifference of many Muslim political leaders to the social, economic, and educational concerns of the Muslim masses. Like several of their Hindu counterparts, many Muslim leaders prefer instead to focus on identity related issues as these are considered more politically “rewarding.” This is also linked to the political interests of Muslim elites, many of whom, like their Hindu counterparts, appear to have a vested interest in preserving the status-quo.

4. Relative paucity of trained Muslim social scientists, owing, in part, to the relatively small Indian Muslim middle-class.

5. Indifference on the part of non-Muslim Indian social scientists in general to Muslim concerns, reflected in the few studies done by such scholars on Muslim related issues.

6. A strong tendency on the part of the press to present Muslims in a negative light by highlighting sensational stories or incidents relating to Muslims and ignoring their social, economical and educational concerns and problems.

7. Indifference on the part of the ulama (clergy), or Muslim clerics, and various Islamic organisations to the living conditions of the Muslim masses. This is reflected in their normative approach to Muslim social issues — particularly in their claim that social problems can only be solved by strict adherence to the shari’ah, and that these need no special scrutiny outside the micro-lens of the religious tenets constructed by...
them. This explains why a few ulema Islamic organisations as well as Islamic publishing houses have not published any literature describing the actual social condition of the country’s Muslims. Instead, the overwhelming focus of the literature produced has been on religious or identity-related concerns, as narrowly defined, or on the history of Muslim ruling elites, with little or no attention being given to the living condition of the Muslim masses.

The study further documents that the existing literature on Muslim social, economical and educational issues is fairly limited in terms of both scope and quality. Much of these writings have been focussed on North India, leaving out other parts of the country where a significant number of Muslims live. Many of them are simply impressionistic and prescriptive, rather than descriptive. Few scholars writing on the subject have taken the trouble of doing empirical or field research themselves, relying instead on secondary sources including official reports and statistics. This naturally limits the value of such writings.

**Sociological Context of the Muslim Problem**

A look at the sociological and anthropological studies of Muslims in India in the past few decades reveals that general research interest has tended to focus on a few political areas and relegated the real problems to the background. The issues of vital importance have instead been explored through a lens of politicised Hindu-Muslim relations created by the essentialisation of religious identities (Faxalbhoy, 1997). This has resulted in a disincentive to understand the issues from a logical perspective and ameliorate the perpetual marginalisation and social exclusion of Muslims in India. The stereotyping of the Muslim “problem” is centred not only around bland and banal descriptions of social structures (Robinson, 1983: 97-104), but it also stems from various sociological and anthropological studies including studies on caste among Muslims (Lindholm, 1986: 61-73) of Muslims in general in South Asia (Madan, 1976), and of inter-Muslim interactions such Minault’s approach to the study of Islam in South Asia (Minault, 1984: 301-305). One study of the theoretical and empirical issues of sociological dimension is attempted by Imtiaz Ahmad and provides ample information on Muslims (Ahmad, 1972: 172-178). Further studies on the Muslims of Lakshadweep (Aggarwal, 1971) and on the Meos of Mewat Rajasthan round out the literature (Dube, 1969).

The study on Mewati Muslims is interesting for its discussion of Muslim religious practices which have apparently included many Hindu rituals for over 300 years. Mewati Muslims became more committed to their Muslims identity after Partition. To address issues of inequity and marginalisation, it is crucial to understand the reality of Islam in an Indian context. Muslims in India believe in and practice the cardinal pillars of the faith. Yet, the practice of Islam in India is heavily underlined “by elements which are accretions, drawn from the local environment and contradict the fundamentalist view of the beliefs and practices to which Muslims must adhere.” That is to say that there are at least two elements at work in Islam in its Indian context. “(One element is the) ultimate and formal (which is) derived from the Islamic texts, the other (is) proximate and local, validated by custom (Ahmad, 1981: 7-10).” This second or “other” element is what Arjun Appadurai has identified as a “gate-keeping concept,” namely, that third world societies are often studied with the help of “gate keeping concepts” or “theoretical metonyms,” i.e., concepts that seem to define the “quintessential and dominant questions of interest in (a) region (Appudurai, 1986: 356-361).” M. Gaborieau provides an example of this type of research in his study of Muslim bangle workers in Nepal. Gaborieau writes that Islam was only a “thin veneer” on Hinduism and the debate on caste among Muslims did not move out of the parameters set by caste hierarchy - which among Muslims is based on (the ashraf...
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(noble)-ajlaf (inferior) distinction) (Gaborieau, 1984). While writing on conditions of Muslims in western UP, it is incumbent upon the researcher to keep pace with the empirical and theoretical framework of social science literature, studies of community identity, and various constructions of modality in order to theorize about current contemporary problems. Required is a dispassionate reading of contemporary history to locate the various causes leading to the present state of Muslims in India. Also required is an understanding of the complexity of the issues in order to engender appropriate corrective measures.

Problematising Economic Marginalisation

At the dawn of the twentieth century, “Muslim(s) held approximately one-fifth of the land in the province. They tended to hold particularly large amounts around former centers of Muslim power such as Jaunpur, Allahabad, and Fatehpur, Bareilly and Moradabad, Lucknow and Barabanki (Khalidi, 2006: 78).” According to official statistics, Muslims left as many as 14,221 bighas (portions) of land which was acquired by the custodian of Evacuee Property. This change in landed property indicates large-scale hardship within the Muslim community (Hosain, 1989:278-279). The passing of the Zamindari Abolition Act of 1951 deprived Muslims and other landed communities of all their land holdings except for that which they had kept unlet as “home farms” (sir and khudkasht) or as grove (bagh) land. In the words of Attia Hosain, “hundreds of thousands of families were faced with the necessity of changing habits of mind and living conditioned by centuries, hundreds of thousands of landowners and the hangers-on who had lost lived on their largess, their weakness and their follies (Please see, Id at 277).” Further, Muslim taluqdars were confronted with the stigma of having supported the creation of Pakistan as seen in the cases of Rajas of Jahangirbad, Kotwar, Mahmudabad, Nanpara, Salempur, and women like Qudsiya Aizaz Rasul. The stigma of association with the Muslim League hindered access to the centres of political power and influence (Robinson, 1993: 14-15), unlike in the case of the Hindu Zamindars (Jafri, 2004). In addition, the feudal ethos of high spending, low or no savings, conspicuous consumption and luxurious living further depleted Muslim wealth. The Zamindari Abolition Act did provide compensation spread over a number of years, however, installation amounts were often rapidly consumed leaving no savings. According to sociologist Zarina Bhatti, “Lacking power, their manoeuvrability was limited and consequently they lost a good part of their lands to the tenants who acquired legal rights over the lands that they were cultivating.

Socio-Economic Based Indicators

The NSSO’s 1987 survey which gathered socio-economic data from various segments of the Indian population failed to provide specific data on Muslim groups. Omar Khalidi however has produced a brilliant economic analysis of the marginalisation of Muslims in Uttar Pradesh. According to Ghaus Ansari, the vast majority of Muslims remained as landless labourers or engaged in various forms of manual semi-skilled labor as artisans who, contrary to popular and governmental perception, did not lag behind others in their craft (Ansari, 1960: 333). According to the Census report, “twenty-two percent of those earning a living from commerce were Muslims…. Muslims dominated trade in clothing, transport, hides, perfumes and luxury articles and played a large part in the food trade and others, though in spite of this they do not appear to have made much money (Census of India 1911).”

Of the skilled craftsmen, a 1991 survey
gives the following figures: for embroidery (87.55%); cotton rugs (67.5%); zari, gold thread/brocade, and zari goods (89%); cotton rugs (67%); wood ware (72%) (Vijaygopalan, 1993: 9). Muslims’ specialisation in these crafts is exemplified by the cases of master weavers such as Pir Muhammad and Abdus Samad in Varanasi (Srinivas, 2002:94-96) for their silk sari, silk embroidery (Showeb, 1994), and zari (gold embroidery) (Showeb, 1993). Muslims’ specialisation in these crafts is exemplified by the cases of master weavers such as Pir Muhammad and Abdus Samad in Varanasi (Srinivas, 2002:94-96) for their silk sari, silk embroidery (Showeb, 1994), and zari (gold embroidery) (Showeb, 1993). Bhadohi and Mirzapur (Singh, 1979: M69-M71) are known for carpets, rugs, durries, and bed sheets. Kargha and handloom cloth are made in Mau. These weaving centres have held the monopoly on Muslim Jula'ha (weavers) and are based in Varanasi as well as other parts of eastern U.P such as Azamgarh, Mubarakpur and Barabanki (Mehta, 1997). Hand printed textiles are made in Farrukhabad. The famed chikan (embroidered clothes) are associated with Lucknow (Weber, 1999). Jamdani (muslin/organza manufacture) is centred in Faizabad, zardozi (embroidery), and kalabattun (also called zari, i.e. gold thread) in Tanda. The Jhulan are also known as Momins/Ansaris (Pandey, 1983; PE19-PE28). In addition to weaving, there are other textile-related occupations in which Muslims are predominating: Dhuniya (cotton cleaners); Rangez (dyers, tailors); Naddaf (fluffers), whose work is to rejuvenate the contents of quilts, pillows and mattresses.

In support of Muslim manufacture, Tahir Beg called for the “promotion of Muslim entrepreneurship under state support” to overcome constraints such as finance and marketing (Beg, 1993:223-236). Such an enterprise is already in the charter of the U.P Minority Financial Development Corporation (UPMFDC) which was established in 1984 with a share of capital of 5 crore (UP Minorities). UPMFDC started the scheme, Margin Money Loan, under which a loan not exceeding 75% of a given project of up to Rs. 200,000 is given bearing 7.5 percent interest. In 1985/86 UPMFDC advanced a total sum of Rs. 8.24 lakhs to 47 units under this scheme (Ministry of Welfare, 1989: 121). The performance of UPMFDC in its two decades of operation, however, has not been satisfactory. Inquerry into the problems and issues deserves to be undertaken as part of a separate study.

It is clear that Muslim communities as a whole, as is shown, are among the poorest communities in India, ranking with the Muslims are dominated in clothing, transport, hides, perfumes, luxury articles and food trades

Dalits and Adivasis. And the economic marginalisation of Muslims can be attributed to numerous factors. These factors include 1) the fact that most Muslims in India are descendants of “low” caste converts, 2) the displacement and rapid marginalization of large sections of the Muslim elites with the onset of colonial rule, 3) the devastation of the community as wrought by Partition, 4) the abolition of zamindari which hit many Muslim landlords heavily, and finally, 5) the discriminatory practices perpetrated by the state and the wider Indian civil society in post-1947 India. These factors as well as more recent pogroms directed against Muslims have resulted in large-scale destruction of Muslim property and have further reduced the enthusiasm, security, and confidence that the community requires for economic advancement. Added to this is a lack of appropriate community leadership and the organisational mobilisation necessary to bring to light and work to address the social, economical, educational and political marginalisation of a large section of the country’s Muslims.

The above facts are highlighted in several studies that deal with India’s Muslims. Mohammad Zeyaul Haque’s article is based on the findings of the 55th round of the nationwide survey conducted by the National Sample Survey Organisation (NSSO — an autonomous body under the Union Ministry of Statistics and Programme Implementation). In it he writes that 29 percent of rural Muslims live in absolute poverty. Monthly per capita consumption expenditure for the rural Muslim poor is Rs. 300 or less. And, 51% of rural Muslims, as compared to 40% rural Hindus (including Dalits) are landless. In urban areas 40% Muslims, as compared to 22% Hindus, belong to the absolute poor category. Only 27% of urban Muslim households have a working member with a regular salaried job, compared to 43% among Hindus. As many as 48% of rural Muslims and 30% of urban Muslims are illiterate, and the corresponding figures for Hindus are 44% and 19% respectively.

Interestingly the research findings show that the housing conditions of Muslim households in rural areas is slightly better than that of Hindu OBC and Dalit populations, with relatively more Muslim families (30%) living in pucca houses than is typical in the general population (20%). One possible reason could be that many
of these Muslim households have become poor only in recent generations owing to the distinct processes of Muslim marginalisation within India. Hence, while their present income may be low, their housing conditions are better. For the same reason perhaps, more than half of the rural Muslim household (56%) also have separate kitchens. Roughly the same proportion of all rural families, Muslim and non-Muslim alike, have electricity connections (about one in every eight households). Approximately one-fifth of rural Muslim households do not have ration cards, nearly all being from poor families.

In urban areas, economic differentials between Muslims and the general population are even wider than in rural areas according to the research findings. Ownership of a dwelling unit is less common among urban Muslim households (52%) than among the general population (78%). While 51.2% of Muslim households live in pucca houses, the figure is 57.3% for the general population. Only 87% urban Muslim households have electricity connections in their homes. The figure is around 95% for the general population. And around one fourth of the urban Muslim households are without ration cards.

**Education Based Indicators**

The research findings state that rural Muslim literacy rate in these districts is 36 percent, which is lower than the overall rate of 54 percent. The urban Muslim literacy rate is 49%, while for the general urban population it is 72.7%. Although Muslims are considerably behind other communities in terms of literacy, the study notes a progressive increase in Muslim school enrolment rates over the years, including female students, although the drop-out rate remains very high. Over half the Muslim students in both rural and urban areas study in government schools. Only two percent of rural Muslim students and 7.6% of urban Muslim students study in what the survey describes as “expensive private institutions.” The corresponding figures for what are termed “ordinary private institutions” are 15.7% and 24.6% respectively. About 24.1% of rural Muslim students and nine percent of urban Muslim students are enrolled in madrasas (Muslim religious seminaries). And as far as medium of instruction is concerned, 56.8% of rural Muslim students and 71.2% of urban Muslim students study in Hindi-medium schools, the corresponding figures for Urdu-medium and English-medium schools being 40.5%, 18.7%, 2.6% and 10.2% respectively. Interestingly, despite the fact that most students study in non-Urdu medium schools, 81% of rural Muslim students and 86.1% of urban Muslim students have learnt Urdu at school.

**Rural Muslim literacy rate in these districts is 36 percent which is lower than the overall rate of 54 percent**

**Educational Backwardness & Disempowerment and its Relationship to Employment**

The economic marginalisation of Muslims in Uttar Pradesh has had direct bearing on the educational downfall which, in turn, has marginalised Muslims in terms of qualification for government jobs. Previously in the North Western Provinces and Oudh, Muslims enjoyed a greater percentage of the judicial and executive jobs than their numbers warranted. In 1882, Muslims held nearly 35% of all government posts (Supra note). In 1886, Muslims held 45.1% of the total number of posts in the judicial and executive services of the North Western Provinces and Oudh. In contrast, Hindus held only 50.2% of these posts, even though they constituted 86.2% of the total population (Misra, 1961: 329 & 388). With regard to employment requiring technical and applied scientific education, Sarojini Ganju has stated that, “they took hardly any advantage of the employment opportunities offered by the post office, telephone and telegraph services, and had little to do with the construction of roads and railways (Ganju, 180:279-298).”

One of the issues that must be considered is that the Muslim service class and the gentry had held aloof from modern education, for reasons of pride as self-perceived former rulers, religious taboos, fear of identity loss and the like. After an initial reluctance, Muslims did take to modern education, spurred by the efforts of Sayyid Ahmad Khan and his colleagues in the Aligarh movement (Mann, 1992:145-171). By the late 1860s, the proportion of Muslims in the government primary and secondary schools was as large as their percentage in the population and their percentage in higher education rose similarly by 1890s (Maqbool, 1969:5-6).

The downturn in education began with a bureaucratic reform initiated by U.P. Lieutenant Governor Anthony MacDonnell, a reform which resulted in adverse consequences for the Muslim elite. Mac-
Donnell, “unlike his predecessors, who had treated Muslim landlords and government servants as pillars of British rule... developed a remarkable prejudice against them. He invariably described them as ‘financial’ and in times of Muslim agitation was sure that Muslim officers did not pull their weight. Muslims were a danger to security and their strong position in government services had to be reduced as far as was politically possible (Bhatty, 1973: 98).”

Further marginalisation followed with the Devanagri Resolution of 1990 which allowed the acceptance of petitions to the government in Devanagri letters. This in effect required that clerical appointments, since Muslims did not normally read the devanagri script, the new measure decidedly hurt Muslim interests.

In the Post-independence era, Sardar Patel directed U.P. administrators to stop employing Muslims until the Muslim employment percentage was reduced to the community’s population percentage (Patel, 1998: 489-490). The Congress government led by Pandit Pant informed Vallabhbhai Patel on May 28, 1947 that “according to the present practice and rule, 60% of the posts are reserved for Hindus, 30% for Muslims and 10% for others.” The Government proposed, regarding recruitment of Muslims for non-competitive posts, that all recruitment should be conducted purely on the basis of merit and fitness, regardless of communal considerations. The U.P. Hindu Mahasabha presented that, “as far as recruitment to government services was concerned... where selection is made otherwise than by competitive test, recruitment of different communities will be on the basis of population.” According to the former Aligarh Muslim University Vice-Chancellor Badruddin Tyabji:

There was a profound feeling of despondence and defeatism about these (employment) matters among the Muslim students in particular. Often without reason they considered it useless to apply for a job, being convinced in advance that they would not be selected (Tyabji, 1970: 35).

Muslim groups in U.P. frustrated with the result of the open competition hoped to be named “Other Backward Class,” in recommendation of the B.P. Mandal Commission in 1990. The demand for reservation was made forcefully with the support of the Congress Party, Bahujan
Samaj party, and Samajwadi Party (Theodore, 1986: 1-8). One sample survey conducted by the Hamdar Education Society in 1983 indicated that Muslims felt the standards within their own institutions were far from rosy (Shah, 1985). Aijazuddin Ahmad shows a dismal picture: Muslim literacy rate is a mere 27%. Brij Raj Chauhan in 1992 stated that the “educational level of the members [Muslims] is not commensurate with their economic attainments and greater attention to the need for education has to be given for these groups (Chauhan, 1992: 54).” Ministry of Home Affairs sponsored a survey in 1981 of 45 districts in 12 states with large Muslim populations, including U.P. It revealed that Muslim enrollment and success in elementary, secondary, and high schools was poor. Nita Kumars’ work among the artisans of Varanasi shows an educationally depressed Muslim community with little interest in modern education (Neta, 1990: 82-96). The U.P. Rabita Committee’s 1992 survey of education in Aligarh discovered rampant illiteracy among the Muslim villagers in the districts of Aligarh and Bijnor (Islamic voice, 1992: 1&7). Naseem Zaidi says that “the low standard of Muslim pupils in the Aligarh district shows that a simple expansion of education alone is not enough to guarantee Muslim entry into high-paying jobs and professions (Zaidi, 1996).” In Aligarh Muslim University’s engineering, medical, and other professional schools, Muslim students form a slim majority due to the minority character of the institution, though officially there is no reservation of seats for students along religious affiliation. The decision of AMU to reserve 50% of seats in MD, MS and some postgraduate courses for Muslim students from all parts of the country, and split the resulting 50% between an “all India quota” (25%), and AMU’s internal students (The Milli Gazette, 2005: 2) was endorsed by then Union Ministry of Human Resource Development, and opposed by Sangh Parivar, and CPI-M associated faculty members. In a case, the reservation policy of the University was struck down by the Allahabad High Court in 2005 (Wright, 1996:1-2).

Issues related to Muslim education appear to have received somewhat more attention by writers and scholars than the question of Muslim economic conditions. However, writings on Muslim education are of uneven quality. Many such writings are simply historical accounts of Islamic education or of educational reformist movements that spawned the colonial period, such as the Aligarh school and the Deoband madrasa. As in the case of current writings on Muslim economic conditions, the quality of writings on contemporary Muslim education in India leaves much to be desired. There exist only a few studies on this subject that are grounded in rigorous field-level observation and research.

M. Akhtar Siddiqui argues that in the aftermath of the Partition, education among Muslims suffered a tremendous set-back. With the dissolution of princely houses and feudal estates, the patronage on which numerous madrasas had depended evaporated (Siddiqui, 2004). To make matters worse, discriminatory policies were adopted by the state vis-à-vis Urdu as the language of instruction. Siddiqui shows how Muslims have sought through novel experiments to maintain and promote the tradition of Islamic education in the face of tremendous challenges. For instance, in Uttar Pradesh, in response to the marked Hinduisation of the government school syllabus and the numerous negative references to Islam and Muslim personalities in government-prescribed textbooks, the Dini Ta’limi Council established a number of maktabs which combine religious and secular education as well as Urdu until the fifth grade and allow their students to join government schools thereafter.

Siddiqui sees the state’s discriminatory policies vis-à-vis the Urdu language as one of the major reasons for Muslim educational backwardness, particularly in North India. However, he argues that while Urdu is “an important element” of Muslim identity, it is wrong to identify the language as “Muslim” even though today, for all practical purposes, non-Muslims have abandoned it. And as a result, the teaching of Urdu is today restricted largely to madrasas. This is one reason why many Muslim families prefer to send their children to madrasas instead of schools. In the Urdu “heartland,” Uttar Pradesh, Urdu today is languishing, dying a slow death, as reflected by the fact that few Urdu medium state schools are left in existence. This is a gross violation of the Constitutional right of Muslims to be taught in their own mother tongue. The situation is considerably better, however, Siddiqui points out in states beyond the Hindi-Urdu belt, such as Maharashtra,
Karnataka and Andhra Pradesh, where state governments have funded several Urdu schools, although their standards are said to leave much to be desired.

Another study by Sekh Rahim Mondal argues that the educational backwardness of Muslims in India should be understood in the wider context of their overall socio-economic and political marginalisation (Mondal, 1997). Being a vulnerable minority, Muslims feel their identity and lives are under threat, which enhances the influence of the orthodox and conservative ulema, who are generally known for their lack of enthusiasm for “modern” education. Further inhibiting educational advancement of the community is the fact that many Muslims are engaged in “marginal” economic activities that do not require “modern” education. This, in addition to widespread poverty among Muslims, limits their levels of educational aspiration. In addition, the fact mentioned earlier that many Muslims are descendants of “low” caste converts who have retained many of their pre-conversion beliefs and practices, and further, have remained mired in poverty like most other “low” caste people, makes higher education an unaffordable expense for many. Making the situation more complicated has been the mass migration of the North Indian middle-class to Pakistan following Partition. The loss of those who could have been expected to take leading roles in the promotion of modern education in the community has been substantial.

Studies on Muslim education which have looked at both madrasa as well as “modern” education have found that, contrary to widely-held stereotypical notions, only a very small percentage of Muslim children of school-going age attend fulltime madrasas to train as religious specialists or ulama. Considerably more children study in part-time maktabs or mosque schools, while receiving education in regular government or private schools as well. Maktabs exist in almost every locality where Muslims live and play a crucial role in transmitting the Islamic tradition to the younger generation. These institutions have the potential to promote literacy and some degree of modern education, although, in many cases this potential does not seem to have been taken advantage of in any noticeable way.

**Education and Muslim Women**

The literacy rates of Muslim women are among the lowest in the country. Several studies have sought to explore the reasons for this fact, particularly by looking at parental attitudes. An interesting work in this regard is Hafiz Abdul Maboob’s “A Study of Attitudes of Teachers and Parents of Azamgarh District Towards Muslim Girls’ Education (Maboob, 1993).” This study was based on a sample of 70 Muslim teachers in government and government-aided schools and madrasas in the Azamgarh district in eastern Uttar Pradesh as well as on the parents of students studying in these institutions. The study began by noting that while male literacy was fairly high among the Muslims of Azamgarh, the female literacy rates were very low. The aim of the study was to discover why this is so by focusing particularly on attitudes towards Muslim women’s education. What it found was that almost all the madrasa teachers surveyed believed in the importance of girls’ education but stressed that the ideal education which Muslim girls should receive should be religious in nature. Additionally, a modicum of general subjects that enable girls to become good housewives and
mothers was considered ideal as well. Eighty percent of parents believed that as far as religious education is concerned, there should be no distinction between boys and girls. Some of them allowed girls to study in schools, but stressed that for these girls to be educated, they must study in all-girl schools and under female teachers, and ultimately, they must discontinue their studies after the attainment of puberty. Further, it was deemed imperative that these schools be located within the locality where the girls live.

**Muslims’ Perspective on their Own Plight**

**Data from the Focus Groups**

Focus group discussions were organized to supplement the data generated through secondary sources and questionnaires, for the purpose of this study with selected members of the local Muslim communities under research. The intention was to bring out qualitative information that cannot be fully gleaned through questionnaires and is not adequately dealt with in the available secondary literature. These discussions brought out a number of common issues, indicating common trends across all four districts.

A major point was repeatedly stressed in all group discussions: that the government institutions are, by and large, indifferent, if not hostile toward the Muslim community. The point was repeated by all — men, women, and social activists — in individual conversations and interviews. The indifference and hostility on the part of government institutions was attributed to anti-Muslim prejudice and to the growing influence of Hindutva propaganda against Muslims. Comparisons were drawn between Hindu and Muslim localities to stress the point that the latter are much more deprived than the former in terms of government expenditures on various developmental schemes. It was pointed out that basic infrastructure and local facilities, such as proper roads, sewage systems, banks, dispensaries, health clinics, schools etc. were largely conspicuous by their absence in most Muslim localities. Some of the participants in cities claimed that while they, like others, are also tax-payers, they are consistently ignored by government departments. Even in Muslim majority areas it was pointed out, there are hardly any Muslim employees in government departments, even in junior posts such as drivers, cleaners, and clerks, for which higher educational qualifications are not required.

Some of the participants stressed that the neo-liberal economic policies being followed by successive governments in the last two plus decades have hit Muslim artisan communities, such as the potters of Khurja, weavers of Meerut, and craftsmen of Muradabad and Aligarh badly.

The indifference and hostility on the part of Government institutions was attributed to anti-Muslim prejudice

The policies have resulted in the further economic marginalization of these communities. Linked to this, the cutting back of subsidies and the privatisation of education have made quality education even more difficult for these communities to gain access to. Yet, the government has done little to address the situation. Further, many respondents argued, in areas where Muslims have witnessed some degree of upward economic mobility, often anti-Muslim riots are engineered by Hindu chauvinist groups in league with agencies of the state resulting in tragic loss on a massive scale of Muslim lives and property. Hence, the government, they argued, is to a large extent responsible for the marginalization of Muslims.

In focus group discussions, another salient point was that most respondents felt that Muslims, as a whole, were economically far behind Hindus, particularly “upper” caste Hindus. In light of this, they offered various suggestions, such as greater state allocation in various development schemes slated for Muslim areas. Further it was suggested that a separate reservation for Muslims as a whole, or for Backward Caste Muslims in specific, be created for various government jobs and educational institutions. They also repeatedly stressed the point that Muslim economic and educational development hinges crucially on the communal situation in the country. Hindutva fascist forces, they argued, could not tolerate Muslim development — neither economically nor educationally. They claimed that Hindutva groups wanted to convert Muslims into the “new untouchables” by engineering periodic pogroms directed against them, by ignoring them in government development projects, and by branding all demands as “communalism” (such as the demand that the state must address the economic plight of the Muslims). In fact, some of them argued, Muslims who before 1947 had a fairly sizeable presence in government service, now lag considerably behind Dalits in this sphere.

Some “low” caste Muslim respondents pointed out that while their castes had...
been included in the official list of Other Backward Castes, they had not benefited from this provision. Government facilities for the OBCs, they said, had been cornered almost entirely by more numerous and influential Hindu OBCs. Some of these respondents argued that the Presidential Order of 1950 extending Scheduled Caste status only to Hindu Dalits (later extended to Sikh and Buddhist Dalits as well) was unconstitutional and anti-sectarian. For this Order had resulted in the further marginalization of Dalit Muslims, who are not eligible to apply for various schemes of the state reserved specifically for the Scheduled Castes. Consequently, they said, the economic and educational condition of Muslim Dalits was considerably worse than their non-Muslim counterparts. Hence, they insisted, the Presidential Order of 1950 needs to be amended and Dalit Muslims must also be treated by the state as a Scheduled Caste.

Several Muslim respondents also lamented what they referred to as the government’s consistent discriminatory policies vis-à-vis the Urdu language. This, they argued, was also a significant reason for their economic and educational backwardness. It is the fundamental right of all communities, they said, to receive instruction in their own mother tongue. But through various anti-Urdu policies, the government had, they claimed, subverted this right for Muslims, many of whom consider Urdu their first language. They described the government’s policy towards Urdu as a sign of anti-Muslim prejudice and at the same time pointed out that it was misleading to consider Urdu as a specifically “Muslim” language. In Uttar Pradesh, once considered the bastion of Urdu, they pointed out, there were few to no facilities for children from Urdu-speaking families to educate their children in Urdu-medium schools beyond the primary level. Instead, children were forced to learn Hindi and Sanskrit. Thus, by effectively marginalizing Urdu and, by de-linking Urdu from employment opportunities, the state had, they insisted, only further exacerbated the problem of an already marginalized Muslim education.

To add to this, they pointed out, government-approved textbooks often contain negative portrayals of Islam and Muslims and are heavily laced with stories from Hindu religious texts. The type of nationalistic the government seeks to inculcate in Indian students through textbooks and school activities, such as compulsory prayers etc., is also heavily Hinduised. Many respondents were critical of this, and expressed a suspicion that this was part of a carefully calculated effort to “de-Islamise” Muslim children, to “Hinduise” them as well as promote anti-Muslim feelings among non-Muslim students. Because of this, they said, some Muslim parents are reluctant to send their children to school to study.

In terms of education for women, women as well as men were critical of conservative Muslim religious leaders, alleging that they had wrongly confused patriarchy with Islam. Due to strict purdah, it is difficult, they said, for many Muslim women to acquire education. As a result Muslim women are forced to remain “ignorant.” To promote Muslim women’s education, they stressed the need for the state and the community to devote more attention and resources to setting up separate girls’ schools and colleges.

Growing Hindu fascism was and continues to be another concern. In many villages where interviews and focus group discussions were held with Muslims, the relations between Hindus and Muslims were fairly cordial. In several villages, traditional bonds were still intact and Muslims and Hindus attend each others’ functions. Yet, several other villages covered in this research, and particularly the towns and cities, presented a different picture. Respondents in these areas spoke of the presence and growing influence of Hindu right-wing groups, particularly through shakhas and schools run by various entities such as the Rashtriya Swayamsevak Sangh, visiting pracharaks, the Vishwa Hindu Parishad and Bajrang Dal, and the leaders of various political parties. They pointed out that there have been too few organised initiatives to combat these forces, and many expressed the fear that if they continued unchecked, Muslims might face a similar situation as their co-religionists in Gujarat during the state-sponsored anti-Muslim violence of 2002. This, they felt, called for urgent steps to address the phenomenon of growing Hindutva fascism.

The role of the media also came into question. In several places, respondents pointed out that although violent communal incidents had not taken place in their own localities, many Hindus and Muslims have negative images of each other. These notions they see as having
been and continue to be reinforced by the media and politicians as well as communal groups. They stressed the need for steps to be taken both by the state as well as civil-society organizations to promote inter-community dialogue. Some respondents also expressed the view that the ulema were, in part, to blame for not playing an active role in promoting better relations between Muslims and others and by reinforcing their own negative stereotypes about other communities.

In terms of Muslim leaders, while critiquing the government as well as Hindu chauvinist organizations and blaming them for many of their problems, many respondents were also very critical of the existing Muslim community leadership. In support, several respondents argued that the ulema of the madrasas were serving the community by promoting religious awareness and preserving Islamic identity and the tradition of Islamic learning. The madrasas, they said, were also playing an important social role by providing free education and boarding and lodging facilities to many Muslim children from poor families, victims of governmental neglect. Yet, they pointed out, the ulema needed to widen their horizons, play a more active role in the economical, social and educational development of the community and refrain from promoting sectarian strife. Some respondents critiqued the ulema for not being able to offer what they called a “proper” interpretation of Islam attuned to the context of contemporary India, and because of this, they feel that Muslims and Islam had gotten a “bad name.” They also stressed that the distinction that many ulema make between “religious” and “worldly” knowledge is “un-Islamic” and said that this had contributed to further educational backwardness in the community.

Similarly, many respondents were critical of Muslim politicians for not raising the vital issues of economical, social and educational empowerment. They accused the Muslim political leaders of being in league with Hindutva chauvinists and the state machinery in promoting communal controversies, which they feel results in the perpetuation of the poverty of the majority of Muslims. Most Muslim political leaders, they said, were simply “agents” of various political parties who use Muslims as “vote banks” but do little, other than adopting some cosmetic measures, for the Muslim masses. They suggested
the need for an alternative Muslim leadership that focuses on the social, economical and educational problems of the community and abstains from unnecessary communal controversy. They stressed the need for community leaders to form liaisons between state agencies and the community so that the public could access information regarding various government developmental schemes. They also called for Muslims politicians to set up more non-government agencies for community development as well as to create more meaningful and significant interactions with secular NGOs.

**Major Findings**

**Urban Areas**

This research revealed that a very large proportion of the respondents live in very dismal economic conditions. Reportedly, 32% stated an annual household income of less than Rs.10,000; 26% between Rs 10,001-Rs.20,000; 14% between Rs. 20,001-Rs.30,000; 6% between Rs.30,001-Rs.40,000; 8% between Rs.40,001-Rs.50,000; and 14% above Rs.50,000. Another indication of the poor economic conditions of most of the respondents is the fact that 74% of Muslim children do not receive any sort of financial aid for education. A lack of awareness of the financial aid schemes for education instituted by the government is evident from the fact that 56% reported that they are not aware of such schemes.

All the respondents were asked to report as to which medium of instruction was followed in the schools their children attend. The data shows that 74% of respondents send their children to study in Hindi-medium schools, 7% in Urdu-medium schools, and 19% in English-medium schools.

In terms of housing, of the total respondents, 54% live in regular houses, but a significant 21% live in jhuggis in the slums, and 23% in rented accommodations. 46% respondents live in one-room houses, 29% in houses with two rooms, 13% in houses with three rooms, and 12% in houses with four rooms. Table 3 provides further details of the economic conditions of the respondents based on ownership of various assets.

Though the government welfare schemes exist, only a small proportion of respondents had benefited from various development schemes of the state, indicating that Muslims, by and large, do not receive the attention they deserve by the state development planning and implementation authorities. This fact is evident from Table 4.

In terms of health care, given the relatively high incidence of poverty and marginalisation among the respondents, it was found that a substantial proportion of them cannot afford expensive private medical treatment. Consequently, 46% reported going to government health centres and hospitals for medical treatment and the rest have been left to the mercy of private registered allopathic and homeopathic practitioners. A striking 67% reported that they did not have access to free medical care. Considering the high levels of poverty among the respondents, it is worth noting that 28% respondents spend up to Rs. 5000 every year for the medical treatment of their family.

In all selected districts 79% respondents claimed that the Below Poverty Line (BPL) survey was not done sincerely, leaving out many people who were living below the poverty line. The exclusion of poor families does not just amount to manipulating the regional or national data but it also deprives poor families of whatever meagre assistance they are entitled to from government sources. This clearly allows for the further marginalisation of an already marginalised people in an unhindered manner. In such a situation as this, where the survey among the marginalised was deliberately undertaken in a less than sincere way, most respondents,

Table 3: Personal Assets of the Family : Urban

<table>
<thead>
<tr>
<th>Assets</th>
<th>Percentage of Respondents Owning Such Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>2</td>
</tr>
<tr>
<td>Cycle</td>
<td>33</td>
</tr>
<tr>
<td>LPG</td>
<td>42</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>21</td>
</tr>
<tr>
<td>Mobile phone</td>
<td>52</td>
</tr>
<tr>
<td>Pump Set</td>
<td>2.9</td>
</tr>
<tr>
<td>Radio</td>
<td>19</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>29</td>
</tr>
<tr>
<td>Telephone</td>
<td>4.3</td>
</tr>
<tr>
<td>Television</td>
<td>61</td>
</tr>
<tr>
<td>Tractor</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Table 4: Beneficiaries of Government Schemes : Urban

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>% Respondents as Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fifteen Point Programme</td>
<td>3.4</td>
</tr>
<tr>
<td>Group Housing Scheme</td>
<td>2.6</td>
</tr>
<tr>
<td>Indira Awas Yojna</td>
<td>--</td>
</tr>
<tr>
<td>Shilpshala Awas Yojna</td>
<td>2.7</td>
</tr>
<tr>
<td>Subsidised Grains</td>
<td>16</td>
</tr>
<tr>
<td>Subsidised Loans</td>
<td>2.9</td>
</tr>
<tr>
<td>Antyodaya Programme</td>
<td>2.6</td>
</tr>
<tr>
<td>Subsidised Electricity</td>
<td>6.8</td>
</tr>
<tr>
<td>No benefit from any government scheme</td>
<td>61.4</td>
</tr>
</tbody>
</table>
as expected, did not have a BPL card. In fact, an alarming 22% of respondents claimed that they do not possess BPL cards although they qualify for the same.

The trend suggests that the Muslim-dominated localities in the cities tended to be neglected in terms of civic amenities and government infrastructure. 53% of respondents said that their locality did not have adequate street-lighting, 69% said they did not have proper sewage facilities and 39% said they did not have access to a municipal water supply. 88% of respondents claimed that there were no municipal garbage dumps in their locality, and only 27% said that the condition of the roads in their area were good.

Though most of the areas from where the respondents were chosen for the interviews were Muslim dominated, 64% of the respondents said that their area councillor was non-Muslim. Ideally, the interaction between citizens and their elected representatives forms the bedrock of any democratic structure. However, 69% of the respondents expressed that to get their problems heard and addressed was difficult. Though questions as to why respondents found it difficult to approach their elected representatives was not included in the schedule, it can be conjectured that the religious barrier may well be one of the reasons responsible for the distance between the people and their elected representatives.

Overall, Muslim localities in urban areas are considerably marginalized and discriminated against in terms of government resource allocation. This is particularly alarming given the fact that, and as the figures presented above show, the majority of urban Muslims are engaged in low-paying professions and display a high level of illiteracy. The problem is exacerbated by the absence of effective local leaders able to work with local level government officials to help implement development schemes. This calls for state authorities to pay special attention to infrastructural development in Muslim localities, and also, for Muslims themselves to organise and channel resources for community development along side agencies of the state.

Muslim dominated localities in the cities tended to be neglected in terms of civic amenities

more than 80.0% of the respondents claimed that they are not benefiting in any way from this scheme. Overall this deprivation is 85.6%, which simply denotes that the scheme has failed miserably.

Indira Awas Yojana is a government scheme aimed at providing houses to the poor. It has also failed miserably. Only 1.2% of respondents in the annual income group of up to Rs 10,000 accepted that they have benefited from this scheme. In the other income categories this deprivation is more than 99.0%. In the income group of Rs. 40,000 and above this deprivation is an absolute 100.0%. This scheme was initiated to help families in distress by providing loans at a subsidized rate. The total percentage of beneficiaries across the income groups has been less than one percent. In other words, 99.1% of the respondents have never benefitted from the subsidized loan schemes.

As with the other government schemes, the Antyodaya scheme also failed to make any impact amongst the population surveyed. Only 1.3% of the respondents across the income group accepted that they are benefiting from Antyodaya. 98.7% of the surveyed families replied that they have not benefitted from this scheme at all.

Providing electricity at subsidized rates is yet another government scheme which has failed to make any impact on the surveyed population. More than 97.0% of those surveyed replied that they are not getting any subsidized electricity. The total percentage of beneficiaries across the income groups was just 2.8%.

The 15 point program is another ambitious program of the government, which was aimed at the minorities including Muslims for their all-round development. But this program has failed to make any
impact on the lives of the people it has targeted, as our findings suggest. The number of beneficiaries from this program was just two percent. It was very disappointing to note that a program which was meant for the minority community has not been implemented properly.

Rural Areas

Of the rural populations sampled in this study, 38% live in Muslim-majority villages, 22% in villages with a roughly equal Muslim and non-Muslim population, and 30% in villages where Muslims form the minority. Research data reveals that in most parts of rural Muslims are associated with low status occupations, and have on average less landholdings than other communities, particularly “upper” caste Hindus. As in urban areas, many Muslims in rural areas complain of discrimination as well as indifference and neglect by government authorities. This marginalisation has been well reflected in the occupational structure of Muslims living in rural areas. 39% of respondents identified themselves as farmers, 17% as agricultural labourers, 12% as casual unskilled labourers, eight percent as skilled labourers, three percent as self-employed professionals, four percent as self-employed small businessmen, 0.4% as self-employed artisans, 12% as domestic or household workers, 0.8% as government servants, and 4.3% as private sector employees.

The study further reveals that the high degree of rural Muslim poverty is evidenced from the fact that 42% respondents have a total annual household income of less than Rs. 10,000; 17.5% between Rs. 10,001-Rs. 20,000; 5.4% between Rs.2 0,001-Rs. 30,000; and only 0.1% between Rs. 30,000-Rs. 40,000. Other indices provide additional evidence of substantial rural Muslim marginalisation. 85% of children study in Hindi-medium schools, nine percent in Urdu-medium schools, and six percent in English-medium schools.

As in urban areas, many rural Muslim families complain of being deliberately neglected in government programmes meant for the alleviation of rural poverty. This fact was brought to light by the majority of respondents who said the identification of poor families for the BPL survey had not been conducted in their village. In fact, a startling 74% of the respondents said that their community had not benefited at all from schemes. Several reasons were offered for this, including dishonest implementation by officials and gram panchayat representatives, anti-Muslim prejudice, the poverty and illiteracy of most Muslims, lack of awareness of schemes, and also reluctance to take advantage of government schemes or indifference thereto. Further, relatively few Muslims appear to have access to institutional forms of credit. Only nine percent respondents have taken credit in the case of emergency from a bank. 20% generally take loans from moneylenders. 21% from relatives, 13% from neighbours and one percent take loans from credit societies.

Local institutions such as panchayats play an important role in mediating and solving conflicts, including conflicts between members of different castes and religious communities. However, given the fact that these institutions are generally controlled by those from “upper” castes — often “high” caste Hindus — that role often is not fulfilled. It appears that a significant number of rural Muslims do not have or are denied proper access to panchayat institutions. Thus, 93% of the respondents said that they had not participated in any gram sabha meeting in the entire previous year.

Overall, therefore, as these figures indicate, it appears that a significant proportion of rural Muslims have been deliberately or otherwise marginalised and left out of the development process. The deleterious impact of globalisation and neoliberal economic policies on vulnerable rural communities is obvious, and in particular, many rural Muslim families have been hit severely by these. These findings call for the state as well as civil society organisations to take a more pro-active role in addressing the specific concerns of rural Muslim groups, and making special efforts for developing and implementing various social development schemes.

Conclusions

Muslims in four districts of western Uttar Pradesh, like other parts of the country, have faced severe marginalisation. There is no question about this. Through governmental and social actions, substantial prejudice based on fundamentalist activities, and active stereotyping in numerous mediums the Muslim community has been repeatedly marginalised within India. This has had the effect of producing a great deal of hardship for the Muslim community in India. Further, the literature documenting Muslims in India has not served
to reverse these problems or take the community forward toward socio-economical and educational well being. In fact the majority of studies in the past have addressed issues of religion instead of economical and educational marginalization; they have reinscribed the tendency toward sectarianism and distance between communities rather than provide information which productively neutralizes the marginalisation and prejudice against this, the country’s largest minority group. Admittedly, there has been a dearth of written material to begin with, and this study puts forth a clear call for research that provides law makers, civil servants, and organizations with the information they need to effectively put into place programs which support and uplift all of the country’s citizens who are in need. Such research is particularly needed on as well as from the Muslim population.

Even more importantly though, the conclusions of this study put forth the call for immediate social action. By gathering data on the economic and educational standing of Muslim populations in Uttar Pradesh, this study has served to produce data and materials of practical use for a variety of organizations. The statistical data resulting from this study proves with-out a doubt that Muslim communities are suffering from a lack of economic and educational rights. And not just rights - of which rectification and implementation is the purview of the law, its makers and enforcers — but a lack of actual materials i.e. jobs providing a reasonable level of income, health care, quality education, dependable infrastructure, and so on. This study has taken as its main quantitative focus the economic and educational needs of the community. And necessarily so for it is clear that there is an interactive connection between the two; one cannot be addressed nor redressed without the other.

The necessity of social action which can address the myriad of needs that fall under these two categories is clear, and suggestions for such action follows below. Of the qualitative data from this study, what has been shown is that Muslims feel neglect and even hostility from the structural and social power centers of the country. Clearly stated is the need for government-mental policies that, rather than hinder, accomplish the goal of assisting the community. Also clearly voiced is the call to monitor and, if needed, moderate the rise of Hindu fundamentalism, particularly when state involvement is present. Further, the rehabilitation of Urdu as an Indian language is indicated as opposed to the current practice of reducing Urdu to a mere “Muslim” language and then using it as a marginalising agent against the community. The cessation of Muslim vilification in school materials, and more respect for the issues involved in creating effective women’s education are also indicated. Clearly, these are just a few of the issues that this study has gathered data around. Clearly action redressing all that this study has presented and more is of vital importance if the Muslim segment of India’s citizens are to move forward not only toward equality but empowerment with the rest of this great nation.

Suggestions for Social Action

Overall, as the findings of this research suggest, Muslims are amongst the most marginalised communities in the area in terms of economic and educational indices and also in terms of political empowerment. The study endorses the findings of other studies on the Muslim community as discussed above. It also shows that the situation of Muslims is quite similar to those of Dalits. Evidence suggests that like Dalits the Muslims are treated like second class citizens and socially discriminated against.

A sense of insecurity and exclusion persists in Muslim communities in varying degrees and has increased considerably in the 1990s — especially after the demolition of the Babri mosque at Ayodhya followed by violence against Muslims in Gujarat. The acts of fundamentalist forces from the dominate community have strengthened the stranglehold of the obscurantist elements over the minority Muslim community. Thus, the prospects of development and progress have been further minimised for a community already dogged by poverty and educational backwardness.

The data reveals backwardness among Muslims on many counts. It shows that there has been a serious lack of attention to the condition of the Muslim community by various actors, but more so, by the State over the last six decades. The Muslims have lagged behind at all fronts, concerning socio-economic factors both in rural and urban areas. Although the factors responsible can be numerous from within and outside the community. There is no denying the utter failure of the state in the largest democracy in the world to provide a conducive environment for growth and development to its largest minority Muslims.
minority. These facts cannot be ignored by the state, the policy-makers, civil society, or the Muslim leadership.

A host of factors, as the study points out, have been responsible for the marginalisation of Muslims and thus the situation calls for urgent steps to remedy the situation and ameliorate their condition educationally, economically, socially and politically. Communal violence, generally, has severely affected Muslims more than any other minority group. Various reports suggest that it is Muslims who bear the brunt of the violence in terms of loss of life and property, displacement, and a denial of justice. The violence adversely affects the education of children, income and livelihoods, the health of women and children, and social life in terms of mobility and quality of interaction.

The socio-economical backwardness, educational deprivation, political marginalisation and exclusion of Muslims from the mainstream development processes seems to be structural and linked to policy decisions, failed implementation, and the general apathy of a large section of society—politicians, bureaucrats, police persons, and civil society.

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( DR. AZIM A. KHAN is Professor and Academic Director of India: Health and Human Rights, SIT Study Abroad — a program of World Learning, USA.

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A Gateway for Women Empowerment

Women Empowerment should basically mean economical empowerment, well being (food and nutritional security) enhancement along with socio-political empowerment of women across the nation.
The great philosopher Aristotle rightly noted that wealth is evidently not the good we are seeking, for it is merely useful and for the sake of something else. In other words the wealth created through growth of economy is not desirable for its own sake rather it allows us to get substantive freedom. So growth is a means to achieve end that is freedom and expansion of freedom to have a fuller and enriched life in society. It is naturally to conclude that empowerment is a development process which is an offshoot of economic growth.

However, gender inequality is one of the many types of stigma of the modern society. There are so many variations of gender inequality like survival inequality (which results from high mortality rate of women and consequence preponderance of men in total population), natality inequality (it is reflected in the practice of sex-specific abortions aimed at eliminating female fetuses), unequal facilities (this is evident in inequality in schooling, restriction on women to enter politics or commerce, restriction on women for an active social participation) ownership inequality (especially of property), unequal sharing of household benefits and chores (since more assets are owned by male in family, the power relation in the family goes in favour of male, similarly health and nutritional attention or opportunity of schooling and of post school education) and the last type of inequality is manifested in domestic violence and physical victimisation. It is in this context the process of women empowerment should be understood.

Empowerment should basically mean (a) economic empowerment (i.e greater and better access to savings and credit and hence greater economic role in decision making by the women in the household), (b) Increased Well Being (as a consequence of economic empowerment, more decisive role to spend on health and education of women and their children) and (c) Socio-political empowerment of women (a combination of women's increased economic activity and control over resources thereby enhances the women’s skill, mobility, access to knowledge and support networks.) Food security and nutritional security is one of the instruments for increased well being of women and hence empowerment.

**Food Security and its Linkage to Well-being of Women**

Food security is defined as an access by all people at all times to enough food for a healthy life. It was FAO Committee on World Food Security which, in a way, formalised the definition in 1983 and incorporated following three specific goals for food security: i) ensuring adequacy of food supplies; ii) maximising stability of supplies; and iii) securing access to available supplies to all who need them. The World Bank Position Paper on Poverty and Hunger (1986) added an "activity level" concept to these goals, stating that "food security must assure access by all people at all times to enough food for an active and healthy life." In turn, food insecurity was defined as the lack of access to enough food for a healthy, active life style. It is now being increasingly appreciated that food security is primarily a matter of ensuring effective demand rather than a problem relating to food supply. With such realisation, inter-relationship between poverty, hunger and food security is gaining international recognition and serious attempts are being made to define and identify people at risk. It is, therefore, important that every household should either have capacity to produce

**Food security is defined as the access to enough food for a healthy, active life style to all who need them**
adequate food for all the members or have purchasing power to acquire it.

Although national food security is important as providing a foundation, in the ultimate analysis what is more important is food security for each and every household and within it to every member of the family. Put differently, "at the household level, food security is defined as access to food that is adequate in terms of quality, quantity, safety and cultural acceptability for all household members." Reference can, at this stage, be also drawn to the concept of household food security adopted at the International Conference on Nutrition (ICN) held at Rome during December 1992, at which "Food security is defined in its most basic form as an access by all people at all times to the food needed for a healthy life". Achieving food security has thus three dimensions. "It is necessary to ensure a safe and nutritionally adequate food supply both at the national level and at the household level. It is necessary to have a reasonable degree of stability in the supply of food, both from one year to the other and during the year. And most critical, is the need to ensure that each household has physical, social and economic access to enough food to meet its needs". This means that each household must have the knowledge and the ability to produce or resources to procure the food that it needs on a sustainable basis. The Conference went one step forward and recognized the importance of intake of balanced diets and also cautioned against over consumption or waste of nutrition as sometimes seen in developed countries.

Household food security on its own cannot guarantee good nutrition status. The standard food–care–health conceptual model (FAO/WHO 1992) makes it clear that the provision of adequate care to women and children, together with adequate water, sanitation, and health care systems is needed to ensure good growth and development. The generation of household food security is dependent on the physical availability of food at the market or community level, the ability of the household to access the available food, the ability of individuals — particularly those especially susceptible to food deficits such as women, infants, and children — to eat the food and finally the body’s ability to process the nutrients consumed. The physical availability of food is a function of productive agriculture, effective trade infrastructure, and efficient food aid logistics, if necessary. Agriculture, trade and aid policies are important in influencing the availability of staple and nonstaple foods. The promotion of staple crops that are high in micronutrient status can increase calorie and micronutrient availability simultaneously. Economic access is a function of prices (food and others) and incomes (not only the level of income but who earns it). Economic growth and social security policies (i.e., social insurance and social safety net initiatives) are important in generating and preserving the entitlements to food (and other nutrition inputs such as health, sanitation, and water). The quantity and quality of the consumption of foods by individuals depends on the mother’s decision-making status, her access to information, her time burdens, and her education (Engle 1999; Engle, Menon, and Haddad 1999).

Policies that promote the status of women, provide formal and informal education and reduce time burdens do much to ensure that women, infants, and children get their fair share of food and nonfood inputs into nutrition. When women control income, a higher proportion of that income is spent on food and other inputs that improve nutrition and health. These policies also promote food production,
because they avoid the underutilisation of entrepreneurial talent. Finally, diet modification policies can do much to ensure the bioavailability of micronutrients contained in the consumed foods. These policies include the promotion of micronutrient enriched food staples and non-staple food production, and nutrition education/behavior changes, preferably in combination with each other. The status of women has an important influence on all these four areas. Women occupy a key role because they have food production and child production responsibilities. To undertake these responsibilities effectively, they need to maintain their own nutrition status. In addition, women have claims on multiple duty-bearers to guarantee their own right to food. The dependence of household food security on the nutrition status of women when set against their low status relative to men creates difficult trade-offs for women. In South Asia these trade-offs are particularly acute and result in much higher rates of child under-nutrition than would be expected based on GDP per capita and national food availability (Haddad 1999).

Malnutrition is the most serious consequence of food insecurity. Adult malnutrition results in lower productivity on farms and in the labor market. In women, it also results in fetal malnutrition and low birth weights. Fetal and infant under nutrition lead to lower cognitive development and schooling performance. For school-age children, nutritional deficiencies are responsible in part for poor school enrollment, absenteeism, early dropout, and poor classroom performance with consequent losses in productivity during adulthood. Not only does food insecurity in itself have deleterious effects on households and individuals, but efforts at achieving food security may also exact a heavy toll on households if households must spend most of their income on obtaining food. Households may achieve temporary food security at the cost of substantial asset disposal and future indebtedness. In the extreme case, a household that uses almost all of its resources to achieve food security in the present time renders itself highly vulnerable to becoming food-insecure in the future, compared to a household that uses a smaller share of its resources to achieve current food security (Owens and Hoddinott 1998).

The search for food security may also have important implications for a region’s demographic situation, especially if it leads to migration (short-term or long-term) by the food-insecure to other areas in search of employment and income and, in the extreme case, of relief food. This out-migration may result in an increase in the number of female-headed households and in the dependency ratio in the sending area as well as changes in the dynamics of the labor market. The receiving areas, mostly urban slums, experience considerable food security strain from the influx of migrants (Ruel et al. 1999).

Gender bias is deeply ingrained in our social psyche and this is reflected in indicators such as sex ratios, literacy and health gaps of boys and girls, Maternal Mortality Rates etc. These data, however, do not fully reflect the discrimination against women. The 11th Plan strategy for gender equity must pay attention to all aspects of women’s lives. It must ensure that women live and live with dignity. It must examine everything from generic problems like freedom from patriarchy to specific issues such as clean cooking fuels, care for pregnant and nursing women, dignified spaces for violated women, toilets for women and girls, crèches at work places etc.

Gender equity requires adequate provisions to be made in policies and schemes across Ministries and Departments. It also entails strict adherence to gender budgeting across the board. All this must be complemented by campaigns for public awareness that educate men and women — both are gripped with patriarchal values — about emerging social and economical realities. Special measures for gender empowerment and equity will be an essential component of the 11th Plan.

11th Plan will recognise the pivotal importance of women’s holistic health. It will focus on reducing the incidence of anaemia and malnutrition among adolescent girls to break the cycle of ill-health and maternal and infant mortality.
The measure of nutrition security to ensure the required calorie consumption would certainly be a good indicator. However, the nutritional status of such individual household again would depend on their access to health care services and also to hygienic water, sanitation and housing conditions. Even though the role of agriculture in reducing food insecurity is well established, policies should be designed or structured to suit to the livelihood problems of the poor.

The recognition of a right to food (and therefore to freedom from undernourishment and hunger) is a landmark measure and deserves great credit. However, there is an imbalance between the expansive vision expressed by the Act in principle and the narrow means it seeks to achieve it in practice; reflected, for instance, in its focus only on calories from food grains and on direct distribution rather than on the provision of means for commanding food and on complementary policies. It appears that the Act may not add much to the existing Public Distribution System or State and Central programmes to provide subsidised cereals.

A related distinction is between legislation seeking to promote or protect a basic right and the strategy of doing so. The proposed Act will help further the fulfillment of the right but will not by itself achieve it, and it is unlikely that any one piece of legislation would do so. Already, diverse pieces of legislation, including the National Rural Employment Guarantee Act (NREGA), contribute in different and important ways toward that end. It should be ensured that these diverse measures together constitute a layered social security system which protects various groups of vulnerable people, going beyond the able-bodied poor to include the elderly, the handicapped and children. As Amartya Sen has famously underlined, starvation results from insufficient command over food and not usually from inadequate food availability as such. Since command over food is achieved in a diversity of ways, through the market mechanism and otherwise, it can also fail in a variety of ways.

India is not famous for its democracy alone; it is also famous as the second largest populous country with huge segment of its population under the trap of abject poverty. It is a matter of fact that anti-poverty measures in India have achieved nothing substantial to uplift a major segment of the population from the poverty trap. The Government of India has adopted many democratic poverty alleviation strategies and mechanisms with the pumping of huge financial resources. The democratic intervention in the form of redistribution and direct attack on poverty is very old. However, it is a matter of regret that chronic poverty continues to hound major segments of the rural populace in India. India is on the 94th position, as per the Global Hunger Index, out of 119 countries. All the South Asian countries have done well in poverty alleviation. India occupies the 132nd position among 179 countries in the UNDP’s 2009 Human Development Index. The United Nations Food and Agriculture Organisation (UNFAO), in one of its reports in 2006, had expressed despondency over the discovery of the fact that India had contributed a majority to the pool of malnourished mass of the world.

The National Family Health Survey 2005 - 06 (NFHS-3), highlights some very disturbing truths about the prevailing situation in the country: 56 percent of the women are anaemic; 30 percent of new born babies are of low birth weight (LBW); and 47 percent of the children are
underweight. The malnutrition scenario in India is given as: Almost 40 percent of children under three are underweight and 45 percent are stunted. 22 to 30 percent children are born with low birth weight. 36 percent adult women and 34 percent adult men suffer from chronic energy deficiency. The National Family Health Surveys show a marginal increase in anemia from 74 percent to 79 percent in children under five and 52 percent to 56 percent in young women. Iodine deficiency disorders, vitamin A and vitamin B deficiency are fairly rampant.

The persistence of hunger in a world of plenty is the most profound moral contradiction of outrage. The theory of economic growth leads to better nutrition rests on a series of often-questionable assumptions: A national increase in per capita income means an increase, large and rapid enough in the income of the poor to be of nutritional significance. Increase in the income of the poor leads to an immediate and automatic increase in the amount the family spends on food. Increase in food expenditures by the poor lead to an improvement in nutrition. Increase in food production will lead to improved food consumption. Improved nutrition in the family means an improvement of the nutritionally vulnerable members of the family like women and children. No doubt after the adoption of Liberalisation, Privatisation and globalisation policy by India and many other countries, the growth of economies have been moving upwardly. However the data mentioned above indicates that above assumptions are really questionable. However these assumptions are to be proved empirically.

Let us not forget the declaration of World summit on Food security 2009, Rome. Urgent national, regional and global action are to be taken to fully realize the target of Millennium Development Goal 1 and the 1996 World Food Summit goal, namely to reduce respectively the proportion and the number of people who suffer from hunger and malnutrition by half by 2015.

Recently noted scientist M.S Swaminathan has added a new dimension to food security. He defines the food security as livelihood security for the households all members within, which ensures both physical economic access to balanced diet, safe drinking water, environmental sanitation, primary education basic health care. The definition is broad based and hopefully can effectively address the various issues including the well being of the women and their empowerment.

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- Declaration of the World summit on Food security Rome 16-18 November 2009
- State of food insecurity in rural India By M.S Swaminathan Research Foundation
- The linkage between Food and nutritional security in lowland and coastal villages in the Philippines by Emelita M. Balatibat (BHABANI PRASAD MAHAPATRA has more than eight years of teaching experience in Economics in different under graduate and post graduate institutions after having more than four years of project management experience in development sector. Currently he is working as a faculty member in Economics in Gandhi Institute for Technology, Bhubaneswar. In development sector he worked in different projects like Street children, Community development for Juang tribes, Operation Healthy Platform and sanitary education project for slum school children supported by different agencies like CCF, Concern world Wide, Water Aid, Government of India. Mahapatra holds an MA in Economics from Berhampur University, Orissa and a post graduate diploma in Economics from Madras school of Economics, Chennai. He currently pursues PhD in Food security. He has published several research papers covering areas like food security, women empowerment, Special economic zone, climate change and other developmental issues. He has authored six books and has been contributing to various newspapers, magazines and journals. Currently, he is also a Ph.D candidate with the Tata Institute of Social Sciences, Mumbai.

The views expressed in the article are personal and do not reflect the official policy or position of the organisation.)
The Ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood.

Conceptions of how economic growth and political change can be made to support each other and provide a reliable basis for social stability have proved to be influential, as well as occasionally profound. Keynes certainly exaggerated the influence of ideas over economic interests when he asserted that:

Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. (1936)

Perhaps Keynes can be forgiven this exaggeration since he felt himself to be mortally at combat with a “Treasury View” of the economy that opposed government spending and so consigned the world, in his view, to prolonged depression and political decay. Keynes’ reference to ‘a few years back’ is telling and reminds us that “Keynesian” policy recommendations have by now come in and out of favor several times over. At times economics appears to be little more than fads and fashions set in motion by adherents to rival political passions.

So it is important to remember that many of our foundational ideas regarding how the economy ought to contribute to social growth have not gone in and out of favor. This is especially true of Adam Smith thoughts on how the growth of commercial society ought to be made to benefit society. He was very worried about the difficulties that his society faced, and supposed that there was a narrow aperture through which commercial society must pass for it to attain wealth and stability. Education played an especially important role in threading this narrow passage so the relationship between the state and education had to be gotten right.
Let us start with Adam Smith and his justly famous division of labor. The notion that increased international trade is an essential input to faster rates of economic growth continues to have extremely able advocates, none more so than Jagdish Bagwati. While much of the Wealth of Nations reads as if it is only the per capita income of a nation that Smith seeks to increase, the discerning reader sees that distribution matters greatly to Smith and that his advocacy of pro-growth policies is strictly linked to their tendency to increase the wages of the ‘common workman’. So his chapter on the division of labor culminates in a discussion of how trade and productivity growth has made the woolen coat more available among the ‘common workmen’ in wet and chilly North Britain.

In fact as far as a laissez fair or free market view of the economy is concerned, Adam Smith adopted it with caution and only in particular settings. So trade monopolies were irksome to Smith because he saw them as lowering the demand for labor and so lowering wages. He decries the labor legislation of his day not because it allowed workers to combine for higher wages, but to the contrary because it provided employers with powerful means for preventing or persecuting the ‘combination’ of workmen while allowing combinations among the employers (to lower wages) to occur without challenge.

But serious discussion of the role of the state is reserved for the last book of the Wealth of Nations, that concerned with the duties of the sovereign or as we say today ‘public finance’. Three great tasks for the state are presented: defense, the provision of justice and the provision of public goods — or as Smith put it “those public institutions and those public works, which, though they may be in the highest degree advantageous to a great society, are, however, of such a nature, that the profit could never repay the expense to any individual…” (WN Vol. 2, 723). Infrastructure such as roads, bridges and improvements to navigation gets plenty of attention but special attention is devoted to the provision and financing of education. Education has a claim to public support because as commercial society and the division of labor progressed it became “necessary in order to prevent the almost entire corruption and degeneracy of the great body of the people”. Parents of rank and fortune are ‘sufficiently anxious’ to equip their children with “every accomplishment which can recommend them to public esteem”, but:

Economics appears to be little more than fads & fashion set in motion by adherents to rival political passions.
ages, by which he means adult education. Several motives are evident in Smith’s advocacy of government support of education. First the more instructed the common or inferior people are the “less liable they are to the delusion of enthusiasm and superstition, which, among ignorant nations, frequently occasion the most dreadful disorders.” So he likens education to a form of public health expenditure, but one that prevents the spread of a peculiar social disease: political instability. Secondly “an instructed and intelligent people… feel themselves, each individually, more respectable, and more likely to obtain the respect of their lawful superiors”. Respectability is politically good — it renders the population “more capable of seeing through, the interested complaints of faction and sedition” (WN Vol 2, 788). But respectability is something more. Quite a lot more. It is a balm that Smith prescribes to counter the terrific psychic pain that attends social isolation and insignificance. This pain is described in vivid detail in his first great work the Theory of Moral Sentiments. Here Smith sounds a theme that has recently been elaborated upon with great eloquence by Laureate Amartya Sen (Sen, 2004, Sen, 1999) across an alarmingly wide range of distinctive contexts. Third and lastly there are Smith’s observations, scattered throughout the discussion, that the subjects he recommends will portray government as a great shock absorber or impartial arbiter. Various views can be taken of his suggestion for government reform but it clearly indicated that big changes were needed if government wished to have the capacity to execute the tasks it had already committed itself to. So the broad message was that there were several distinct paths ahead that led towards sustained commercial and political growth, but that they were very few in comparison with those that led towards political and social instability.

References and Additional Thinking


(John BerdeLL is Associate Professor of Economics at DePaul University in Chicago Illinois. He holds a B.A. from the University of Rochester, an M.A. from the University of California Berkeley and his Ph.D. from Cambridge University. He is the author of International trade and economic growth in open economies: the classical dynamics of Hume, Smith, Ricardo and Malthus and contributions to The Economic Journal, The Journal of Economic Perspectives, History of Political Economy, The European Journal of the History of Economic Thought and the Review of Social Economics.)
The Golden Bird
Defying Rust

Potentials of the Indian economy has stagnated at the level of mere expectations rather than transforming into reality — makes the optimism misdirected.

In times of volatile global and domestic conditions, an otherwise ‘dynamic and vibrant’ economic system is often regarded as being one that is ‘unstable and less secure’. The Indian economy however, has had the unique advantage of having been regarded as dynamic and vibrant, but has not been shunned by the latter traits. It is hence, not a surprise that investors, both foreign and domestic alike have ‘instilled faith in the growth story of the Indian economy’. The pertinent question, thereon is whether this optimism is misplaced?

This question may be answered frontally, in a mono-syllable “no”. At length, however, one may contend two questions — “is the optimism on the growth front unfounded?” The answer being “no”, and “is the optimism on the growth front misdirected?” The answer being “yes”. In a bid to substantiate, these responses let us look at some macro-economic performance indicators. This article primarily seeks its argumentative capacity from past trends redirecting contentions based on expected future inclination.

Why the Optimism Surrounding the Indian Economy?
The Indian economy is one of the fastest growing economies in the world. For the last five years, the economy has registered strong growth in the range of 8-9%. Although major economies of the world saw some setback to production during the years of recession, India maintained a growth of eight percent in FY10 over FY09. Advance estimates of growth in gross domestic product (GDP) reinforce this robustness, indicating that a growth of 8.6% may be expected in FY11. Commensurate with this growth is maintenance of growth in per capita net national product (NNP). Adjusting for an average growth of 1.5% in population, the growth in per capita NNP has been strong at 6.1% in FY10. This very distinctly hints that the gains of growth have not dispersed large and wide amid a growing population base, but rather suggests some improvement in the resources available to the existing population set.

The Indian economy has recorded a secular and permanent shift in its structure, graduating from being a primarily agriculture dependent economy to becoming a global service provider, with a strong foundation in industrial activity. The primary sector currently contributes around 14% to overall GDP while the secondary (inclusive of construction) and tertiary activities contribute 28% and 58%
respectively. With greater disposable income and greater availability in choices, growth in the consumer goods segment of industry has been high, additionally yielding backward linkages for growth in the capital goods segment. The well diversified composition of Indian GDP coupled with dominant domestic demand, further makes the economy resilient and less vulnerable to sudden external shocks.

Savings and investments in the economy have posted robust trends over the last ten years. The savings rate of the Indian economy has thrust itself above the historical barrier of 20% touching an average of 34% in the last five years. The investment rate has also recorded high levels of 35-36% in the last five years, with an incremental capital output ratio of around four times. This indicates that the efficiency in production in the economy has augmented, with lower investments required to generate an additional unit of output. Testifying the buoyancy in investments in India, is the eleventh five year plan (2007-12) estimating total investments as high as US $ 439 billion. A very encouraging aspect is that the lion’s share in these investments is targeted towards the infrastructure industry. Even in FY11, 32.4% of the current outstanding bank credit disbursed (as of March 31, 2011) was deployed in the infrastructure sector. India has also attracted 5.6% of total global FDI flows of US $ 410 billion and nearly 26% of global FII flows of US $ 153 billion in 2010.

Banks in the country have registered a capital adequacy ratio of 14% and 14.5% under the Basel II norms in the last two years, well above the RBI minimum stipulation of nine percent. The central bank of the country has been proactive in monetary management. Globally, this promptness and vigil of the RBI in banking and macro-economic management has been appreciated. It has been one of the major contributors to India’s ability to resist excessive damage during economic and financial turmoil. Non-performing assets as a proportion of advances have been fairly constant over the past five years.

Financial markets in general have been buoyant, with the number of new issues and traded volumes increasing manifold, both in the primary and secondary markets. The ratio of market capitalization to GDP has fluctuated in the range of 80-100% in the past five years ending FY11, barring the years of global recession. Though Indian financial markets are
young, the level of sophistication already attended is commendable.

On the external sector front, the monetary authority has very cleverly balanced the forces of the infamous ‘impossible trinity’, namely exchange rate, free capital flows (pertaining to interest rate decisions affecting inflows-outflows) and monetary independence (pertaining to the balance between the two policy targets of inflation and employment). The country is backed by a strong foreign exchange reserve position. By March 2011, foreign exchange assets of the country crossed the US $ 300 billion mark, thereby increasing the import cover for the country well above the 11 months level of FY10. The country has registered considerable improvement in other external sector parameters such as current account deficit, trade deficit and fiscal deficit as well. Post-recession, when most economies of the world, especially advanced economies have been pursuing expansionary fiscal policies to support and boost economic activity, India has already begun the process of fiscal consolidation and restraint in accordance with the Fiscal Responsibility and Budget Management Act.

Additionally, India is also strengthening economic ties by increasing integration with the rest of the world through free trade agreements at the level of nations and private corporate mergers, acquisitions and takeovers at a micro-level. A point in case being the recent EU-India FTA, that is currently in the stage of bilateral-talks.

Why is the Optimism Misdirected?
The Indian economy might have the desired strengths to hoist itself as a global economic power, but it has been constrained in harnessing these strengths. Potentials of the economy have stagnated at the level of mere expectations, rather than transforming into reality. This makes the optimism misdirected. Some of the greatest hindrances lie in the functioning of the economy and polity of the country. India undeniably suffers from problems such as corruption, money laundering, lack of adequate governance controls, transparency and slow judicial system coupled with a passive civil society. Though these attributes are gradually changing for the better, the pace of change is by far insufficient.

On the social indicators front, India has either been stagnant or has registered only minor improvements. Improvements in literacy rate from 64.8% in 2000-01 to 74% in 2010-11 and life expectancy from 63.5 years (in 2007) to 64.4 years (in 2010) are small. Globally as well, out of 169 countries ranked in the 2010 Human Development Index, India ranks a low 119. The country still suffers from the problems of food and nutritional security. Though more-than-adequate buffer stocks are maintained, an alarming proportion of more than 30% of these stocks are damaged by pests. Warehousing, cold storage and transportation are inappropriate and indirectly feedback into the system in the form of higher primary (food) products prices consequent on accentuated supply-side constraints, over and above the margins added by middlemen. The public distribution system (PDS), for instance, although a classic example of a widespread food distribution network aimed at provisioning for the marginalised, has been constrained by adulteration, hoarding and pilferage.

At the level of policy-making, the country is not deficient. The best practitioners have established committees and made recommendations — be it at the Malegam Committee report on Micro Finance Institutions at the micro-level or the Raghuram Rajan Committee suggesting the ‘100 small steps’ at the macro-level towards financial inclusion, expansion of the banking system and empowering the financially marginalized. The challenge lies in the smooth and fast-paced implementation of policies in the pipeline into real-time actions.

Out of 183 countries ranked in the Ease Doing Business Index, 2011, India ranks 134. The country particularly falls short in areas of starting a business, dealing with construction permits and worst in enforcing contracts (a rank of 182). The Worldwide Governance Indicator further supports the gloomy scenario, assigning negative scores to India in parameters such as political stability, government effectiveness, regulatory quality and control of corruption (as of 2009).

The private corporate sector of the country, in particular has immense potential — access to innovation, upgraded technology, larger markets (both international and local) and greater avenues to raise/invest finances. A necessary and sufficient condition for the private corporate sector to grow is open unrestricted poli-
cies. Support from the government on this front will enable unlock the risk-appetite of entrepreneurs and investors, small and large alike, across the country.

Bureaucracy is yet another limitation that the country is grappling with. While, blueprints such as the Direct Tax Code and Goods and Services Tax are revolutionary in nature; expected to take processes in the country closer to global best practices and unison, their implementation has missed deadlines more than once. As much as democracy and democratic processes are to be respected, the same due to lack of consensus and mismanagement of diversity is proving to become an economic cost for the country.

Gradualism, as against a ‘big-bang approach’ has historically worked well for India. However, if moderation and lack of interest sets in the very pace of gradualism, the objective of any change is lost. In brief, the efficiency levels of the Indian economy are low with utilisation of existing capacity (raw material base and technological competence) falling below expectations; theoretically speaking we are under-performing vis-à-vis the hypothetical full employment level.

**The Way Ahead — Defying the Rust?**

A two pronged approach is perhaps best suited to tackle the inherent ‘dualism’ of the Indian economy. While on the one hand, there is a section of the economy that has access to resources but is tied by inadequate choices in the modes of deploying them; on the other hand, there is another segment that is precisely cut-off from the very opportunities of development.

The strategy involves the promotion of competitive spirit for the entrepreneurial class, but consequent on providing a freer business environment. A uniform increase in caps and limits, such as limits on ECB holdings, FIIs and FDIs, access to foreign financial and consumer markets, takeover and acquisition and a fast fair judiciary may be perceived as composing the “horizontal expansion component”.

The second component of this two-pronged approach may be termed as the “vertical penetration component”. This would involve the targeting of social support programs that would primarily focus on reducing the proportion of individuals below the poverty line and secondly, provide prospects of income growth. Skill enhancement, training and provision of social security will further enable inclusion of the unorganized sector into the mainstream economy.

A concern that lingers in the economy is the concentration of growth in pockets. The axis of growth primarily remains confined to the western zone of the country. Though states in general have improved their financial positions and their overall economic strength; some states still grapple with impeded growth in priority sectors. A vertical penetration program can target developmental resources specifically towards these segments. Going forward, these regions and segments of the population shall provide for new markets, becoming drivers of growth.

**India needs a sincere effort at improving process flows that would ensure speed and efficiency in the economy**

**Conclusion**

The growth story of India still has immense potential. We firstly and definitely require a concerted effort at improving process flows that would ensure speed and efficiency in the economy. Secondly, considering that domestic and foreign fund flows have been strong, we need to prioritize and target these resources. Lastly, recognizing that any interest in the economy as an investment destination will last only as long as performance reflects, we have to ensure both quantum and quality in our deliverables. This would surely and steadily, lend a new direction to the optimism with regard to growth in the Indian economy.

(KRITHIKA is currently Associate Economist at CARE Ratings Ltd. Her concentration at CARE pertains to Sub-Sovereign Ratings and Macro-Economic research and reporting. She has been working on the fixed-income side and brings out the CARE Debt Market Review, a monthly bulletin. Krithika has contributed articles such as “Striking a Fine Balance” on the economy of Maharashtra and “Charting Blueprint” on the Budget 2011 to the magazines such as Investment Destination and Search, has written a paper on Government Debt: status and road ahead for the CARE Debt Market Summit, 2010 and partakes as a panellist on discussions on macro-economic indicators in the media. She has also worked on designing a “Measure of Liquidity in the economy” with the Chief Economist of CARE. She is a Gold-medallist in Economics, having done her Masters in Economics from the University of Mumbai and graduation in Economics (with three-year integrated Honours programme) from St. Xavier’s College, Mumbai.)
FDI & its Determinants

The main Determinants of Foreign Direct Investment (FDI) inflows are the Inflation Rate, the Interest Rate, Growth Rate of the Economy and the Trade (openness) Rate.
Foreword

Foreign Direct Investment (FDI) is considered to be the lifeblood of economic development especially for the developing and underdeveloped countries. Multinational companies (MNCs) capitalise on foreign business opportunities by engaging in FDI, which is investment in real assets (such as land, buildings, or existing plants) in foreign countries. MNCs engage in joint ventures with foreign firms, acquire foreign firms, and form new foreign subsidiaries. It plays an important role in the long-term development of a country not only as a source of capital but also for enhancing competitiveness of the domestic economy through transfer of technology, strengthening infrastructure, raising productivity and generating new employment opportunities (Deutsche Bundesbank, 2003). MNCs are interested in boosting revenues through FDI by attracting new sources of demand, entering into profitable markets and exploiting monopolistic advantages. Currently these corporations are increasingly establishing overseas plants or acquiring existing overseas plants to learn the technology of foreign countries.

In India, FDI is considered as a developmental tool, which can help in achieving self-reliance in various sectors of the economy. With the announcement of Industrial Policy in 1991, huge incentives and concessions were granted for the flow of foreign capital to India. India is a growing country which has large space for consumer as well as capital goods. India’s abundant and diversified natural resources, its sound economic policy, good market conditions and highly skilled human resources, make it a proper destination for foreign direct investments.

As per the recent survey done by the United National Conference on Trade and Development (UNCTAD), India will emerge as the third largest recipient of foreign direct investment (FDI) for the three-year period ending 2012 (World Investment Report 2010). As per the study, the sectors which attracted highest FDI were services, telecommunications, construction activities, and computer software and hardware. In 1991, India liberalised its highly regulated FDI regime. Along with the virtual abolition of the industrial licensing system, controls over foreign trade and FDI were considerably relaxed. The reforms did result in increased inflows of FDI during the post reform period. The volume of FDI in India is relatively low compared with that in most other developing countries.

FDI Inflows in India

Recognising the importance of FDI in the accelerated economic growth of the country, Government of India initiated a number of economic reforms in 1991. As a result of the various policy initiatives taken, India has been rapidly changing from a restrictive regime to a liberal one,
and FDI is encouraged in almost all the economic activities under the Automatic Route. FDI is freely allowed in all sectors including the services sector, except a few sectors where the existing and notified sectoral policy does not permit FDI beyond a ceiling. To make the investment in India attractive, investment and return on them are freely repatriable, except where the approval is specific to specific conditions such as lock-in period on original investment, dividend cap, foreign exchange neutrality etc as per the notified sectoral policy (Govt. of India, 2003). After the economic reforms are implemented in the post 1990s, the inflows of FDI to India have increased tremendously since 2000 (Fig-1 and Table-1). The opening up of the Indian economy in the international trade front and more liberal FDI policies has been one of the factors which led to huge FDI inflows in India (Fig-2). However, India’s FDI inflows have fallen sharply this financial year as a stumbling global recovery from global crisis hit investor appetite. Again, the macroeconomic instability in terms of fiscal deficit, current account deficit and high inflation rate also contribute to fall in FDI inflows. As Economic Survey 2010-11 has reported, inflation is a dominant concern and India needs policies to help reverse a fall in FDI inflows.

In India, Reserve Bank of India (RBI) publishes foreign investment data on a monthly basis in the RBI Bulletin, which provides component-wise details of direct investment and portfolio investment. Direct investment comprises of inflows through (i) Government (SIA/FIPB) route, (ii) RBI automatic route, (iii) NRI and (iv) Acquisition of shares. Portfolio investment covers: (i) GDRs/ADRs (ii) FIIs and (iii) offshore funds and others.

**Figure 1: Trends in Foreign Direct Investment Inflows in India 1990-91 to 2009-10**

- FDI (US $ Million)

**Figure 2: Trade Openness in India 1990-91 to 2006-07**

- Trade Openness (% of real GDP)

**Objectives of the Study**

The present study tries to empirically examine the major factors which have determined the inflow of FDI in India in the post reform period.

**Determinants of FDI: Literature Review of Theory and Empirical Evidence**

A country which has a stable macroeconomic condition with high and sustained growth rates will receive more FDI inflows than a more volatile economy. The variables that measure the economic stability and growth are GDP growth rate, interest rates, inflation rates etc. Investors prefer to invest in more stable economies that reflect a lesser degree of uncertainty and risk. Therefore, it is expected that GDP growth rate, industrial production, and interest rates would influence FDI flows positively and the inflation rate would influence positively or negatively. Market size plays an important role in attracting foreign direct investment from abroad. Market size is measured by GDP. Market size tend to influence the inflows, as an increased customer base signifies more opportunities of being successful and also the fact that with the rampant development the purchasing power of the people...
Table 1: Foreign Investment Inflows in India -1990-91 to 2009-10

<table>
<thead>
<tr>
<th>Year</th>
<th>FDI (US $ million)</th>
<th>Annual percentage change</th>
<th>Portfolio Investment (US $ million)</th>
<th>Annual percentage change</th>
<th>Total Foreign Investment (US $ million)</th>
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<td>97</td>
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<td>6</td>
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Note: P: Provisional estimate

has also been greatly influenced moving to many levels higher in comparison to what it was before the economic growth.

Trade openness is also considered to be one of the key determinants of FDI as represented in the past literature; much of FDI is export oriented and may also require the import of complementary, intermediate and capital goods. Thus trade openness is generally expected to be a positive and significant determinant of FDI. Trade openness is the sum of exports and imports of goods and services measured as a share of gross domestic product. The amount of domestic investments also influences the levels of FDI inflows into various sectors. Real interest rate and inflation affects the inflow of foreign investments especially direct investment. Real interest rate and inflation mainly measure the economic stability of an economy.

There are many past studies which have emphasized the role of GDP growth, wage rate, trade rate, real interest rates, inflation, and stock of FDI, domestic investment in attracting FDI into a country. Burak Camurdan and Ismail Cevis (2009) develop an empirical framework to estimate the economic determinants of FDI inflows by employing a panel data set of 17 developing countries and transition economies for the period of 1989-2006. Seven independent variables are taken for this research namely, the previous period FDI, GDP growth, wage, trade rate, the real interest rates, inflation rate, and domestic investment. The results conclude that the previous period FDI is important as an economic determinant. Besides, it is also understood that the main determinants of FDI inflows are the inflation rate, the interest rate, the growth rate and the trade (openness) rate.

Hosein Elboiashi et al (2009) investigate the causal relationships between foreign direct investment (FDI), domestic investment (DI) and economic growth (GDP) in Egyptian, Moroccan and Tunisian economies. This paper applies a cointegration...
### Table 2: FDI, Real GDP, Imports and Exports, Interest rate and inflation

<table>
<thead>
<tr>
<th>Period</th>
<th>FDI (US $ Mn)</th>
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<th>Imports (US $ Mn)</th>
<th>Exports (US $ Mn)</th>
<th>Interest Rates on Central Government Security of 1 year maturity</th>
<th>Whole Sale Price Index (Base=1993-94)</th>
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Continue...
time series techniques; vector error correction (VEC) model over the sample period for the period from 1970 to 2006. They find a unidirectional causality between FDI and GDP in Egypt and Morocco, and bi-directional causality between FDI and GDP in Tunisia. Domestic investment has played a great role for driving FDI into these countries more than GDP. The study also shows that FDI is more effective than DI for promoting growth.

A study by Ana Marr (1997), reviews the recent evidence on the scale of FDI to low-income countries over the period 1970-96 and major factors determining foreign companies’ decisions to invest in a particular country. The paper concludes that large market size, low labor costs and high returns in natural resources are amongst the major determinants in the decision to invest in these countries. China, as a major emerging market, has attracted significant flows of FDI, to become the second largest receipt after USA.

China, as a major emerging market, has attracted significant flows of FDI to become the second largest receipt after USA.

Methodology and Data
The period taken for the present study is the post liberalisation period from 1993 to 2006. India adopted many economic reforms in 1991 to open up the economy. The FDI started flowing into the country with the significant proportions. The reason for taking period only up to 2006 is that the period from 2007 to 2010 was characterised by global financial crisis which may have an impact on FDI. So, including the period from 2007 to 2010 may give us spurious empirical results and may act as an outlier for the whole data set. Multiple regression analysis has been used to find the determinants of FDI in India. In the regression, dependent variable is taken as the quarterly data on FDI in India from the period of 1993 to 2006. The independent variables considered in the model are quarterly data on inflation, interest rate (Interest Rates on Central Government Security of one year maturity), real GDP, previous period FDI, previous period GDP and trade openness. Table 2 reports the data on FDI, export, import, real GDP, interest rate and inflation. We have used quarterly data of Wholesale Price Index (WPI) for measuring inflation.

Trade Openness refers to the degrees to which countries or economies permit or have trade with other countries or economies. It is calculated as export plus im-

<table>
<thead>
<tr>
<th>Period</th>
<th>FDI (US $ Mn)</th>
<th>Real GDP ($ Mn)</th>
<th>Imports (US $ Mn)</th>
<th>Exports (US $ Mn)</th>
<th>Interest Rates on Central Government Security of one year maturity</th>
<th>Whole Sale Price Index (Base=1993-94)</th>
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</table>

Source: Business Beacon
Results and Discussion
As explained in the table output, the dependent variable in the regression is FDI and the independent variables are real GDP, previous period FDI, previous period GDP, Trade Openness, Interest Rates, and WPI. The results show that FDI is explained close to 86% by the independent variables included in this study. The Durbin-Watson value is close to 2 which imply that there exist no autocorrelation into the data.

The results given in the table 4 shows that inflation, real GDP and previous period FDI are important factors in attracting the FDI inflows in India during the post reform period. Previous period FDI and level of inflation in the economy or price stability have significantly contributed in explaining the inflow of FDI. While previous period FDI is positively influences the FDI, inflation in the economy negatively affects the FDI inflows. However, real GDP has positive influence on FDI and is statistically significant at 10 percent significance level. However, trade openness, interest rates and economic growth in the previous period are not

### Table-3: Trade Openness

<table>
<thead>
<tr>
<th>Period</th>
<th>Imports (US $ Mn)</th>
<th>Exports (US $ Mn)</th>
<th>Trade Openness (% of real GDP)</th>
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**Source:** Business Beacon
important factors in explaining FDI inflows in India.

Conclusion

FDI plays an important role in economic growth of an economy. Literature on factors determining FDI inflows into an economy shows that many factors influence inflows such as market size, inflation, trade openness, interest rate, wage rate, business environment, etc. The present study examined the factors determining FDI inflows in India during post reform period. The results of our analysis show that FDI is related positively with real GDP and previous period FDI inflow but inversely related with inflation. It showed that the macroeconomic instability in terms of inflation has been an important factor which influenced the inflow of FDI in India in the post reform period.

References and Additional Thinking

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(Dr. C S ShylaJan is presently working as Professor in Economics at IBS, Hyderabad. He teaches Macro Economics & Business Environment, Managerial Economics, and International Finance & Trade for MBA students. He received PhD in Economics from Madras School of Economics and Post Doctoral from IIM Calcutta. He was also a Visiting Scholar at ICTP, Italy. He has published research articles in refereed national and international journals and made presentations in the conferences in Italy, Indonesia etc. His area of research interest is Environment and Resource Economics. He has authored a book titled ‘Economic Instruments for Managing Solid Waste in India’. He is Associate Editor of International Journal of Ecology and Development and the Consulting Editor of IUP Journal of Public Finance.)
In this crisis ridden world, economies around the world are experiencing high bouts of inflation and India is no exception to that. Indian economy is facing the effects of severe inflation in the form of rising food and energy prices. Indian government is either clueless about the cause of this inflation or is pretending to be clueless to fox the people from seeing the true cause of this rise in prices. Moreover, it is trying to divert everyone’s attention from the true cause of inflation by creating scapegoats like consumers (high demand), hoarders, speculators, food drought etc. This is an age old trick which all governments use to fool its populace when it embarks on the inflationary path in full speed.

In this short paper I will expose the lies of Indian government and will explain the true cause of inflation.

Why inflation?
Henry Hazlitt — the great Austrian economist of the 20th century — in his one page missive explained the phenomenon of inflation in the following words:

Inflation is an increase in the quantity of money and credit. Its chief consequence is soaring prices. Therefore inflation — if we misuse the term to mean the rising prices themselves — is caused solely by printing more money. For this the government’s mon-
etary policies are entirely responsible. (Hazlitt, 2004).

As Hazlitt put it very trenchantly, inflation is increase in the supply of money and credit due to government’s money printing process through its central bank (RBI in case of India). Its primary effect is rise in prices across the economy, although initially in an uneven manner, and then generalized once full inflationary effect sets in. The reason there is double digit inflation in India (and around the world) is this same government money printing process worldwide through its central banks, especially printing by US federal reserve i.e., the so-called ‘quantitative easing’ program (QE1, QE2 and soon to be announced QE3, QE4 and so on).

Since the beginning of recent financial crisis in 2008, Indian government through RBI is printing and injecting gargantuan amount of money in the economy. Here are the evidences:

1. **Stimulus package 1:** Newspaper, The Hindu (A. Dasgupta, 2008) reported that, unveiling the much-awaited stimulus package to shore up various sectors of the economy from the global downturn, the government on Sunday effected an across-the-board four percent cut in Cenvat to bring down the prices of cars, cement, textiles and other products, and earmarked an additional Rs. 20,000 crore for infrastructure, industry and export sectors for the current fiscal.

2. **Stimulus Package 2:** Indiaserver.com (Indiaserver.com, 2009) reported that, in less than a month since the UPA government announced a Rs 32,000 crore booster dose for the slowing economy, it came out with a more comprehensive and detailed stimulus package valued at over Rs. 20,000 crore. Montek Singh Ahluwalia, Deputy Chairman, Planning Commission announced the “Round II Package”, the last of this fiscal, focusing on stressed sectors like non-banking finance companies, real estate, infrastructure and small and medium businesses.

3. **Stimulus Package 3:** Finance buzz (Narayanan, 2009) reported that, India on Tuesday provided two percent cut in excise duty and service tax to give boost to the country’s economy….these duty reductions are likely to cost the treasury nearly Rs. 30,000 crore. This is above the four percent cut in CENVAT announced in December 2008, which has now been extended to beyond March 31.

4. The mega money printing process which started in 2008 still continues. For example, in October 2010 RBI bought back up to Rs. 12,000 crore of government securities as part of the government’s cash management operations (Roy, 2010). Just after couple of months, again in December 2010, RBI purchased government securities worth Rs. 12,000 crore (Prasad, 2010). Under this same mechanism RBI purchased total Rs. 48,000 crore worth of government security in various rounds of Open Market Operations (Sampat, 2011).

5. Since November 2010 Indian banks are borrowing on an average one trillion rupees daily from RBI!!! (D’silva, 2010).

6. Indian government is pumping crores of rupees for bailing out bankrupt inefficient public sector units e.g., recent Air India bailout of Rs. 12 billion rupees (Reuters, 2010).

Not only this, USA is also exporting inflation around the globe through its QE programs. How? Let us see.

The US dollar is an international reserve currency. That means citizens of every country need it for trade transactions with citizens of other country. Thus the demand for dollar is universal due to its international reserve currency status.

After the financial crash of 2007, US economy is in recession. To take the economy out of recession US central bank Federal Reserve and the Federal government is following Monetarists and Keynesian policies. In nutshell these policies are nothing but printing massive amount of money and thus increasing the money supply. These people falsely believe that spending huge amount of paper currency will spur the aggregate demand and that will
lift the economy out of recession. Following this reasoning US Fed is conducting its QE programs, and Potomac is accumulating massive amount of debt.\(^6\)

This deliberate policy of debasing the dollar is resulting into two things:

1. Commodity (crude oil, food items like wheat, rice etc., base metals like copper, aluminium etc.) prices are rising because they are traded in dollar in international market\(^7\). These are all important items in India’s import bill. Because of these costly imports Indian domestic prices are going higher e.g., petrol/gas prices.

2. International Investors are pouring the newly created supply of dollars into emerging market economies to protect their returns which is losing value because of weak dollar and ultra low interest rates in the developed world markets. This hot money\(^8\) is pouring in the Indian capital markets (BSE, NSE etc.) lifting the rupee-dollar exchange rate resulting into rupee appreciation against the dollar. Strong rupee is creating troubles for the exporters. They are finding it difficult to sell their now dearer products in the international market. Because of this, they are lobbying the government for protection. Today’s mercantilist governments (falsely) believe that export is good for the economy and import is bad so they always try to boost their export sectors by artificially keeping their currency cheap in the international market (beggar thy neighbor policy). To stop rupee from appreciating, RBI is intervening into Forex market to buy dollars to make rupee cheap again\(^9\). For that they are printing more rupees. This increases the supply of rupee, which is inflation.

Once inflation is created by the Indian government, RBI, and USA, its evil effects slowly spreads into economy in the form of higher prices. As the printed rupee gets into people’s hand (in form of wages, loans etc.) they go and spend that money in the market for consumption raising demand for goods and services compared to its available supply at that given point of time, which bids the prices of those goods and services higher.

Supply shock in the form of political maneuverings by the politicians and a huge resource misallocation by the government central planning (taxes, subsidies, import/export ban etc.) exacerbates this situation. On one side rupee is losing its purchasing power because of Indian government’s money printing programs and on other side already scarce supply becomes even scarcer due to various supply shocks. This results into astronomically higher prices of various products.

**Conclusion**

Inflation in India and all around the world is a result of government & central bank’s crazy Keynesian Monetarists policies of printing money to get economies out of recession. They don’t understand that, by printing money they are only going to create more havoc in people’s life by creating inflation or possible hyperinflation. Printing money is not wealth creation. It actually destroys wealth. It results in capital consumption which reduces the possibilities of higher economic growth in future. People need to understand that consumption never drives any economy. Economies grow because of savings, capital accumulation and production. Without production, consumption is impossible.

But, following their inherent inflationary nature, governments around the world are planning to blow another big economic bubble in the form of printing of 100 trillion dollar worth of fiat currency as a measure of global quantitative easing! This plan was discussed in recently concluded Davos World Economic Forum\(^10\). Recently published papers of International Monetary Fund (IMF, 2010, 2011) lay out the blue print of future monetary system of one world paper currency named after Keynesian dream, Bancor. This plan, if successful, will plunge the world into a systematic worldwide inflation and ensuing global super depression.

**End-notes**

1. To see an interactive graphic chart of ongoing inflationary situation around the globe please visit the following website — [http://graphicsweb.wsj.com/documents/INFLATION1101/INFLATION1101.html#view=ecSizeDESC](http://graphicsweb.wsj.com/documents/INFLATION1101/INFLATION1101.html#view=ecSizeDESC)


3. To read more about this program please see, [http://en.wikipedia.org/wiki/Quantitative_easing](http://en.wikipedia.org/wiki/Quantitative_easing)

4. Although now many countries have started to dump the dollar because of its falling purchasing power as a reserve currency e.g., recently China and Russia decided to carry out their mutual trade in their respective currencies (Li, 2010). And now India and China has also decided to dump the dollar (S. Dasgupta, 2011).

5. See the money supply data here, [http://mises.org/content/nofed/chart.aspx?series=TMS](http://mises.org/content/nofed/chart.aspx?series=TMS)


7. For evidence see, (Bureau, 2011a, 2011b; Finance, 2011).

8. Hot money is a term that is most commonly used in financial markets to refer to the flow of funds (or capital) from one
country to another in order to earn a short-term profit on interest rate differences and/or anticipated exchange rate shifts. These speculative capital flows are called "hot money" because they can move very quickly in and out of markets, potentially leading to market instability (Wikipedia, 2011).

9 For evidence see, (RBI, 2011; Reuters, 2010b).


References and Additional Thinking

- Finance, Yahoo. (2011). Rogers International Commodity (^ RCT). from Yahoo Finance: http://finance.yahoo.com/echarts?s=^RCT+Interactive#symbol=^rc;range=20100104,20101026;indicator=volume;charttype=line;crosshair=on;ohlcvalues=0;logscale=on

(MADHUSUDAN RAJ teaches Austrian Economics at the department of Economics and the department of Human Resource Development, Veer Narmad South Gujarat University, Surat, India. He is an alumnus of the Mises University, Ludwig von Mises Institute, Auburn, Alabama, U.S.A., and holds a bachelor's, master's, M.Phil., and Ph.D. degree in Economics from the South Gujarat University.)

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