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Education For Dignity : APJ Abdul Kalam

Politics and Change : Krishna Kumar

MTA Recommendations

EDUSAT

J & K Window : Industrial Policy

PM's Visit to the US

Knowledge Commission

Education

"The real difficulty is that people have no idea of what education truly is. We assess the value of education in the same manner as we assess the value of land or of shares in the stock-exchange market. We want to provide only such education as would enable the student to earn more. We hardly give any thought to the improvement of the character of the educated. The girls, we say, do not have to earn; so why should they be educated? As long as such ideas persist there is no hope of our ever knowing the true value of education."

Mahatma Gandhi on true education

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Let noble thoughts come to us from every side
Rig Veda

CONTENTS

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About the issue

INDEPENDENT INDIA'S first education minister Maulana Abul Kalam Azad in an educational conference in 1948 remarked that "it was the birthright of every individual to receive at least the basic education without which he cannot fully discharge his duties as a citizen".

Regrettably where are we in 2005? India has approximately half of the world's illiterates. Why is Indian record so dismal?

Researches in the field show that among the groups who get little and low quality education are dalits, adivasis and religious minorities and in all these categories, the girls especially. Even when they do go to school, they tend not to stay long. The proportion of rural children going to school is also not encouraging.

Even those who stay a full 12 years in school do not get education in the proper sense of the term. The facilities in most government schools are abysmal; no proper buildings, few teachers, few teaching aids etc. The study done by NIEPA (National Institute of Planning and Administration) has revealed that in 2003-04 most schools did not have toilets for girls. Only 3.5% schools in Bihar and Chhattisgarh had such facilities. In Madhya Pradesh, Maharashtra, Andhra Pradesh, Gujarat, Rajasthan and Himachal Pradesh only 12-16% primary schools had toilets for girls. Drinking water, blackboards, classroom duster is not promising. Will 2% education cess help install a girls' toilet, a water tap or a blackboard in a government school? Is a big question.

Despite, putting elementary education on a high priority, the successive governments seem to have not achieved much. Enrolment rates may have improved but the drop out rate are still high.

Education must move beyond classroom and outside the text books to make learning a joyful exercise.

Coming to higher education, only 6-7% of India's youth aged between 18-23 years, have access to it as compared to 34% in Singapore and 50% in the USA. There has been mushrooming of private institutes offering professional courses across the country. Most of them are lacking quality faculty and research facilities. There is a need to revamp higher education in India. A university can fulfill its job if it is allowed the freedom and autonomy to experiment with new ideas and adopt innovative techniques of curriculum formulation.

Even the mid term appraisal of Tenth Plan has emphasized on education apart from other important areas like agriculture, health and infrastructure. It has advocated increase in outlays for social sectors including education. The long term goal in the National Common Minimum Programme is to raise educational expenditure to 6% of GDP.

When people are educated, we not only get teachers, professionals and executives but more importantly citizens who are aware, sensitive and responsible. It makes people place social good above personal gains.

In this issue, Yojana presents the views of a number of scholars on different aspects of education. It also covers a success story, "Akshara" to arrest the drop out rate in Bangalore and a story on good governance where innovative vocational education methods are being used in a slum in western Uttar Pradesh. ❑

For Dignity of Human Life

APJ Abdul Kalam

Education in its real sense is the pursuit of truth. It is an endless journey through knowledge and enlightenment. Such a journey opens up new vistas of development of humanism

EDUCATION IS the most important element for growth and prosperity of a nation. India is in the process of transforming itself, into a developed nation by 2020. Yet we have 350 million people who need literacy and many more who have to acquire employable skills to suit the emerging modern India and the globe. Children who belong to weaker sections of our society are undernourished, and only a small percentage of them manage to complete eight years of satisfactory education. We need to think specifically for them.

Education is indeed a fundamental right of every Indian child. Can we allow the situation to continue in which millions of these children are forced into life long poverty? The requirement is that the parents should be able to go to any school nearby and admit their children and happily come back home with the confidence that their children will get a good and value based quality education in that school. The conditions of differently-abled children require equally important attention. In view of such critical issues and their importance, and also to break out of our historical mindset, an effective and self renewing education system is therefore fundamental to the survival and growth of civilizations, therefore it is proposed to address the issues pertaining to education in some detail and suggest some solutions, which can be considered for implementation.

Let me share with you one important concern : unequal access to edcational resources still exists due to a variety of reasons. For example, there exist in our villages three types o families. The fortunate ones who realize the importance of educating the young ones at any cost, guide them at all critical stages due to their economical well-being. There are those families, who might realize the importance of education, but are not aware of the opportunities in time, nor the procedures and ways to realize these opportunities for their children. There is a third category of families who are economically weak and do not realize the value of education and hence for generations together their children are neglected and continue to live in poverty.

It is essential that we enlighten and create widespread awareness of education among all sections of society particularly in rural areas and among urban poor. We should use technology for this important social purpose. It is possible for NGOs, other social and philanthropic institutions and media to focus on this area of creating awareness. We should also mobilize necessary resources for providing education to the

underprivileged people. Let us elaborate the way ahead.

Mobilizing Resources

Over the last 50 years, successive Governments have been committed to achieving the national goal of universal education and has steadily increased the budgetary allocation for education. However, 35 per cent of our adult population are yet to achieve literacy. The expenditure on education as a percentage of our gross domestic product has a direct impact on our literacy. Today our expenditure on education in India is little more than 4 per cent of our GDP. If we have to achieve nearly 100 per cent literacy, it is necessary to increase its expenditure on education to about 6 to 7 per cent of the GDP. This 2 to 3 per cent increase has to be sustained only for a few years. Thereafter, a lower percentage of GDP allocation to education will be adequate to sustain the high degree of literacy in this country for all times to come.

Clearly public expenditure alone from Governments in the Centre and states might not able to meet the challenge of mobilizing an additional two to three per cent of GDP for the mission of education. It is here that we have to generate additional resources for this noble mission. Expenditure on education, whether in the Centre or in the States can no longer be provided only by the respective Ministries or Departments for human resource development. Indeed, every department of Government must play a significant role as a partner of the human resource development organization, and contribute resources in terms of budget and infrastructure for implementing the mission of providing quality education to the whole nation.

To augment the government resources, the entire corporate sector shall emulate the example set by some corporate leaders who have focused on education to make a national difference. Different regions of the country may be adopted by the corporate sectors within an overall national mission for education. The mechanism should enable the persons to have freedom to innovate and deliver directly.

The preferred school concept is arising because of differential quality and standards of teaching. There is a need to make the quality of teaching high in all schools. Also there is a need for preparatory education even in rural areas to make the child competitive when he or she joins the regular school. For running such schools in rural areas NGOs and corporate sectors can play a vital role. Also rich parents who can afford can adopt certain number of rural children for educating in preparatory schools.

I would like to recall a question asked by Master Kuldeep Yadav, Class X, of Etawah during my visit to Saifai, he asked me :

Mr President,

Villages are also full of talents but facilities are available in the towns/ cities only. Have you planned something for these children so that they can get good education in the villages?

It was glad to see a child's concern for his rural counterparts. We need to address this problem, which has multiple dimensions. It tells about the non-availability of infrastructural facilities in schools, the problem of syllabi followed in the school and the non-availability of quality teachers.

Job opportunities being national, the syllabus should be structured in such a manner that it should meet the changing societal needs, fulfil the needs of the occupation and inculcate high moral values among the students in addition to learning skills. The delivery of quality education is possible only through quality teachers. The teacher has to be a committed teacher who loves teaching and children. And also the teacher has to be equipped with all the knowledge required for effective teaching. The self-esteem of the teacher must be high and the teacher must have the quality to become a role model for the children. Some element of competitive rewarding is to be done based on performance. This competency has to be built up throughout the country through a massive teachers education programme delivered through a tele-education system and continuously updated. This can be funded and implemented by a consortium of government, educational institutions with the corporate sectors providing value added services. There is an urgent need that every school should have basic amenities such as good building equipped with ventilated, lighted, airy and spacious class rooms besides library, laboratories including the latest IT tools and infrastructure, safe drinking water, clean toilets, play ground. This is possible by earmarking the additional two to three per cent of GDP.

Parents have an important role in the education of the children and making them enlightened citizens. They must be aware of the need for good education of the child, male or female. Like teachers, parents also should set an example for the child in their overall behaviour and conduct. This will enable the child to develop love and respect for their parents and see them as role models.

Reducing Drop outs

It is reported that 39 per cent of children drop out from schools after studying upto Vth class and 55 per cent drop out after studying up to 8th class. This situation need remedial action, especially since assent has been accorded for the 86th Constitution Amendment Act-Right to Education Bill for children between the age group of 5 and 14 years. But an Act alone cannot achieve the goal unless the education is delivered in a manner, which will take into account the socio-economic reality, and perception of

people to whom it is addressed. Apart from attracting children to schools, the education system should be able to provide nourishment and inject creativity among the children. Also the aim of the education system should be to build character, human values, enhance the learning capacity through technology and build the confidence among children to face the future.

An education model implemented in Karnataka, provides an accelerated learning using the computer aids so that children can have a creative learning with the tools of creative animation through computers. Dropouts are identified and brought to the school. This holistic phenomenon of learning once ingrained in the primary stage where there is a happy learning process and a non-threatening evaluation, has led to voluntary learning by the participants.

Recently, I have received many e-mails from children and parents regarding too many entrance examinations which the children have to appear form nursery up to plus two level for entry into schools, colleges, universities and professional courses. This is a heavy burden on the children. Also, it has led to proliferation of tuitions and coaching institutes for preparing the students for entrance examinations. For entry into universities and professional colleges, we have to devise a common All India examination to be conducted by a nominated institution of government. Also, the examination must be so designed that attending a coaching course does not provide undue advantage to privileged students. Entrance test should be more in the nature of aptitude assessment rather than creating a seniority list.

Examination Reforms

There is a demand for more transparent and reliable system of examination, evaluation and reporting. It is also noticed that the examination primarily tests the memory of the students. During my study in MIT, Chennai in mid 1950s, they used to conduct open book examination. This used to be one of the tough examinations for the students. The examining bodies may consider introduction of open book system of examination. This will promote creativity among the teachers in setting questions and the evaluation of the creative ability of the students. A secure examination system is the need of the hour.

The examining bodies should have a reliable evaluation system and timely declaration of results. After the initial evaluation of the answer paper a centralized core group can draw random sample from each batch and carry out independent evaluation. If there is no discrepancy between the initial evaluation and the core group evaluation, and it is consistent with the performance of the students, it will be presumed that the batch marking is satisfactory. In case of a discrepancy further samples should be drawn for verification. Special training must be carried out by examining bodies for certifying the examiners in the evaluation process. In short the examining bodies must evolve very good procedures and then get ISO Certification for their evaluation system.

The recent tragedy involving school children at Kumbakonam must have rung some bells in all the educational institutions in the country. It is the responsibility of sponsoring organization to see that their schools maintain basic minimum norms both in the academic field as well as in the physical facilities which they provide on their campuses. Certain safety features must be built in our school buildings without which it should not be possible to get affiliation to these schools. And there should not be any discretion available with anyone, to waive off these conditions. Honesty in implementation is vital at all levels.

Constraints of time and space together with the rapid obsolescence of knowledge in some areas of science and technology, have created a huge demand for different courses from different institutions in the distance mode. There is a need for a working digital library system that alone can, in the long run, provide the kind of access required for a Knowledge Society. Technology Enhanced Learning is a solution. It attempts to exploit the rapid developments in Information and Communication Technology. As the communications bandwidth continues to increase and the cost of computer power continues to drop, Technology Enhanced Learning will become an economically viable solution. Virtual classrooms of the future will have students from many locations taught by a team of geographically distributed Instructors through tele-education delivery system.

Mission

Ultimately, education in its real sense is the pursuit of truth. It is an endless journey through knowledge and enlightenment. Such a journey opens up new vistas of development of humanism where there is no scope nor room for pettiness, disharmony, jealousy, hatred or enmity. It transforms a human being into a wholesome whole, a noble soul and an asset to the universe. Universal brotherhood in its true sense becomes the sheet anchor for such education. Real education enhances the dignity of a human being and increases his or her self-respect. If only the real sense of education could be realized by each individual, and carried forward in every field of human activity the world will be so much a better place to live in.

Mission of education by Government at Centre or States or the combination is the foundation to ensure the creation of enlightened citizens who will make a prosperous, happy and strong nation. ❑

Based on President Dr A.P.J. Abdul Kalam's address to the nation on the eve of Independence Day '04.

Politics of Change

Krishna Kumar

WHEN USED in the context of education, 'change' normally connotes something necessarily positive and 'polities' us something necessarily negative. We need to take a less biased stance in the use of these terms. If we agree to perceive 'change' in a value neutral manner, we would be able to inquire into cases where things might have deteriorated as well as cases where they might have improved with reference to a normative framework. In such an inquiry, we must ensure that we do not use perceptual categories to discuss change.

This may not be easy, for change is quite often a matter of perception but we must try to be objective. In the present, brief exercise I will use history as a framing device in order to gain a measure of psychic distance, which might loosen the grip of perceptual categories. Before we proceed, let us briefly size up the scope of 'polities' as a term. Why we should consider it a relevant term for the study of educational change needs clarification because there has been a common tendency to treat politics as a process of manipulation. This is just one of the meanings of politics, the other two equally popular meanings being: a game of power and a goal-oriented exercise or a branch of ethics.

In this third orbit of meaning, politics has been associated with education since the days when the *panchatantra* was created in India and the Republic was debated in Greece. The second meaning has gained validity in the context of modernity, which made the school a universal institution. With the rise of the modern state, education has become a system and has developed vulnerability to being used as an arena of ideology. The popular feeling that all education is ideological does not apply to the epochs when there were no organized systems of education: there were only traditions of teaching and learning.

The ideological use of education, as a means of disseminating information or styles of talking about reality, which serve to cover up class interests is a modern phenomenon. Indeed most systems of education are vulnerable to becoming ideological tools, not merely with reference to the knowledge or discourse they might disseminate, but also with reference to their structures. Educational structures themselves may be said to have ideological properties

Educational structures themselves may be said to have ideological properties when they develop serious gaps between rhetoric and reality

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when they develop serious gaps between rhetoric and reality.

History can serve as a useful guide to our understanding of the logic of change and the factors involved in shaping its character as positive or otherwise, or a mix, with reference to the aims of education. The transition from an indigenous system-more accurately, systems as Nita Kumar's (2000) work persuasively proves is one such historical lesson. The time-frame we can attach to this process roughly spans from the 1840s to 1880s, the latter date signifying the demise of indigenous education as a system. Juxtaposed with Adam's reports of the 1820s, Acharya's (1996) work on the *pathshalas* of Bengal and the teachers who kept them alive against growing socio-cultural and economic odds suggests that the indigenous system struggled for a while and ultimately died in the last quarter of the nineteenth century. This was a major change, implying vast and complex ripple effects in the linkages between pedagogic processes and the cultural norms of rural society.

In many ways, the ripple effects continue to surface to this day when primary education, as a state provision, is finally spreading, albeit in a literally minimalist form, to every village and hamlet, and to every child, howsoever poor or lowly placed in terms of caste and other hierarchies. The death of indigenous education can hardly be said to have fully occurred, so to say, when all evidence suggests that teachers continue to be judged by standards set in pre-colonial times and the state continues to regard primary-level teaching as a community activity rather than the professional work of a trained, well-paid, teacher.

Another lesson we can find in history is about the change that took place in 1920 in the administration of education in late-colonial India. The Montford reforms instituted a system of dyarchy or dual system of control. Around the same time, the Calcutta University Commission had recommended that decision-making in education should be decentralised. Its words sound remarkably fresh to this day: "the Government of India could perform an invaluable function by defining the general aims of educational policy, by giving advice and assistance to local governments and the development of educational ideas in the various provinces'.

In response to this recommendation, the Central Advisory Board of Education (CABE) was constituted in 1920 to facilitate the emergence of a decentralized system. Soon after its birth, CABE was suspended, ostensibly on account of financial reasons; its more recent decade of suspension (1994-2004) suggests the persistence of a structural hesitation in the system to decentralize. The fact that it took 28 years of governance after independence to amend the Constitution to the effect of giving concurrent status to education strengthens the point, implied in the recent decade-long absence of CABE, that the Montford reforms are still unfolding, more than 80 years after they were institutionalized. Further evidence of this can be gleaned from the NCERT's experience of serving as a capacity-building body in matters pertaining to curricular and pedagogic reform. The fact that its National Curriculum Framework (2000) was implemented without approval by CABE tells a story more complex than procedural lapse. Indeed, the Council's inability to counter the tendency in the states to depend on it, rather than to perceive it as a resource for the growth of their own capacity, reinforces this view.

What we learn from these two historical examples can be summarized in terms of two moot points. First, "change' inevitably involves a struggle between an outgoing situation, including the players who characterized it, and the one which seeks to replace it. The struggle necessarily manifests itself in relations of power and status and is therefore a political process. Secondly, there are no normative parameters or time-frames by which the completion or "success' of a process of change can be judged. A process of change might look quite different when perceived on a scale of accomplishment, depending on the moment of time when we decide to assess it. For instance, had the progress of concurrency been assessed in the late 1980s, we might get an impression quite different from the one we would get today. Similarly, to decide whether the indigenous system of education and the pedagogies associated with it have fully been replaced depends on our willingness to look at the world of real classrooms as Sarangapani (2002) has done. It also depends on what we regard as a curricular parameter of our observations, whether we include art forms like music and dance in it. Traditions of indigenous education seem not only to be alive in these forms but can also be said to have kept these forms alive in a state of health.

The third message is somewhat complex and makes a rather special demand from our mindfulness towards the task we have undertaken. In the first story of change, from an indigenous tradition to the modern system born under colonial conditions, the key factor of change were teachers whose voice is structurally absent from the discourse of educational theory and research. Carr (1995) has forcefully made this point in his analysis of the nature of education as a discipline. His observation that educational theory which is not born in the course of practice, and not merely

in relation to it, lacks relevance for a discipline like education which is essentially of a practical nature. Carr's analysis, like Schwab's (1969), reminds us that our ability to capture the politics of change in cases like India's transition from an indigenous to an imported one is seriously impaired by the vast socio-economic gap between people like us, who theorize, and those who pursue school teaching as a career. Two contemporary cases.

The first example of change I will discuss is that of the deployment of para-teachers in place of salaried teachers as a means of expanding the reach of the system of education. The period during which this change occurred is that of the 1990s when the post-Jomtien global push for universalization of elementary education synchronized with the availability of safety-net aid and loans from global donor agencies in the context of the structural adjustment of the Indian economy to the world economic system. The details are complex, confusing and difficult to seek, and only the outcomes are visible, but it appears that the policy to hire stipendiary, rather than salaried, teachers was guided by circumstances in which certain policy makers saw financial constraints as an opportunity for change.

In his recent paper, Tilak (2004) identifies the perceptual change by making the following comment; The underlying view is that elementary education does not require a fully qualified and trained teacher, nor does it require good infrastructure'. The change involved in introducing the concept of a temporarily and locally hired teacher who would receive a bare minimum honorarium, lower than the minimum wage, was quite a major shift in policy if we recall that the Chattopadhyay Commission (Government of India, 1984) had, less than a decade before para-teachers started to be hired on a large scale, recommended professionalisation of school teaching.

The course of this shift can be traced in terms of the following four steps:

- There was circumstantial temptation, caused by financial crunch and policy pressure to cut down state expenditure;
- Supportive transition was taking place in the broader institutional framework of democracy, following the Panchayati Raj legislation;
- Legitimating arguments became available and acceptable when studies of a certain kind showed that children taught by para-teachers during the early grades were doing just as well or better than the ones taught by regular teachers; and
- Fresh recruitment of regular teachers had stopped, exacerbating the sense of desperation in rural youth and their willingness to accept work under any conditions, with the hope that they would get regularized later.

The second case of change is the introduction of the Bachelor of Elementary Education (B.EI. Ed.) programme at the University of Delhi. It took place roughly at the sums time when certain states started to recruit para-teachers. The four-year degree programme offered a total contrast to the modest three-week training associated with most para-teacher recruitment plans. The B.El.Ed. Degree carried the promise of exposure to the latest available in theories of learning and child psychology, linguistics, and the social sciences, along with socialization into institutional practices which permitted personality-development activities to become part of the curriculum rather than stay co-curricular. The number of seats offered to each participant college was as low as 30; entrance was competitive, and monitoring of the programme was in the hands of a special unit of the Central Institute of Education. This unit, named after Maulana Azad as a centre for elementary and social education, was a fortuitous outcome of the post-NPE provision and ethos of the late 1980s when a centrally sponsored scheme enabled the University of Delhi to reconstruct plan offered to it into an innovative unit. The story is historically deep and worth being told in full, but the context here requires us to focus on just two points: one, B.EI. Ed. established its identity by projecting a contrast to the conventional B.Ed.; two, it evolved by breaking the boundaries between pedagogic and liberal expertise available in the university.

The politics of change that B.El.Ed. implied lay in the struggle it symbolized against an entrenched programme, which has been an object of criticism for a long time, but has successfully eluded reform. B.El.Ed, also provided an arena for a political battle between the B.Ed/ M.Ed.-perspective on education and its rival which points to the systemic failure of education to gain universalization and to improve the quality of its average product. The proposal and implementation of B.El.Ed. took advantage of the ethos in which numerous NGOs had gained legitimacy to mount an attack on the isolation of the formal teacher training apparatus. Support of the government it already had. It blossomed, but in the process of its progress, the structure (i.e. MACESE) which had enabled it to be born came under sharply contradictory domestic pressures and, as of now, it seems destined for death.

Let us identify the factors of the strength and success of B.El.Ed. as well as the factors of its continued fragility. First, the factors which might help us to account for its astonishing success:

- It started on a small scale, and has remained so, despite expansion.
- It was born within an institutionalized structure, not outside.
- It enjoyed a supportive ethos, marked by a positively inclined Vice-Chancellor, in addition to being initially confined to a prestigious college of a central university;
- The larger ethos of the 1990s, in which reform and innovation became commonplaces in the context of the economy, raised the acceptability of innovative ideas in other areas.

If we now turn towards the factors which account for the fragility which has dogged the B.El.Ed. from its start, we find that the rivalry with B.Ed, cost B.El.Ed. as much as it paid. Secondly its vision of a prolonged and substantial training for the teacher of little children clashed with the salary structure, which favours the teacher of older children. Thirdly, it is too small a programme to affect the low status of elementary education, getting further eroded by introduction of schemes such as the recruitment of para-teachers which we have already discussed. Finally, the institutional structure which enabled the programme to take birth and protected it is in a state of deep crisis which it may not survive.

The two cases we took up offer a few insights into the politics of change. To begin with, the ethos in which change takes place -whether it is for the better or the worse - seems to play a major role in both legitimizing it and shaping its longevity and health. If purposive change is our concern, then we cannot do better that to start by studying the ethos, both for a better appreciation of what might be possible and for the identification of sites where an intervention might help changing the ethos to a certain, limited extent. Research may have a wider role in the politics of change, and the paucity and poor quality of research may have grave consequences for the success of purposive change. As a social activity, research offers a valuable space for deliberation and introspection, both of which are necessary for living with change in a mindful manner. Indeed, research into change while it is unfolding - and that may be a much longer process than we normally imagine - may provide a great relief from the delusion that in a process of change, speed is more important than direction. We do need relief from this delusion if we want to stand up for change in the interest of the quality of the education made available to majority of children of poorer societies like our own. ❑

NEWS

Committee for Steps to Cut School Drop out Rates

Concerned over the high dropout rates still persisting at 43.89 per cent in Class I to V and 52.8 in Class I to VIII, a Parliamentary Committee on Education has suggested evaluation of the model being followed in Tamil Nadu and Kerala.

While Andhra Pradesh, Assam, Bihar, Orissa and Rajasthan have the highest dropout rates at primary level, Bihar, West Bengal, Uttar Pradesh, Jharkhand and Madhya Pradesh still have a large number of out-of-school children, the Parliamentary Standing Committee on Human Resources Development said in its report.

Observing that the Mid-Day Meal (MDM) scheme was aimed at not only attracting children to the schools, but also in retaining them, the Committee said the scheme had not had the desired impact in attracting children even from poor families, which was one of its main objectives. The report said that sustained efforts should be made to achieve the objectives of the *Sarva Shiksha Abhiyan* (SSA) – universalizing primary schooling – by 2007 and elementary education by 2010.

Pointing out "some inherent and practical limitations" in achieving 100 per cent enrollment as well as retention of students in schools, it said in view of success achieved by Tamil Nadu and Kerala, which had very low dropouts, efforts should be made to emulate their example and apply those strategies for poorly performing states.

Continuing Education

The committee said the children who had dropped out could be integrated with the continuing education programmes of adult education so that they were able to undertake activities relating to income generation providing skills in area specific activities.

The "learn while you earn" scheme could be an effective measure to retain students in schools. It suggested that government should consider the proposal of providing vocational education to children at the upper primary stage. Turning to implementation of *Sarva Shiksha Abhiyan*, the committee said the time had come to act on field in active coordination with the implementing agencies, lest the flagship SSA Scheme should remain on paper only.

It said, "The committee is of the considered view that by paying the education cess from their hard-earned income, every citizen would watch with concern the performance of this Scheme." Therefore, it placed greater responsibility on the department as well as state governments for ensuring that the SSA was taken up as Peoples' movement with do or die spirit.

Compiled by Ms Manogyan R Pal, Sub-Editor

Elementary Education : Progress and Challenges

R Govinda

While the overall assessment presents a reasonably good picture, the goal of UEE does not appear to be close enough to be reached in a short time period

STRUGGLE TO achieve the goal of universal elementary education in India began during the colonial period led by the rulers in some of the princely states and nationalist leadership involved in independence movement. Yet, planned efforts in real terms with concrete policy of mass education that ensures elementary education for all children became a reality only after the country got independence in 1947. Initially it appeared to be an achievable target within a short period of time. But, as years passed the pursuit of the goal became more complicated with the ever-burgeoning population. While the adult literacy rate and enrollment rate in primary schools consistently increased, population grew even faster and the absolute number of illiterates in the country also continued to rise. It is for the first time in 2001 that the census figures revealed a substantial reduction in the number of adult illiterates in the country.

The 1990s witnessed very intensive level of activities on the elementary education front leading to substantial improvement in the participation of children, and also in overall literacy figures. Probably buoyed by this improvement, the Tenth Plan set very stiff targets to be achieved in terms of almost all indicators, namely, availability of schooling facilities, enrollment and retention as well as gender parity.

That the national leadership gave highest priority to achieving Universal Elementary Education (UEE) in the shortest period of time is quite evident from its inclusion in the Constitution as a time bound target to be reached within ten years. Where has the fifty years of development planning brought the country in meeting this basic goal? Why has the country not yet reached the goal even in terms of gross enrollment? It is important to remind oneself of these questions while assessing the progress being made in any Plan period.

Notwithstanding the expectation set in the Constitution to achieve the UEE benchmark within ten years, it should be recognized that the country began at an abysmally low level in 1950 with respect to adult literacy rates and participation of children in schooling.

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Elementary Education: Then and Now				
Indicators	**1950-51**	**2000-01**	**2001-02**	**2002-03**
No. of Elementary Schools	2,23,600	8,45,007	8,83,667	8,97,109
No. of Teachers in Elementary Schools	6,24,000	32,23,443	33,95,995	34,88,148
Enrollment in Primary Schools (in millions)	19.20	113.83	113.90	122.13
Enrollment in Upper Primary Schools (in millions)	3.00	42.81	44.80	46.95
Enrollment at Elementary School Stage (in millions)	22.20	156.64	158.70	169.08

Source: Selected Educational Statistics: 2003-04, MHRD, GOI, New Delhi; and Education in India, MHRD, GOI.

The progress since then has been steady though not satisfactory. The literacy rates in India touched 65.38 per cent in 2001 from 52.21 per cent in the preceding decade. The increase of 13.2 per centage points is the highest in a single decade since 1901. Literacy rates among males and females are 75.65 per cent (up by 11.72 per cent) and 54.16 per cent (up by 14.87 per cent) respectively in 2001. The gender gap has narrowed down from 28.84 per centage points in 1991 to 21.70 per centage points in 2001. Kerala continues to have the highest literacy rate of 90.92 per cent and Bihar has the lowest literacy rate of 47.53 per cent.

The primary and upper primary schooling facilities have been expanded to cover small and unserved habitations in remote rural areas. According to the Flash Report of the Seventh All India Educational Survey, 2002 the per centage of habitations having primary schooling facility within them is 53.48; and 87.53 per cent of habitations have primary schooling facility within or at a walking distance of one km. Upper primary schools/ sections are found located in 19.1 per cent of the habitations, and 78.12 per cent of habitations have upper primary schooling facility within or at a distance of 3 km. The ratio of upper primary schools to primary schools has improved to 1: 2.7 in 2002.

In addition, there is a large number of Alternative and Innovative Education (AIE) centres, Education Guarantee Scheme (EGS) centres and unrecognized schools which impart both primary as well as upper primary education, the former for children who, because of their circumstances, cannot enter full time schooling. Under the EGS/AIE, 6.64 million children have been covered as on March 2004 (MHRD, Annual Report 2003-04). In spite of the substantial expansion of elementary education, disparities among and within states prevail. There are also gender and social disparities in access to elementary education. Even after this remarkable progress in the coverage of elementary school age children in recent years, many children in the age group of 6-14 still remain out of the school. According to the Annual Report (2003-04) of the MHRD, the number of out-of-school children is estimated to be around 23 million.

The high dropout rates at the primary and upper primary levels continue to be the major concern even though the rates are decreasing steadily. The dropout rate at primary level has decreased from 40.07 per cent (39.7 per cent for boys and 41.9 per cent for girls) in 2001-02 to 35.06 per cent (36.0 per cent for boys and 33.32 per cent for girls) in 2002-03. At the upper primary level, the dropout rate has marginally decreased to 52.79 per cent (52.28 per cent for boys and 53.45 per cent for girls) in 2002-03 from 53.7 per cent (50.3 per cent for boys and 57.7 per cent for girls) in 2001-02. In spite of the policy of no detention up to Grade V, a large number of children continue to repeat grades.

While the overall assessment presents a reasonably good picture, the goal of UEE does not appear to be close enough to be reached in short time period, without significant change in strategy and increase in financial terms.

Targets and Disparities

The *Sarva Shiksha Abhiyan,* which is the flagship programme of the national government, promises to achieve the goal of UPE by 2007 and the goal of UEE by 2010 (five years ahead of the international commitment made at Dakar). Importance of setting credible targets needs no special emphasis. However, even a cursory review of past performance in meeting preset goals for the Five-Year Plans shows that it has invariably been a story of unkept promises. This does not mean that no progress has been made. Some states would move quite close to the target by the end of the plan period while some others would remain far behind. The right approach would be to replace the current practice of setting global target timelines for the whole country with disaggregated targets for different states and UTs. This would inject the much needed sense of realism to the whole exercise of assessing the

magnitude of the task and setting time frames.

It should be recognized that the Indian scenario is too complex and varied to be effectively captured through aggregate national figures. On the one hand, there is Kerala showing a literacy rate of above 90 per cent, gross enrollment ratio of 103 per cent at the primary stage, practically every child attending primary school, and almost every school having at least five teachers and five classrooms. At the other end of the spectrum, there is Bihar where only one out of two children in the relevant age group is in the school. Towards the end of the 1990s, it was estimated that three fourth of the out-of-school children lived in six states of the country, namely, Andhra Pradesh, Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh and West Bengal. Gender disparity was as high as 42 per centage points for enrollment rates in Bihar and 31 per centage points in Uttar Pradesh but was only 3 percentage points for Kerala and 5 percentage points in Punjab. Has the situation significantly changed?

Estimates derived from the 7th All India Education Survey reveal a very similar story in 2002–03. Nearly 69 per cent of out-of-primary school children are concentrated in seven states, namely, Andhra Pradesh, Bihar, Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh and West Bengal. Bihar and Uttar Pradesh alone account for 33.87 per cent of out-of-school children at the primary stage. Surprisingly, with respect to girls' education, some of the states like Gujarat and Haryana have regressed in recent years falling below the national average. Thus, the problem of UEE continues to be one of inter-state disparities. That they have persisted in spite of five decades of development planning highlights the need for serious rethinking on the overall strategies adopted for education development.

Girls' Education

Recent assessments show that girls' participation in schooling has improved significantly during the last 10-15 years. However, the Global Monitoring Report of UNESCO on progress towards EFA goals considers the progress to be far from satisfactory and declares the country to be at risk of not achieving the goal of gender parity and equality. Are the strategies for girls' education pursued appropriate?

It is important that a gender perspective is incorporated into all aspects of planning. For instance, in order to promote girls' participation in schooling the Operation Blackboard Scheme required that the second teacher appointed to any primary school with one teacher would be a woman teacher. Early 1990s also saw the emergence of explicit programmes for women's empowerment such as the *Mahila Samakhya* as means of improving participation of girls in schools. Unfortunately, no effort has been made to capitalise on the achievements made through these by incorporating complementary measures to retain girls in schools through the full cycle of elementary education.

The new gender specific programmes under the Tenth Plan, namely, NPEGEL and KGVS represent positive steps in this direction. However, the programmes are just taking off. Second, the coverage under the two programmes is likely to be quite limited whereas the problem of girls' participation is widespread covering even states which are otherwise well placed in education development. The problem of non-participation of girls in schooling has been well explored and the causes are known. While inaccessibility of schooling facilities is one of the causes, tackling deeply entrenched social factors is a greater need in many areas.

It is essential that Five-Year Plans do not become vehicles for fighting fiscal crisis of state governments. Plan inputs should add value to the existing system in a cumulative fashion and incrementally transform the system over a period of time in the desired direction. As plan implementation progresses one should be able to clearly perceive the improvement in the system. *Ad hoc* measures cannot drive long-term progress. But, unfortunately, contingency measures seem to dominate the Tenth Plan proposals distorting not only the trajectory of progress but also the whole process of planning and budgeting.

Appointment of para-teachers in several states using the Tenth Plan funds is one such short-term strategy adopted essentially as a cost saving measure by many state governments. These teachers are recruited often without ensuring the accepted norms of qualification and on short-term contracts with lower levels of salary as compared to regular teachers. In several states, thousands of para-teachers have been appointed through SSA funds. Further, such teachers are also being appointed in several states against posts of regular teachers. These developments have begun to distort the field situation in several ways. First, it hides the real magnitude of the problem to be addressed in the long run, in financial terms. Second, it distorts the shape of the budget by projecting teacher salary which should in the normal course be part of the recurring expenditure as plan expenditure, unlikely to be absorbed as non-plan component as they are on contract basis. Third, this places the evolution and strengthening of a professional community of teachers in serious jeopardy. In fact, it needs to be explored if such measures have brought down the

non-plan expenditure of the state, particularly towards teacher salary, which traditionally accounted for most of the expenditure on education.

Programme and Strategies

Should the state governments be encouraged to draw up their own programmes and strategies as part of the Five-Year Plan cycle and the centre should only support to the extent assistance, if needed at all? Or, is it more desirable to present a total and probably common package drawn up at the national level to all states with some option for choosing the relevant components from the package? The SSA seems to have pre-decided the path by binding the country as well as the states to go with the large basket of programmes as the route to progress towards UEE.

Considering that education is under the concurrent list and the centre has rightly provided high priority to elementary education, appropriateness of a proactive approach by the centre in designing development activities in the sector cannot be questioned. However, if past experience of implementing centrally sponsored schemes is any indication, there is a danger that, after initial enthusiasm, state governments may begin seek financial resources under SSA but loose interest in and ownership of the programmes and actions in the field. One wonders if the proactive approach of the centre would be taken by many states as a license for them to be inactive.

If SSA should not degenerate into such a level, it is imperative that the programme is subjected not only to thorough evaluation at periodic intervals but also frequently refurbished with new ideas and innovative strategies, which are locally derived. It is important to recognise that there is no pan-Indian solution for the problem of UEE. The real test of SSA would be its adaptability to the changing contexts of different states and its ability to enthuse the state governments to continuously innovate the strategies for demanding central assistance. This would also imply that the norms for support under SSA should have the flexibility to accommodate new initiatives at district and sub-district levels. Also, these should carry full endorsement of the state government authorities. At present, the District Education Plans are prepared largely keeping in view the prescribed national norms rather than local necessities; the activities are viewed as project activities under SSA (similar to the perception under the DPEP). This perception has to change. The dichotomy between project activities and components of regular programme of the state government has to disappear. Probably, there is greater need to decentralize the designing of inputs to the SSA depending on the needs of individual states and greater level of involvement of state level professionals in review and revision of programmes. The monolithic view of SSA needs to be replaced by a truly pluralistic perspective as an all encompassing and also largely accommodative programme.

Reworking Partnership

The idea of centre-state partnership in implementing development programmes through sharing of finances is a positive step towards gradual take over of all activities by the state government. During the Ninth Plan period, no uniform principle was adopted for all programmes, while the DPEP was made operational with the formula of 85:15 for sharing finances between the centre and the state governments. However, integration of all national programmes for elementary education under the umbrella of SSA irrespective of whether the funds are drawn from national or international sources also brought in new norms of sharing between the centre and the state. Following the SSA guidelines, the Tenth Plan initiatives operate under the formula of 75:25 between the centre and the state governments. This is expected to be moved to a 50:50 formula during the Eleventh Plan.

How is the approach for sharing working? There is no systematic assessment made of the impact of the funding formula on implementation of the programme in different states. It should be noted that the situation with respect to internal finances of the state government varies widely. A common point made is that a uniform formula is not helpful for promoting faster progress in educationally backward states, which are also poor in their economic status. Fall out of such a situation is that it would further increase disparities in education development among different states.

It is urgent that a careful analysis of the impact of the current formula for sharing of resources on progress towards UEE is taken up so that an appropriate strategy can be formulated in preparation for the Eleventh Plan. Recent experiences have raised several issues on state initiated spending on elementary education development. In the final analysis, progress in school education will almost entirely depend on the state governments. While central support to elementary education development has consistently increased, it is unclear how different state governments are investing their resources for the development of the sector. In fact, recent steps taken by several states in virtually dismantling the professional cadre of teachers by appointing para-teachers, essentially as cost saving measure, raises serious questions on the wisdom of investing plan funds without adequate commitment from the state government. One gets the impression that fighting hard to ward off current deficit is

driving some of the states to completely depend on central grants for even minimal expansion of the system to accommodate the growing demand for elementary education. It is necessary to conduct a detailed analysis of state expenditure on elementary education. How much investment is being made by individual state governments towards building a sustainable system of elementary education in terms of infrastructure development and maintenance, teachers and teaching learning material and so on? It is important to note that, with increased demographic pressure, the demand for school places would also increase. How are the states prepared financially to face the situation? What level of contribution would be required from the centre in each state if a sustainable system of elementary education has to emerge?

Challenges

It appears that under pressure to meet national and international commitments, the progress towards UEE is being viewed unduly in terms of meeting quantitative targets. There seems to be inadequate focus on schooling processes and outcomes. Central as well as state governments are heavily preoccupied with reporting the progress in terms of expansion of the schooling facilities and coverage of children in the relevant age group.

This supply-oriented approach to development of elementary education, to a large extent, has overlooked critical processes that could make significant difference in improving the internal and external efficiency of the school system. What is the extent of efforts made during the plan period to improve management of schools and teaching-learning processes in the classroom? Are schools functioning better now than earlier? What efforts have been made to make functional decentralisation a reality, particularly in educationally backward states? Have any improvements in the utilisation of resources at the sub-district and school levels taken place? What state specific interventions have been taken to improve internal efficiency of elementary education?

Any attempt to assess progress towards UEE in the Tenth Plan needs to probably focus more on these aspects, rather than on quantitative indicators. Even from cursory observations, it is clear that states which have addressed such issues relating to UEE in the last decade have registered greater progress that are sustainable in the long run than those which have invested their attention mainly on improving quantitative targets. The two have to go hand in hand. Quantitative progress without attending to processes and outcomes would only lead to unviable and unproductive structures in the long run. ❑

National Literacy Mission

National Literacy Mission (NLM) was set up in May 1988, following an objective assessment of the strengths and weaknesses of the earlier programmes, and to accord a new sense of urgency, seriousness and emphasis with fixed goals, clear time-frame and age specific target groups. Emphasis was laid not on mere enrolment of learners but on attainment of certain predetermined norms and parameters of literacy, numeracy, functionality and awareness alongwith institutionalisation of Post Literacy and Continuing Education in a big way.

The goal of National Literacy Mission is to attain a sustainable threshold level of 75 per cent by 2007 by imparting functional literacy to non-literates in the age group of 15-35 years.

NLM Achievements

- The literacy rate in 2001 has been recorded at 64.8 per cent as against 52.21 percent in 1991. The 12.59 per centage points increase in the literacy rate during the period is the highest increase in any decade.
- 118.20 million persons made literate as on 31 March 2004.
- Rate of growth in literacy is more in rural areas than in urban areas.
- The gap in male-female literacy rate has decreased from 24.84 per cent in 1991 to 21.60 per cent in 2001.
- Female literacy increased by 14.41 per cent i.e. from 39.29 per cent to 53.7 per cent whereas male literacy increased by 11.17 per cent i.e. from 64.13 per cent to 75.30 per cent during the last decade.
- Gender equity and women's empowerment is also visible as about 60 per cent of participants and beneficiaries are women.
- The population in 7+age group increased by 171.6 millions while 203.6 million additional persons became literate during 1991-2001.
- All the states and union territories without exception have shown increase in literacy rates during 1991-2001.
- In all states and union territories, the male literacy rate is now over 60 per cent. Kerala continues to have the highest literacy rate of 90.92 per cent and Bihar has the lowest literacy rate of 47.53 per cent.
- Significant decline in absolute number of non-literates from 328.88 million in 1991 to 304 million in 2001.
- Out of the total 600 districts in the country, 596 districts have been covered by NLM under literacy programme.

Universal Elementary Education

Job Zachariah

India cannot wait any longer and it cannot let children miss education

THE FIRST major International affirmation on Education for All was at the World Conference on Education in Jomtein (Thailand) in 1990 when 155 countries including India and 155 organizations resolved to universalise primary education and significantly reduce illiteracy before 2000. The Conference adopted the vision that all children have the fundamental human right to basic education. Later, in the World Education Forum at Dakar, Senegal (2000), 164 countries (including India) reaffirmed the goal of education for all as laid out at the Jomtein and other International Conferences. It urged Governments to achieve quality basic education for all by 2015 or earlier, with emphasis on girl's education. This was followed by the UN Millennium Development Goal (2000), which binds countries to ensure that all children everywhere complete primary schooling by 2015.

However, much before these International commitments and affirmations, India had begun its journey towards universal elementary education (UEE). More than 55 years ago (1950), the Indian Constitution emphatically stated that the State shall endeavour to provide free and compulsory education for all children up to 14 years within ten years - by 1960 (Govinda, 2002).

But this journey was long and hard as literacy and school participation rates were very low at that point of time. Consider the educational situation in 1950. The overall literacy rate was just 16.6% (female literacy still less - 9%). The gross enrolment ratio (GER) at the primary stage (grade 1 to 5 covering 6-11 age groups) was 42.6%. At the upper primary stage (grade 6 to 8 in 11-14 age group), only 1 out of 8 child was enrolled in schools, among girls only 1 out of 20. Even those who enrolled in the school, about two-third dropped out by grade 5 and four-fifth by grade 8. The quality of education was poor and schooling facilities were dismal. Such was the educational situation when India embarked up on the journey for attaining education for all children.

National policies on education in 1968, 1986 and 1992 (modified) reiterated the resolve to achieve Universal Elementary Education. Also, a number of schemes and programmes were launched over the past 55 years

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Snapshot of Indian Elementary Education			
S.No.	Indicators	1950-51	2002-03
1.	**Schools**		
	Primary	210,000	652,000
	Upper Primary	13,000	245,000
2.	**Teachers**		
	Primary	538,000	1.92 m
	Upper Primary	86,000	1.58 m
3.	**Enrolment**		
	Primary	19.2 m	122.1 m
	Upper Primary	3.1 m	47.0 m
4.	**GER**		
	Primary	42.6%	103%
	Upper Primary	12.7%	63.3%
5.	**Drop out Rate**		
	Primary	65% (1960-61)	35.1%
	Elementary	78% (1960-61)	52.8%
6.	**Female Teachers**		
	Primary	15.2%	39.02%
	Upper Primary	15.0%	40.80%
7.	**PTR**		
	Primary	1:24	1:42
	Upper Primary	1:20	1:34
8.	**Access in habitations**		
	Primary	83.3% (1986)	87% (2002)
	Upper Primary	76.0% (1986)	78% (2002)
9.	**% Girls**		
	Primary	28.1%	46.8%
	Upper Primary	16%	43.8%
10.	**Population 6-14 years**	72.3 m	201.0 m
11.	**Enrolment 6-14 years**	22.3 m	169.1 m
12.	**Out of school children 6-14 years**	50.0 m (girls – 30 m)	13.5 m*
13.	**Expenditure in education (Rs.)**	65 cr (1951)	73442 Cr
14.	**% of expenditure to GDP**	0.64	4.02
15.	**Literacy**	17%	65% (2001)

*Source: Department of Education, Ministry of Human Resource Development (MHRD), Government of India, Selected educational Statistics 2001-02 and Abstract of Selected Educational Statistics 2002-03. *SSA second JRM Aide Memoire, July 2005, 6th All India Educational Survey (1986), 7th All India Educational Survey (2002).*

especially after the Constitutional amendment in 1976 to include education in the concurrent list making it a joint responsibility of the union and states. Some of the major schemes initiated were the Non Formal Education (1977)- later revised a Education Guarantee Scheme and Alternative and Innovative Education in 2000- for targeting out-of-school children, Operation blackboard (1987) for improving human and physical resources in schools, Teacher Education Scheme (1987) for teacher training and providing academic support, Mid-day meal scheme (1995) to enhance nutritional status of students, the District Primary Education Programme (1994) for achieving universal primary education and the UNICEF assisted Janshala Programme (1998) for community participation in schools.

A landmark programme – *Sarva Shiksha Abhiyan* (SSA) – for achieving Universal Elementary Education was launched in 2001-02. SSA, the first ever nationwide programme for UEE, seeks to reach every child in every hamlet in the country in a prescribed time frame. Not only that, the Constitution was amended in 2002 to make education a Fundamental Right of every child. To give impetus to girl's education, two programmes – National Programme for Education of Girls at Elementary Level (NPEGEL) and Kasturba Gandhi Bal Vidyalaya (KGBV) – were initiated in 2003.

Achievements

Consequent to these efforts, India made enormous progress in terms of increase in number of schools, teachers and students in elementary education. The number of schools in the country increased by four fold – from 223,000 in 1950-51 to 897,000 in 2002-03, while enrolment in the primary cycle during the same period jumped about 6 times – from 19.2 million to 122 million. At the upper primary stage of education, the increase of enrolment during the period was 15 times, while enrolment of girls recorded 40 fold increase. Over the years, the participation of girls at all levels of school education has increased sustainability. The share of girls' enrolment in total enrolment at primary stage increased from 28.1% in 1950-51 to 46.8% in 2002-03 (Selected Educational Statistics 2002-03).

The Gross Enrolment Ratio (GER) at the primary stage in India is now over 100%. At the primary stage, 87 per cent of the habitations in the country have schooling facilities within one kilometer and at the upper primary stage; it is 78 per cent within 3 km (7th All India Education Survey, 2002). The

Growth of Schools since 1950-51

Years	Primary schools	Upper Primary schools	Ratio of Primary to Upper Primary schools
1950-51	209671	13596	15.4
1960-61	330399	49663	6.7
1970-71	408378	90621	4.5
1980-81	494503	118555	4.2
1990-91	560935	151456	3.7
1999-00	641695	198004	3.2
2002-03	651375	245271	2.66

Source: Selected Educational Statistics for various years, MHRD, GOI.

public expenditure on education as a percent of GDP now is 4.02 in India compared to just 0.64 in 1950-51. The current level of expenditure on education 4.02% is higher than that of China – 2.1%, Pakistan – 1.8%, Singapore – 3.7%, Japan – 3.5%, Greece – 3.8% etc and not much lower than that of United Kingdom – 4.5%, United States – 4.7%, Australia – 4.7% etc., (Human Development Report, 2004).

True, these are impressive achievements as seen in Table 1. But the goal of achieving UEE appears to be elusive in the country. Out of 201 million children in the age group of 6-14 years, 13.5 million children are not attending school. Of this, three-fourth is girls. Internal Efficiency rates at elementary schooling system are poor. Even now more than one-third of the students who enter the primary stage dropout by grade 5 and more than half of them leave school before reaching grade 8. Though the data on completion rate and repetition rate are not available at the national level, cohort studies conducted in some states indicate that the completion rate is as low as 30 per cent and repetition rate as high as 35 per cent (Zachariah, 2002).

Then, there are problems relating to low levels of learning achievement and low participation of girls, tribals and other disadvantaged groups. Coupled with it are various systemic issues like inadequate school infrastructure, poorly functioning schools, high teacher absenteeism, large number of teacher vacancies, poor quality of education and inadequate funds. In short, the country is yet to achieve the goal of Universal Elementary Education (UEE).

What is UEE?

Universal Elementary Education or Education for All means providing universal access, universal enrolment, universal retention, equity and universal achievement of children. Universal access indicates the availability of educational facility within a walking distance of 1 km at the primary stage and within 3 km at the upper primary stage. Universal participation of children means total enrolment and functional attendance and retention till the end of the course. Universal achievement means ensuring the achievement of expected level of learning by almost all children (Lalit Kishore, 2003).

India's goal of universal elementary education of quality points to three main challenges: expanding access, raising learning achievement and reducing gaps in education outcomes. For this, three actions are needed: a) increasing the financing for elementary education; b) improving motivation and competency of teachers; and c) building management capacity (World Bank, 1997).

While countries like Cuba, Vietnam and South Korea have achieved Universal Elementary Education with in a few years of launching Education for All programmes, why is that India has not achieved the goal? How close are we to the goal and when will we achieve UEE? These issues are examined below by analyzing the five indicators of UEE – access, enrolment, retention, quality and equity.

Universal Access to Schooling

Till the end of 1980s, it was believed that UEE could be achieved by

Enrolment at Primary and Upper Primary

(In million)

Year	Primary			Upper Primary		
	Boys	Girls	Total	Boys	Girls	Total
1950-51	13.8	5.4	19.2	2.6	0.5	3.1
1960-61	23.6	11.4	35.0	5.1	1.6	6.7
1970-71	35.7	21.3	57.0	9.4	3.9	13.3
1980-81	45.3	28.5	73.8	13.9	6.8	20.7
1990-91	57.0	40.4	97.4	21.5	12.5	34.0
1999-00	64.1	49.5	113.6	25.1	17.0	42.1
2002-03	64.9	57.2	122.1	26.3	20.6	47.0

Source: Selected Educational Statistics for various years, MHRD, GOI.

Drop-out Rates at Primary and Upper Primary Levels *(In per cent)*

	1960-61	1970-71	1980-81	1990-91	1999-2000	2002-03
Class I-V						
Boys	61.7	64.5	56.2	40.1	38.67	36.0
Girls	70.9	70.9	62.5	46.0	42.28	33.9
Total	64.9	67.0	58.7	42.6	40.25	35.1
Classes I-VIII						
Boys	75.0	74.6	68.0	59.1	51.96	52.3
Girls	85.0	83.4	79.4	65.1	58.00	53.5
Total	78.3	77.9	72.7	60.9	54.53	52.8

Source: Selected Educational Statistics for various years, MHRD, GOI.

improving access to schooling and this led to opening of new schools within the habitation/ village or with in the walking distance of children. As can be seen in Table, a large number of primary schools were opened in the first two decades after the Independence. The average annual growth in number of primary schools was 3.5 per cent from 1956 to 1961, compared to 1.4 percent during 1981-96 and 1.3 per cent during 1991-96.

The number of upper primary schools and the proportion of primary to upper primary schools also recorded improvement over the years. As against the national norm of one upper primary school for every two primary schools, the ratio of primary to upper primary school has improved to 1:2.7.

In 1993, about 180,000 habitations did not have access to educational facilities (6th All India Educational Survey-AIES). More than 60,000 new schools and 200,000 EGS centres were opened in un-served habitations since then. Even after this massive expansion of primary schools and EGS centres, there are still a large number of habitations with out schools. As per the 7th All India Education Survey (2002), out of 12,31,000 habitations in the country, only 87% of the habitations have primary schooling facility within or at a distance of 1 km compared to 83.3% as per the 6th AIE survey (1992-93). Many of these un-served habitations may not be entitled to have school because of small population size, but they cannot remain divorced from education.

With the opening of 160,000 new schools, as approved under the SSA, the problem relating to physical access to schooling in India will be resolved. But true universal access will be achieved only when the social distance within the communities in habitations and villages are eliminated. Many marginalized communities still do not attend school in their village because of the social distance to the school

Facilities and Infrastructure

With regard to facilities in schools, it has improved significantly, but a lot more need to be done. For instance, as per the 6th All India Educational Survey, only 5 percent of the schools have separate lavatories for girls and only 8.7% has separate urinals for girls. Only 65% of the primary schools have pucca building as against 69% of upper primary schools.

The situation of school infrastructure and facilities has not improved substantially since the 6th AIES. As per the 7th AIES (2002), out of the total 900,000 primary and upper primary schools, only around 80% schools have pucca building and surprisingly, around 20,000 schools have no building at all. The situation seems to be alarming in Assam with less than 40% of the schools with pucca building.

Universal Enrolment

Overall, there is evidence to suggest that the country is steadily moving towards universalization of elementary education. Of the estimated 201 million child population (SSA Household survey data) in the age group of 6-14 years, approximately 94 percent are reported to be enrolled in schools including alternative systems. Of this, over 64.4 lakh children are enrolled in EGS/alternative schools. (Aide Memoire, 2nd JRM of SSA, July 2005)

Gross Enrolment Ratio (GER)

GER at the primary and upper primary levels improved significantly since 1950-51. The boys/girls differential in GER at the primary and upper primary levels declined significantly from 28.5 and 29.6 per cent points in 1990-91 to 9 and 181per cent points in 2002-03.

Net Enrolment Ratio (NER)

The Net Enrolment Ratio (NER), which is obtained by disaggregating underage and overage children enrolled in grades I-V and VI-VIII is considered to be the ideal indicator to assess the participation of children. But this data is not available in most states. The NER for boys and girls was 78 per cent and 64 percent respectively at primary level

in 1997-98. The overall NER at the primary level was 71 percent, which suggests that at least 29 percent of children of the specific age group 6-10 were out of school in 1997-98 (India Country Paper, EFA 2000 Assessment). Large disparities exist between the states in terms of GER and NER and educationally backward states have lower NER than the all India average of 71 percent.

Out of School Children

The official estimates on the number of children attending school are impressive. According to the National Sample Survey Organization (NSSO, 1998), 69 per cent of the total children in the 6-10 age group and 72 per cent in the age group of 11-13 year attend school. The National Family Health Survey–II (NFHS-II, 1999) presented a better picture. About 79 per cent of the children in 6-14 age groups (74 per cent girls and 83 per cent boys) were attending school in 1998-99, as per the statistics of MHRD in 2002.

Based on the household survey conducted in various states, MHRD had earlier estimated that 35 million children were not attending school in 2003. As per the latest estimate of the MHRD, the number of out-of school children has reduced from 25 million in 2003 to about 13.5 million as on March 2005 (SSA second JRM Aide Memoire, July 2005). Out of 201 million children of 6-14 years, 187.5 million children are attending school or alternative school. This includes about 160 million children in government/ local bodies/private recognized schools, 6.4 million in EGS/AIE Centres and around 21 million in unrecognized schools.

Over 70 per cent of the out-of-school children are concentrated in 7 states/UTs, and over 50 per cent are in Uttar Pradesh, Bihar, and West Bengal. Within these states, the situation is further aggravated in 20-30 per cent districts which account for more than half of the total out-of-school children. Across the country, about 78 districts have less than 1,000 out-of-school children each. About 160 districts have in-between 10-50 thousand and 244 districts have 1000-10,000 out-of-school children. The problem is however, more acute in some 29 districts, each having over 50,000 and more out-of-school children(Aide Memoire, 2nd JRM of SSA, MHRD).

Nationally, out-of-school children account for 6-7 per cent in the 6-14 age groups. In the 6-10 and 11-14 age groups, the percentages of out-of-school children are 5 and 9.6 per cents respectively. However, in many districts, the percentage of out-of-school children in the 11-14 age group 9is much higher than the national average.

Even if the statistics of MHRD are correct, the school participation in terms of regular attendance in school is much lower. Only about 42 per cent of the children in the 6-13 age group attend school regularly in rural areas, the proportion being as low as about 28 per cent for the very poor.

Universal Retention

The Indian Education System is infamous for its inability to retain children in its fold leading to high school inefficiency. Although the drop out rate is very high in India the good news is that it is declining steadily over the years.

There is a decline of 4 percentage points in the national drop out rate for primary stage from 39 per cent in 2001-02 to 35.1 per cent in 2002-03 and a 2 percentage point decline for elementary as a whole from 54.6 to 52.8 per cent during the same period. The gender-gaps with respect to dropouts at primary stage have reversed (SES, 2002-03). The dropout rate at standard I and II are the highest contributors to the overall dropout rate. It is suspected that most of these children are probably underage and are getting re-enrolled.

Universal Achievement

The most important component of universal elementary education is learning achievement of children. Even the states that have almost attained universal access, enrolment and

Teachers in Primary and Upper Primary (In thousand)

Year	Primary			Upper Primary		
	Male	Female	Total	Male	Female	Total
1950-51	456	82	538	73	13	86
1960-61	615	127	742	262	83	345
1970-71	835	225	1060	463	175	638
1980-81	1021	342	1363	598	253	851
1990-91	1143	473	1616	717	356	1073
1999-00	1236	683	1919	829	469	1298
2002-03	1166	746	1912	936	645	1581

Source: Selected Educational Statistics for various years, MHRD, GOI.

Percentage of Girls' in Total Enrolment		
Years	Primary Schools (Grades I-V)	Upper Primary Schools (Grades VI-VIII)
1950-51	28.1	16.1
1960-61	32.6	23.9
1970-71	37.4	29.3
1980-81	38.6	32.9
1990-91	41.5	36.7
1993-94	42.7	39.1
1994-95	42.8	38.9
1999-00	43.6	40.4
2002-03	44.0	43.8
2003-04	47.0	45.0

Source: Selected Educational Statistics for various years, MHRD, GOI.

retention, the quality of education is an area of concern. It is only in the recent past (during 1990s) that quality of education has got the attention of policy makers. (Mehta, 2002)

The available evidence shows that primary Level learning achievement is low in India. Out of the children who reached the final year of Primary School, it was often found that about 70% of grade four students and 60% of grade five students have not mastered competencies in Hindi and Mathematics that would be expected of grade two students. Another study conducted in West Bengal for children of grade four found that only 20% of the students obtained the minimum expected competencies in language and mathematics (World Bank, 1997).

The data on learner's achievement is not available on regular basis. The official agency (Department of Education, MHRD) does not collect data on this aspect except that it disseminates statistics on examination result at secondary and plus-two levels. It is only in the recent past (after1994) that achievement tests were conducted under the District Primary Education Programme through Baseline Assessment Survey, Mid Term Assessment Survey and Terminal Assessment Survey at various point of time in DPEP Districts. Although the results show improvement in average performance of students in language as well as mathematics, the mean score across states is low and far below the expectations. Also, there is still no reliable benchmark on the achievement levels of children across the states/UTs.

Quality improvement of education is most important component of the national programme of *Sarva Shiksha Abhiyan* but quality continues to area of concern. There are several efforts, currently on, to improve the quality of education. One such initiative is the Quality Package (QP) programme of UNICEF, which defines quality and ensures quality inputs in over 10,000 schools in the country. Another initiative is the School Quality Mapping, developed by UNICEF, to grade schools on five major indicators.

Teachers

Learning achievement of children greatly depends upon the quality and quantity of teachers. Although the number of teachers has increased from 6.24 lakh in 1950-51 to 35.0 lakh in 2002-03, there are large number of teacher vacancies, especially in states like Bihar and West Bengal.

The only one educational indicator that has shown negative trend since 1951, probably is the pupil-teacher ratio (PTR). PTR at primary level which was 24 in 1950-51 increased to 39 in 1971, and 47 in 1995-96. Obviously the increase in enrolment since 1951 could not be matched by additional deployment of teachers. The PTR position however, has showed signs of improvement since 1997-98. It hovers around 42, closer to the national norm of 40. Twenty states/UTs have reported PTR of less than 40, while 3 states have very high PTR : Bihar (96), Uttar Pradesh (77) and West Bengal (55).

Teacher Training

In 2002, more than 86% of the Primary Teachers and 87% of the Upper Primary Teachers had pre-service teacher training qualification. With the appointment of large number of par teachers, especially in the North Indian States, the number of untrained teachers has increased. For instance, out of about 200,000 primary teachers in Bihar, more than half do not have teacher training qualification.

Equity

UEE can be said to be achieved only when the gender and social gaps in terms of enrolment, retention and learning achievement is fully eliminated. The share of girls in the total enrolment is steadily improving. Girls' share in total enrolment at primary stage has improved from 28.1% in 1950-51 to 44% in 2002-03 and to 47% in 2003-04. For the upper primary stage, it was reported to be 45% in 2003-04.

The gender parity index (GPI) of GER at primary level improved to 0.92 in 2002-03. from 0.82 in 2000-01. At the upper primary level, the GPI of GER improved to 0.83 in 2002-03 from 0.75 in 2000-01.

The share of SC students in primary level has increased from around 19 percent in 2002-03 to 21.3 percent in 2003-04, while that of ST students has remained the same. At upper primary

level, SC and ST students accounted for around 19 percent and 8.2 percent of total students respectively. The share of children with Special Needs (CWSN) has increased from 0.6 percent in 2002-03 to 1.2 percent in 2003-04.

Road Blocks in UEE

There are several roadblocks in the journey towards achieving universal elementary education (UEE). What are these barriers in achieving UEE? Reasons for non-participation of children in schools are varied and numerous. They can be classified into different categories. These are a) access, retention, equity and quality; b) social, economic, cultural and religious; c) in-school and out-school factors and finally d) child related, family related, school related and others.

It is difficult to compartmentalize the reasons, as they are inter-related. While some of these are direct and root causes for non- participation, others are fall out of these causes or factors leading to the causes. The world does not operate on a linear line with so many force factors concurrently at work. With complex patterns, the causes of non-participation of children in school are complex. Children seldom remain out of school for one single reason. Generally, a combination of causes operates in keeping the child away from the school.

Road blocks in terms of access include absence of schools in the habitation/village, distance to the school, geographical barriers, inadequate school infrastructure, lack of basic facilities etc., There are various social factors that do not permit children to participate. This includes social, cultural and religious beliefs and practices restraining participation; absence of social norm; social exclusion; poor social positioning; low parental perception etc., There are also various economic reasons for non-participation which includes income or expenditure poverty; deprivation of households due to food insecurity, illness, forced livelihood options, lack of choices, vulnerability to crisis etc; wage work by children; unpaid work in house, farm, family; household chores; sibling care responsibility, collecting minor forest products, grazing cattle etc; migration of families; high cost of education etc.

The major road block in achieving Universal Elementary Education is the absence of quality education in schools. Most of the schools are plagued by child unfriendly pedagogy, poor quality of education, poorly functioning schools, detention of children, corporal punishment, in-competency of teachers, teacher absenteeism, shortage of teachers etc. There are also several equity issues especially with respect to girls. Apathy to girl's education, concern on security of girls, inadequate female teachers, absence of girl's toilet, early marriage, illness in the family and distance to school are some of the reasons withholding girls from the schooling system. There are equity issues relating to socially disadvantaged groups and children with special needs with respect to hostile school environment, discriminative attitude of teachers, un-intelligible language in classroom etc.

Today, India is closest to the goal of achieving UEE, than ever before. There is now a sense of urgency in the efforts of the government - both at the centre and the states - NGOs and civil schools to provide education for all. The association of the Prime Minister as Chairman of the General Council of SSA is indicative of the political commitment at the highest level to the cause of universal elementary education. Financial allocations to the UEE programme of SSA has increased by 15 folds – from Rs.665/- crore in 2001-02 to Rs.10,400/- crore in 2005-05. The constellation of stars have now been aligned in favour of education for achieving the goal of UEE. India cannot wait any longer and it cannot let children miss education. ❑

NEWS More Children Going to School but Girls Still Denied Education : UNICEF

UNICEF has said that more youngsters than ever before are attending Schools but millions of girls are still being denied basic education. The "progress for children" report by the UN's child agency stresses that to make the millennium development goal (MDG) a reality, a radical shift in thinking and policy will be required.

UNICEF Executive Director Corol Bellamy said that this report proves that our strategic focus on getting more girls into Schools is working to increase attendance rates for boys and girls in primary Schools. "But it also makes clear that a quantum leap is needed both to breakdown the barriers keeping girls out of school and to make schools available to all children", she said. She said girls who do not attend primary school are more likely to fall victim to HIV infection and less able to bring up a healthy family.

A "quantum leap" in resources and an extra $ 5.6 billion a year are needed to reach the goal of universal primary education by 2015 which is the millennium development goal (MDG), the report said. It said the gender gap in primary education is closing globally but in some parts of the world, there are wide gaps. Some 125 out of 180 countries for which rates are available are on course to reach gender parity by 2005, a prerequisite for achieving the education MDG, but the global average masks huge pockets of inequity. Three regions, the middle, East and North Africa; South Asia and West and Central Africa will not meet the gender goal.

(Agencies)

Sarva Shiksha Abhiyan

The programme has generated considerable interest and commitment in all the states and has helped bring elementary education closer to the centrestage of the development agenda

THE SCHEME of *Sarva Shiksha Abhiyan* (SSA) evolved from the recommendations of the State Education Ministers' Conference held in October 1998 to pursue universal elementary education in a mission mode. The scheme of *Sarva Shiksha Abhiyan* was launched by the Government of India in 2001.

The assistance under the programme of Shiksha Abhiyan was on a 85:15 sharing arrangement between the Central Government and the state government during the Ninth Plan, at 75:25 during the Tenth Plan, and at 50:50 thereafter.

The programme covers the entire country, except the state of Goa. During 2004-05, Annual Work Plans of 598 districts were approved under SSA. The programme seeks to open new schools in habitations which do not have schooling facilities and strengthen existing school infrastructure through provision of additional classrooms, toilets, drinking water, maintenance grant and school improvement grant. Existing schools with inadequate teacher strength are provided additional teachers under the programme. The capacity of existing teachers is built by extensive training, provision of grant for developing teaching-learning material and development of academic support structure. SSA has a special focus on girls and children of weaker sections. A number of initiatives, including free textbooks, target these children under the programme. SSA also seeks to provide computer-aided education even in rural areas.

The approach is community-owned and the village education plans prepared in consultation with Panchayati Raj Institutions will form the basis of district elementary education plans. The *Sarva Shiksha Abhiyan* covers the entire country, with a special focus on educational needs of girls, scheduled castes and scheduled tribes and other children in difficult circumstances.

The Ministry has also set up a National Mission for SSA under the chairmanship of Prime Minister. The first meeting of the Governing Council of National Mission was held on February 21, 2005.

During the Tenth Plan, an allocation of Rs 17,000 crore has been made for SSA. For 2003-04, the Budget Estimate was Rs 1,951.25 crore, Revised Estimate was Rs 2,732.32 crore and the final grant released to the states was Rs 2,698.38 crore. The total expenditure under SSA for the year 2003-04 was Rs 3,617.91 crore. For the year 2004-05, Budget Estimate is

Compiled by Mr Sanjay Pratap Singh, AIO, Ministry of Human Resource Development, GOI.

R 3,057.08 crore and Revised Estimate is Rs 5,079.58 crore.

Impact

The implementation of SSA in the first two years of the Tenth Plan has been a significant development in the field of education. There has been particular emphasis in these two years to ensure inclusion of all out-of-school children in the field of education. The focus has been on improving the existing infrastructure of regular schools as well as on alternate strategies for mainstreaming children who have been left out of the schooling process due to various reasons. As a result of all these interventions, the estimated number of out-of-school children has come down from 2.3 crore in the beginning of 2003-04 to 81 lakh as on September 30, 2004, (as per estimates of the States/UTs).

More than 3 lakh additional teachers have been recruited across the country under SSA to ensure appropriate pupil-teacher ratios. A majority of primary school teachers in the country are receiving an annual round of inservice training of 10-20 days duration. More than 60,000 academic resource centres have been established at the block and cluster levels to provide academic support to primary and upper primary teachers and schools as a follow-up to the teacher training programmes.

Towards the objective of improving the infrastructure, approval for the year 2004-05 have been made to open more than 80,000 new schools and appointing around 4.5 lakh teachers in the last two years. Further, physical infrastructure has been sought to be improved through provision of more than 1 lakh additional classrooms, around 60,000 school buildings, 1 lakh toilets and 75,000 drinking water facilities. With the objective of improving the quality of teaching learning outcomes of students, grants are given to all teachers for developing teaching-learning materials, 20-day training is expected to be given to all teachers and free textbooks distributed to all girls and children belonging to scheduled castes and scheduled tribes. In addition, maintenance grant for civil repairs and a school grant for replacement of equipment is given to all schools. About 1.42 crore children are expected to be enrolled in Education Guarantee Scheme Centres and alternative education interventions like bridge courses.

Physical Items approved under SSA by the Project Approval Board

	2003-2004	2004-2005
No. of schools approved	67190	44719
No. of teachers sanctioned	398189	210431
No. of school buildings	40960	29018
Additional classrooms	68779	82538
Toilets	46272	50044
Drinking water	33161	44322
Teacher grant (No. of teachers)	2967053	3239155
School grant (No. of schools)	683303	903191
Maintenance grants (No. of schools)	733000	856230
Free textbooks (No. of children)	4.70 crore	6.15 crore

Review and Monitoring

SSA follows a four-tier review and monitoring system.

- 42 National Social Science Institutions have been tagged to all states/UT's to make regular field visits and monitor performance. Their reviews will begin in 2004-05.
- A computerised educational MIS system gives annual school-based data on all significant educational statistics.
- Local community-based monitoring of school performance, enrolment drives and updating of household data on out-of-school children is done every year.
- Pupil achievement level studies are conducted every three years to check increase in learning levels, especially in mathematics and language.
- A detailed Financial and Procurement Manual has been developed and brought into use in all states/UTs for streamlining accounts, procurement systems, auditing and regular financial monitoring mechanisms.

Funds released under SSA (in Rs crore)

	2003-2004	2004-2005 (up to 30.12.2004)
Funds released by Central Government	2698.38	4386.47
Funds released by state government	864.80	1106.66
Total funds available	3563.18	5605.52
Expenditure	3617.91*	3655.34

**Includes unspent balance of previous year.*

Joint Review Mission

The first Joint Review Mission of SSA visited a sample of eight major states in the country from January 24 to February 7, 2005. The Mission consisted of independent reviewers. The JRM reviewed progress in the

implementation of the programme in these states and visited schools, EGS centres in rural and urban areas, interacted with field functionaries, VECs, academic support institutions as well as state and National-level Government officials.

- The programme has generated considerable interest and commitment in all the states and has helped bring elementary education closer to the centrestage of the development agenda. The political executive, the governmental functionaries, the Departments of Education are quite involved in giving a shape to this Mission not only by implementation of programme components but also to mould the programme to suit state-specific situations. Enrolment drives, learning situations like bridge courses, and Shishu Shiksha Kendras serve to illustrate how the national framework has been adapted by the states.

- The programme has generated in the country an unprecedented awareness about education and the Mission witnessed a very intense school-community interface that might be the foundation for a sustained progression towards the Mission's objective of providing quality education for all children. Whether it is positioning additional teachers, or building better, bigger school buildings or adding teaching-learning materials or participating in PTA meetings, the community participation in school development has quite visibly increased. This has led to a number of positive developments. The enrolments have gone up, attendance of students and teachers has improved, school buildings look better, seem better maintained and the accountability in the system is greatly enhanced.

Goals of *Sarva Shiksha Abhiyan*

- All 6-14 age children in school/ EGS centre/ bridge course by 2003;
- All 6-14 age children complete five year primary education by 2007;
- All 6-14 age children complete eight years of schooling by 2010;
- Focus on elementary education of satisfactory quality with emphasis on education for life;
- Bridge all gender and social category gaps at primary stage by 2007 and at elementary education level by 2010;
- Universal retention by 2010.

- SSA has significantly improved access to schooling. The flexible, decentralised, contextualised approach has helped establish schools in remote areas and for hitherto unreached populations. Setting up EGS centres in deep forests, isolated islands and hilly terrains has changed the socio-cultural matrix of many communities. The Mission members noted many instances where these EGS centres brought about a change in the worldview of tribal groups. The programme has also brought forth a dedicated group of educated youth, who are acting as instructors in these interior centres. Their knowledge of culture, language and the social mores of the communities has helped establish a rapport with the group of learners resulting in enrolment of a large number of first generation learners.

- The programme has helped states to develop strategies for enrolling children in schools. It is gratifying to note that in the eight states visited by the Mission, the number of out-of-school children which was around 12 million in January 2003 (as per the household survey conducted by the states) had been dramatically reduced to 3 million in two years. Opening of new schools, EGS

Progress in implementation (major interventions)

Item	Sanctioned Physical Targets	Progress	%age
Opening of new schools	67190	66147	98
Construction of school buildings	78776	(under construction) 37525 (completed) 17454	69
Construction of additional classrooms	171154	(under construction) 66556 (completed) 33777	59
Number of children covered under EGS	4367655	6398408	136
Appointment of new teachers	535203	310506	58
Free textbooks	46959451	55861609	118
Setting up of Block Resource Centres	6734	6653	98.8
Setting up of Cluster Resource Centres	66401	62000	93.4

**EGS: Education Guarantee Scheme centres are set up in habitations without a regular school within 1 km.*

centres, ECE facilities, bridge courses have brought education facilities closer to communities. Most states visited by the Mission reported near universal access. The first major step towards fulfilment of the SSA's first development objective has been taken.

- The SSA framework has helped focus on staffing of schools. More teachers have been recruited in all the states visited by the mission and barring a few exceptions like West Bengal, the pupil-teachers ratios are approaching a manageable level of 40 students per teacher.

- The programme has created an environment where school processes are being more closely looked at. Excellent teaching-learning materials have been developed by institutions, by groups of teachers as well as by individual teachers. Schools are becoming more child-friendly and teachers are increasingly becoming aware of the efficacy of child-centred, activity-based pedagogy. Textbooks and workbooks, supplementary teaching-learning materials are being developed across all the states visited by the Mission.

- All states visited by the Mission are addressing the issue of uneven access to quality education, conscious of gender and social gaps, interventions.

- SSA has generated in the country an unprecedented awareness about education and the Mission witnessed a very intense school-community interface that might be the foundation for a sustained progression towards the mission's objective of providing quality education for all children.

- Like remedial instruction, residential schools, vocational skill development, uniforms and mid-day meals have been introduced in most of the states. The gaps exist but are narrowing and if states sustain the current focussed, strategic approach, we may soon achieve the second development objective of SSA. However, much more needs to be done in this component.

Major indicators of the cumulative progress achieved under SSA

- 66,147 elementary schools opened
- 17,454 new elementary school buildings and 33,777 additional classrooms constructed
- 3,10,506 additional teachers appointed
- About 6.15 crore girls and children belonging to SCs and STs studying in elementary schools, given free textbooks in 2004-05.

- The SSA framework has enabled existing teacher training institutions to be strengthened and new resource institutions like BRC and CRC to be set up. Teacher training as a part of building capacity to initiate and sustain education reforms has become an integral part of the planning process. The process of upgrading teacher's professional skills is now universally in place. There are, of course, issues of quality of content and training methodology which impinge on the confidence and competence levels of teachers and ultimately on the quality of classroom transaction.

- SSA has also brought in greater convergence between various programmes and the states are beginning to view schemes like Integrated Child Development Scheme (ICDS) total sanitation and water supply as crucial inputs to the larger Mission of EFA.

- SSA has brought together an increasing number of NGOs and civil society partners into a collaborative relationship. Wider participation based on a shared vision and commitment to mission goals is perhaps the most crucial factor that can ensure sustainability of the national endeavour.

However, there are a few areas that need sharper focus and concerted action.

- Data collection, data analysis and data use are crucial for measuring progress, lending the Mission a sense of direction.

- Aligning all activities to the Mission goals is central to accelerating the pace and effectiveness of implementation process.

- With gross enrolment ratios reaching 100 per cent level, the attention must shift to attendance and prevention of dropouts.

- The classroom processes hold the key for retention of children and therefore need greater understanding and effort to make them qualitatively better.

- The Mission feels that considerable work remains to be done to build capacity in the system in all key areas, with the view to improving learning outcomes for all.

- Administrative procedures must be reviewed to facilitate entry and retention of children in school, dismantling various barriers and procedures.

- Civil works, which absorbs about one-third of SSA funding, must be treated as an integral part of the learning environment. Thus, it is very important to pay attention to context-specific school building design. ❑

Education Cess and Secondary Education

Urmi A. Goswami

BY 2011, the government hopes that its efforts with the *Sarva Shiksha Abhiyan* will ensure that all children between the age of 6 and 14 years will be in school. This means that the number of children eligible to study in class nine, the entry point for secondary education, will be increased exponentially. The question then is are we prepared for this increase? The short answer is no. Do we have a plan? Perhaps. Are we aware that we are sitting on a time bomb? Perhaps.

Without trained teachers, even the fanciest buildings, best textbooks and facilities will not do

Consider this. At current drop out rate, 52.8%, at elementary school level, only 20% of those retained are making it to secondary school. Even at these levels there is a problem of overcrowding. The situation takes on a sense of greater urgency when we consider that over the last few years India has been positioning itself as a knowledge economy. Unfortunately, much like our education system, this positioning has been top down, skewed and incomplete. For us, the success of our IT professionals, their success and a recognition for our engineering education system, the rise of India as the back office to the world by virtue of a large educated and English speaking population, is what makes India a rising star of the global knowledge economy. Though the tertiary or higher education sector caters to only 9.2% of students who pass their higher secondary school leaving examination, it is still a sizeable number in absolute terms. It is perhaps for reasons of sheer size that the absence of universal schooling is yet to manifest as a dent to India's positioning as a knowledge economy.

However, if India is to truly become a part of the global knowledge economy, to achieve its full potential then it is time we turn our attention to the basic building blocks of our education structure.

Elementary education has for long been neglected. While Article 45 of the Constitution did direct the state to endeavour to provide education for all children up to the age of 14 years, progress on this count seemed rather slow. In 2002, education for children between the age of 6 and 14 years became a fundamental right. This time round, the government began focusing on a mission mode at the entry level of

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the education superstructure. So far then we have directed efforts towards tertiary, especially technical, education and now through the *Sarva Shiksha Abhiyan*, on elementary education.

In between lies four crucial years, 14 to 17 years— secondary (classes nine and ten) and higher secondary (classes eleven and twelve). Providing education in these years can, according to a World Bank study, boost the earning capacity to 2.9 times that of the illiterate worker and to 1.7 times that of workers with primary school education. And to come back to India's positioning itself as a knowledge economy, it would be difficult to sustain that ambition if a large majority of children lose the way out of the system after class eight.

A report prepared by a subcommittee of the Central Advisory Board of Education puts it down even more clearly. And gives us a glimpse of the nature of the problem that confronts the education system today. "Elementary education is no more adequate—it neither equips a child with necessary knowledge and skills to face the world of work nor does it empower her to deal with the challenges of a globalising economy. What career avenues—professional or otherwise—are open to a child after merely eight years of elementary education? The eligibility condition of even low level certificate or diploma courses (para-medical, technical or teacher education) all require a minimum of Class twelve certificate."

So there it is. The government's earnest commitment to universalising primary education some 50-odd years after Constitution directed the state to provide education for all children up to the age of 14 years is not enough. The numbers say it all.

According to the 2001 census, the number of children between the age of 14 and 17 years, that is the age group eligible for secondary education, is 91.7 million. The size of this segment is expected to be 98.2 million by 2011. Growth of enrolment in secondary schools has increased at an annual rate of 2.83% during the 1990s, it increased at the rate of 7.4% annually between 2000 and 2003. Going by enrolments at the upper primary schools, enrolment in secondary schools is expected to increase from a level of 19.7 million to 26.4 million by 2006-07. As per Planning Commission's mid-term appraisal, assuming that *Sarva Shiksha Abhiyan* achieves its goal of universal enrolment and retention in full or near full measure, the total secondary enrolment is expected to reach approximately 50 million, with an annual growth rate of 7.2% between 2003 and 2011.

That is what the future looks like, but back to the present. Simply and may be a tad crudely put, at present 19.7 million students in the secondary sector and 7.8 million in the higher secondary sector have to be accomodated in about 1,20,000 schools. What it presents is schools with overcrowded classrooms, schools that are ill equipped for education in sciences, or information technology. As per the projections of the *Sarva Shiksha Abhiyan*, the situation is not going to improve. Obviously what is required is a massive capital inflow, along with "a qualitative shift in educational provisions"

So what are we do with the influx of students? What are the issues to consider? It is here that the challenge of vocationalising education crops up. Fact is that even today opting for a vocational (except for engineering or medical) course is viewed as a last resort. In such a situation steering a section of students towards vocational streams may seem a tad unfair. What is however important to remember that in today's competitive global market, skills have an important place. A population that has basic education can be trained. So we are back where we started, the need to provide basic education, which unfortunately cannot stop at class eight. Till date, vocational has been seen as separate from the academic stream of education. What we have then is the creation of a "children of a lesser god" model. Fact is that in the current economic scenario, students have to be exposed and taught skills. This does not preclude academic learning. This is the time to rethink the concept of vocationalising education, now when secondary education will have to undergo a massive overhaul.

There is another issue that often is left out, deferred for when we have cracked the numbers, to be taken up later, that is the question of quality and perception of quality. In 2001-02, private unaided schools accounted for 23.56% of secondary schools. This was a substantial increase from the 18.1% share that private unaided schools had in 1996-97. In contrast, goverment and local bodies accounted for 42.45% of secondary schools in 2001-02, down from its 1996-97 share of 45.7%. In other words, the increase in the number of secondary schools can in large measure be accounted for by the private unaided sector. In large measure, because, these figures may not have taken into account, double shifts being run at government/ local body schools, or the upgrading of upper primary schools to secondary schools. Of course what these figures hide is the fact that the private unaided sector still only accounts for 15% of student population—of course in absolute terms the number of students have gone up.

However even if we take these figures to be mere indications, what is important to note is that households are

now increasing private expenditure on secondary education. The other thing that the figures do tell us is that the state seems to be retreating from increasing its investment in secondary education. That is a scary proposition. Because a vast majority—85% of the population that does make it to secondary school still depends on the state. It is here that the state is presented with an opportunity to clean up its act.

Why are private unaided schools gaining ground? The perception that they provided better quality education, the child will have access to English, ICT and will have an entry into a certain social set. On the last count, there is no immediate remedy. In time if the state can wean back students from the private sector, it could make that change. But on the count of quality, English and ICT, some state governments are making the effort. A good example is Andhra Pradesh, Tamil Nadu and Goa, where the government has in partnership with private players like NIIT made their schools ICT enabled. Fact is, money is allocated for the purpose in the Central Budget, what needs to be done is to implement a programme.

Another issue, that often gets forgotten in the talk of building more classrooms or providing equipment is that of trained teachers. Fact is that the 1.38 lakh secondary schools that exist will not be enough and the 11,00,000 teachers in the system too will not suffice. Where are the teachers who are being trained to take on the additional students? Teacher training will be the cornerstone of the secondary school system. Without trained teachers, even the fanciest buildings, best textbooks and facilities will not do. Teachers who will have to be trained in keeping with the changing demands of the time. That is what we need to start worrying about, right away, if we aren't thinking about it already.

Public expenditure on education was 4.02% of GDP in 2001-02 with secondary education accounting for 1.25%. Given the expected increase in enrolment at the class nine level, expenditure on the secondary sector has to increase substantially. This would bring us to the question of who pays?

In 2004, the government levied a 2% education cess. This was done in accordance with the National Common Minimum Programme, which states "The UPA government will introduce a cess on all central taxes to finance the commitment to universalise access to quality basic education." In light of the 86th Amendment to the Constitution, which made education for children between the age of six and fourteen a fundamental right, the money raised as education cess—Rs 4,910 crore in 2004-05, and Rs 7,000 crore in 2005-06—was allocated to elementary education.

The government in its National Common Minimum Programme pledged "to raise public spending in education to at least 6% of GDP with at least half this amount being spent of primary and secondary sectors. This will be done in a phased manner." Whether a portion of the proceeds of the cess will be ultimately allocated to secondary education or not is a debate that would seem pointless in light of projected expenditure for both elementary and secondary education.

The CABE committee, in its report recommending the universalisation of secondary education, has provided detailed calculations on the costs. Consider this, if the *Sarva Shiksha Abhiyan* has a 75% success rate, it would mean that is 2006-07, there will be an increase of 9.4 lakh children enrolled in class nine, the present projected enrollment in class nine is 2.7 crore. This would require an additional financial requirement by both the Centre and states to the tune of Rs 5676 crore in 2006-07.

The committee has suggested a centrally sponsored scheme for universalising secondary education. It is felt that in view of the state's inability to bear the financial burden, the Committee recommended that the Centre bear a larger share of the financial burden. It does acknowledge however that the financing of universal secondary education must be a collective responsibility of the Centre, states and community. It has been proposed that the scheme will begin from remaining years of the Tenth plan, when the Centre and states will share the burden in a ratio of 85:15 and through the Eleventh Plan at a ratio of 75:25. The scheme will have a longer life, till the Twelfth Plan in states and regions covered under Schedules 5 and 6.

Given the sharing ratio, the Centre will have to account for Rs 4824.6 crore. In 2005-06, the budgeted estimate (non-plan) for secondary education is Rs 787.51 crore; together with the plan amounted, the budget allocation goes up to Rs 1591.61 crore.

That should give us a fair idea of the kind of fiscal commitment we are talking about. Add to that the government's constitutional commitment to elementary education. The current expenditure on elementary education is Rs 47,000 crore, and 2% education cess is expected to mop up only Rs 7000 crore this year. Obviously, the cess is not enough. Levying a higher cess is obviously not the way forward. ■

Reconstruction of Higher Education

V C Kulandaiswamy

Higher education in India is ill equipped, fragmented, and outdated. The affiliating system, a curse, must go

IN THE modern world with a high obsolescene rate, every system must periodically undergo mini-revolutions. If that does not happen, the system must necessarily experience a major revolution. Higher education in India has successfully resisted all attempts for reform that was contemplated in two National Policies (1968 and 1986); recommended by the Higher Education Commission 1948 headed by Dr S Radhakrishnan; and numerous committees and commissions thereafter.

If it is to remain competent, meet emerging challenges, and serve the needs of the nation, it has necessarily to undergo a major revolution. Higher education needs a far-reaching structural reconstruction. The present structure of higher education is not only outdated but is also inherently weak and unequal to the task. Any effort at improvement, keeping the structure as it is, will certainly not yield the desired results.

All over the world, higher education is in university institutions, they are big campuses with a critical mass of student and staff strength and can sustain large libraries, modern laboratories, and advanced centres with adequate infrastructure. An institution like Massachusets Institute of Technology has 3,000 faculty members and 30,000 students.

Higher education in India is fragmented, scattered, and takes place in nearly 16,000 institutions called affiliated colleges, many of which are tiny and a trace better than higher secondary schools. They do not have libraries worth the name. Most of them have a faculty strength varying from 100 to 200 and the number of faculty with doctoral qualification is pitiably low or nil in many cases. These institutions of higher learning perform only classroom teaching, preparing students for examinations like tutorial colleges. The affiliating system, which dominates the Indian scene, has long been given up even in the country of its origin. It does not exist anywhere in the world barring India, Pakistan, and Bangladesh.

Unfortunately, the entire higher education in India takes place only in the ill-equipped, understaffed, affiliated colleges as can be seen from the fact that 89 per cent of undergraduate students, 66 per cent of post-graduate

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students, and 82 per cent of faculty are in the affiliated colleges.

We have the peculiar and unhappy situation of substantial post-graduate education (66 per cent) in colleges that have no research whatsoever. Only nine per cent of research scholars are in the affiliated colleges. Can anyone knowledgeable in higher education understand, much less accept, post-graduate education leading to M.Sc., M.A., M.Phil, and even Ph.D. Degrees in institutions that have no sanction for professorial positions (affiliated colleges are entitled to have only different grades of lecturers), no research scholars, and no semblance of any research, much less basic research.

But this academic wonder is happening in India–growing strong, multiplying, unchecked and unrepented. Consequently, it is not only our under-graduate education but also a substantial part of our post-graduate education that is poor in quality.

Few Universities

India has a broad base of higher education with a few, very sporadic peaks. We do have a few professional institutions and unitary universities that border on centres of excellence, but they are too few for a country of this size. India has, as of 2001-2002 (according to an University Grants Commission report) 213 universities and 52 deemed universities. This number is very small for the size of India and for meeting the emerging needs of advanced research, as can be seen from the following comparison. Japan, a relatively small country, has 684 universities, 512 of them private. The United States has 2,364 universities, 1,752 of them private, offering four year degree programmes and above. The United Kingdom has 104 universities and 231 autonomous institutions that can award degrees. Germany has 330 universities.

What is worse, in India the major universities are burdened with the academic administration of affiliated colleges. For instance, Andhra University has 405 affiliated colleges; Osmania University 390; and Anna University 232. The position is nearly the same in the case of most of the major affiliating universities. The duties of an affiliating university involve enormous administrative responsibilities, unproductive in academic terms.

Besides the acute paucity of funds, a lack of autonomy, and the burden of affiliation, the general universities suffer from the obsolete composition, powers, and functions of the university authorities like the Board of Management, the Academic Council, and the Senate.

In all the advanced countries, universities and university-level institutions constitute the strong centres of research. It is a universal phenomenon because universities alone have a continuous flow of young and fresh minds and an atmosphere highly conducive to talent and creative effort. Unfortunately, the share of higher education in research in India is pitiably low. This is reflected in the following allocation of funds (as of 1998-99) for laboratories and research institutions: the Central sector 62.5 per cent; the state sector 8.0 per cent; the public sector 5 per cent, the private sector 21.6 per cent; and higher educational institutions a mere 2.9 per cent. The share of higher education must be at least 10.0 per cent. The higher education sector, which should make a substantial contribution to the promotion of innovation and the development of new technologies is not yet an important partner in this national effort.

The situation calls for serious remedial action and the creation of a new era of university research. The national laboratories may be doing a commendable job but they are no substitutes for university research.

We have to consider the quantum of manpower with higher education needed for achieving a developed nation status by 2020. The advanced countries are moving towards mass higher education. The following information about the proportion of the relevant age group (18-23) entering higher education in some of the advanced countries may prove the point (2000): US 80 per cent; Canada 88 per cent; Australia 80 per cent; Finland 74 per cent; and the UK 52 per cent. In general, the advanced countries have more than 50 per cent of the relevant age group in university level education.

India with nearly 300 universities and 16,000 colleges has only seven per cent of the relevant age group entering the portals of universities. This number has to be augmented if we are to become a developed nation; it may have to be at least 25 per cent by 2020. Governments, by themselves, will not be able to meet this need. It is necessary to welcome and encourage the participation of the private sector, but on a selective basis and with safeguards to ensure quality.

Restructuring Education

Urgent reforms: The reconstruction may be effected in three steps. The higher education system in India is characterised by extreme rigidity and a total lack of flexibility. As the first step, introduce semester system in all the educational institutions; bring major examination reform by adopting continuous internal evaluation and well-defined academic auditing; and adopt the credit system.

Medium term reforms: The outdated affiliating system is a curse on our higher education system. It has converted colleges into coaching centres and teachers into mere tutors.

Steps must be taken to liberate the higher education system from the emaciating effects of this curse. Autonomy must be granted to as many deserving colleges as possible. Colleges marginally falling short of autonomy requirements must be helped to fulfil the requirements and gain autonomy. For each major university having a number of affiliated colleges, an autonomous Board of Examinations under the full charge of a Pro-Vice Chancellor must be established. The Vice-Chancellor and the Board of Management of the university must be concerned only with the university departments and autonomous colleges.

Long term reforms: The real weakness of the higher education system is in the structure itself. Higher education must be in universities and the outdated, anachronistic affiliating system must vanish from Indian soil. We must have a much larger number of university level institutions: We may set a target of about 2,500 university level institutions for 2020 and fulfil it in the next 15 years. We must pass the pending Private Universities Act, especially to prevent the haphazard development of private universities, which has already started. We have currently a scheme of funding five universities identified as institutions with potential for excellence. This number must be increased to 50 or more.

We may adopt the following steps to augment the number of university-level institutions mentioned earlier. The Central and State Governments must set up, on a planned basis, more universities. There must be encouragement to establish private universities with adequate safeguards to ensure quality and healthy management. Many deserving colleges must be granted deemed university status; many good colleges must be given autonomy. In the case of colleges that do not qualify to become deemed universities or autonomous colleges by 2015, a five year scheme must be prepared to transform them into junior colleges offering job oriented diploma programmes after 12. The affiliating system must cease to exist after 2020.

The Government must, in all seriousness, draw up a plan and programme of action, allot the necessary funds under the mission "Reconstruction of Higher Education," and implement it in three successive five-year plans. ❑

(Courtesy : 'The Hindu')

NEWS Education Process Outsourcing

The most advanced country in the world is feeling an acute shortage of good teachers to teach their future generation. Scientifically and technologically advanced United States of America, is looking forward and relying on India for quality teachers, especially for subjects like mathematics and science. And India, stamped as a poor country, has no shortage of teaching wizards.

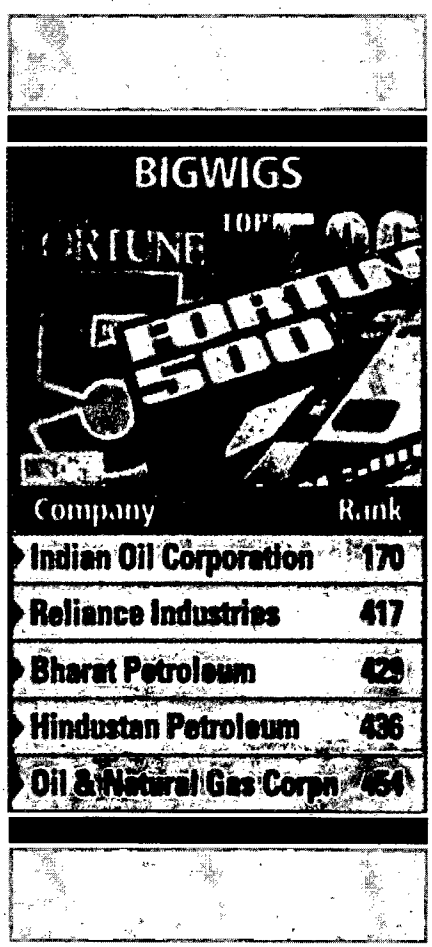
The emerging service offering in India, an offshoot of business process outsourcing, is the most valuable and sublime education process outsourcing (EPO). Of Course, India has been outsourcing its wisdom and knowledge since the very beginning of human civilization. Indian teachers are very much in demand and getting widespread support both from students and clients in the US.

Educational Statistics say that about 40 per cent of the students in USA fail in their mathematics examination. To teach their students the estimate says, US needs one million teachers over the next 10 years.

Private tutoring is an eight billion dollar industry in the US, growing at 12 per cent a year. Tutoring through internet, a result of information revolution, accounts for three billion dollar. The teacher can instruct the student from a small cubicle, with a headset and a pen mouse. An estimated 77 million students under the age of 18 will have access to internet and e-tutoring format. The service is given through a software "White Board" in both voice and text platforms. The student and teacher can interact and see each other.

India, with a huge pool of well qualified teachers and price advantage is on a strong footing. American schools have to meet the 100 per cent proficiency goal by 2014 under the Child Left behind Act.

So, when USA needs 100 per cent proficiency, it has to rely on India. ■



Rural Distance Education

APJ Abdul Kalam

India is on the threshold of revolutionising education. Edusat enables the teacher to take the student on a live virtual tour of the subject

VICTERS (Virtual Classroom Technology on Edusat for Rural Schools) has a mission of taking the benefits of the space technology directly to the people at the grassroots level from remote centres and provide them educational services. It is a joint project of Kerala and Indian Space Research Organisation (ISRO). This will help in connecting Thiruvananthapuram with rural schools of the districts of Wayanad, Palakkad, Malappuram and Idukki for student education and teacher training. Technology Driven Rural Distance Education is important and needs attention.

A three-pronged approach is essential to make distance education programme viable and a successful proposition through the universal tele-education system to all remote parts of the country. Along with Edusat we need Tele-Education System and the Quality Content Generation and deployment.

A good mathematics teacher teaching in a remote village in Attapadi in Palakkad district should be able to teach a number of schools located in different parts of Kerala and interact with the students in sequence and be able to clarify the doubts. Also the teacher must be able to draw knowledge from various sources on the fly, such as internet, digital library, generated creative content and the lectures given by various experts in the same field and deliver to all the students as if they are in the same simulated classroom in a cost effective manner. Such a system has been implemented in Rashtrapati Bhavan to interact with various parts of the country.

It provides virtual classrooms in a multi class and studio environment with seamless two-way interaction between the teachers and students in a collaborative framework. It provides seamless, one-to-one, one-to-many connectivity, through the broadcasting network in a multicasting mode of delivery. It seamlessly enables a remote teacher to become a teacher to all the students in a session. Unlike the other video conferencing systems and multimedia tools currently in use for tele-education purposes, this Interactive Universal Tele-education delivery system creates a virtual classroom. Edusat enables the teacher to take the student on a live virtual tour of the

Adapted from the President's address on the launch of Edusat transmission in Kerala on 28.7.05.

subject. This provides a cost effective solution for interactive content delivery. In a comparative basis we can create 250 nodes tele-education system for interactive delivery at a cost of establishing four multi-station video conferencing systems.

Recently, while addressing five colleges in different parts of Punjab as a part of Distance Education Programme, I referred in my classroom the subject what I was teaching, relevant Digital Library reference, a page from book reference and my talk delivered during an international conference on e-governance through my website. I could see all the class students from various locations. They can also see me and interact with me. Such an interactive tele-education delivery system is fully functional. This integrated solution will enable VICTERS programme to realize a cost effective virtual dynamic classroom. VICTERS may like to study the system and make use of it for realizing the goals of rural distance education programme.

Content Generation

There are three components for education: lectures, practical or laboratory and library. The content includes all the above three. Content can be generated in many ways. The first one is the assimilation of the subject by an expert teacher through research study of many books and articles leading to the generation of quality and creative content in a presentable format. The teacher presents in a unique and innovative way to make the content appealing and easily understandable to the students. The second form of content could be on a self-learning method by breaking down the content into a series of question answer models. Third may be from various books, which can be extracted through a digital library and presented just-in time to all the remote students. Fourth may be from internet, where wealth of information is available; however careful assessment should be done for authenticity. Teacher may search the information in the internet and push the content live through the tele-education system.

The content should have supportive animations, which may even bring virtual laboratories and virtual immersion effects to the remote students. When the content is generated, it should be a sharable learning object across the nation and across all platforms. VICTERS programme authorities should work on quality content generation for enabling the remote students to understand the lecture and acquire good knowledge. The content can be further improved by making use of the student's creative and innovative thoughts under the guidance of the expert teachers as a group activity as well as by sharing experiences with other distance education programmes carried out in neighbouring states.

The teachers after delivering the talk will also be asked a number of questions by the students. The proceedings of the question and answer session can be added to the content document for enriching it. Apart from providing tele-education the same satellite connectivity can be used for servicing the needs of Village Panchayat Knowledge Centres being planned in all village clusters.

Edusat has been exclusively made for knowledge missions, particularly for teaching and training students. VICTERS has to be configured with the following ambience:

- Edusat a broadcaster with interactive terminals
- Content generation
- Tele-education delivery system software. This should have interactive and collaborative features between teachers and students.

VICTERS has indeed come at the right time in Kerala. Let the mission get enlarged for two way interactive communication between teachers and students and both seeing each other for imparting quality education. ❑

TECHNOLOGY

EDUSAT

Edusat (Education Satellite) is a communication satellite in the geosynchronous orbit. The prime objective of the Edusat programme is to provide support education through low-cost ground segments and to reach the unreached people of India. The satellite is specially configured to have multiple beams covering different regions of our country. It provides communication coverage through five regional beams and a national beam.

Primarily meant for school, college and higher education, it will also support non-formal education. The initial phase of Edusat will cover about 100 to 200 classrooms per beam and when fully operational, it will have a capacity of 30 uplinks and about 5000 remote terminals per uplink. The satellite is expected to provide one lakh fifty thousand ground terminals in its full capacity.

Akshara's Pre-schools Raise Drop-in Rate

L C Jain

At the heart of Akshara's success is its ability to stir positive responses from the community, which guarantees a self-sustaining movement reinvigorated by thousands of children

KAMALADEVI CHATTOPADHYAY, veteran fighter for freedom and women's emancipation, was against expressing India's pains in percentages. By doing so she held "the men in power reduce people to an abstraction and that helps them to do nothing about it." But we persist with per centages. For example, we talk of the poor as "percentage of population below poverty line", not 300 crore persons, or of children in the age group 0-5 afflicted by malnutrition as 47 per cent and not as 20 crore infants. Recently, in March, Prime Minister Manmohan Singh said the extent of "dropouts from schools was 53 per cent. This was nothing new. Even in 1992 the dropout rate at 59 per cent was killingly high. Did it stir us?

Thankfully, we do have some awakened souls who are provoked. The Akshara group in Bangalore is one such. It reacted sharply to the 53 per cent dropout rate: "This means that our system believes that either the children cannot learn, or we think that they are not worth teaching." Akshara asserted that "the first premise is factually wrong while the second premise is morally wrong". Akshara does not stop at reacting. It acts. And devastatingly, as I discovered visiting their work on the ground.

But first a word on who Akshara is. In March 2000, a handful of concerned citizens in Bangalore picked up the gauntlet to dare the dropout rate devil. Their motto, "Every child in school and learning well." They stepped out in the field in the slum areas of the IT-savvy city of Bangalore. They discovered that there was a problem prior to dropout. Thousands of little children were not even dropping in to the school compound. The problem, Akshara found, starts from the pre-school age: "For, a child in the pre-school age group needs to be prepared to go to formal school and this is a barrier that has to be quickly addressed. How can a child who is a first generation schoolgoer become prepared in her home environment? How can a parent who has never been to school prepare her? This has never been a focus in the government system in the past 50 years." Akshara chose to focus on pre-school children. And, hold your breath, it raised a massive determined army of 1,000 volunteers, No wonder, in a mere five years (2000 to 2005), it has been able to touch the lives of 100,000 children, More significantly, of the 52,000 pre-school children Akshara worked with, about 50,000 have gone on to enroll in formal education.

I saw several Akshara pre-schools in Bangalore's slums. A room full of tiny tots below the age of five, most of them playing with each other or toys, some sleeping, some gazing at comics. It was an experience in tenderness. How come

the parents let the little ones out of their sight? Primarily because the teacher is local, she is selected by the community and is given an orientation by Akshara. The room for the school is provided by the community. To start with Akshara offers a modest honorarium to the teacher. Soon seeing their children bloom, the parents want to contribute-may be Re 1 or Rs 5 per month, as their purse permits. Hundreds of such schools have sprouted in Bangalore slums, beaming sunshine into the lives of the dwellers.

For its object of "learning well", Akshara has promoted an accelerated reading programme which has taught over 17,000 children to read well. Its library programme has got over 6,000 enthusiastic children hooked on to the world of reading. Just listen to Reshma: "I come from an Urdu-speaking background. But I am reading and speaking Kannada fluently now. I was encourged to start learning to read Kannada because of all the lovely books that were a available at Shantamma's mobile library, of which I am a member. I have now completed reading 50 books. My favourite books are Navilugariya Aa Kannu (Eyes on the Peacock's Tail), and Mayada Pathre (The Magic Vessel)."

The story flashcards that Akshara uses in the reading programme are responsible for the sudden drop in truancy among the children. "Which child would not want to come to school when school means a new story every day for 45 days, all involving animals, with bright, colourful pictures, and with the words and letters written in bold, easy-to-read script?" says teacher Parvathamma. It signifies transformation of the teachers themselves, which has defied us all these decades. There is no stopping Akshara. It aspires to change, if it can, the huge difference between elite schools and government schools, and the low levels of motivation among government teachers. At the heart of Akshara's success is its ability to stir positive responses from the community, which guarantees a self-sustaining movement reinvigorated by thousands of children.

I interacted with some of the pre-school children in a government school where they had enrolled. I asked a seven-year old girl what she would like to do after finishing school. "I want to be police." Why? "They have power." An eight-year old boy said. "I would like to be a doctor." Good, would you give me free treatment, I asked. He thought a while, then said: "Why only you? I will give free treatment to everybody." At once he qualified in my heart to be the headmaster of the school for broadening the horizon of our dynasticated political leadership. ❑

(Courtesy : Asian Age)

Muslim Education in India

Saiyid Hamid

Madrasas ought to be helped imaginatively to widen the scope of the knowledge and skill that they impart

DEVELOPMENT, ESPECIALLY the development and growth of education has its inexorable logic in a third world country like ours. The rate of progress of those who are already advanced is much faster than those who have joined the fray later. As a result, despite the fact that Muslims have made a headway in education, they still remain most backward in the national context. A number of radical steps needs to be taken on priority basis if they are to come on par and overtake their more advanced brethren.

The increasing incidence of dropouts as one climbs the educational ladder, and the occupational structure of the Muslim society is partly responsible for this. As soon as the male child is strong enough to help his father, he is withdrawn from the school to supplement the meagre earnings of the family.

Linking education with employment is common trait which acts sharply as a disincentive in the case of muslims who some how come to believe that their prospects of getting a job in the public sector or the organized private sector are slim.

Many Muslim children do not get at home either the benefits of inherited learning or academic support, as most of them are first generation learners and by and large there is a lack of awareness and academic interest.

Many orthodox and well-to-do parents are reluctant to send their daughters to co-educational schools. Another important factor is the economic condition. With a majority working as petty shop-keepers, crafts men or land less labourers their middle class base is extremely low.

Statistics on the distribution of children going to *madrasas* and mainstream schools are not available. But it seems that the number joining *madrasas* exclusively is not large. In most cases, parents who cannot afford to send their children to modern schools, send them to *madrasas*. The real damage occurs when a general impression is created by clerics that the obligation on Muslims for acquiring education is restricted to religious education. To a certain extent, this dampens the edge of the parental desire to give modern education to their children. Moreover, the clerics who wield considerable influence over the masses have seldom spoke in favour of modern education.

Although statistical data and documentary proofs are not available, immediately after partition of country, the desire for education among the

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Muslim Education in India			
Literacy Rate	**Total**	**Male**	**Female**
National	64.8	75.3	53.7
Muslims	59.1	67.6	50.1
For the Middle, Secondary, Graduation and above levels (Out of 1000)			
	Middle	**Secondary**	**Graduation & Above**
National	125	94	29
Muslims	96	52	12
Literacy Among Women in Selected States			
	A.P.	**Tamil Nadu**	**U.P.**
National	50.4	64.4	42.2
Muslims	59.1	76.2	37.4

community received a major set back after the partition. The morale level of the community slumped and it felt insecure and despaired of getting employment as a sequel to education.

After the catastrophic events of the demolition of Babri Masjid and the Gujarat riots, many parents started to give importance to modern education in order to make their children self reliant. Many schools were opened and enrolment campaigns organized with education getting an impetus. However, despite this awakening, Muslims continue to be the educationally most backward community in the country.

No account of the educational survey of Muslims would be complete without referring to U.P. Founded in the 1992, the Rabita Committee's consistent endeavour in this area is worth mentioning. The committee organized a number of caravans, which persuaded the parent to send their children to schools. The committee organized the first caravan which was flagged by the Vice Chancellor of Aligarh Mulsim University. It traversed Uttar Pradesh from the west to the east.

It made a tremendous impact and culminated in requests from other states for similar enterprise. In 1995, an educational caravan was organized to cover the entire country. These have continued ever since to move in an almost unbroken stream. It may be appropriate to narrate an incident that occurred during the first caravan's visit to Agra. While leaders of the caravan were addressing an audience in that semi-industrial town about the advantages of education, the speeches did not seem to make a dent. Meanwhile a person from the audience stood up and stated that he was a shoe-maker. He educated his son. Because of the enlightening education that he received, modernized the shop and now he is one of the well-to-do exporters of footwear in Agra. There are many instances of engineers getting together and starting industries. Education has made many Muslim businessmen aware not only of quality but also of export opportunities, and commercial publicity. The correlation between education and development is universally accepted. The impact of education on the weaker sections whose economic condition has improved in the process and self-confidence augmented is all too evident. But the effect so far has been limited because cottage and small industries and crafts are facing an unequal competition with the mass production triggered by globalization.

A number of steps, therefore, need to be taken on priority basis if they are to overtake their advanced brethren:

(1) Concerted community effort supported by government and local authorities is required to make Muslims gradually leave the densely populated areas in the city to live in colonies to get the benefit of the open environment which empowers as it enlightens.

(2) Positive measures should be taken to ensure that after completing their education, the prospects of gainful employment in government and in the public and private sectors open up for them and their self-employment effort becomes reasonably lucrative.

This will help the cause of education and the uplift of the community in two ways:

The prospect of employment will make them take to education in a big way. Regular employment transforms attitudes and inclinations. The entire household opens up.

Instead of relying too heavily on government support and waiting for a country-wide leadership, Muslims should draw on and consolidate their local strength. Small local initiatives can have a wonderful cumulative impact.

In every town or in the villages, organized endeavours at the local level should be made to draw maximum and continuous benefit from government's schemes and programmes.

All development schemes, particularly those specifically meant for educational uplift of the minorities, should be closely monitored not only by government but also by the intended beneficiaries.

Child labour should gradually be eliminated. In the interim period the employer should be made legally bound to organize and subsidise part time education for the workers.

Madrasas ought to be helped imaginatively to widen the scope of the knowledge and skill that they impart. ❑

Weaker Sections of the Society

THE BASIC principle of the UPA is *"To provide for full equality of opportunity, particularly in education and employment for scheduled castes, scheduled tribes, OBCs and religious minorities"*. Besides, the National Common Minimum Programme (NCMP) of the UPA government contains the following provisions aimed at welfare and empowerment of these communities:

- UPA Government will take immediate steps to reverse the trend of communalisation of education that had set in the past five-years.
- Steps will be taken to remove the communalisation of the school syllabus that has taken place in the past five-years. A review committee of experts will be set up for this purpose.
- The UPA will ensure that nobody is denied professional education because he or she is poor.
- All reservation quotas, including those relating to promotions, be fulfilled in a time bound manner. To codify all reservations, a Reservation Act will be enacted.
- The UPA Government is very sensitive to the issue of affirmative action, including reservations, in the private sector.

Special provisions

Pursuant to the National Policy on Education 1986 and the Programme of Action (POA) 1992, the following special provisions for SCs and STs have been incorporated in the existing schemes of the Departments of Elementary Education and Literacy and Secondary and Higher Education:

- Relaxed norms for opening of primary / middle schools.
- Abolition of tuition fee in all states in government schools at least up to the upper primary level.
- Incentives like free textbooks, uniforms, stationery, school bags, etc., for these students.
- The Constitutional (86th Amendment) Bill, notified on December 13, 2002, provides for free and compulsory elementary education as a Fundamental Right for all children in the age group of 6-14 years.
- SSA is a historic stride towards achieving the long cherished goal of Universalisation of Elementary Education (UEE) through a time integrated approach, in partnership with states SSA, which promises to change the face of elementary education sector of the country, aims to provide useful and quality elementary education to all children in the 6 to 14 age group by 2010. The main features of the programme are:
- Focus on girls, especially belonging to SC/ST communities and minority groups.
- Back to school camps for out-of-school girls.
- Free textbooks for girls.
- Special coaching/remedial classes for girls and a congenial learning environment.
- Teacher's sensitisation programmes to promote equitable learning opportunities.
- Special focus for innovative projects related to girls' education.
- Recruitment of 50 per cent female teachers.

Area Intensive and *Madrasa* Modernisation Programme

The Ministry implements a Central Plan Scheme of Area Intensive and *Madrasa* Modernisation Programme which is being funded by Department of Secondary and Higher Education, Ministry of Human Resource Development on 100 percent basis. The scheme has two components namely, i) Infrastructure Development and ii) Modernisation of *Madrasas*.

- Infrastructure Development: The basic objective of the scheme is to provide basic educational infrastructure and facilities in areas of concentration of educationally minorities which do not have adequate provisions for elementary and secondary education.
- Modernisation of *Madrasas*: Under this component a maximum two teachers salary is provided through state governments to madarsas for teaching modern subjects such as Mathematics, Science, Social Studies, English, Hindi, etc. A one-time lump sum grant of Rs 7,000/- per *madrasa* for Science/Math kits and an amount of Rs 7,000/- for establishment of book-bank is also provided to *madrasas* through state governments.

The paramount objective of the scheme is the integrated development and mainstreaming of

the educationally backward minorities. The scheme will provide adequate educational infrastructure and its upgradation in the minority concentration blocks and areas where these facilities are lacking. Another objective of the scheme is to encourage traditional institutions like *madrasas* and *maktabs* to introduce Science, Mathematics, Social Studies, Hindi and English, etc., in their curriculum. The scheme will bring minority educational institutions, including *madrasas* into the national mainstream education system by linking these to NOS/SOS/Approved State Boards of Education.

The total allocation for the Tenth Five Year Plan is Rs 8,392.00 lakh.

The Annual Plan allocation for the year 2004-05 for the Scheme of Area Intensive and *Madrasa* Modernisation Programme is Rs 2,900 lakh. ❑

(Annual Report 2004-05, M/o HRD, GOI)

BUDGET 05-06

Weaker Sections

Weaker sections of the society need to be brought more into the development process. In his Budget 05-06 speech the Finance Minister proposed to increase the equity support, as may be required, for the National Minorities Development and Finance Corporation.

A certain percentage of new schools that will be opened under the *Sarva Shiksha Abhiyan* as well as the Kasturba Balika Vidyalaya Scheme will be located in districts or blocks having a substantial minority population. Likewise, a certain proportion of new anganwadi centres will be located in blocks or villages which have a substantial concentration of minorities.

Urdu is the mother tongue of a large number of people in Uttar Pradesh and Bihar, but there is very little provision for teaching Urdu. Finance Minister proposed to provide central assistance for recruitment and posting of Urdu language teachers in primary and upper-primary schools that serve a population in which at least one fourth belong to that language group.

The Ministry of Social Justice and Empowerment and Ministry of Human Resource Development should implement a number of schemes for pre-examination coaching of candidates belonging to the weaker sections. ❑

Rethinking Teachers' Education

Sheetal Sharma

"Every child needs – and deserves – dedicated, outstanding teachers, who know their subject matter, are effectively trained, and know how to teach to high standards and to make learning come alive for students".

Former US President, Bill Clinton, September 1996

Teachers' education is undergoing a profound change as the transformations in the world pose a greater challenge to both teachers and learners

EDUCATION IS a key factor determining a nation's progress and teachers play a crucial role in shaping and directing it in right direction. Teaching profession is a building block for all other professions. The quality of teaching shapes the future of students and prepares them to be a responsible citizen. Teachers play a central role in ensuring quality and effectiveness in learning and establishing foundations of a learned and educated society.

Teachers influence students' achievements the most. They help him/her to identify and grow his intellectual capacities and develop interest in diverse areas of learning. A good teacher can make even a dull and boring topic interesting. Teachers play a vital role in shaping destiny of a great nation. A teacher is a person who provides academic insights to students and enhances the process of learning.

The wealth of a nation depends on how effectively its young minds are trained and educated to take up the challenges of the future. With such a great responsibility, it is very important to strengthen the teaching profession. There is a need for greater emphasis on continuing education for teachers to meet the growing demands of teaching profession. While in every other profession we expect the professionals to gain substantial experience before they can start actual practice, teaching is such a profession where the number of untrained teachers almost equals the number of trained teachers. A large number of graduates enter the profession without any formal training of how to conduct classroom teaching.

With too many responsibilities in the hands of teachers, it is the time that we give teachers the education and necessary support that they need to teach children the necessary standards that the twenty first century demands. People working in other industries have ample opportunities for professional growth and training, whereas in teaching the opportunities for continuous learning are not only few but limited. The lack of proper initiative for teacher's education has rendered teaching to be less effective and the profession has become less attractive. It has become more a means of earning rather than learning. For a large number of people it remains as a temporary job till they get hold of a good and better

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rewarding career. The task of teaching and the profession in general has lost its vigour and lustre.

"Relentless population growth and declining working conditions are creating a severe shortage of teachers in the world's classrooms, which may lead to a slide in educational standards according to a new global survey of teaching conditions".

UNESCO's International Bureau of Education

Due to the lack of proper facilities for teachers' training, people enter into teaching profession with half-baked knowledge. At times a teacher might lose interest in his/her work because of inadequate knowledge of how to effectively manage classroom teaching. A teacher himself/herself may be knowledgeable but how to impart that knowledge to pupils asks for a specific set of skills. The worth of having talented teachers and effective patterns of teaching has rarely been realized. The changing socio-economic forces have placed new challenges in front of students, teachers and schools. The routine theoretical learning has been gradually replaced by technological literacy, problem-solving, critical thinking and technical skills.

The modern times demand a diffrent set of skills and standards from the work force as compared to the past. The changes in the content and focus area of education are also demanding changes in the instruction methods and practices in education. The changing environment further creates a demand for teachers with new set of skills, those who can effectively train students to meet challenges of the modern world. The demand for new instructional methods gets further accentuated with wide exposure to media and other forms of communication. The new phase is witnessing a shortage of qualified teachers who fulfil the requirements of the new system. Qualified teachers are the most basic educational resource a nation can provide its children. Hence the goal should be to provide training and support to deserving candidates and recruit talented, dedicated and effective teachers.

The teaching profession has the largest numbers as compared to any other profession in India. During 1994-95, about 4.3 million teachers were working in different levels of schools. Of these, 2.7 million [66 per cent] were employed in primary and upper primary schoosl [grades I to VIII] of which 2,018,050 teachers were in government schools. Of the 1.5 million [34 per cent] in high/higher secondary schools [grades IX to XII] 609,121 were in government schools. During the period 1990-95, the total strength of teachers at different levels of school education increased from 4.0 million to nearly 4.3 million marking an increase of 6.5 per cent. With this trend continuing, the number of teachers, particularly primary and upper primary teachers, has grown significantly in the past decade.

The NPE 1986, called for an overhaul of the Teacher Education System in the country. It emphasized the need for continuing education for teachers to meet the thrust envisaged in the policy. A new Centrally Sponsored Scheme of Restructuring and Reorganisation of Teacher's Education was launched in 1987-88 which primarily envisages establishment of DIETs to provide pre-service and in-service training to elementary school teachers. In addition, upgradation of Secondary Teacher Education Institutions into Colleges of Teachers' Education (CTEs), establishment of Institutes of Advanced Studies in Education (IASE), strengthening of SCERTs and University Department of Education through the University Grants Commission were components of this restructuring which had the basic objective of providing training and resource support to elementary and secondary education at the grassroots level.

A lot has been covered by National Policy on Education and still there is scope for more. In spite of the steps and recommendations in National Policy of Education we find a great shortage of trained teachers. The last decade has witnessed a tremendous growth of private schools and colleges. Such private educational institutions fail fo recruit enough talented teachers who can deal with the pressures of teaching. With growing demand for teachers it's easy for graduates, even without proper and formal training, to find a teaching job. As we see a steady growth in number of educational institutions, both public and private, and higher enrollment of students every year, people have started to realize and recognize the need for talented teachers to train their children. In developing countries teachers are very young and inexperienced; more than thirty per cent of teachers are below 32 years of age. The rich and developed countries are also facing a difficult future. The most talented students are attracted towards other lucrative and promising careers. More than half of the population of teachers is around the age of retirement. Although in-service training is offered to teachers in many countries but its quality and relevance are questioned.

The table shows that there has been a substantial increase in the number of teachers in India in past fifty years. The number of primary schools increased form 5.38 lakh in 1950-51 to 19.28 lakh in 2001-2002 i.e. by more than three times. The total number of teachers in upper primary schools increased from 0.86 lakh in 1950-51 to 14.68 lakh in 2001-2002 i.e. by more than seventeen times. The total number of teachers in High/Hr. Sec/Intermediate schools increased from 1.27 lakh in 1950-51 to 17.77 lakh in 2001-2002 i.e. fourteen times.

The figures in the table show a phenomenal growth in the number of teachers at different levels and types of schools. The figures also indicate a tremendous growth in the number of female teachers over the past fifty years. The increase in demand for education has opened up many job opportunities in the field of education. This demand

draws our attention towards the issue of teacher's education. In India most teachers have the basic academic qualifications and fulfil the eligibility criteria. However there is a lack of professional training. At the same time the teaching profession has failed to attract talented people. Research indicates that low salary, lesser scope for growth and future prospects, growing lack for respect and dignity of teachers in the profession, hours of work and weekly workload are all partly responsible for lack of enough talented and committed people entering the field of teaching.

According to well known American philosopher, Herbert Marcuse, the universities spend more effort on administration, organization and quantity of teaching rather than quality of teaching. Competition for jobs has become important aim for education. The issues of values are subsumed by the issues of technical rationality. Goals rather than means have become important for people. Such thinking has largely affected the form and content of teaching. The continuous decline in the quality of profession, ineffectiveness in teaching, growing discontent among professionals and greater pressure of administrative machinery, lack of enthusiasm in learning and talented people in the field are all a cause as well as a consequence of changing ideologies.

One way to draw excellent minds and committed individuals to the teaching profession is to have promising policies and practices that can attract creative talent which meets high quality standards and has potential to meet future challenges. The modern policy and programs for teacher's education must reflect diversity and take social changes in its ambit. Social change has brought new perspectives in the field of education. The socio-cultural, economic, political enviornment is changing rapidly whereas the system is slow to respond. These changes pose greater challenges to the humanity and one of the best ways of managing these pressures is to have a set of "trained trainers". Teacher's education must be able to equip teachers with contemporary and relevant set of skills to make classroom learning as effective as possible. Such steps would ensure greater effectiveness in the field of teaching and learning would become more interesting. A trained set of educators would assure a secured and educated future for a nation.

The national curriculum for teacher education 1988 identified following objectives of teachers' education programme.

The teachers' education programme at all levels should seek to develop in the prospective teacher:

1. Knowledge and understanding of:
   - the Indian socio-cultural context and the role of education in national development.
   - the process of human development and learning in all its dimensions and its implications to education.
2. Professional competencies and skills relating:
   - effective communication
   - effective curriculum transaction utilizing learning resources of various kinds and employing

TEACHERS OF SCHOOLS (in '000)

Year	Primary			Upper Primary			High / Hr. Secondary/ Intermediate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1950-51	456	82	538	73	13	86	107	20	127
1955-56	574	117	691	132	19	151	155	35	190
1960-61	615	127	742	262	83	345	234	62	296
1965-66	764	180	944	389	139	528	368	111	479
1970-71	835	225	1,060	463	175	638	474	155	629
1975-76	955	283	1,248	554	224	778	559	200	759
1980-81	1,021	342	1,363	598	253	851	669	257	926
1985-86	1,094	402	1,496	663	305	968	793	339	1,132
1990-91	1,143	473	1,616	717	356	1,073	917	417	1,334
1991-92	1,152	492	1,644	714	365	1,079	931	450	1,381
1992-93	1,137	514	1,651	709	376	1,085	941	454	1,395
1993-94	1,110	513	1,623	723	406	1,124	953	492	1,445
1994-95	1,157	531	1,688	746	410	1,156	986	495	1,481
1995-96	1,176	558	1,734	758	424	1,182	1030	519	1,549
1996-97	1,190	566	1,756	769	431	1,200	1069	544	1,613
1997-98	1,226	597	1,823	640	597	1,237	1086	558	1,644
1998-99	1,246	658	1,904	814	464	1,278	1168	579	1,747
1999-00	1,236	683	1,949	829	469	1,298	1142	578	1,720
2001-01	1,221	675	1,896	820	506	1,326	1184	577	1,761
2001-02	1,213	715	1,928	921	547	1,468	1157	620	1,777

Source: Education Statistics, Ministry of Education.

interactive teaching-learning strategies to promote all-round growth of learners.

- comprehensive and continuous evaluation of learners' progress through appropriate tools and techniques.
- effective management of learning within and outside the classroom to maximize learner's growth.
- catering to the learning needs of special groups of children-the gifted, the slow learners and disabled.
- organizing co-curricular activities of different kinds to promote all-round growth of child.
- research and experimentation in education.
- offering guidance to students in their personal, academic and occupational problems.

3. Social commitment through participation in:
   - development activities in the community, extension activities and community services.
   - compensatory education programmes for the disadvantaged classes-Scheduled Castes/Scheduled Tribes.
   - complementary and parallel education service systems like non-formal education, adult education, workers education.
4. Positive attitudes towards children, learning, school, professional growth and manual work.
5. Social, cultural and moral values oriented towards the unity and integration of our people. Democracy, secularism, scientific temper, cultural heritage, conservation of the environment, civic responsibility.
6. Aesthetic contests and appreciation, literary, cultural and artistic pursuits.

After the National Policy on Education 1986 (revised in 1992) there has been no policy change. An emphasis on innovative policies and practices in teaching profession can bring remarkable result. Some of the core issues which must be emphasized in the policy for teacher's education with greater intensity, and few more, which must be taken into account are mentioned below:

- The teacher's education programmes need to have a sound understanding of theoretical and practical teaching experiences.
- There is a need for greater research to identify the levels of effectiveness and develop programmes that meet national and international standards. Also there is a need to identify elements that contribute to the success and limitations of learning methods and instructional practices.
- The teacher's education programmes must meet the needs of a multicultural and diverse society. There is a need for programmes to understand the cultural context of students from diverse cultural and linguistic backgrounds.
- The policy must arrange staff exchange programmes between different academic settings/ institutions, at different levels, to ensure that knowledge and practices become interdisciplinary and contemporary.
- To understand the need of achievement of objectives of social justice and fundamental right to education as defined by Constitution of India. There has to be a greater emphasis on generating awareness among students and communities about issues of social inequality, injustice, disadvantage and discrimination.
- Appreciation, recognition and awards for teachers that they are committed and talented professionals who aim to develop and realize potential in every child. It should also help develop a vision for national infrastructure recognizing the critical importance and interdependence of systemic educational reforms.
- Recruiting and retaining talented teachers into the profession requires state to re-examine salary levels, perks, packages, incentives and other benefits. There must be an effort to increase standard of the teaching profession and place sufficient value on the work that teachers do.
- Policies should focus on providing professional help to teachers in their intitial years of service, improving professional development practices and increasing teacher's accountability and autonomy.
- Making the whole system responsible for teacher's education, not just colleges of education and recognizing the need for more field experience in the early stages of career. Moreover there should be a concentrated effort on improving technology skills for teachers.
- Considerations should be given to develop schemes to encourage more outstanding candidates to enter teaching profession and enhance desirability and practicality of teaching. The selection of students for teacher's education programme and the education provided in these programmes should be continuously evolved.

UNESCO-ILO Recommendation concerning the status of teachers (Paris 1966) established that "teacher's organizations should be recognized as a force which can contribute greatly to educational advancement and which, therefore, should be associated with the determination of educational policy".

Teachers' education is a continuous process and the concept is undergoing profound change as the transformations in the world pose a greater challenge to the community of teachers and learners.These challenges and demands require new capacities and knowledge on the part of teachers. The current situation is dynamic as well as varied. The breadth of challenges and demands and the pace of change make the current situation different than in earlier years. Teachers must be able to accommodate continuing changes to achieve goals of contemporary world and teacher's education is a means to accomplish it. ❑

Value Education

Charulata Singh

Education must be a preparation for living, but more than that, this should be a preparation for living well and coherently in the world

EDUCATION INFLUENCES and at the same time gets influenced by the whole development process. All the fields and all the activities in some form or the other are influenced or shaped by education. It is education which ultimately results in shaping or transforming the whole society. In other words the state or the nation building takes place with the evolving trends in education. The process of national development thus, requires that the processes of education need to be changed with the changing needs, aspirations and demands of the society.

For overall development, education needs universalistic and societal orientation hence, the challenge remains is to promote value education. Traditionally and historically, education has always served as a building block of the society and contributed for national development through *guru-shishya parampara* ever since vedic era. Our shastras laid emphasis on all round development of the personality of the student which included 3R's as well as cultural and social interaction. It emphasized on unhampered growth and unfoldment of innate qualities.

Mahatma Gandhi realized the need of mass education and put forward the hypothesis of 'Basic Education" which was also an effort towards the universalisation of elementary education. He visualized education as a basic tool for development of national consciousness and reconstruction of society, 'Buniyadi Shiksha' & 'Nai Talim' as expressed in Wardha Scheme of education in late thirties concentrated on all round development of the child. Development of secular national outlook and readiness to undergo and withstand pangs of nation building, the immediate environment as the source of integrated knowledge and its correlation with work was considered important for acquisition of knowledge and use of mother tongue as the medium of instruction and learning.

In 1944, Sargent Report recommended the compulsory schooling of eight years for all children and developed a long term plan to achieve this in 40 yrs (1944-84), but the Kher Committee reduced the plan period to 16 years to achieve it by 1960. Indian constitution declared that universalisation of elementary education should be achieved by 1960 vide Article 45 of the Constitution . Regarding the universalisation of elementary education in India the main issue has been the education of children from the economically backward sections of the society. Therefore, in order to fulfil the needs of the society

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a variety of programmes by different names, viz; social education, part-time education, reference courses, continuing education, adult education, extensive series, life long education, Balwadis, non-formal education (6-11), (6-14) etc. were started under various policies.

In 1964 central government. recognized the need to take holistic view of education and appointed the Education Commission (1964-66). The Commission was entrusted with the task of evolving a national system of education. It recommended a radical transformation in the prevailing education system and highlighted the need for the "common school approach" to promote equality and social justice. On this basis the first National Policy on Education, 1968 was formulated. This Policy resolves to provide free and compulsory education of satisfactory quality to all children upto 14 years of age before the commencement of the twenty first century. In March 1990, the international community also put education on the global agenda during the world conference on Education for All (EFA) when governments set themselves the challenge of achieving universal primary education. UNESCO was mandated to take the lead role in orchestrating global efforts to achieve EFA by 2015.

Of all countries of the world it is India, which has the biggest literacy problem. About 1/3rd of world's non-literate people reside in India. About 200 million adults according to 1991 census who were illiterate were in India. Almost 34 per cent of India's population is illiterate. During 1991-2001 India's literacy rate increased from 52 to 65 per cent. According to 2001 census India's literacy rate of 65.4 per cent still remains considerably below the literacy rates of other Asian countries, even if they experienced the depredations of the colonial rule. (Source : NSSO, Survey of 53rd round)

We know that India's tryst with nation building began with the severe handicap of extremely low levels of literacy at the time of independence. The neglect of education during colonial times combined with social distortions made the process of learning a difficult and daunting task. In order to fulfill the stupendous task of reconstruction of system of education, the focus has been on huge budget allocations for various schemes and policies. In 2005-06 a sum of 11,217.26 crores of rupees has been allocated for the plan projects, for elementary education alone, up by 195 per cent as compared to 2004-05. Such have been the trends since independence.

Even after huge fund allocations and various programmes and policies which were made to evolve the country into a knowledge society, when we look around to-day, it seems that the dream of Macaulay alone has come true. The youth today, lack in their true identity, the Indian mentality and psychology and refuse to accept Indianization, nationalization and spiritualisation of India. They are so much influenced by the west that they try to ape west unquestioningly.

This only points at the need for the education in India to be revamped according to Indian culture and values. India's education needs to be spiritualized, which teaches to look at things from the inner prism.

It is not that this perspective is new to our society. It has been there during Vedic age and in the ideas of Sri Aurobindo, Rabindranath Tagore, Mahatma Gandhi, to name a few. The search for values, the eternal quest for truth should be instilled in the child from an early age and from this firm base everything then must be taught from the most modern form of mathematics to the latest scientific techniques. Apart from spiritual content programme of universalization of elementary education needs to have human point of view. Children may belong to different families or classes in a society. It is the duty of the society to provide them the opportunities to bloom to the fullest.

The need is to create a system of education where there is human emancipation. Education practices should try to promote values. Promotion of values is directly related to living effectively. Education can do a lot to realize this fundamental reality. To live to full realization of one's potential is to attain and actualize values. If the makers of society are able to realize this then the whole purpose of education will be achieved.

Concepts of value are very much related to the fundamental reality in which we live. Reality begins with transmission of signals via sensory organs, which later on take the shape of ideas, the ideas that emerge thus help in understanding hidden truths. We can say that values are related to the subjective perceptions whereas, truth is which does not vary with the person or with the passage of time. Apart from value and truth, the ability to distinguish between cognition and evaluation needs to be developed. Cognition means to know the things intellectually and evaluations is the perception of the thing in relation to the self.

The inculcation of values should endeavour to cultivate, the personal character needed by the member of a society, which will enable them to become creative participants in the society. As we know that, 'the end of education is character formation'. individuation is of vital importance but must be conceived, not egoistically but in terms of social contribution. The true objective of self-actualization is to manifest objective worth in the world, by no means for the benefit of self alone. Education must be a preparation for living, but more than that it should

e a preparation for living well and coherently in the world.

Careful examination of the processes of education leads us to believe that learning in any context is best achieved by self action and not by passive acquisition of information. One cannot acquire the abilities of initiative, tolerance, the power to communicate, to think logically or creative expression except by action. Therefore, the learning processes need to be organized in order to give space for group interaction and group learning. It needs to be accepted that learning is caught and not taught particularly, ethical attitudes and social behaviours.

The challenge to education thus, lie in' inculcating and imbibing the sensitivity towards the environment around them, nurturing the Indian values, contributing towards nation building. Instead of cut-throat competition between individuals the emphasis should be on efforts for collective achievements and collective successes. Through education, the need is to develop a sense of inseperable affiliation between the nation and its constituents, and that is the only master key to India's resurgence. ❑

Quotes

- *"Children are not vessels to be filled ..... but lamps to be lit".*
  – Swami Chinmayananda
- *Education makes people easy to lead, but difficult to drive, easy to govern, but difficult to enslave.*
  – Lord Brougham
- *"..... man is inwardly a soul and a conscious power of the Divine and that the evocation of this real man within is the right object of education and indeed of all human life".*
  – Sri Aurobindo.

India on the Global Map

C Jayanthi

THE FOREIGN education sector has opened up for Indians as never before. They are welcomed all over the world not just because of their ability to spend but due to their skills, knowledge and abilities. They are known for their ability to make a positive contribution to the society they live in.

India is an emerging economy and a society in transition. Economic liberalisation has strengthened the number of the middle class. This section is aspirational and believes in sending children abroad to study. The number of Indians, therefore, who send their children to study have increased. Recently, the European Union has announced 100 Erasmus Mundus fellowships for India as Europe like America and Australia wants to attract bright, young Indians for education, skilled work and perhaps citizenship. The Erasmus Mundus fellowships was previously been offered only for European students and now by announcing it for Indians students, they have been made on a par.

A report that was brought out by an independent association of Australian Universities, the International Development Programme (IDP), has pointed out that in the next 15 years, the highest student population movement globally in search of higher education will be from India and China.

The world is therefore waking up to this opportunity. The ageing population of the West has necessitated the opening of borders to let in younger population from other countries for education and work. India is set to face another brain drain as our rapidly growing economy necessitates skill sets availability. We need to wake up to the reality. Until then, foreign players are in.

Countries such as Australia treat education as a service sector rather than a fundamental right. Certain quarters in the education sector such as high profile private schools want education in India to be treated as a service so that it can be commercially traded upon. The government has yet to take a decision on this. The chief executive, Education Adelaide, Patrick Markwick-Smith said to me sometime ago, Australia which is a signatory to the World Trade Organisation has been pushing for free-trade in services including education. Australia has free-trade agreements with Singapore and the US and negotiations

There is a need to build enough institutions and a strong economy to keep the skilled population right here in the country.

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are on to have a free-trade agreement with China.

The country has 40 universities in total out of which two are privately run and rest are run by the government. Indian students who go to Australia like to study business, IT, engineering, science and hospitality. "China and India are the most important drivers for Australian education sector," said Quentin Stevenson Perks, Counsellor, Education, Science and Training, Australian High Commission, while adding, "India has the required intellectual capital and we need bright students for our projects and ventures."

In the US, the largest number of foreign students come from India followed by China. The numbers from both the countries are 79,736 in the academic year 2003-04 according to the Institute for International Education, an internationally recognized non-governmental organization. For the third consecutive year, India is the leading country of origin for international students in the US.

The assistant secretary of state, consular affairs, US department of state, Maura Harty, stated recently, "The education industry in the US is a $ 12 bn industry... students and business travellers became our number one priority so that we could regain the competitive advantage of attracting students to the US. It was our responsibility to make visa process as efficient a process as we could as the hard-earned salaries of Indian parents are best applied in American varsities. Indian students bring a great diversity to our campus, great experience, great wisdom and they are good students."

Australia has eased up study and tourist visas for Indians. After study, a person from India does not have to come back to the country to apply for a work visa. Individual regions in Australia compete with each other for attracting students.

IDP Australia, boasts of being the major export development and marketing company for Australian education as it is a congolmerate of all Australian universities and operates in 34 countries, India being one of them. There is expected to be a 15 per cent to 25 per cent increase in the number of Indians going to Australia for higher education.

The Indian students' need to go abroad stems from the fact that they feel that the western markets offer better job opportunities with high pay packets, they are safe from the point of law and they offer a good quality of life. What is attractive to an Indian is the global recognition for a foreign degree. Until now, a UK or a US degree was more acceptable worldwide and for entry into a multinational company. The Indian Institutes of Technology have now got global recognition thanks to the large number of Indians who have reached positions of eminence in the United States.

Traditionally, the West has been a magnet for people from other parts of the world. However as a person has to pass multiple exams to get through their system, especially in professional areas such as medicine and engineering, students from India need to be focussed on their options to study and work there. However, most European countries have made the entry of skilled Indian workers easier by easing up visa regulations. The UK which has traditionally seen many skilled and unskilled workers migrate, has eased up visa regulations for Indians who wish to seek jobs in the skilled sector such as IT whereas Scotland which has a seperate Parliament within the UK, and a new entrant to the Indian education market, has taken several steps to woo Indian and other foreigners.

It is estimated that by 2017, the Scottish population will fall below five million. Officials of the Scottish Relocation Advisory Service said that from the summer of 2005, overseas students graduating with an undergraduate or graduate degree can remain at work in the country for two years without a work permit. And to make migration or job seeking in Scotland easy, the advisory service offers advice on all aspects of moving, living and studying in Scotland, including information on jobs, accommodation, visas, work permits and study in varsities.

Moving over to Canada, popular with Punjabi migrants, it has traditionally attracted non-skilled and skilled workers in equal measure from India. That country has now opened its doors to international students including India, making use of the decline in the student population post 9/11 US terror blasts, when the US tightened its security and visa measures. The country has an excellent public education system and education is more or less free. However foreigners are charged market rates. The decrease in young population has necessitated Canada to open up its education system for foreign students.

Canada has a good higher education system that includes universities, colleges and university colleges offering degree and diploma courses in a variety of areas ranging from management to engineering, hospitality, environmental studies, computer science, tourism, animation and media.

About 1,200 Indian students went to Canada for their educational pursuits in the year 2001, which increased to over 2,200 in 2003. Apart from attracting Indian students, Canadian institutions forge academic alliances with Indian counterparts. The Shastri Indo-

Canadian Institution, Indian Association of Canadian Studies and Canadian Education Centre in India are the organisations promoting educational relations between the two countries.

Ireland which competed with India not long ago for IT outsourcing hub is now offering its educational facilities in an attractive package for Indians. Long seen as the poor cousin of the UK, its focus on information technology has come to its rescue. About 10 per cent of the student population in Ireland comprises of foreigners, a majority of whom are from North America, Europe, Middle-East, Malaysia, China and now India. In fact, at present there are 1,500 Indian students studying at Irish tertiary institutes. The tertiary level education system in Ireland encompasses the university sector, technological sector, the colleges of education and private, independent colleges.

India will have close to 11 million students seeking higher education by 2011, and a sizeable number of them will look abroad for it. This year and the past year faculty from US universities such as Yale, MIT Carnegie Mellon, and Stanford, all visited India to lay foundations for collaborations with Indian institutions. They offered fellowships, faculty and student exchanges among other things. Top business schools such as Harvard and Wharton have brought their students to India for academic tours.

Added to this are East European countries such as Bulgaria, Hungary and Russia where Indian students have traditionally gone to study medicine. As more and more Indians are going abroad to study, more and more countries want to cash in on the trend to attract Indian students.

Countries such as Taiwan, Italy, Singapore, the Nordic countries and now China want to get Indians to study in their higher education institutions despite difficulties in learning the language. The student loans have added to the attraction of a foreign destination for study purposes. Although scholarships are available they are few and far between. However as we are seen to have a huge skilled population, countries which had reservations about India as a "hub of snake charmers" have drastically changed their minds. IT sourcing from the West to India has contributed to the image of an educated India that has skills that are globally competitive.

The West wants us despite cultural differences and the perceived view that India belongs to the so-called developing world. Besides Indian scientists and businessmen have made a reputation for themselves at a global level. Once a Swiss hotel institute head told me that India has "12 million millionaires in dollars". He comes scouting every year for students in this country. All this has added to the glamour that is India. We are no longer the people with the begging bowl, the world can actually do business with us. Considering the enormous demand for Indian students and workers globally, we need to make sure that in future we build enough institutions and a strong economy that will keep the skilled population right here in the country. ❑

NEWS

Computer Kids in the Making

When Dr Sugata Mitra, Chief Scientist at National Institute of Information Technology, India, came up with an idea to cultivate computer literacy among illiterate slum kids nobody took him seriously. A strong willed Dr Mitra, ready to yield, installed a high speed computer in a whole in the wall, which separated his office from an adjacent slum. The kids of the slum, usually engaged in rag-picking or other small time jobs to make both ends meet, quickly taught themselves how to surf the internet, read news and download games and music. An excited Dr Mitra replicated the experiment in other slum areas. And watching the results, slum children turning net savvy, gave him immense satisfaction.

Dr Sugata Mitra, did a comparative study across the country to show how the programme could be run and monitored successfully. Impressed by his achievement and sheer spirit, the World Bank, NIIT and ICICI bank together contributed three million dollars to form the Hole in the Wall Education Limited (HIWEL). The firm set up monitors in slums in different cities and monitored them through remote sensing. The results were amazing. Most of the kids in these areas learnt all windows operational functions. They became tech savvy and set up e-mail accounts and started surfing through educational programmes. Windows provided these slum children a set of windows opening up to a brave new world. Even their behavioral pattern has changed positively.

The costs for the present design of kiosks are less than Rs 2 per child per day. For 200 children one computer is required and this works out to less than Rs 60 a month.

Dr Mitra won the Dewang Mehta Award for innovation in Information Technology this year in recognition of his achievements in the field of Minimally Invasive Education. ❑

WTO on Trade in Services and Higher Education

K D Swami

The education sector is not yet fully geared to participate in the export of higher education. To make it more competitive there is an urgent need for restructuring the higher education

GLOBAL GROWTH in service trade, during the last decade, has outpaced the growth in merchandise exports. Global commercial service exports in 2002 was of an estimated order of $ 1.54 trillion, of which, the US, the EU and Japan contributed two-thirds. In the US, service sector represented 72 per cent of GDP and provided employment of 63 per cent of labour force during 1992-97.

It is now observed that the US has been fast losing its comparative advantage in the goods sector and has been aspiring to expand the market space for its service sector in which it has acquired significant lead and comparative advantage. US is most interested in bringing the service sector into the gamut of WTO as it is a net exporter of services. Since 1980 the growth of service sector in India has outpaced aggregate GDP growth. According to RBI report on currency and finance the service sector is growing at 7-8 per cent per annum compared to 6-7 per cent earlier. India too has become a service economy. Between 1990-91 to 1998-99, according to the new series of national accounts the relative share of construction and services, at 1993-94 prices rose from 49.1 per cent to 51.2 per cent.

Services play an important role in India's external sector too. The services export revolution has spread to India without attracting the attention it should. In 2002 India's share in world commercial services exports was 1.3 per cent or $ 20.7 billion. For commodities the share was 0.8 per cent. India's commercial services export growth rate in 2002 was 8 per cent. Worldwide it was 5 per cent.

India ranked twenty first among the commercial service exporters, and thirtieth in merchandise exports.

The trade negotiations in the services sector at the WTO have added a new dimension to the organization. The mechanism fundamental to the General Agreement on Trade in Services (GATS) that would engender the agreement's multilateral liberalizing character is the rule that also serves as the basis of the GATT viz., Most Favoured Nation (MFN) treatment. Like the GATT, the MFN principal -

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that a signatory treats all countries in a manner no less favourable than its treatment of a particular country-generally applies for all services included in the GATS.

However, the GATS allows for flexibility in the application of MFN. In particular it permits exemptions to MFN for specific laws, regulations and administrative practices.

Modes of Supply

GATS defines services trade as occurring through four possible modes of supply, viz.

Mode 1 : 'Cross border supply' which is defined as the supply of a service from the territory of one member into the territory of any other member (e.g. the provision of architectural blueprints via fax or transborder data flows);

Mode 2 : 'Consumption abroad' which is defined as the supply of a service in the territory of one member to the service consumer of any other member (e.g., tourism).

Mode 3 : 'Commercial presence' which is defined as the supply of a service by a service supplier of one member through commercial presence in the territory of any other member (e.g. the establishment of offices, branches and subsidiaries in overseas markets); and

Mode 4 : 'Presence of natural persons' which is defined as a temporary cross-border movement by a service supplier of one member through presence of natural persons of a member in the territory of any other member (e.g. entry and temporary stay of foreign consultants).

Of course, the various modes of supplying services are not mutually exclusive. All the modes of supply described above, taken together, can be usually summarized as 'cross-border trade and investment in services'. Barriers to foreign investment as well as barriers to temporary movement of personnel, can be tantamount to barriers to service trade.

The developing countries had demanded freer access for their labour services in the markets of the developed countries as a reciprocity to the freer access to banking, insurance and other services from developed countries in their markets. This issue has not been incorporated in the GATS. There is only a weak provision stating, "This agreement shall not prevent any of its members from being a party to an agreement establishing full integration of the labour markets provided such an agreement does not bind the signatories for granting residency and work permit".

The developing countries also sought neat separation in negotiating procedures for goods and for services. This was the dual track procedure proposed by Brazil in June 1985. On the other hand, the US wanted the new round of trade talks to include the negotiation of the services compact. The so-called single track was, therefore, the US preferred positions. Single-track negotiation do underline linkages, dual track negotiations do not.

Thus the real crux of the GATS is the opening up of the services trade on a par with the goods trade in contrast to the old regime where services were strictly within the purview of national policy regimes.

The provisions under the Dispute Settlement Understanding (DSU) provide for cross-retaliations between goods and services in regard to suspension or withdrawal of concessions. Thus the balance of level playing field has been tilted in favour of developed countries by permitting cross-sectoral retaliations in the GATS.

Even education services in which consumer provide interaction has traditionally been very high are now amenable to unbundling and eventually cross border trade.

Advances in computer-mediated technology (including online access to information, two-way student-teacher communication, multimedia systems), for example, are significantly enhancing the effectiveness of the long-distance education. Teleconferencing-using satellite links for contacts between medical colleges and physicians in remote areas is becoming a popular mechanism for continuous education. Telemedicine is also becoming a reality.

However, exports of education are mainly in the form of consumption abroad and movement of natural persons. There has been growing commercial involvement and foreign collaboration in higher education services through franchising and other networking arrangements among institutions in developing countries and across developing and developed countries in recent years. The emergence of non-university programmes, franchise arrangements, networking of institutions and growth of distance learning are positive developments in this area.

Applying the four modes of supplying services, contained in the GATS, to the area of education services, we can broadly define the scope of these services as follows:

- Cross border supply of education services from the territory of one member into the territory of any other member. It includes distance education programmes, online courses through the Internet etc.
- The supply of education services in the territory of one member to the service consumer of any other member. An example is a student studying abroad.
- The commercial presence of an education service from one member

in the territory of another member to provide educational services. Service of foreign universities and other educational institutions starting courses in India fall within this broad category.

- Movement of teachers from one country to another to provide educational services. This includes knowledge dissemination and development of inter-institutional research by foreign teachers i.e. movement of natural persons. An example is Indian teachers going abroad to teach in the universities or colleges located there.

Thus, higher education is defined as a private good on a global scale. The WTO has signalled an intention to develop a binding policy regime that will facilitate the unrestricted flow of educational services across borders. As a result over the next decade higher education is likely to be a major testing ground for the ability of national governments to retain a degree of control over economic activities such as education that are identified as social sectors.

Advantages

There are both advantages and disadvantages of international trade in higher education. For example, exports via consumption abroad could help generate resources, create employment, expand facilities and raise standards in the educational sector. But it can also put strain on already scarce financial resources allocated to higher education.

Similarly, exports of education via outflows of teachers and trainers could generate foreign exchange and remittances for the country but if permanent, could aggravate the existing shortage of human capital and drive down the quality of education services on the domestic front.

Besides, exports in general may also raise the cost of education services to the detriment of the poorer sections of the population.

Import of education, on the other hand, e.g. via commercial presence can help augment resources for investment and expansion of facilities in the education sector. However, this may lead to 'dualism' in the education sector where a private corporate segment would cater to the needs of the affluent and will provide quality and standards and a public segment catering to the needs of lower and middle income groups. However, this dualism can be mitigated to some extent by conscious policy planning.

In India, the higher education sector is regarded as being excessively developed and subsidized as compared to the lower ladders of education. There has also been a critique of state financial support for elite higher education institutions such as IITs and IIMs in the light of "brain drain" of skilled professionals to developed countries like US and UK.

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As compared with education 'market leaders' such as the US, the UK, Australia and Canada, India's existing capabilities as provider of 'International education' is rather limited.

Therefore, there is an urgent need for restructuring of higher education in India with a view to making it market oriented and competitive.

It was observed that the following factors characterizing a market oriented and 'Internationalized' education system.

- A move to viewing students as 'customers' who must fully or partially contribute the costs of their education and thus, who require and demand improved level of service, efficiency and 'market value' in relation to degrees;
- Emphasis upon accessing funding by engaging directly with the private sector, whether through applied research contracts and consulting opportunities and formal linkages with industry and business sectors;
- A shift towards a more vocational and 'Skill based' orientation in terms of under graduate education;
- Supply of short course training for business and the public sector and 'tailored' postgraduate full fee paying degrees for professionals seeking to extend or maintain their skill base;
- Emphasis upon domestic and international competition between educational institutions in terms of quality of staff, student numbers and research output;
- Investment in marketing an institution as an international education provider and collaboration

with foreign 'partner' institutions in providing offshore education, and

- Use of information and communication technologies in the provision of fee-paying 'distance learning', a mode of 'delivery' designed to maximize flexibility and minimize labour costs.

This paradigm shift may, however, encounter political and inter and intra institutional resistance.

Export Promotion

Besides introducing structural changes in the field of higher education following initiatives may be considered by the policy makers for promoting exports of higher education:

- Setting export targets for services exports in general and by major sectors including education services in particular. This calls for improving the collection of services trade statistic;
- Setting up of an 'Education Export Promotion Board' for promoting Indian education abroad;
- Setting up of private funded Educational Institutions along the lines of Indian School of Business (ISB), Hyderabad;
- Focus Asia and Africa strategy to spot out export potential for Indian Education in these regions;
- To market education services with the help of Indian Embassies etc.;
- Anchor people for promotion of education services; and
- Framing national and state level export policy for education services.

The aggressive commercialization of higher education conflicts with its role as provider of 'public good' with a necessary degree of autonomy and its status of a social sector.

A question can also be raised as to the long-term outcomes of privatization in terms of productive and mutually beneficial linkages in research, teaching and the maintenance of general academic standards.

It should be emphasized here that the university is a place where a student is not encouraged to confuse education with training for a profession or with learning the tricks of a trade instead the teachers are interested in the pupil himself.

Finally, there is the question of equity. Which countries or educational institutions within a country will benefit the most from the internationalization of the higher education in the light of vast differences in academic standards and infrastructural facilities available at different educational institutions.

Indian education sector is not yet fully geared up to actively participate in the export of higher education. To make this sector more competitive there is an urgent need for restructuring the higher education. We must try to emulate the achievements of Australia which has internationalized its higher education at a fast rate and is likely to emerge as a leader in this area. In promoting exports of higher education from India concerted efforts are needed. But in the process of internationalization of the higher education in India we need to be aware of the potential dangers of commercialization, such dangers include the danger of giving goodbye to this sector as a 'social sector', compromising the academic standards and promotion of dualism in this sector. ❑

NEWS

India in top 10 League

India has entered the ranks of the world's 10 largest economies for the first time.

The World Bank, which described India as an "Asian giant" said the country rose from 12th to 10th in dollar terms between 2003 and 2004, its GDP overtaking Korea and Mexico. It is now worth $692bn ($390bn). The UK was unchanged in fourth place.

The figures came as Mr Gordon Brown urged his fellow EU finance ministers to embark on a structural economic reform to ensure they could withstand competition from China and India.

India's economy has grown by more than seven per cent in the past two years and has averaged more than six per cent over the past decade on the back of buoyant industrial activity and massive investment. The country has benefited from a concerted programme of economic liberalisation over the past decade that has seen it attract inward investment and develop specialisms in areas such as IT and call centres. The World Bank said services, the least regulated sector in the economy, continued to be the strongest performer, while manufacturing, the most regulated sector, was the weakest.

In Brussels, Mr Brown told European Parliament that the EU needed to create 22 million jobs by 2010 and carry out reforms to help meet growing competition from India and China. In his first speech since the UK took over the presidency of the EU, he said Asia's share of output was poised to surpass that of Europe, saying that in 10 years, it would probably be 50 per cent higher. "We have to face the fact that Europe has not only been growing at half the rate of the USA, but at quarter the rate of China," Mr Brown said, "We are challenged by global forces from which there is no shelter." According to research by the investment bank Goldman Sachs, the combined economies of India, China, Brazil and Russia will overtake those of the G6—the G7 countries minus Canada—by 2040. The World Bank's figures showed that India is ranked 159th in terms of per capita income. ❑

(Courtesy : The Independent)

MTA Recommendations for Education

- The Tenth Plan target of enrolling of all children in schools and Education Guarantee Scheme (EGS)/Alternative Innovative Education (AIE), centres by 2003 should be revised to 2005 as about 8.1 million children are still out of school.
- High drop out rates and quality of education, two main areas of concern of Sarva Shiksha Abhiyan (SSA) should be addressed through specific measures. The teacher-related issues like vacancies, absenteeism, untrained teachers and ineffective training should be addressed urgently.
- Adequate teaching-learning materials and provision of other joyful learning conditions in schools should be ensured, and the child tracking system should be intensified.
- SSA funding pattern of 75.25 between the Centre and states should be maintained till the Mission period i.e. 2010.
- The SSA guidelines should be reviewed to ensure that these optimise investment, meet output targets and cater to special regional circumstances.
- SSA should have a separate component for early child care education (ECCE), where integrated child development service (ICDS) is not in operation.
- Under mid day meals schemes (MDMS), states should ensure proper management structures and monitoring arrangements, including social audit, accountability and public private partnership.
- The factors leading to low learner's achievement, including poor classroom transactions, lack of pupil evaluation and low proportion of female teachers should be addressed effectively.
- Local community should also be involved in monitoring school performance.
- The literacy schemes like total literacy campaign (TLC), continuing education, should be transferred to the state governments along with funds.
- A new scheme should be launched as a part of literacy programmes, operated through NGOs to impart functional literacy for 35 plus age group.

Secondary Education

- A new Mission for Secondary Education, on the lines of SSA, should be considered.
- The expansion of secondary education should recognize the scope for promoting public-private partnership in view of the substantial share of private sector in secondary education.
- Suitable taxation and land policies, concessional loan programmes should be evolved.
- The focus of public sector should be on opening of new secondary schools in unserved and difficult areas and organising second shifts in thickly populated area.
- Urgent steps should be initiated to bring about reforms in curricula and review of examination system.
- The main emphasis should be on investment in teacher education, pre-

service and in-service training, and setting up of laboratories, libraries and greater usage of information communication technology (ICT).

- The secondary schools should focus on reorientation of vocational education and impart vocational training in non-engineering and tertiary sector activities.
- Vocational education should be geared to meet the local demands and necessary linkages with the local industry, business and trade should be established.

University & Higher Education

- The Knowledge Commission should comprehensively review university education and address problems of varying standards, outdated syllabi, inadequate facilities and also recruitment procedures and policies to reduce the disparities in academic standards of various universities.
- A long-term plan should be devised for setting up new colleges and universities, especially in educationally backward districts, strengthening existing institutions and also for expanding 'open' and 'distance' education.
- A separate programme should be launched to improve and upgrade select universities and make these globally competitive.
- A substantial increase in university fees should be combined with an effective scholarship for the deserving students and loan programmes by public sector banks should be considered on a priority basis to improve the resource position of universities and colleges. The Central Government can give a lead in this matter by introducing the system in the Central Universities.
- A clear policy for inviting private sector investment in higher education should also be formulated.
- The accreditation process for higher and technical educational institutions should be made transparent and very effective.
- The expansion of institutions like IITs, IIMs should be considered so that these set standards for technical and management institutions. ❑

NEWS — Knowledge Panel to Synergise People's Perspectives

Knowledge Commission Chairman, Mr. Sam Pitroda has said the Commission would seek to bolster the knowledge-base of the country by focusing on five areas including access to knowledge. It will also make proposals for the creation and application of knowledge and delivery of knowledge service.

Briefing newspersons after the panel's first meeting held in Planning Commission in New Delhi on 4.8.05 Mr. Pitroda said the first set of recommendations will be ready by October this year to facilitate far reaching changes in the field of governance and education. The meeting was attended by the Prime Minister Dr. Manmohan Singh. He said the eight member Commission would synergise perspectives of people working in various fields. It will formulate the recommendations with a view to benefiting young people who are the real consumers of knowledge.

Mr. Pitroda said the Knowledge Commission would function within the existing government structures and six ministries have been identified which would work closely with the Commission. Apart from the six ministries and the Planning Commission, where it is to function from, the Knowledge Commission proposed to hold consultations with other stakeholders also, such as industry associations and non-governmental organization.

Earlier, the Prime Minister Dr. Manmohan Singh launched National Knowledge Commission on 2nd August to help make the government more transparent and accountable while sharpening India's knowledge globally. Dr. Singh said India should be able to attract global investment in R&D activity. He said the Commission must come forward with creative ideas to promote the "knowledge base" of our economy and export its latent potential and leverage it to make the country truly a "knowledge engine" of the world.

(Compiled by Madhu R Sekhar, Asstt. Editor, Yojana, (Eng.)

OCTOBER 2005 ISSUE

Outsourcing is an emerging issue. The October 2005 issue of Yojana focusses on BPOs. Leading lights of the industry will share their views including Mr Kiran Karnik, President, Nasscom, among others. A write up by Mr Sanjay Kothari, IAS highlights the social issues concerning outsourcing along with innovative strategies in a government set up.

Pardada Pardadi School Fashions UP Girl Power

Renuka

PPGVS is a ray of hope for the girls of Anoopshahar. It is a school with a difference, primarily focussing on girl children from families with a monthly income of less than Rs 600

AARTI, POOJA and Jyoti are three sisters who were rescued from their home by a teacher of the Pardada Pardadi Girls' Vocational School (PPGVS). Alongwith their mother they were beaten black and blue by their alcoholic father, Ramkishore, and locked up in the house by him. Ramkishore was irritated because of his five children, three are daughters.

Three-and-a-half years ago Aarti's family shifted from their native village to stay in a slum area in Anoopshahar, in western UP's Bulandshahar district. Back in the village Ramkishore was a landless labourer; after migrating to Anoopshahar, he started working as a painter. The family is very poor and the girls were taken out of school after migrating to Anoopshahar.

Aarti's mother, Hemvati, however, was determined to educate her daughters and three years ago learnt about a school called Pardada Pardadi Girls' Vocational School in Anoopshahar. According to Aarti, "Our lives changed from the day we joined the school. We met many more girls who had similar stories to narrate. Education is changing our lives. After completing Class X. I want to work in the school as a teacher so that I can help more girls in situations similar to mine." Today, Aarti is in Class 9, Pooja in Class 7 and Jyoti in Class 5.

PPGVS is a ray of hope for the girls of Anoopshahar. It is a school with a difference, primarily focusing on girl children from families with a monthly income of less than Rs 600. This school is in a neglected area. There is an NTPC power plant there, but hardly any electricity is available for local consumption.

Anoopshahar block is notorious for crime. No industrial development has taken place. There are not many opportunities for work, hence people (specially men) have to migrate to other places. Girl children have to contribute to family incomes by working in the fields, rearing goats or collecting firewood from the jungle. The life of women and girls is particularly miserable because they have to take the double load of bearing and rearing children and also of contributing to the family income. Many a time girls are married at the age of six and forced to become young mothers by the age of 14. No health facilities are available to these girls and women. Women have no role in decision making, either at home

or in the community. They are oppressed and domestic violence is common.

PPGVS has emerged from the vision of Virendra Sam Singh, who was born in Bichola village in Anoopshahar. He lived and worked in the US for over 30 years, took voluntary retirement from DuPont in 2000 and came back to his village. Sam believes that "if we develop women as leaders for change, then no one can stop India from developing and progressing. Empowerment of women is equal to social plus economic empowerment."

The Pardada Pardadi Educational Society (PPES), which runs PPGVS, has two wings for social development and marketing. PPGVS, as part of the social development wing, is providing value-based education and skill-based training to 300 girls from 46 villages of Anoopshahar. Girls are being groomed to be informed, confident and conscientious citizens of our society.

The school follows the UP state board curriculum. The children are able to learn and work on computers. The computer lab has been donated by the US Information Centre. Mornings are devoted to classroom teaching, like any other school. At noon the girls go to vacational classes where they are taught different crafts. It takes an average of about two to three years for a girl to start making things that are market worthy.

The school has concentrated on teaching the girls crafts related to making home and soft furnishings to international standards. These are marketed by the marketing wing of the school and the profits are ploughed back to the children and the school. According to Shankar Sinha, the Principal of the school, academics today is totally de-linked from creating employment opportunities; hence, at PPGVS, we have linked education to employment."

PPGVS has set up a unique system to give parents economic incentives to keep their girls in school. The biggest incentive is the vocational programme. By the time PPGVS students graduate, they have developed highly marketable skills in textile work and produce high-end home furnishing products.

The marketing wing of PPES retails the products at various places in India and abroad. Among the valued customers is the Central Cottage Industries Corporation of India. The products also go to the fashion capitals of the world, like Milan in Italy. The school now has opened a Pardada Pardadi store in the Plaza Mall, Gurgaon. Madhu Singh, head of the marketing department, says, "We are linking the villages to the world through the products. Our products are world class. We give special emphasis to design and quality. Each product is exclusively designed with vibrant colours and embellished with different kinds of emboidery."

Once the girls have graduated, jobs are guaranteed by the school. PPGVS also opens a bank account for each student upon entering the programme. For every day a student attends school, Rs 10 is put into her bank account. By the time a girl completes the programme (about seven to 10 years), she should have approximately Rs 100,000 in her account, assuming she has attended most days of the school year. Ideally, the products bring back Rs 30 per day. Of that, Rs 10 goes in their account and Rs 20 goes into sustaining the school.

A girl can access her bank account only if she graduates, or completes Class X. PPGVS hopes to reduce child marriage with the incentive of a bank account and by the awareness generated in the community. The longer a girl stays in school, the more money she accumulates, which gives her better chances of marrying into better socio-economic sector of the community. Students are provided bicycles after attending school for a year. To increase parental participation, the school requests them to make a small deposit for the cycle which is returned if the child stays in school and finishes Class X. Transportation is an acute problem in this area as some girls come to school from as far as 20 km away. The school provides free uniforms and three free meals a day. For families who have never sent their girls to school, or have taken them out, these incentives are specially attractive.

The school guarantees jobs for its graduates in the following ways: She can continue working full time at the school and get paid for the amount of work she does. She can produce products from home and get paid weekly for the work produced. She can open a "Mini-PPGVS" of four to six girls at her home, train them, and get paid for their work on a weekly basis. She can be selected as a teacher for the expanding PPGVS concept of education. She can start managing the *balwadis* that the school proposes to open in nearby villages to prepare children for the school.

PPES wants to expand the strength of the school to 5,000 girl children. It wants partners to join in opening more schools like PPGVS. ❑

(Courtesy : Asian Age)

A great life has ended

Manu Shroff

DR INDRAPRASAD Gordhanbhai Patel, I.G. Patel or I.G. to many, who is no more, was a widely respected economist. He had a brilliant mind, which was exceptionally lucid, and a magnetic personality which drew people from a wide variety of fields to him. He reached many heights but remained modest and soft-spoken and was generous in his intellectual and other contributions to society. He is survived by his charming wife, Alaknanda, a great support to him in all his endeavours, and their daughter, Rehana, who teaches mathematics at a College in Queens.

I.G. came from a middle class family in Vadodara, originally from Karamsad, one of the six important villages of Kheda in Gujarat. H.M. Patel hailed from Dharmaj and I have been witness to banter between the two about the rank of the two villages! I.G. had a brilliant academic career at Vadodara and Cambridge, UK, and for a brief while, Cambridge, Mass. He broke many records at Cambridge. Even at that young age, I.G. showed exceptional ability to argue a case convincingly, an ability which he displayed all through his life. He had applied for a scholarship for economics to a Tata Foundation, but he was told that it was available only for science subjects. His response was typical: Who says economics is not a science? He was asked to demonstrate it and wrote an essay on the subject which won him the scholarship.

Armed with a first class MA degree and PhD from Cambridge, I.G. returned to Vadodara to teach at Baroda College. Soon thereafter, he joined the IMF in Washington. His first encounter with economic policy in India was as a member of the two-men mission headed by Bernstein. The report of the mission on economic development with stability, believed to have been written largely by I.G., remains a classic.

In the fifties, we were concerned about the inflationary impact of development. The slogan then was development with stability, to be replaced later by growth with social justice. I.G. was deeply involved in the pursuit of both the sets and he played a crucial role in the fifties and early sixties in reconciling the conflicts between those who wanted fast growth on the basis of the so-called physical planning and those who were deeply concerned about the financial resource constraint and the prospect of inflation. I.G.'s skills in making a convincing case were of course important in this; but more than that his transparent sincerity and commitment and pesonal magnetism were crucial. Pitamber Pant was from the opposite camp, so to say, for us in the ministry of finance. But I.G. was close to him and had won the respect and affection of Prof Mahalanobis. Inevitably, he became a bridge between the Planning

IG rode like a colossus through a whole generation of economic policy making

Commission and the ministry of finance, between physical and financial planning.

I.G. joined the finance ministry as deputy economic adviser in 1954 under Prof J.J. Anjaria (with whom he had a close and affectionate relationship) and became chief economic adviser in 1961. Quite early in his days at the ministry, senior ICS officials like B.K. Nehru and later S. Bhoothlingam and L.K. Jha took note of him and over time got hooked to him. He worked with many finance ministers, all of whom respected his advice and became fond of him. In particular, the see-saw of T.T. Krishnamachari and Morarji Desai in the late fifties and early sixties left I.G. as a constant factor in the ministry as he was fully acceptable to both. Indira Gandhi was equally fond of him in the pre-Emergency days. He was I.G. to all of them.

His diplomatic skills and his wonderful capacity of winning over the hearts of people stood the country in good stead in mobilising external resources for development. A whole chapter of his life was filled by this very sensitive and not too pleasant a task. He used to quote his father, who said, Did you become so well-educated only to engage in begging? One of the most poignant essays he wrote in the early seventies was on "Aid Fatigue". He could not be present at the meeting in Williamsburg organised by Barbara Ward, and I had to present his paper. Many US economists and officials were present. Pitamber Pant was also there. The discussion soon turned on I.G. rather than aid. Why is I.G. so sad?

Almost all the aid negotiations with the IMF, the World Bank, and individual countries were conducted by I.G. or under his advice. His brilliant presentations at the annual India Consortium Meetings in Paris on India's problems and needs were a treat for the aid bureaucracy. He spoke from notes and his thoughts ran so fast that as his speech tried to catch up with them, it became difficult for the listeners to keep pace. The Bank officials sitting opposite would gesture to me to slow him down and I would gently nudge him to no account—indeed to be gently rebuked after the meeting for disturbing him!

I.G. was a bureaucrat par excellence. Although his sympathies lay elsewhere, he helped put through bank nationalisation. Earlier, he had differences on gold policy and he took leave of absence for a year to teach at the Delhi School of Economics. In the committed bureaucracy period, he must have felt uncomfortable and he went on to the UNDP. During the Janata regime, he returned, but not before completing his term over there, to be at the helm of the RBI. Retirement took him to the academic world, as director of the Indian Institute of Management, Ahmedabad, and then the London School of Economics, the latter a singular distinction for him and the country. He never really retired. He continued to serve as director of the State bank and chairman of Icrier. Earlier, he headed the Aga Khan Foundation for Rural Development India. He continued to be involved in numerous international committees.

IG loved travelling. He loved the good things of life and enjoyed life fully. He was fond of music, partly an influence of Alaknanda, and was quite crazy about cricket. His many friendships enriched his life. And he gave them more than he took. With all that, he was essentially a very private person. He was very humane and looked after his assistants in office and help at home with exceptional consideration and care.

What was IG's ideology? Frankly, none in the sense of believing in any of the isms. He was a liberal, pragmatic economist. But he was brought up in the Nehruvian mould and while he fully endorsed the liberalisation policies, he remained uncomfortable with extreme marketers. Something—may be the poverty and injustice—held him back and pushed him at times to interventionist solutions. He could not bear the hate agenda which led to the Gujarat riots and in a strongly worded article—a rare thing for him—condemned the failures of the state government. He often moaned about corruption and ineffectual government expenditures but was not averse to deficit financing for worthwhile investments. The private-public debates bored him. Whatever works should be the right thing to do. Internationally, he promoted many good ideas like the SDR Development Link, or World Bank aid, or the so-called soft sectors like agricultural credit, education, or health. He coined the phrase Hitherto Neglected Areas (HNA).

IG rode like a colossus through a whole generation of economic policy making. But he never sought office; nor did he welcome private corporate involvement, except when he felt an obligation to someone he liked and respected. Thus, he was chairman of Hindustan Oil Exploration Company, the first private sector company in this field started as an ideal by the late H.T. Parekh.

IG was not a theoretical economist as such. But he had that rare quality of intelligence which helped him make judgments that could be explained *ex post* in a theoretical framework. Hence he commanded wide respect from economists of all hues here and abroad. The economist fraternity in India has lost its icon.

(IG wrote *Glimpses of Economic Policy*—an autobiographical piece and also on his experience with higher education at the LSE and IIMA. Two collections of his essays have also been published.)

When I met him two days before he left for the US in April, he was looking very fit after his illness in November last. But he said this was his last trip abroad; he did not want to undertake long travels thereafter. Who would have thought that his words would come true in such a tragic way? ❑

(Courtesy: Business Standard)

Industrial Policy 2004

Hailed as harbinger of prosperity, peace and development, the Policy is likely to give the much needed thrust to the sector

DESPITE ATTRACTIVE fiscal incentives under the state's Industrial Policy (1998-2003), the rate of growth of industrial sector could not be accelerated primarily on account of the disturbed conditions in the State. Competition from cheaper imported products, coming into the country as a result of the policy of globalisation and economic liberalization pursued by the Government of India, has also forced many local SSI units to down their shutters. With the problem of unemployment, particularly of the educated, being high, the Industrial Policy 2004 has been sanctioned vide Govt. Order No. 21-Ind of 2004 dt. 27.1.2004 cabinet decision no. 19/1 dt. 23.01.2004, keeping in view the experience gained in the last five years and some new positive elements that have entered the scene.

Duration

Industrial Policy 2004 will remain in operation from 1 February 2004 until 31 March, 2015.

Advantage J&K

Some specific advantages enjoyed by the state are:

Introduction of incentives for industries based on the package for the North-Eastern states in Jammu and Kashmir by the Government of India has created a new window of opportunity.

Centrally sponsored schemes available for development of infrastructure and common facility centres are fully utilized to strengthen and broaden the infrastructure base of the State in general and for industries in particular. Refinance facilities are available from the prime lending financial institutions. Infrastructure in the State for handicrafts and handloom sectors is being strengthened to further hone the already superb craftsmanship available in the State by providing professional assistance in design, product development, quality control, marketing and human resources development, with emphasis on active private sector participation.

The state is endowed with rare agriculture and horticulture germplasm. The State has three distinct agro-climatic zones, each with its characteristic products, thus offering a wider choice for establishing agro-industries. With 57 per cent of apples and 92 per cent of walnut produced in the country being from the State, besides a host of other horticultural produce such as almonds, pears, plums and cherry, the availability in terms of quantity and quality of a wide range of agricultural and horticultural products signifies good potential for value addition through food processing. Besides, the state is ideally suited for growing aromatic and medicinal plants that can be the raw material for a wide range of essential oils and herbal medicines. A special package of incentives has been offered for this sector by the Ministry of Food Processing, Government of India. The state government has also kept this sector in its thrust area.

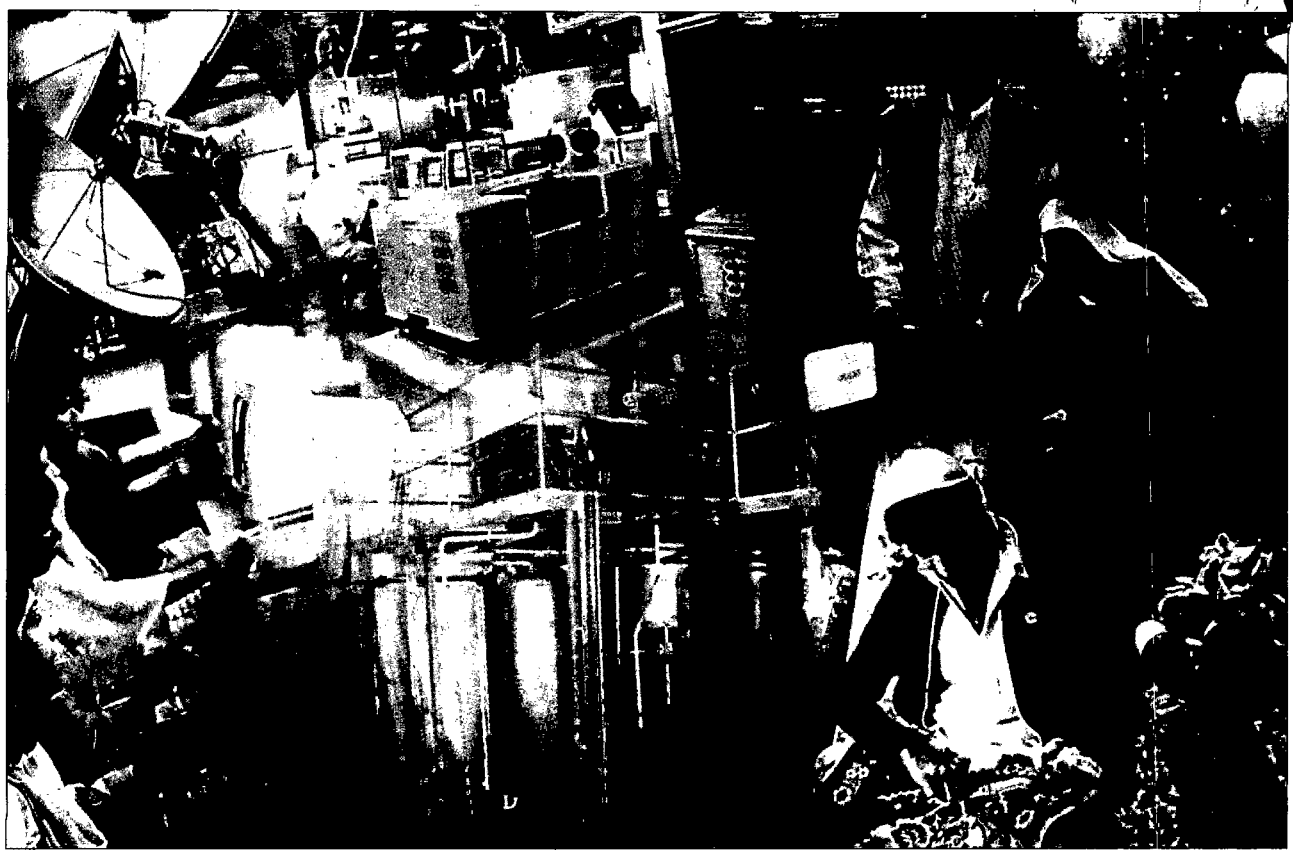
The state is endowed with rich mineral wealth of excellent quality. Limestone, gypsum, quartzite, dolomite, magnesite and bauxite, besides sapphire, are available in the State.

Technical, managerial and other knowledge-based resources available in government departments, universities and professional colleges, R&D institutions like the Regional Research Laboratory of CSIR can be networked and utilized for the growth of the industry.

There is large scope for the commercial banks to push up investment within the state. The current credit deposit ratio is much lower compared to the national average.

There is a clear recognition by the state government of the fact that the industrial sector has a prominent role to play in its economic development and is an effective vehicle to reduce pressure on the strained employment opportunities in the government and public sectors.

A perceptible improvement in the law and order situation, generated by the sincere desire of the people of the state for peace, has created a favourable atmosphere for investors. This has also created a new hope among the local educated youth.



An industrial revolution on the anvil

The state has a long history of excellent labour-management relations. Mandays lost due to labour problems are minimum.

A wide network of roads, telecommunication and other infrastructure existing in the State is constantly improved. Railhead at Jammu will be extended to the valley of Kashmir by 2007.

Objectives

The primary objectives of the Industrial Policy 2004 are:

- To achieve sustainable industrial development in all regions for increasing the rate of growth, value of output, employment, income and overall economic development of the State;
- To strive towards balanced economic and social development in all regions of the State by promoting industrialization particularly of the industrially backward areas.
- To encourage and sustain the cottage and tiny industrial sector which, with low investment, is able to provide employment to a large number of people in the state.
- To create a supportive environment with transparency and easy access to information, technology and financial resources.
- To revive potentially viable sick industrial units so as to put to optimum use the capital and other resources already employed in such enterprises.
- To promote the growth of thrust and export-oriented industries and encourage high-tech and knowledge-based industries including information technology.
- To take necessary steps in the field of Human Resources Development to make available skilled/ technical manpower as per the needs of industry.

Approach and Strategy

The strategy for achieving the objectives, and the main elements, of the Industrial Policy 2004 are:

- Providing improved infrastructure and support services, with emphasis on regular and uninterrupted power supply.
- Attractive incentives – of the Government of India and of the state government.
- Single window clearance system for power, pollution control, land allotment and registration of industrial units.
- Closer interaction with financial institutions and commercial banks, to ensure regular and adequate flow of finances to the industrial sector.

- Rehabilitation of potentially viable sick industrial units.
- Improving competitiveness of existing industrial units by facilitating modernisation aimed at enhancing productivity, energy efficiency and better environment management.
- Enabling manufacturers of quality-consistent products to augment their sales within and outside the state by brand promotion.
- Reorienting Industries and Commerce Department.
- Export promotional measures to augment export of products of the state outside the country.
- Permanent Grievance Redressal System to remove bottlenecks in import and export of products to and from the state.
- Environment protection, to conform to state, national and global regulations.
- Entrepreneurship development in the state, to provide opportunities to educated unemployed.
- Encouraging research and development
- Focussing on thrust areas with natural advantages in the state and facilitating large investments in prestigious projects.

Improved Infrastructure and Support Services

The government will strive to improve general infrastructure of the state. In respect of infrastructure for industries, the policy emphasizes the following:

- Development of modern industrial areas and estates, growth centres, Integrated Infrastructure Development Centres (IID), etc. will be done in a time-bound manner. These focal points of industry will meet all the basic requirements of a competitive industrial environment. An action plan with specific implementation model and time frame will be adopted.
- Operational management of the major industrial estates will be rationalised, involving local industrialists through a suitable local self-managed model both for development works and management of the estates including regulation of power and water supply.
- The State Government will encourage private sector participation in infrastructure development and such private sector participation will be treated as an industry for the purpose of availing incentives. The Government will also facilitate acquisition of land for such private sector initiatives.
- Efforts will be made to ensure that the power supply within industrial areas, estates, IIDCs, etc. is regular, reliable and of good quality.
- Private sector investment in generation and distribution of regular power supply in industrial areas, estates, IIDCs etc. will be actively encouraged. The government will provide necessary support for such ventures on a case to case basis to assure their sustainability.
- Micro-hydel projects are already open for private sector investment. A separate policy on the subject has been announced and implemented by the Power Development Department of the government.

Incentives for Industries

Incentives for industries are provided by the Government of India. Industries availing the incentives must always strive to plough back resources to constantly upgrade products and productivity, design and quality, so that after the incentives cease, they are able to survive on their own competitiveness.

Single Window Clearance System

With the objective of facilitating a new entrepreneur in getting necessary clearances within a short time, a Single Window Clearance System, for registration of the industrial unit, allotment of land, clearance of Pollution Control Board for commencing construction and certificate of power availability, at the State and District levels, has been set up. A separate notification in this regard will be issued.

Institutional/Commercial Bank Funding

Industrial Policy 2004 recognizes that Financial Institutions/Commercial Banks have to play an important role in the industrial development of the State. An environment has to be created to arrest the present trend of flight of capital from the State. The procedures presently followed have not withstood the test of time. There have been glaring instances of delay and under-financing of projects resulting in cost and time over-run. It will also be necessary to strengthen the state owned Financial Institutions. Moving in this direction, the government will adopt the following course of action:

- The present arrangement of credit flow monitoring through State Level Banker's Committee (SLBC) and State Level Inter Institutional Committee (SLIIC) forums will be actively utilised.
- State-owned development financial institutions shall be reoriented to facilitate availing of refinance facilities from national level institutions optimally; and, encouraged to raise finances from the market.
- Divisional and district level coordination committees will be constituted to monitor expeditious settlement of the loan cases within prescribed time limit.

Rehabilitation of Sick Units

An enormous amount of capital is blocked in sick/closed industrial units in the form of infrastructure and investments.

Though industrial sickness is a widespread phenomenon, its impact is comparatively high in J&K. The initiative for rehabilitation of sick units should primarily come from the concerned industrial unit, financial institutions and the commercial banks, the government playing a catalytic and supportive role. Government Order No. 47-Ind of 1999 dated 10.2.1999, currently in vogue, will continue. Besides, the Government will separately announce a debt relief package too. The sick industrial units shall have the option of taking advantage of either of the two packages.

Improving Competitiveness - Modernisation

Industrial units operating in the state must realize that with globalisation and economic liberalization, the inflow of cheaper and better quality products into the country and eventually into the state cannot be halted. In order, therefore, to encourage such industrial units as are desirous of modernizing themselves with a view to increase productivity, energy efficiency and environment protection, the capital investment subsidy of the state will be extended to them all over the state. The procedure for availing this incentive has been separately prescribed.

Brand Promotion

With increasing competition in the market, manufacturers of quality consistent consumer products can sustain themselves only if they adopt an intelligent marketing strategy and build a brand of their own. In order to encourage efforts of such manufacturers who are desirous of developing and propagating their own brands within and outside the state, the government will extend assistance to them. Details are provided in the package of incentives of the state government.

Reorientation of Industries & Commerce Department

In the liberalized economy, it is imperative that the capacity of Industries & Commerce Department and related PSUs is strengthened to meet the challenges of the new era. In the area of information technology, the process of computerisation will be accelerated at the cutting edge level. Accordingly, the computerisation of the Directorate of I&C will be further expedited with a view to not only provide all relevant policy and information on the website but also data relating to status of applications for registration, incentives, etc. An investor and industry friendly atmosphere will be created.

Export Promotion

Exports have come to be regarded as an engine of economic growth. However, the share of J&K in the overall exports of the country is very low, limited mostly to handicrafts and dry fruits processed by the SSI sector. The State has a vast potential for exports, both in traditional and non-traditional items. With a view to promote exports of the State, two Special Economic Zones (SEZs), one each in Jammu and Kashmir Province, are under finalisation. An Inland Container Depot is ready at Bari Brahmana which will cater to the needs of the exporters. Various projects under the Assistance to States for Developing Export Infrastructure (ASIDE) Scheme of Govt. of India, Ministry of Commerce are under implementation in the state to strengthen export infrastructure. Air cargo complexes in Srinagar and Jammu will also be taken up in the near future.

Permanent Grievance Redressal System

In the past, despite provisions in the industrial policy, there have been many instances of consignments of raw materials, capital goods, fuels, etc. being detained in the entry point of the state, often resulting in delays and payment of fines and penalties. With a view to ensure that the industrial policy is honoured in letter and spirit, an order will be issued by the Finance Department that no consignment for industries, covered by the industrial policy, will be detained at the entry point for more than 24 hours. In the event of any doubt, a notice will be issued by the concerned authority to the firm outlining the objections but the consignment will be instantly released. A Permanent Grievance Redressal Committee, consisting of Director Industries and Commerce, Commissioner Sales Tax and Commissioner Excise, to be set up by the Finance Department, shall meet once every fortnight to consider all such notices and pass orders which shall be final and binding on all concerned. In emergent situations, such meetings could be called at shorter notice too. This procedure is expected to check alleged arbitrary actions at the entry point of the state.

Environment Protection

Pollution Control and Environment Protection will be accorded high priority. The Pollution Control Board shall give necessary clearances to new units to start construction only after satisfying itself that the required pollution control measures have been included in the project by the promoter. The State Government will assist setting up of Common Effluent Treatment Plants and providing sites of solid waste disposal etc. availing of the existing schemes of the Government of India as well as the States' own resources. Procedures for environment clearances will be streamlined to achieve speedy disposal. Environment friendly projects will be accorded greater priority. Incentive for procurement of pollution control devices has been provided in the state government's package.

Entrepreneurship Development

Lack of entrepreneurial skills of the local youth has been identified as an impediment for sustained industrial growth. J&K Entrepreneurship Development Institute (J&KEDI), a

society registered under the J&K Societies Registration Act, has recently been activated to provide entrepreneurship training to youth of the state. Universities will be encouraged to include comprehensive entrepreneurial education in the course curriculum both at the undergraduate and postgraduate levels in the state. The State will encourage setting up of training institutions in the private sector, in the areas of Information Technology, Biotechnology and Communication. Educational and research institutions of international standards related to business/industry shall be provided land in industrial parks/ growth centres at a concessional rate of 50 per cent.

Thrust Areas and Prestigious Projects

The following industries will be the Thrust Areas of the government:

- Electronic (integrated circuits and micro assemblies)/ computer hardware and software
- Food processing including agro-based industries (excluding conventional grinding/extraction units)
- Floriculture
- Handicrafts
- Leather processing and leather goods
- Sports goods, articles and equipments for general physical exercise
- Forest based industry
- Processing of aromatic and medicinal plants and herbs
- Pharmaceuticals including bulk drugs
- Silk reeling, weaving, processing printing and made-ups, yarn and yarn spun from silk waste
- Cutting and polishing of stones, gems and jewellery
- Precision engineering
- Wool processing, spinning, weaving & finishing, woven fabrics of wool
- Woven fabrics of cotton
- Industries related to the promotion of tourism e.g., units manufacturing camp equipments, fibre boats etc, souvenirs for tourists
- Knowledge industry, including information technology, biotechnology etc.
- Auto ancillaries.
- Exploration of minerals.
- Green house (only Ladakh)

The government may add new industrial activities to the thrust areas from time to time. The industrial projects in these areas will be accorded priority in the matter of allotment of land, sanction of power and other clearances as also in the matter of grant of incentives.

With regard to Prestigious Projects, with investment above Rs 25 crores, the government may consider a special package of incentives, to be documented in the form of a MOU, on a case to case basis, on merits. Notification of a prestigious project shall be made by State Level Committee-I for granting Capital Investment Subsidy.

Research and Development

Encouraging Research & Development (R&D) in important economic sectors and transferring the results of these to the industrial sector are the needs of the hour. This is particularly necessary in agriculture, forest, mining and mineral sectors, medicinal and herbal plants which provide a substantial base for value addition. Design-cum-Resource centres shall be set for supporting Handicrafts/Handloom sector. Central government assistance for such purposes shall be fully availed. National level organizations of excellence shall be pursued to provide support for these programmes.

Implementation

Effective and efficient implementation of the policy must be ensured. In order to achieve this and also to provide for a regular interaction between the government at the highest level and the industry at large, the government will set up an Advisory Committee for Industries with the Hon'ble Chief Minister as the Chairman. Besides the Hon'ble Deputy Chief Minister-in-charge of Industries and Commerce and Hon'ble Minister of State for Industries and Commerce, this committee will consist of all Principal Secretaries in charge of economic departments such as agriculture, consumer affairs, environment, forests, finance, information technology, planning and power development. Representatives of 'Chambers of Commerce of Industry and Federations of Industries of Jammu and Kashmir Divisions and also senior officials of the Ministry of Commerce and Industry, Government of India, will be invited to join this committee. Principal Secretary I&C will act as the Member-Secretary of the Committee. This committee will meet at least once in three months and provide a forum for timely discussion on major issues agitating the industry and arriving at prompt decisions, a dire necessity in these days of high level of competition among the states for promoting industrialization.

Conclusion

It is earnestly hoped that the Industrial Policy 2004 will receive the support of the existing industry of the state as well as potential entrepreneurs. It is also expected that this will be able to attract entrepreneurs from other parts of the country and also from other countries. The government will endeavor to implement the policy in right earnest and do all it can to make the atmosphere for investment in the industrial sector of the state inviting and invigorating. ■

• Centre to Sell J&K As A Secure Tourist Hub

To showcase J&K as a safe destination for tourists all over the world, the Centre has announced a series of measures.

Winding up her three-day visit to Kashmir in July, the Union Tourism Minister Mrs Renuka Chowdhury said that Rs 40 crore has been sanctioned to boost the tourism industry and rebuild the infrastructure in the state. Apart from Rs 16 crore given as soft loan to houseboat, hotel and horse owners, the government has sanctioned Rs 8.50 crore for revamping the Institute of Skiing at Gulmarg. Another Rs 20 crore has been earmarked for rural tourism and development of new circuits.

The Centre will develop the Amarnath Yatra circuit. The other circuits will come at the banks of Jhelum and Shivkhodi in Jammu.

Stating that the Centre would take up a comprehensive compaign throughout the world to present Kashmir as "a safe destination", Mrs Renuka Chowdhury said "this is safer than New York or any other place but it is only a question of making people aware of the facts". A Kashmir festival would be organized in all the metro cities as part of the publicity compaign. The Centre in association with the state tourism department is also proposing a car rally from Srinagar to Leh.

To further support the Centre's claim about the improving situation, Mrs Choudhury cited the Italian government's decision to withdraw its travel advisory for its citizens against visiting J&K. She said that the Centre has also taken up the issue of travel advisory with British government and hoped for a favourable decision soon.

• J&K Cricket Brand

The Jammu and Kashmir government has proposed to give its brand name to cricket bats manufactured within the state. The bats from the state will have the brand name "Kashmir Willow."

The state has also stressed the need for scientific seasoning of willow clefts. A seasoning plant will be set up in three to four months time. Addressing a function at Srinagar, after laying the foundation stone of a common facility centre for cricket bat manufacturing unit, the Chief Minister Mr Mufti Mohammad Sayeed said the brand name would standardize the local product and ensure better market. This would also ensure that poor quality pieces were not sold in the name of Kashmir products. The Common Facility Centre a cluster of bat manufacturing units, is first of its kind in the state at a cost of Rs 5.72 crore. The state government will set up quality control labs and designing of bats will be done as per market requirement. Efforts will be made to get the sample of English willow from Britain for its propagation.

- The Centre has sanctioned Rs 600 crore for the construction of a tunnel at the Zojila Pass along the Srinagar-Leh National Highway in Jammu and Kashmir to keep the 434 kms long arterial road open round the year. The technical feasibility of building the tunnel, promised by the Prime Minister during his recent Kargil visit, in the 11,579 feet high snow covered area is being worked out, said the Chief Minister Mr Mufti Mohammad Sayeed in Drass. The tunnel would help in keeping open the vital road link, which usually has to be shut down six to seven months every year, owing to heavy snowfall during winter season. The Chief Minister also announced plans for the development of Drass and Kargil as tourist spots, saying many tourists prefer to visit the Tiger Hill.
- The J&K government has decided to set up a silk exchange to revive the silk industry. It will have a fund of Rs 60 lakh. The exchange will have two branches, one each in Srinagar and Jammu and would provide better marketing cover to the silk reelers of the state who would also be involved in the transaction of silk. State government has already set up cocoon banks to make available raw material to reelers throughout the year.
- The Centre is to release an amount of Rs 8.00 crore as compensation to the Jammu and Kashmir State Road Transport Corporation for the damages suffered by it during the 15 years of militancy in the state. The Central grant is likely to go a long way in bringing the State Transport Corporation back on track besides helping in upgrading and modernization of its fleet.
- The State government has decided to boost the excavation of gypsum in the Parlanka and Assar areas of Doda. The State Mineral Corporation has been operating the gypsum mine in Assar since 1974. The production has risen from 12,875 tonnes in 1997-98 to 26,000 tonnes in 2002-03. There are around 29 million tonnes of gypsum reserves in the area.
- Over 19,100 income generating units are to be set up in Srinagar under the District Credit Plan in the current year. These include 7083 units under agriculture and allied sectors, 4,460 units under the non-farm and small scale industries sector and 7623 units under the trade and services sector. A decision in this regard was taken at a meeting of district level consultative committee.
- The J&K government is working out a comprehensive policy to revive the viable public sector units. The state finance minister Mr Muzaffar Baij announced that there were 15 units under the control of the industries department of J&K, of which 10 have been closed down

while the rest are running in losses. Mr Baij asked the industries and finance departments to work out a strategy to revive atleast 11 units which are economically viable.

- Tata Agrico, a firm making agricultural implements, has shown interest to strengthen its network in the state and to increase its reach in rural areas.
- The Jammu and Kashmir Chamber of Commerce would send its delegation to Pakistan-occupied Kashmir (PoK) to explore possibilities of marketing handlooms and other products.
- The J&K Chief Minister Mr Mufti Mohammad Sayeed has announced that an Islamic University will be established soon at Awantipura in South Kashmir.
- The Centre has sanctioned ten more Integrated Watershed Development Projects (Hariali) for the state at an expenditure of Rs 30 crore, to treat 50,000 hectare wasteland in Baramulla, Anantnag, Pulwama, Stringer, Budgam and Udhampur districts.
- The National Cooperative Consumer's Federation of India (NCCF), an apex body of consumer cooperatives, is to establish a vast network of fair price outlets in nook and corner of the state to provide quality consumer goods to people at reasonable prices on a no profit no loss basis. The centrally sponsored scheme called "Sarvpriya" will be operated in coordination will the State Consumer Affairs and Public Distribution Department.
- The Centre has provided Rs 3.5 crore for upgradation and diversification of existing ITIs. To raise the standard of living of women, the government is considering to add women wings to ITIs.
- A modern fruit and vegetable mandi with all facilities would be developed in Kulgam. The land for the mandi will be donated by local people.
- The Kashmir Chamber of Commerce and Industry has asked the government to re-open Air Cargo Complex in Srinagar which was closed in the late 1980s.
- The J&K Cabinet has approved the raising of upper age limit from 35 years to 37 years for recruitment in the government services.

The other decisions of the Cabinet are:

- Sanctioning of raising of 10th Indian Reserve Battalion in the state
- Approved the Schedule to hold the third general election to Ladakh Autonomous Hill Development Council (LAHDC), Leh
- Free ration to border migrants of 21 villages of Nayabat Khour tehsil of Akhnoor district
- Creation of staff for the LAHDC, Kargil ■

Jet Goes To Siachen

Courtesy: Agencies

Jet airways has became the first private airline to land at Thoise in Siachen. Siachen is the world's highest military air base. In its first charter flight, Jet Airways took 90 soldiers to the base of the glacier

Kashmiri Theatre Gets Into Act

Doordarshan Theatre Festival in the valley was held in Srinagar recently. This was seen as one of the major cultural events.

Festival audiences were an exciting mix of theatre buffs, young people, adults and families also were able to experience, perhaps for the first time, the excitement of live theatre. Audience greeted the festival with enthusiasm. The Theatre Festival was organized by Doordarshan, Srinagar in collaboration with local theatre groups. It provided a platform to writers, actors and directors to increase the visibility of their talents.

The current revival took place in a climate of creative freedom. Many plays at the festival had themes that were daring and inspired the audience for introspection. □

Peace on Wheels

Courtesy: Times of India

Sixty four-year-old peacenik Noor Mohammed Chishti on his way to Pakistan via the Wagah border in Amritsar. He aims to spread the message of peace between India and Pakistan. The Indore resident has set out on his bicycle on June 5 and travels about 50 km a day

Kashmir returns to sport after 14 years

After a 14 year.gap, Kashmir saw the participation of its youth in an inter-district sports tournament covering as many as 15 disciplines.

In various phases of the successfully conducted state sports event, 1,044 girls, between the age of 14 and 17, from all districts took part.

The meet featured cricket, basketball, handball, volley-ball, kho-kho and kabaddi.

On the concluding day of the meet on 26th July, Yogesh Sawhney, the minister of state for sports and youth services had words of appreciation for the state government and the sports department that organised the event which saw students from even border districts of Kupwara, Kargil and Leh participating.

"Our youth have faced a lot of difficulty during the period of turmoil," Sawhney said, adding that the event was possible "because of the efforts of the present government, which has created an atmosphere of peace and prosperity in the state and enabled the students to come forward and take part in sports activities".

The minister said physical education was important for children and "the present government has made sports a compulsory subject in educational institutions."

Sports took a in Kashmir ater military gripped the state. Stadiums, playgrounds and other sports facilities remained shut all along.

But now, a local youth hostel that was occupied by security forces has been vacated and rebuilt to cater to the accommodation needs of sportsmen during competitions in the summer capital.

Sports department officials said revival of sports activities was a top priority of the state government to channelise the energy of the state's youth and hone their talents. □

Kashmir Haat

The inauguration of Kashmir Haat in Srinagar has generated fresh hopes among Kashmir art dealers anticipating a boost in handicraft trade. The inaugural event also saw the start of a handicrafts exhibition after a gap of 17 years. The exhibitions will provide a platform to Kashmir handicrafts and a live display of artisans work.

Developed at a cost of Rs 2.65 crore, the Haat has 68 shutterless marts, besides amenities like restaurants, kiosk and parking for 400 vehicles. The newly constructed structures present an exhibition of state's architectural heritage. The old central market has been given a facelift to properly merge with the landscape. The place has been turned into the best recreational spot in the uptown Srinagar.

The Kashmir Haat would host regular exhibitions and festivals in future. The annual exhibition held before 1988 was an important feature of the cultural life of Kashmir. Lakhs of people would throng to see development of the state in various sectors. For the delight of visitors, music and dance programmes were held regularly.

The second phase of Haat, work on which has already started, envisages crafts museum, exhibition hall, buyer-seller meeting facility and infrastructure facilities for promotion of handicrafts. The project costing Rs 5.91 crore would be commissioned by March 2007.

Many handicraft traders have hailed the government for bringing a centralized trade place for Kashmiri art traders. For the artisans, they have got a place to display their art to the tourists coming to Kashmir. □

Parikh and the Foot-Prints of Einstein

Minakshi Thakar

The year 2005, marks the centennial celebrations of way back in 1905 when a 26 year young-man challenged the way physics was understood and revolutionised the conventional science. The young man was Albert Einstein who submitted his 'Special Theory of Relativity' to a physics journal. The celebration is a humble tribute to the great man-on the 50th year of his sad demise in 1955.

A legendary person in his own right, Albert Einstein was conferred 'Man of the Century' by hundreds of thousands of people in the world according to a survey conducted by the 'Time' magazine, by way of Internet.

The scientific touch-stones of the modern age-the Bomb, Space travel, electronics, quantum physics all bear his imprint. So he lives even to day in veins of every progressive step.

At this hour when we try to seek his great contribution to the world-say in the welfare of the mankind at large, here is opportunity to look into the foot-prints of the sage-scientist Einstein through his student, Shri Jethabhai Dahyabhai Parikh - who not only had the fortune to be his pupil and learn lessons from him but also had a direct rapport with him. Dr Parikh is 84, presently residing at Vadodara (Gujarat), 120 km. away from Ahmedabad.

Yojana: Sir, I am thankful to you to grant me an interview inspite of your ill health. I am really overwhelmed that I am sitting before a person-say a live link between me and the magnificent man of the century.

Sir, what was your base in India-when you sailed for Princeton-U.S.A. for further studies, What was your background?

Dr Parikh: My base was Patan a capital of Gujarat for 500 years. I had my schooling in Patan. I went to Bombay and had my graduation-B.Sc. (Technology) in 1st class and then went to USA for further studies in Chemical Technology. The admission was secured in the Princeton University (New Jersey). I was honoured with a scholarship from Government of India.

Yojana: That sounds interesting Sir - Parikh, Patan and Princeton. Did you know about-Einstein-and did you know that you were going to take lessons from him, when you left for USA?

Dr Parikh: Of course I did know about Einstein by his name, but I had no idea, that he is to teach me in the University. It is very interesting - I reached Princeton 10 days before the beginning of our term.

Just to get acquainted with the environment, I use to loiter here and there in the city-but in the evening, I used to go to the Recreation Park, and sit on a bench for some time, There were some regular visitors also. Among them I used to mark one person because of his unusual character. The man was almost without sophistication - different from other people hardly found in such a country. But his overall look was profound and stubborn. Every day we just looked at each other but never talked. To my great astonishment, one day he came to me and asked : Where do you come from?

I introduced myself and asked him the same. He said politely : 'I am Albert Einstein.' Oh! What a pleasant surprise. My eyes were wide open and I could not believe that I am standing before a world celebrity.

I shall never forget this, meeting with Einstein. He was so simple, so pure and human. He talked with me a lot and took me to his residence nearby. He also told me to knock his door at any hour when I had any difficulty.

Yojana: Please tell me something about your experiences while you were in the class.

Dr Parikh: I was greatly surprised when I saw Albert Einstein entering the class room to teach us Quantum Mechanics. He was there to teach us an entire module for the next three months.

The interviewer is Ms Minakshi Thakar, Asstt. Editor, Yojana, Ahmedabad. The interview was taken in Vadodara, Gujarat.

Including myself there were eight students (All Americans except myself) in the class. During teaching he was extremely methodical and pains taking. He explained every equation step by step, and co-relating it with his applications in chemical reactions. He was quite a different person in the auditorium. He was brilliant and profound- an authority in his own right- yet co-operative, full of compassion to the core. He had great patience. He would wait till everyone in the class room understood his point.. Besides being a great scientist, he was a great teacher too.

Yojana: Please tell me something about his nature and hobby.

Dr Parikh: He was very pure hearted. He never cared for his attire or his looks. Careless as he was for his outfit, he looked like an Indian Rishi. It seemed that his eyes were always looking for something far beyond into the infinity.

Though he tried to look at many unresolved mysteries of the universe, he was on the other hand cheerful and fun loving. He liked children. He could find time to play with them. One more feather in his cap was that Einstein played violin, played carols, during Christmas.

Following the tradition people gave him some donations which he gave away to the needy.

Yojana: Sir , when did you return to India. Could you keep contact with him after you left USA?

Dr Parikh: No. I had no contact with him after returning to India. I studied for three years there, had my Ph. D. degree in 'Study of Polysulphide Linkages in Sulphur Dyes' and sailed for India. There is one interesting point here. After 25 years, my eldest son Rajesh went to USA to do his Ph.D. in Arkansas University U.S.A. One day while looking for some books in the university library, he happened to pick up one volume- "Study of Polysulphide Linkage in Sulphur Dyes" by Dr. J.D. Parikh! Rajesh was greatly surprised. Obviously it was his father's research papers!

Yojana: That is really wonderful for a son, finding his father's Ph.D. Research Papers in the reference library of his old Alma mater. Sir, how and where you were placed in India after you came back to India.

Dr Parikh: After changing some jobs, I was appointed as the Deputy Director of Industries at Nagpur in 1959. After the separation of bilingual state of Greater Bombay, the separate state of Gujarat was formed and I came to Gujarat. That time I was in Government job and later took a private job. ❑

Albert Einstein: A Profile

Recognized in his own lifetime as one of the most powerful and creative intellects in human history, the German-born American Physicist Albert Einstein is today best known for his Theories of Relativity.

Born in Ulm, Germany, Einstein showed little intellectual promise in his early school days. During his spare time he learned to play the violin, demonstrating a fine talent and developing a deep love of music that remained with him throughout his life. Except for mathematics, in which he excelled, his record was poor and his efforts to find an academic post were unsuccessful.

Einstein found the work so undemanding that he had plenty, of time for his own research. The only equipment he needed was a pencil and paper, the only laboratory, his own mind. Working completely on his own, Einstein took the first steps towards the formulation of a theory that shook the very foundation of science.

In 1915 the General Theory of Relativity gave a mathematical description of the structure of space. He maintained that the universe consisted of a continuum of space and time in the form of a complicated four-dimensional curve.

Einstein was embarrassed by the sudden glare of publicity surrounding him, but like it or not, he had become a worldwide celebrity. Although he disliked public appearances, he used his name and fame to fight the rise of the Nazis in Germany and to support the establishment of Palestine as a homeland for the Jews.

When the Nazis came to power in 1933, they confiscated his property and took away his German citizenship while he was on a trip abroad. Rejected by his homeland, Einstein was warmly welcomed by the United States. That same year he joined the Institute for Advanced Studies in Princeton, New Jersey, and remained there for the rest of his life.

By 1939 American scientists were becoming alarmed that the Relativity Theory could be applied by German scientists to build a devastating new weapon. They based this fear on the aspect of the theory showing that mass could be converted directly to energy, and that a minute piece of mass could release a vast amount of energy. This opened the possibility of an immensely powerful new kind of bomb. Under the threat of another world war, American scientists persuaded Einstein to write to President Roosevelt to suggest that the United States develop a counterweapon. Einstein agreed-partly because he never expected such weapons to be used except as a deterrent. However, his letter led directly to the building of the first atomic bombs and to their use against Japan in 1945, despite Einstein's desperate last-minute appeal that such a devastating weapon should not be dropped.

Einstein spent his last years in Princeton where he continued to work and teach. Respected for his mind and loved for his humanitarianism, he remained the world's most widely admired scientist until his death. He was the only American citizen ever offered the presidency of another nation. All this came to a man who asked only for the solitude to think and work. "I am happy because I want nothing from anyone." ❑

NGOs and Gender Development

Syed Noman Ahmad

THE WOMEN related issues are now being vigorously discussed in exclusive national and international fora with governments and Non-Governmental Organisations (NGOs), giving much more attention to hitherto neglected aspects of this crucial component of human development. Some experts and activists have come to regard the economic aspects of the gender related matter in terms of constituting a separate discipline called "Women's Economics".

Women's unique role in family development and their contribution tends to be taken for granted and never valued in economic sense unless she is the direct recipient of income or possesses income yielding assets. Her problems are not only social but also economic. In most cases, there is a lack of source of sustainable livelihood.

Women's unique role in family development and their contribution tends to be taken for granted and never valued in economic sense

In India, the majority of women in rural areas are employed in agriculture as labourers and cultivators either in their family owned or tenanted farms or as wage labour in farms of others. In urban areas, a majority of women workers are employed in unorganised sector including household industries, petty trades and services, buildings and construction etc. As on March 31, 2002, 4.95 million women were employed in the organised sector (both public and private). It was 18.1 per cent of the total organized sector employment in the country compared to 17.9 per cent in 2001.

In 1991, Female Work Participation Rate (FWPR) was very low at 22.3 per cent, while it was 51.6 per cent for males. According to the provisional results of the Census 2001 there is a moderate rise in FWPR to 25.6 per cent. Female Participation in the workforce varies across rural-urban areas. According to the 58th Round (July-December 2004) Survey of NSSO, the female workforce participation rate declined in rural areas to 281 per thousand from 299 in the 55th Round (July-1999-2000). In urban areas, there was a marginal increase from 139 to 140. It has been found by Time Use surveys that women carry a disproportionately greater burden of work than men and since women are responsible for a greater share of non-SNA (System of National Accounts) work in the care economy (i.e. house based work which is different to measure) they enter the market already overburdened with work (Report on Gender Diagnosis and Budgeting in India of National Institute of Public Finance and Policy, December, 2001). So there is dual work burden on women which goes unorganised. The Central Statistical Organisation conducted a

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macrolevel time use survey in six major states viz. Gujarat, Haryana, Madhya Pradesh, Meghalaya, Orissa and Tamil Nadu during July 1998 to June 1999. It covered 18,591 households and took into account all members of the household aged 6 years and above. According to this survey, in the production of own account services, on an average a female spent 34.6 hours per week while a male spent only 3.6 hours per week. Despite this the significant contribution to the family income goes unheeded. The year 2001 was celebrated as the Women Empowerment Year and policy initiatives have been demanded for women's empowerment.

There is an open bias against women in matters relating to the payment of remuneration in those areas where they are employed despite several guidelines issued by the Goverment from time to time. Moreover, the Equal Remuneration Act 1976 clearly provides for payment of equal remuneration to men and women for work of similar nature. This law is openly flouted in the rural areas where the majority of women workers are engaged in agriculture sector. According to a National Institute of Public Finance and Policy (NIPFP) study on Gender Budgeting, the average female wage is almost 80 per cent of the male average in urban areas, while it is less than 60 per cent of the corresponding males rate in rural areas.

The census 2001 data shows that in the process of gender equality and empowerment of women, a lot more needs to be done. The reality may be worse because the employment statistics are doubtful, faulty and unreliable. A lot of women's work is not counted as work in its economic sense and is considered only as household work.

The government has adopted the policies and programmes for the empowerment and upliftment of women as part of its various welfare measures. Their involvement in decision-making and implementation of the programmes has been marginal or absent despite several steps undertaken for women's empowerment on the political front.

India has ratified the UN Convention on the Elimination of All Forms Discrimination against Women (CEDAW). The Government realises that the need of the hour is economic independence for women. The Department of Women and Child Development (DWCD) has taken up various projects which are directed towards advancement of women. It coordinates various programmes and monitors several beneficiary oriented schemes. In the Union Budget 2002-2003, the plan allocation for the DWCD has been increased by 33 per cent to Rs 2,200 crore. In the Ninth Five Year Plan the concept of "Womens Component Plan" was mooted as a strategy to ensure that at least 30 per cent of funds/benefits from the other development sectors flow to women.

The "National Policy for Empowerment of Women' was adopted in the country in 2001 with the ultimate objective of ensuring women their rightful place in the society by empowering them as agents of socio-economic change and development. Therefore, 'Empowerment of Women' is adopted as an important approach in the Tenth Five Year Plan (2002-07) for development of women. To translate the National Policy of Empowerment of Women into action in a time bound manner, a National Plan for Action for Empowerment of Women was adopted by DWCD during 2003-2004.

The Department of Rural Employment and Poverty Alleviation of the Ministry of Rural Development has initiated several schemes in which 30 to 40 per cent of the benefits are reserved for women below poverty line. Swarna Jayanti Gram Swarozgar Yojana Scheme (SGSY), which is the amended and merged version of the erstwhile Development of Women and Children in Rural Areas (DWCRA), Integrated Rural Development Programme (IRDP) and Training of Rural Youth for self employment (TRYSEM), was launched in April 1999. It is a holistic credit-cum-subsidy programme covering all aspects of self-employment. The stipulated 40 per cent reservation for women will be implemented through the Panchayat Samitis. The Jawahar Rozgar Yojana (JRY) has provision for training and employment of women. The Indira Awas Yojana, aims at providing houses to poor people free of cost. The houses are allotted in the names of the female members or in the joint names of husband and wife to enable women to own assets and gain confidence.

Rural Women's Development and Empowerment Project (Swa Shakti Project) was launched in 1998 for strengthening the process of empowerment of women in six states through the establishment of self-help group. Rashtriya Mahila Kosh (RMK), a national credit fund, extends credit facilities to poor and needy women. The RMK has extended loans to 20,000 self-help groups of women. It is engaged in encouraging women to take control of their own development. It has also helped in their confidence building and political awareness. In 2003-04, an amount of Rs 25 crore was sanctioned through RMK benefiting about 32,765 women. Swayamsidha, Support to Training and Employment Programme for Women (STEP) Swalamban Swadhar, are some of the other schemes implemented by DWCD under the Ministry of HRD.

There is a women's cell functioning under the Directorate General of Employment and Training (DGE & T). This cell coordinates with the states for the vocational training of women. Despite several projects, schemes, policies and programmes initiated by the Goverment at different levels women workers are still undermined as

workers, forced to a status of being only housewives. Their crucial role and vital contribution to the national economy continues to get neglected.

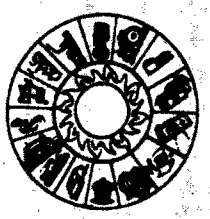
In the context of rural India, the imbalances in the development or lack of women's development are quite conspicuous. This is despite the knowledge that a woman would be able to give better results as compared to a man since she is free form wasteful vices like alcohol and tobacco consumption. The full potential of woman power has not been tapped, nor even realised in context of development. Their problems will have to be more sharply specified and solution needs to be identified in the face of social and economic constraints.

There are many NGOs already operating successfully in their chosen fields like community health and family planning, tribal rehabilitation, training and skill development of women in rural and urban areas in addition to various projects relating to forestry, agriculture, animal husbandry etc.There are several general NGOs and women's organisations which are acting as catalysts of economic development despite several constraints. There are three important functions performed by women's organisations, namely mobilisation of low income women, monitoring and evaluating government programmes and policies, providing a space within which awareness and empowerment may develop. A women's organisation based on self participation was established in 1978 as Working Women's Forum (WWF) in Chennai. It was formed by women activists at the grassroots level, who had extensive political network in the slum communities. These women moved away from the women's front of the party to form WWF and evolved need based projects, adopted a holistic approach. It has mobilised the poor women workers and through credit cooperatives and various programmes for reproductive health, non-formal education, leadership skills has brought about a remarkable change in the lives of poorest woman. The WWF not only provided material assistance but also promoted awareness and collective action for a social change and sustainable development. it is a movement of grassroots women which helps them to save, create assets improving their quality of life. Another success story is SEWA (Self-Employed Women's Association) which is a trade union of self employed women in Gujarat with a membership of more than 2,50,000 women workers. It has trained and encouraged its members in forming village level committees and district level federations to govern water and land resources.SEWA members are trained in repairing of hand pumps, construction and plastic lined ponds in saline areas. SEWA has also helped in the field of agroforestry and wastelands development. In Mehsana district its members have undertaken afforestation of a patch of wasteland and have converted it into an income generating activity.

Another grassroots experiment that is successfully linking with government agencies, panchayats and research institutions in securing their basic economic needs, is a Patna based NGO ADITHI, in Bihar's Muzaffarpur district, women's cooperative to manage agricultural activities. ADITHI has established an institution named "Mahila Vigyan Kendra" or the Women Farmers Agricultural Science Centre in a village called Bhusra. In this village poor landless women belonging to low castes through their collective efforts have access to farming inputs such as capital, seeds, fertilisers, and pesticides, jointly own tractors and threshers, and market their produce. These women started with chemical imputs and then moved on to organic farming. They have doubled their returns and their cooperative has entered new export markets for organic food. It is a highly successful cooperative. In the same village ADITHI has also mobilised 100 fisherwomen to form a cooperative which has leased a village pond from the government to harvest fish.

Another successful NGO is SAMPARK, established in 1991 with its area of operation in Karnataka with development focus on children, poverty alleviation and women empowerment and its mission is to help people gain direct control over their own situations by expanding the capacity of vulnerable and poor people especially women to improve their lives primarily by increasing their income learning ability. Sampark adopts a holistic approach in its programmes and believes that for overall development and improvement of rural livelihoods a single sector approach would be insufficient, for example, credit programme will provide only partial solutions to financial problems if it is not coupled with changes in land management practices, to ensure future soil fertility. Sampark adopts a people centred focus and uses participatory approach in all its operations.

Although the Government recognises though lately the need for empowerment of women and has taken several effective steps in this direction, the lot of Indian women especially in the rural areas continues to remain marginalised. The Panchayati Raj Institutions too have not been able to involve women in activities related to sustainable development. For this purpose, NGO sector alone is best suited as an agency of change. By and large, the track records of well organised and established NGOs speak for their better efficiency than the government machinery in motivating target groups, easier rapport with closer proximity to people, devotion to assigned goals and more cost effective in their operations. There are many NGOs already operating in the field of gender related economic development. ❑



OCTOBER 2005 (ANNUAL ISSUE)

RURAL HOUSING & INFRASTRUCTURE

Despite heavy industrial development, and economic liberalization, Indian economy is based on agriculture. About more than 70 per cent population of India is still living in villages. Food, cloth and housing are the basic amenities for human life. Apart from food and clothing, Government of India is also providing housing facilities in rural areas. In the year 1998 , Government declared National Housing Policy. From time to time the Centre and State Governments announces many schemes for rural housing i.e. Indira Awas Yojana.

The development of villages is very essential for the holistic development of the nation. The development of infrastructure like roads, water supply, health facilities, sanitation, electrification etc .are very much important for rural development. The Government of India is putting a lot of efforts for providing infrastructure facilities to the villages.

In this context, *Kurukshetra* is bringing out its Annual Issue (October 2005) on the theme RURAL HOUSING *&* INFRASTRUCTURE. The focus will be on the Rural Housing. Various sub themes like action plan, salient features of Central and State Governments schemes for rural housing, rural renewable energy programme, rural health facilities, rural electrification etc. are proposed to be discussed in this issue. Eminent experts, authors, academicians and planners will contribute their views on this scheme and analyse it in detail.

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G-8 Summit : Global Warming

Purnima M Gupta

The developing countries, including India, have consistently taken the view that their countries need to grow. Their growth is dependent on energy use and conventional energy consumption levels need not be curtailed

THERE IS hardly any doubt that there is now a globalisation of environmental problems, linked to intensity and pattern of economic development. We need urgent and coordinated action from Governments, business and civil society groups to address it. The penetration of pollutants through the eco-systems may create "dead zones" in oceans. The recent occurrence of the Tsunami disaster has contributed towards this. The need is even greater than before to slow down this environmental decline.

This message could well have been conveyed at the recent meeting of the G-8 at Gleneagles. India was also present as a group of five economies (India and China being amongst these). The host nation Britain argued that global warming is the single biggest threat to humanity today. Britain had taken a concrete view that global warming needs to be tackled.

The United Nations Framework Convention on Climate Change (UNFCC) has addressed the problem of climate change to deal with Anthropogenic (human - induced) factors. The developed countries are expected to take action to reduce the emissions of major greehouse gases like carbon dioxide and methane, which are contributing towards Global Warming. The developed countries need to reduce their emissions of GHGs over the first commitment period 2008-12 as compared to the base year 1990.

The UN's Intergovernmental Panel on Climate Change (IPCC) has recommended the need to adopt a precautionary approach towards the possibility of global warming on account of "excessive" use of fossil fuels. To put it simply, over-use of fossil fuels like petroleum, coal and natural gas has lead to a level of emissions of carbon dioxide that are contributing to global warming. Gases like carbon dioxide and methane when emitted into the stratosphere, trap the heat around the earth creating a greenhouse effect now referred to as 'global warming'. The IPCC has suggested that we may adopt a precautionary approach by reducing the emissions of carbon dioxide. That is, we may discourage the use of conventional fossil-fuels and encourage the adoption of non-conventional fuels like solar energy, nuclear energy, wind and tidal energy etc.

Absence of Global Approach

The ratification of the Kyoto Protocol in February, 2005 regarding the international quotas for the reduction of emissions of greenhouse

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gases (GHGs) gave a glimmer of hope to the lobbies that have worked hard for reducing the level of greenhouse gases. This hope was shortlived since the stand of the United States towards this problem has not changed substantially. The protocol enjoins the developed countries to accept a higher responsibility for reducing the GHGs. This aspect of differentiated responsibility between the developed and the developing countries has to be accepted by the countries which are party to the Kyoto Protocol.

The Kyoto Protocol endeavours to improve Energy Management. Europe is in favour of the Protocol. The US stand presently is not in favour of this Protocol and is encouraging Energy Management through supply side measures, e.g. new energy technologies like nuclear power and hydrogen fuel for automobiles.

The US stand on this matter is not in favour of the Kyoto Treaty on climate change. The US stand is not in favour since it would involve a limit on American emissions which would undermine its economic growth. However, there do exist business leaders and some other groups within the US which do not oppose the Kyoto Treaty. It is a strange fact that while most of the rich world now regulates emissions of carbon dioxide, the US has not agreed to this. Carbon trading is now regarded as the least costly, least distorting and most effective way to curb carbon emissions. The EU has a functioning carbon – trading market. A group of multinational firms trade carbon at the private Chicago Climate Exchange which is now involved with the one in Amsterdem. In the absence of support from America (the world's biggest energy consumer and polluter) in these ventures, it may yet take a long time for a global market to be established.

Developing World

The developing countries including India, have consistently taken the view that their countries need to grow. Their growth is dependent on energy use and conventional energy consumption levels need not be curtailed. The developing countries do recognize the basic necessity of coming to terms with this problem of Global Warming. Thus, the principle of "common and differentiated response" to deal with Global Warming enjoins upon the developing countries to also accept responsibility and contribute towards reducing the scale of the problem.

India has adopted a proactive stand towards dealing with this problem. The Clean Development Mechanism (CDM) that sets out the details on carbon trading and clean technologies has been implemented by the Indian Government.

India has drawn up a National Action Plan for Operationalisation Clean Development Mechanism (CDM). The Planning Commission has also contributed in drawing up the Action Plan. There are about 91 CDM projects in India – some have already been registered with the CDM Board and some others are in the pipeline. ❑

When Fishermen Vacate the Beach ...

Catherine Kannam

OVER 20 YEARS ago, the villagers of Thalampettai, Tamil Nadu faced the circumstances that many coastal communities in Tamil Nadu confront today. The proposition of resettlement and the scheme of uprooting a fisherfolk community that has for generations been intimately connected to the sea. Heavy rains in 1980 severely damaged the houses in Thalampettai, and prompted the then government to shift the community 500 metres from the sea. In order to compensate for their damaged houses the government agreed to build the villagers "pucca" colony houses. The small village was equipped with little negotiation power in the face of the government, and the lure of colony houses was quite seductive for the community.

The new found distance from the coast inherently compromised the delicate, instinctive relationship that the community once shared with the sea

Years later, the villagers of Thalampettai have paid a heavy price for shifting away from the sea. By every barometer their lives have suffered significantly, and a community that was once quite prosperous and comfortable is now struggling. The new found distance from the coast inherently compromised the delicate, instinctive relationship that the community once shared with the sea. Traditional practices such as "*mappu*" sighting, where the fishermen catch glimpses of fish movement on the shore thereby determining when to go out to sea, have been totally interrupted by physical distance. The inability to have direct access to sea (whether it be for "*mappu*" sighting or for on-shoe fishing activities), and the burden of transporting equipment, both severely complicate and essentially paralyze the patterns of fisherfolk. Consequently, now the fishermen of Thalampettai only venture out to sea once a day, whereas previously they would fish as many as three times a day.

A few years after Thalampettai shifted inland, government and private parties were preying on the precious coastal land that the village had inhabited for generations. Lucrative prawn farm owners were the first to capitalize upon the available land. The people of Thalampettai furiously protested the infiltration of prawn farms, specifically because their presence blocked the community's access to the sea, while also devaluing the market price of prawns for local fishermen. The prawn farm owners inspired the community to mobilize in protest, and the struggle reached an impassioned moment of confrontation. In order to negotiate the situation politically, Thalampettai formed a PEACE

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committee of 19 community leaders to negotiate the village's interest with the relevant authorities. At a critical moment, the PEACE Committee was called to the police station for a meeting with the prawn farm owners. Instead of taking part in civil negotiations, the meeting was a trap and the community members were consequently imprisoned, under the pretence of having no right to raise concerns about private land.

Although the State should be utilizing its power and influence to arbitrate in favour of the poor and act as a bulwark when the playing fields are uneven, this is a blatant circumstance where State power was exercised to serve capital interests. Even though, the two parties eventually reached a compromise of providing the Thalampettai community with a small access road to the sea, this was by no means a viable solution to this fundamental problem.

In addition to the economic impact, the social status of the Thalampettai villagers vis-à-vis the other fishing communities has drastically deteriorated. They are looked down upon by other fishing communities for their distance from the sea, and are ridiculed for "moving west." In the eyes of the fishing community, mingling with outsiders serves as a direct threat to the communities' inherent nature and its customs. These sort of intangible effects cannot be underestimated, considering the close knit nature of the fishing community along the Tamil Nadu coast, where a high premium is placed on social acceptability amongst your peers.

As the Tamil Nadu government implements its recently announced resettlement policy for tsunami victims, it is necessary to consider the struggles of Thalampettai. The disappointing string of events in the village, demonstrates that despite the presence of an age-old community who has historical rights to the coastal land, eventually the right combination of power and money can trump thousands of years of history. The rich traditions of the fishing community along the Tamil Nadu coast dictate that they have had an inseparable relationship with the sea. Although circumstances of a tsunami threat may warrant that the coastal communities shift inland, that should not overshadow the necessity for the fisherfolk to retain their land along the coast as well. Concerns of safety not-withstanding, it is critical to ensure that the tragic circumstances of the tsunami is not further compounded, with the loss of the fishing community's ancestral land to the hands of government and corporate poachers. Let the debate around these pressing issues begin, prioritising the views and experiences of Thalampettai and other communities along the coast of Tamil Nadu. ❑

Herbal mosquito repellent

LEENA TALUKDAR (16) is from Morigaon, Assam. She is in the 11th standard. Throughout her school life, Leena has always excelled in academics. She has represented her school in science fairs. She had won the Best Affiliated Science Fair Award for her model of a Cold Storage System at the Intel Science Talent Discovery Fair held in Mumbai, 2003. An all-rounder, Leena has always taken part in various extra-curricular activities such as skits, drama, quiz, recitation and painting, winning prizes at the school and district levels. Leena aims to be a computer engineer and her dream is to study in one of the IITs. After her father's death, her mother has been her constant supporter and inspiration for all that she has done. Leena's mother is an employee of the Lakhimi Gaonliya Bank, Assam. She has a younger sister who studies in the 2nd standard.

Sushanta Mahanta (16) is also from Morigaon, Assam and is in the 11th standard. A very shy girl, Sushanta rarely takes part in extracurricular activities. However she takes keen interest in science related activities and takes part in various science fairs. Besides this mosquito repellent, Sushanta has also developed a dantamanjan (toothpaste) by using indigenous plants like neem, soura, bhut aera, etc., which was exhibited in a National Level exhibition held by NCSC at MIT, Pune. Sushanta wants to be a doctor and advises young innovators to have faith in themselves and to keep trying. Her mother is a lecturer in English at the Morigaon college and her father is an ex-MLA and a social worker. She has an elder sister who is in the 2nd year of her graduation.

Genesis- Jag is the Assamese system of burning mixtures of cow dung, plants and garbage etc., in heaps so as to purify cowsheds. The most common way among the villagers to make a Jag is to make a heap where paddy straw, dried garbage, paddy husk and some medicinal plants are piled up and then burned. Usually the following medicinal plants Bihlongoni, Neem, Bahaka, Aakakhilata, Meteka, Makhi-lati, Maralia, Gundhua-Ban, Pachaliya, Tulsi, Palas, Citranella etc., are used in the Jag. It is generally made in front or behind the house or near the cow shed. The Jag serves two purposes-it is a conventional way of getting rid of the garbage as well as a means of repelling flies and mosquitoes from the cow shed. Though the villagers have been using Jag traditionally, they are not particularly aware of the usefulness of Jag and no scientific studies have been done on it.

So when the opportunity arose, Leena and Sushanta who were studying in their eighth standard at Muhila home Model School, Morigaon, decided to study the effect of Jag, and particularly of the plants used in it, for repelling mosquitoes. So they undertook a project under the "National Children Science Congress, 2001" with the theme of "Indigenous Scientific Knowledge for a better tomorrow." Leena and Sushanta selected a subject under the heading of "Health and Hygiene" which directly comes under the focal theme. The subject of their project was "Study on the use of medicinal plants, as mosquito repellent in Assamese society with special reference to Jag." The main objectives of their project were to examine whether the medicinal plants used in Jag have any effect to repel mosquitoes and to see whether these medicinal plants can be used inside the house.

After selecting the subject, their teacher (guide), Bhagya Bhanu Goswami, advised them to select a village. They selected "Sapmari", a very backward village, 10 km away from Morigaon town. The Majority of the villagers are poor peasants. Out of the 120 families of the village, they selected 50 for the survey and circulated a questionnaire among the villagers. From the survey they were able to find out that traditionally all the people of Sapmari are accustomed to using Jag and they also found out which plants were used in the Jag.

After obtaining the information they wanted, they experimented with coils produced from the various medicinal plants mixed in different proportions and found that about 90% mosquitoes can be repelled by using these plants. The team concluded that the coils produced from *Flemigra Strobillifera* plant, locally Makhioty is very effective in repelling mosquitoes and is comparable to the repellents that are currently sold in the market. The other results of the study were that the use of dry leaves (powdered) instead of raw leaves in Jag will produce less smoke and that these medicinal plants could be used as an alternative for coils, mats etc.

To check the effect of the smoke that comes out from the bowl, they applied a little Vaseline on a tissue paper and then kept it over the smoke for five minutes. In order to prove the effectiveness; made a comparison between their home-made sticks and the readymade coils. They took each one of them and burnt them in two separate rooms to see which one is more effective and also to see how much they burn in five minutes. They also contacted the Director of Regional Research Laboratory (R.R.L.) Jorhat, to find out how to keep the coil burning for a long time as currently the coil only burns for a short period. NIF has filed a patent application for this.

Method

At first the leaves of the medicinal plants are dried in the sun for five days. After drying the leaves, they are ground into powder. The dhuna is also ground into powder and one teaspoon each of the powders is mixed. This mixture is put over a layer of coconut fibre in a bowl and then lighted with fire.

The essential ingredients of formulation, namely *Shorea robusta, polygonum glaborum* and *Flemigra strobillfera* are powdered and mixed with binders and fillers to increase the efficiency of the formulation. The formulation may be made in various physical forms such as mosquito repellent coils, sticks, solutions, emulsions etc. Perfumery oils may be added to the formulation. The appropriate amount of the respective ingredients will vary and may be readily determined by a person, skilled in the process, at the time of making the formulation in its different physical forms.

Advantages

The formulation is safe, eco-friendly, cheap, easy to use and has maximum repellence against mosquitoes. In addition these home-made herbal repellents are less harmful to our health than the coils available in the market. It can be prepared at home as it does not require any heavy infrastructure and investment as compared to coils and mats. A mosquito repellent incense stick prepared by this formulation burns for nearly four and a half to five hours with its effect lasting for three hours.

Relevance

Mosquitoes are known to transmit many diseases such as malaria, dengue, Yellow fever, filariasis and Japanese encephalitis. Approximately 40 million people in India suffer from mosquito borne diseases annually. But the widespread use of mosquito repellents and insecticides in public health programmes has caused severe environmental pollution and potential health hazards. The introduction of new and more toxic and rapidly disseminating mosquito repllents/ pesticides into the environment has necessitated accurate identification of their potential hazards to human health. Many of them are extremely toxic to mammals/and or other non target organisms. Thus one realises the need for a safe and eco-friendly mosquito repellent based on herbage.

Contribution to society

Leena and Sushanta feel that there is a need to create greater awareness about the usefulness of Jag. In view of the potential demand, they see a need for some small scale industry to be established for producing these repellents. This could also address the problem of unemployment to some extent. These students also consulted the District Industry officer, in this regard, and he praised their effort (project) and assured them that he would seriously consider their suggestions regarding the establishment of some small scale industry. To ensure widespread use of these herbal repellents, Leena and Sushanta took the initiative for organising meeting with the Gaan-Buras (chief of the village) of Sapmari and Charaibahi villages and held discussions with them on the usefulness of Jag. A large section of the total population of these two villages said that they had benefited by following their suggestions. What is all the more remarkable is that these initiatives have been taken by two young girls of just 16 years. ❑

"If the readers know of any one who has solved a local technological problem in a creative manner or know of someone who has very rich traditional knowledge in any field of survival, they may please send the details or even the contact information to NC (S and D), NIF, Post Box 15051, Ambavadi, Ahmedabad - 380 015 or by email at info@nifindia.org".

PM's Visit to USA

- *U.S. will work to lift curbs on nuclear supplies*
- *U.S. to cooperate with India in civilian nuclear energy*
- *India agrees to "reciprocally" place its civilian nuclear facilities under IAEA safeguards*
- *Successful completion of the Next Steps in the Strategic Partnership (NS)*
- *Indo-US CEO's Forum to discuss trade and investment climate*

IN A significant development that recognizes India as a nuclear weapons state for all practical purposes but stops short of declaring it as one, the United States has committed itself to working for "full civil nuclear energy cooperation" with the country, including both direct and third party supplies of fuel for the safeguarded reactors at the Tarapur. President George Bush will "seek agreement from Congress to adjust US laws and policies" towards this end.

In return for such recognition and restricting-free cooperation, India has committed itself to separating civilian and military facilities and placing its civilian nuclear reactors voluntarily under International Atomic Energy Agency (IAEA) safeguards.

In the Indo-US Joint Statement issued with the Prime Minister Dr Manmohan Singh, President Bush referred to India as "responsible state with advanced nuclear technology" and spoke of its commitment to prevent the proliferation of weapons of mass destruction.

The Joint Statement that was issued on 18th July after hours of hard negotiations noted Dr Singh's readiness to assume "the same responsibilities and practices and acquire the same benefits and advantages as other leading countries with advanced nuclear technology, such as the United States".

In the Joint Declaration, the US administration committed itself to working with friends and allies to "adjust the international regimes to enable full civilian energy cooperation and trade with India". The US would also encourage its partners to consider the request for fuel to Tarapur expeditiously.

Responding to apprehensions in some quarters in India, the Prime Minister, Dr Manmohan Singh said India's nuclear weapons programme and its strategic capabilities are secure and will not be affected by the nuclear agreement with the United States. He said, the agreement provides a way forward for India to break out of its present isolation and expand international cooperation, enabling the country enhance the contribution of nuclear energy in meeting its future energy needs.

The two countries also reached a milestone in their strategic relationship by successfully completing Next Steps in Strategic Partnership (NSSP). This will enable the USA to remove export licence requirements for unilaterally controlled nuclear items to most end users and revise export licence requirements for certain items going to safeguard civil nuclear power facilities. The NSSP was launched in January 2004.

India and the USA signed a series of agreements in the field of energy, science and technology, enhancement of economic dialogue and global democracy initiatives.

The pact on science and technology is aimed at preventing technological and scientific cooperation in areas of mutual benefit. The pact for the first time establishes intellectual property right protocols and other provisions necessary to conduct active collaborative research.

Noting that growing concerns about

energy security have prompted India and the US to launch a new energy dialogue, the two sides said it reflects the transformed strategic relationship between the world's two largest democracies.

Strengthening information and communication technology cooperation is part of the economic dialogue. The launch of the US-India information and communication technology working group would explore ways that investment and regulatory regimes could be developed to maximize the development of the sector, provide meaningful market access opportunities and support robust competition.

Through the launch of global democracy initiatives to promote democracy and development, India and US agreed to organize together training courses in either country or a third country to enhance capabilities to strengthen democratic institutions and develop their human resources. The US-India Knowledge Initiative on agriculture, education, teaching, research service and commercial linkages will provide the momentum needed to re-energize the long standing tradition of knowledge exchange.

The US-India Trade Policy Forum will help the two countries to work together to expand trade.

The co-conveners of the dialogue are assistant to the President for Economic Policy Allan Hubbard and Deputy Chairman, Planning Commission, Mr. Montek Singh Ahluwalia.

Sanctity of LoC

At the Joint Press Conference held in East Room of the White House, in reply to a question, President Bush said that there was no change in Washington's policy that the sanctity of the LoC in Jammu and Kashmir should be maintained and India and Pakistan should resolve the Kashmir problem mutually.

Reflecting the substantial economic agenda in the talks, both Dr Singh and Mr Bush spoke of the importance of the Indo-US economic dialogue to focus high level attention on trade, finance, investment and of the value of CEOs Forum being inaugurated after the meeting between the two leaders.

CEOs Forum

An interesting event during Dr Manmohan Singh's visit was the start of the CEOs Forum that brought together 10 Chief Executive Officers from each side for discussions on the trade and investment climate. The first meeting was held in the White House Executive Office. The Indian groups chaired by Ratan Tata included Mukesh Ambani, Deepak Parekh, Nandan Nilekani, P.C. Reddy, Baba Kalyani and Y.C. Deveshwar while the American groups included the CEOs of Citigroup, J P Morgan-Chase and Pepsico.

Depth of Perspective

The Forum reflects the increasingly private sector driven nature of the business relationship and the CEOs have been chosen by both the sides for the range and depth of perspectives they could bring to discussion. Unlike officials who will not be able to go beyond their briefs, CEOs are expected to bring fresh ideas. The Forum would take up the issues of mutual interest and concern in the areas of trade and investment policy. ❑

Compiled by Editorial Team, Yojana (English)

What India has Agreed	What the US has Agreed
• Same responsibilities as other nuclear powers	• Recognised India's impeccable non-proliferation record
• Separate civilian and military nuclear facilities	• Put India at par with other nuclear weapons states
• Civilian nuclear facilities under international safeguards	• Cleared decks for Indian trade in civilian nuclear technology
• Protocol pact on civilian nuclear facilities	• Bush to ask the US Congress to change law standing in India's way
• Continue voluntary moratorium on nuclear tests	• Partner countries to be asked to supply fuel for Tarapur
• Work with the US on Fissile Material Cut-Off Treaty	• Blacklist to drop Indian entities
• Refrain from spreading sensitive nuclear technology	• Support India's participation in the International Thermonuclear Energy Reactor project
• Secure nuclear material and technology through export control laws	

What India and the US have agreed jointly

- Establish a working group on the above commitments
- Indian PM and US President to review the group's progress in 2006
- Commitment to prevent international proliferation of weapons of mass destruction

On July 19, Manmohan Singh became the fifth Indian PM to address a joint session of the US Congress, after Nehru, Rajiv Gandhi, Narasimha Rao and A.B. Vajpayee

INDIA AND the United States have much in common that is very important to both countries. You are the world's oldest democracy, we are its largest. Our shared commitment to democratic values and processes has been a bond that has helped us transcend differences. We admire the creativity and enterprise of the American people, the excellence of your institutions of learning, the openness of the economy, and your ready embrace of diversity. These have attracted the brightest young minds from India, creating a bridge of understanding that transcends both distance and difference between us.

Indian democracy has been fashioned around India's civilisational ethos that celebrates diversity. The Constitution we adopted after independence enshrined democracy based on free elections and the associated principles of tolerance of dissent, freedom for political activity, protection of human rights and the rule of law.

Our commitment to democratic values and practices means there are many concerns and perceptions that we share with the United States. The most important common concern is the threat of terrorism. Democracy can only thrive in open and free societies. But open societies like ours are today threatened more than ever before by the rise of terrorism.

We know that those who resort to terror often clothe it in the garb of real or imaginary grievances. We must categorically affirm that no grievance can justify resort to terror. United States and India must work together in all possible forums to counter all forms of terrorism. We cannot be selective in this area. We must fight terrorism wherever it exists because terrorism anywhere threatens democracy everywhere.

We know from experience that democratic societies that guarantee individual freedom and tolerance of dissent provide an environment most conducive to creative endeavour, and the establishment of just societies. We therefore have an obligation to help other countries that aspire for the fruits of democracy. President Bush and I agreed yesterday on a global initiative to help build democratic capacities in all societies that seek such assistance.

We are often criticised for being too slow in making changes in policy, but democracy means having to build a consensus in favour of change. As selected representatives, you are all familiar with this problem. We have to assuage the doubts and calm the fears that often arise when people face the impact of change. Many of the fears we have to address are exaggerated, but they must be addressed. This is necessary to ensure sustainability. India's economic reforms must be seen in this light: they may appear slow, but I assure you they are durable and irreversible.

The information technology revolution in India is built primarily on US computer-related technology and hardware. US firms are already leading the foreign investment drive in India. I believe 400 of the Fortune 500 are already in India. They produce for the Indian market and will hopefully also source supplies from India for their global supply chains. We welcome this involvement and look forward to further expansion in the years ahead. India needs massive foreign direct investment, especially in infrastructure. I hope American companies will participate in the opportunities we are creating.

The 21st century will be driven by knowledge-based production. We have a large and relatively young population with a social tradition that values higher education. Our educated young people are also English speaking. This makes us potentially an attractive location for production of high-end services whether in software, engineering design on research in pharmaceutical and other areas. Our laws on intellectual property rights have been recently amended to comply fully with our international obligations under the WTO. We look forward to attracting business in these areas from the United States.

To fully exploit potential areas for co-operation between our two countries, we need to make special efforts to bring our private sectors

closer together. To this end, President Bush and I have constituted an India-US forum of chief executive officers.

I am happy to say that President Bush and I have decided to launch a second generation of India-US collaboration in agriculture. The new initiative will focus on basic and strategic research for sustainable development of agriculture to meet the challenge of raising productivity in conditions of water stress. It seeks to take information and know-how directly to the farming community and promote technologies that minimise post-harvest wastage and improve food storage. It will also help Indian farmers to meet phytosanitary conditions and enable them to participate more fully in global agricultural trade.

Energy security is another area where our two countries have strong common interests. The world's reserves of hydrocarbons are finite and we must tap new energy sources. India's reliance on coal and hydropower will increase. We have to invest in new oil and gas exploration and in enhanced recovery of oil and gas from available fields.

We must also tap the full potential of nuclear energy. The US can help in all these areas. I am happy to say that we have initiated an energy dialogue with the US to explore the scope for cooperation in each of these areas in the years ahead. The field of civil nuclear energy is a vital area for cooperation between our two countries. As a consequence of our collective efforts, our relationship in this sector is being transformed. President Bush and I arrived at an understanding in finding ways and means to enable such cooperation.

HIGHLIGHTS

Prime Minister Manmohan Singh at the joint session of the US Congress:

- **Quash Terror:** No grievance can justify terror. US and India must work together. We cannot be selective. We must fight terrorism wherever it exists because terrorism anywhere threatens democracy everywhere
- **Spread Democracy:** We have an obligation to help other countries that aspire for fruits of democracy. President Bush and I agreed on a global initiative to help build democratic capacities
- **Reforms Irreversible:** India's economic reforms... may appear slow, but I assure you they are durable and irreversible... India's growth and prosperity is in American interest
- **Welcome to India:** India needs massive foreign direct investment, especially in infrastructure. I hope American companies will participate in opportunities we are creating
- **Our Talent Pool:** The 21st century will be driven by knowledge-based production... Our educated young people are also English speaking. This makes us potentially an attractive location for high-end services
- **India-US Inc:** We need to make special efforts to bring our private sectors closer... President Bush and I have constituted an India-US forum of CEOs
- **Transforming Farms:** A second generation of India-US collaboration in agriculture...will focus on basic and strategic research for sustainable development of agriculture
- **Moving on N-Energy:** The field of civil nuclear energy is a vital area for cooperation between our two countries...our relationship in this sector is being transformed
- **India Must have Say:** The UN Security Council must be restructured...the voice of the world's largest democracy cannot be left unheard on the Council.

We are conscious that plans to meet our energy requirements will have implications for the environment. This is especially so since any energy scenario for India will involve heavy dependence on coal. Clean coal technologies that can make an impact need to be developed and should be affordable for poorer countries.

The global challenge of HIV/AIDS is another area for India-US cooperation. President Bush and I have agreed on the need to provide increased international access to safe and effective anti-retroviral drugs.

Globalisation has woven a web of interconnections across the world. This makes it all the more necessary that we evolve a system of global governance that carries credibility and commands legitimacy. Such a system must be sufficiently participative to be able to generate a global consensus. It must also reflect contemporary reality. The Doha round of world trade negotiations and the reform of the United Nations are two major processes in the international arena where we need to work together to strengthen the system of global governance.

As two democracies, we are natural partners in many respects. I believe we are at a juncture where we can embark on a partnership that can draw both on principle as well as pragmatism. My objective on this visit was to lay the basis for transformed ties between our two great countries. I believe that we have made a very good beginning. There is much we can accomplish together. ❑

(Based on Prime Minister's address to a joint session of US Congress, at Washington)

MTA of Tenth Plan

G. Srinivasan

The MTA deals with the bread-and-butter issues of millions of people across the country whose aspirations for a better quality of life get increasingly reflected as days roll by

AS THE Tenth Plan (2002-07) is into the penultimate year of its five-year duration, the Planning Commission has released its mid-term appraisal (MTA) document belatedly. The reason for this is more to do with the interruption of the General Election in 2004. The new government that took office in May 2004 had to tailor its priorities to the plans and programmes set out in the Tenth Plan document by suggesting a slew of mid-course correctives. The first meeting of the National Development Council (NDC) endorsed broadly the mid-term appraisal document which was the main agenda item.

While the details of the MTA could be set out later, it is but relevant to note that at the NDC, the Chairman of the Planning Commission, the Prime Minister Dr Manmohan Singh asserted that the environment for the country's development has never been so favourable as it is today. Winding up the two-day deliberations of the NDC, Dr Singh said the challenge before us was to combine the economics of growth, equity and social justice. We have no option but to walk on two legs. Dr Singh quipped, implying that deliberate efforts should be made to reduce disparities in income and wealth, while sustaining the growth impulses so as to ensure that all sections of society take part in and benefit from growth.

In the NDC meeting to review the MTA document concerns were expressed by Chief Minister of various states about the need to rejuvenate the agricultural credit system, improve the quality of extension services and tackle problems of drylands and wastelands and enhance investment in irrigation. Hence Dr Singh said the NDC has agreed to set up a subcommittee under the chairmanship of the Union Agriculture Minister to study the concerns over the farm front. The sub-committees inputs could be used for framing policy in the Eleventh Plan. Yet another sub-committee set up by the NDC under the chairmanship of Finance Minister would study the main issue of the Twelfth Finance Commission (TFC). While recommending the restructuring of the Government debt, the TFC did not recommend restructuring of the cumulative debt of the states on account of the high lending rates on which they

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borrowed funds from the National Small Savings Fund (NSSF).

On the crucial question of infrastructure investments by private sector or public-private partnership (PPP), the Prime Minister rightly said that any successful strategy on this front calls for a well defined framework in which the investors have the assurance that the standards of service will be maintained and concessions will be transparently awarded. Dr Singh assured the states that the Centre would facilitate them in their efforts in this regard through enhanced capacities.

Both in his presentation during the inaugural of the NDC and also in the overview of the MTA document, the Planning Commission, Deputy Chairman, Mr Montek Singh Ahluwalia contended that the state of the economy now presents a mixed picture with several strengths but also some important weaknesses. The Prime Minister hit the nail on the head when he said that we cannot achieve the original Tenth Plan target of 8 per cent growth over the Plan period as a whole even if the Government succeeds in its effort of taking growth to between 7 and 8 per cent in the last two years of the Plan span. This is because the growth performance during the first three years of the Tenth Plan was below the target of 8.1 per cent, averaging 6.5 per cent in the past three years.

Dr Singh pertinently drew the attention to the deceleration in agricultural growth to a dismal level and laid stress on the overwhelming necessity to focus attention and enhance investments in the whole chain of agricultural activities. These include the supply of inputs and credit, diversification of crops, better production practices and improved post-harvest management.

He also underscored the urgent need for employment generation. He put particular stress on education, health gender, weaker sections and governance at the district level to ensure that the benefits of development do not bypass the poor and needy, a point repeatedly underlined in the MTA of the Plan panel.

After the primacy of agriculture, the performance of the manufacturing sector came in for discussion at the NDC meeting and the Prime Minister was not off the mark when he said that the performance remains much below the double digit growth rates. According to Dr Singh, the message flowing from the MTA is that our industrial performance is ready to accelerate, provided we can give Indian industry better quality infrastructure. That is why, he remarked, the Union Government accorded importance to infrastructure development. Since major expansion and upgradation in power, roads, railways, ports and airports and telecommunications connectivity call forth massive outlays, there is a need for public-private partnership (PPP) to leverage limited public sector resources by resorting to private investment and PPP to the maximum extent feasible. This is the point running through the entire MTA as it set forth its views on infrastructure areas and the approach of PPP is relevant for both the Centre and the States.

The MTA is an important document as it deals with bread-and-butter issues of millions of people across the country whose aspirations for a better quality of life get increasingly reflected as days roll by. Hence the MTA states without mincing much words that the objective of accelerating gross domestic product (GDP) growth to 8 per cent in the years ahead and bringing about a more inclusive spread of benefits rely critically upon a reversal of recent trends in agriculture. Agricultural growth has decelerated sharply from 3.2 per cent between 1980-81 and 1995 to a trend average of 1.9 per cent subsequently, the MTA document deplored. It said the industrial sector, which had a lacklustre show in the first two years of the Tenth Plan, appears to have turned around last year with a growth rate of 8.1 per cent in the first eleven months of the 2004-05 fiscal year. Still, it said, the average for the first three years is unlikely to surpass 7 per cent much better than the average of 4.5 per cent in the Ninth Plan but well short of the Tenth Plan target of 8.9 per cent.

According to MTA report, the social sector indicators remain a problem domain, with India comparing poorly with the levels achieved by East Asian countries 25 years ago, when they first began to grow rapidly. The employment situation also presents a serious problem as the MTA projections, using sectoral growth rates and estimated employment elasticity, are that the unemployment rate would have increased from 8.87 per cent in the base year 2001-02 to 9.11 per cent in 2004-05. This implies that total employment increased slower than labour force growth. On the significant subject of labour reforms, the Plan panel is for building a consensus for amendments to labour laws to remove some of the rigidities that affect the competitiveness of Indian industry. Without such a consensus, selective exemption from the applicability of some of the laws could be considered for special economic zones (SEZs) and export-oriented units (EOUs).

Again, the MTA does not gloss over the harsh truth that the availability of resources in the public sector to meet targeted levels of Plan expenditure is a major area of weakness. Neither the Centre nor the states has been able to mobilise the resources needed to keep outlays in line with Tenth Plan projections and this has led to

significant under-funding in many sectors. Taking the Centre and the states together, Plan outlays will be lower than expected by two per centage points. This is despite the fact that the Centre and the states have relied much more on borrowing resources than was intended, leading to a rise in general public debt.

On the crucial and key issue of propping up public sector undertakings that turned sick, the MTA notes that bankability must be a prerequisite for taking forward rehabilitation packages of sick Central public undertakings. The norm in developing the financial package must be that the government takes the responsibility for strengthening the equity base while financial institutions provide the loans (without the need for government guarantee), the MTA stated.

Even as the UPA government is not overly keen on the disinvestment concept especially as the very word draws the protest of the Left parties bolstering the government from outside, the MTA is more candid on the subject. In view of the resource constraints facing the Central government, it is necessary to exploit fully the room provided by the National Common Minimum Programme (NCMP) for sale of minority equity stakes in profit-making public sector enterprises while retaining government equity at 51 per cent. Systematic pursuit of this option could yield substantial resource mobilisation in the years ahead, the MTA said.

In persisting with its reformist proposals the Plan panel MTA pitches for permitting foreign direct investment (FDI) in retailing and mineral exploration and mining. It also suggested review of the subsidy scheme for geographically disadvantaged States and phasing out the industrial subsidy scheme in the next two years. It also plumped for dereserving items meant for the small-scale sector production and re-examining fertiliser subsidies.

It also favoured the Government to move to uniform public distribution system (PDS) pricing in the place of differential pricing for below-and-above poverty line segments of society.

On the important issue of power sector reforms on which the confidence of private players in the economy hinges, the MTA calls for move towards more rational electricity pricing. It also considers open access as a critical element in power sector reform that would bring in competition to the system and lure investment for eliminating endemic power shortage. In point of fact, the Prime Minister while addressing the State Chief Minister at the NDC meeting sought to create an environment to attract investments by the public and private sectors. This, he said, is needed to improve the financial health of electricity boards in the States. This could not be done without the reduction of aggregate technical and commercial (AT&C) losses with the objective being to bring down such losses by 10 per centage points with the support and commitment of all the States.

The MTA document has put forth a slew of as many as 59 suggestions. All these proposals are designed to keep the economy move ahead in the remaining period of the Tenth Plan so that a durable and stable foundation could well be laid for the smooth launch of an Approach to the Eleventh Five Year Plan. The Planning Commission would begin this exercise in all earnestness before the end of this year and the MTA could well be the launching pad for such a strategy to tackle the twin problems of ensuring economic growth and social justice to the masses. ❑

NEWS

No Coercion in Population Policy

Chairing the first meeting of the reconstituted National Commission on Population in New Delhi, the Prime Minster, Dr Manmohan Singh asserted that any coercive measure to achieve population stabilization was "unacceptable".

The government's approach to fertility reduction would be through evolving an effective development strategy, focusing on elimination of poverty, empowerment of women and choices in limiting the family size.

The Prime Minister directed that a task force be set up for micro planning in the demographically weak Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan and Orissa which constitute 40% of the population. It would take up the population stabilization programme with leadership of these states, which have a Total Fertility of above four. It would work with these states to invest more in health infrastructure for reduction in maternal and infant mortality rates which are crucial to achieving population stabilization.

On two child norm, Dr Manmohan Singh directed the National Commission on Population to evolve consensus against the norm.

Emphasizing that the National Population Policy of 2000 was for a target-free, voluntary and informed choice and against coercion or incentives and disincentives, the Prime Minister said such measures had only a marginal impact and sometimes might even cause resentment and non-acceptance of the programme. ❑

Compiled by Yojana (Hindi)

In the News

- In a move towards giving more operational autonomy to public companies, the government has doubled their capacity to make investments without seeking clearance from administrative ministries. Profit making companies falling under the "Navaratna" category can invest up to Rs 1000 crore in joint ventures and incur capital expenditure. "Miniratna I" and "Miniratna II" can go up to Rs 500 crore and Rs 250 crore. The boards of PSUs can go ahead with mergers and acquisitions independently subject to their ceilings. The decisions were taken in fulfillment of the commitments made under the National Common Minimum Programme of the UPA government.

- The Cabinet Committee on the World Trade Organisation has directed the Commerce Ministry to make its improved services offers at the WTO within the limits of its autonomous liberalization. It has also said that offers should be conditional so that India can withdraw them if it does not get satisfactory offers from member countries.

- The Cabinet Committee on Economic Affairs has approved a Rs 625 crore scheme aimed at setting up 25 integrated textile/parks for exports in the next two years.

- The Union Cabinet has referred the proposed downlinking policy to the Group of Ministers. The Ministry of Information and Broadcasting has proposed in the draft policy that channels uplinking from outside and downlinking the signals in India will have to register both channel and the company under the Companies act.

- The Supreme Court has struck down as unconstitutional, the Illegal Migrant (Determination by Tribunals) Act, which provided for identification and deportation of illegal Bangladeshi migrants.

- The net profit of software major Infosys Technologies has jumped by 37% for the April-June quarter of the current financial year to touch Rs 532 crore as compared to the corresponding period last year. It earned revenues of Rs 2,071.59 crore during April-June 2005, registering a growth of 37%.

- Tamil Nadu's 97 year old Nilgiri Mountain Railway has been included in the world heritage list. The 46 km long Nilgiri Mountain Railway is a meter-gauge single track railway.

- The Prime Minister, Dr Manmohan Singh has constituted a five-member National Disaster Management Authority (NDMA) to draw up policies and plans for disaster management. Apart from the Prime Minister, who is the Chairman of the NDMA, other members of this body are the former Army Chief, Gen N.C. Vij, retired Chairman of Atomic Energy Regulatory Board, Prof. S.P. Sukhatme, former Director General of CISF Mr K.M. Singh and former Andhra Pradesh environment Minister Mr M Sashidhar Reddy.

- The Centre and the four states of Assam, Nagaland, Tripura and Meghalaya have decided to set up a joint intelligence sharing mechanism to prevent cross border movement of insurgents.

- The Orissa government is now focusing to improve infrastructure in the state. This follows its signing of 37 memoranda of understanding (MOUs) for steel plants and two MOUs for aluminum and alumina. These brought the state an investment of Rs 1,30,000 crore last year, including a Rs 51,000 crore investment proposal by Posco. The new policy will promote private sector participation in infrastructure development.

- In a unique public-private partnership, the state owned Oil and Natural Gas Commission (ONGC) and the L.N. Mittal Group, the world's largest producer of steel have signed MOUs to set up two joint venture companies. ONGC's, overseas arm, ONGC Videsh Ltd. (OVL) inked an MOU with the Luxemburg-based Mittal investment SARL for setting up a JV, ONGC Mittal Energy Ltd. This JV will be engaged in oil and gas exploration. The other MOU is to form the second JV company to take up energy related business like trading and shipping. While the ONGC group would have a stake of 49.98% in the two JVs, the Mittal group will have a 48.02% stake, the balance 2% stake would be held by financial institutions.

- The Valley of Flowers in Uttaranchal had been included in the world heritage list as a natural site of international importance by UNESCO.

- India and Philippines have signed a memorandum of understanding on matters relating to operation of air services between the two countries. Under it, each side is entitled to operate up to a maximum of seven flights per week.
- John Hopkins Medicine International (USA) and Apollo Hospitals (India) have signed MOU that will mark the beginning of a relationship between the largest private healthcare provider in India and John Hopkins Medicine. Using telemedicine. Apollo sites will able to offer second opinions as well as request teleconsultations with specialists at John Hopkins.
- The Centre has chosen Hyderabad as the venue for the fourth Pravasi Bharatiya Divas. It will be held from January 7 to 9, 2006.
- The West Bengal government has unveiled a Rs 100 crore plan including upgradation of hospitals and recruitment of doctors to improve health care across rural areas in the state.
- A high level committee headed by Mr V Krishnamurthy to advice on revamping of public sector oil companies has advised against the merger of these companies or formation of an umbrella holding company for these entities.
- The Centre has announced a new type of visa for foreigners seeking medical treatment in India. Medical visas would be available to all foreigners including nationals of Pakistan, Bangladesh, Sri Lanka and China. Initially visa will be for one year or the period of treatment whichever is less.
- The Reserve Bank of India has proposed draft guidelines to regulate credit card use. It has recommended:
  (a) If unsolicited cards are issued and activated without the recipient's consent and the latter is billed for the same, the issuing banks will reverse the charges and also pay penalty.
  (b) Recovery agents to follow "Fair Practice Code for Lenders".
  (c) Banks to state the interest rates on an annual basis on the outstanding amount.
  (d) "Donot Call" registers for customers and non-customers.
- Jindal Steel Limited has proposed to setup an integrated steel plant of 5 million tonnes with an estimated investment of Rs 11,500 crore in Jharkhand. The plant would provide direct employment to a total of 4,500-5,500 people and would create about 30,000 ancillary jobs.
- In an attempt to accelerate crop diversification programme, the Punjab government has decided to set up a Rs 100 crore agriculture research and diversification fund. The state government has also constituted a committee of experts under the chairmanship of renowned agriculture economist S.S. Johl to submit a roadmap for giving a push to the crop diversification programme.
- The Punjab government is to set up a commission to advise the government on policy matters to boost investment.
- The Karnataka government has launched the Rs 977 crore Rajiv Gandhi Grameen Vidyutikaran Yojana to provide electricity to 16,168 hamlets by signing a tripartite agreement with the Rural Electrification Corporation and the five electricity supply companies in the state.
- I G Patel, noted economist, and former RBI Governor died on 17th July in New York. His tenure as RBI governor (1977-82) is remembered for demonetisation of high currency notes, nationalization of six banks and the country availing the IMF's Extended Fund Facility in 1981 due to balance of payment difficulties.

Dr V. Shanta

Winner of Magsaysay Award 2005 for Public Services

Dr V. Shanta, Director, Cancer Institute, Chennai has won the Magsaysay Award this year (2005) for public service. The Manila-based award foundation announced that Dr V. Shanta has been given the award for her "Untiring Leadership of the Cancer Institute as a centre of excellence and compassion for the study and treatment of Cancer in India". The Raman Magsaysay Award was established in April 1957 in the honour of the late President of Philippines.

On the announcement, Dr V. Shanta said "My dream is to close down the Cancer Institute and hope that everybody is free from the disease so that no one needs treatment any more".

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Our Country For Everyone

10 June, 1962

THE ONLY wall decoration that the office of Yojana has is a wall map of India. It catches the attention of almost everyone who comes to see us. It is a beautifully printed map, five and a half feet by five feet, the work, of the able men of Survey of India.We know of some visitors who break off in the middle of a sentence and walk across to the map.

Maps are always fascinating things. A good map of one's own country never fails to quicken one's heart-beat. Seeing it is like hearing the national anthem or catching a glimpse of the flag fluttering from a proud mast-head.

"Where can one get this map?" I have often been asked.

"Try the Government bookshop on Janpath."

"I went there once, but drew a blank. This sort of map should be on sale in every bookshop."

I have had many conversations like these. And I was reminded of them when, wandering round Connaught Place bookshops last fortnight, I saw a title which read "School Atlas"-blue letters on a chocolate-brown surface. I picked up the book, was excited by it. It is printed beautifully. The colours and the lettering and the layout are all of the very first order.

At the outset there are plates illustrating geographical terms and methods. Next come maps of the world and of the continents—both political and physical. Then, from page 20 to page 46, are maps of India. The first shows the physical features. The second depicts the different states and Union Territories in the various colours of the rainbow. (An added attraction, it also shows the new dams and reservoirs of free India-Govind Sagar, Hirakud, Nagarjuna Sagar, Tungabhadra and Gandhi Sagar.) After that follow maps showing the roads and the air routes, and the railways and sea routes. Soils, population, forests and irrigated areas, archaeology and tourism, and rainfall are the subjects of five other maps. Then there are 46 smaller maps-four to a page-which give temperatures, geology and minerals, distribution of individual crops and the location of major and minor industries.

What follows is an even more valuable section-detailed maps of the different regions and states (incorporating the latest changes of name and spelling)

An excellent idea on the part of those who planned the atlas is to devote three pages to the maps of our neighbouring countries-Ceylon, Nepal, Burma, China, Afghanistan and Pakistan. This is followed up by another feature deserving congratulations-a two-page spread which is called "The Great Himalaya" showing the entire region from the Salt Ranges in West Pakistan to the Trijunction (point where India, China and Burma meet) in the east. Here, for all Indians to see, is where we exactly stand when attempts are being made to nibble at our territory.

This is the kind of map that should be in every school-and every family. The Survey to India's motto is "Asetu Himachalam". and the atlas should be found in every place between the sea in the south and the mighty mountains in the north.

Most people keep a book down where the narrative ends, but as a professional I have a habit of peeping into all sorts of details in a book-like the copyright label, the imprint, the forme signatures printed on each new forme and so on. So, after running my eye down the excellent, ten-page index, I turned to the back cover. A small group of figures at the foot of the page caught my eye. I found the following words: Reg. No. 6814-HD' 59-15,000'61.

This came as a shock. It meant that only 15,000 copies of this very valuable atlas had been printed. Mind you, it is the first edition, very new-finalised in 1961 but probably put on sale very recently. On an impulse I telephoned someone who knows a good deal about publishing in India. "Have you seen the new atlas?" I asked him. He hadn't and so I gave him the details: how neat it is, and what an excellent job the Survey of India has done. Then I asked: "How many copies do you think it can sell at Rs 5?"

"A lakh easily", he said. I too had thought so.

Here is something which our Government should think about. In text books and school material a sort of Gresham's Law operates. The bad drives out the good. And when the good product is not brought out in enough numbers, the bad product finds it even easier to flood the market. A good atlas has of late become unbuyable: some foreign atlases have rightly not been allowed to be sold in the country because they either show Kashmir as a "territory under. dispute" or magnanimously give parts of Kashmir to Pakistan. The result is that all sorts of mushroom mapmakers spring up, print sorry stuff and make money. The best way to end such a situation is to make available the right type of product in large numbers. Parents and teachers are waiting for this to happen.

This is only part of the story. There is another. We talk of emotional integration. We say the people of one region should know more about the people of another. A sure way of achieving this is through the wise use of the song, the flag and the map. The young boy bending over and peering into a map travels in his imagination all over the country. If he is from Satara he hops to Simla. Each lad in his mind does what Sankaracharya did a thousand years ago physically-touch the four corners of the country. That will give him a feeling that all the land is his, all parts of it. He will bathe in all the rivers, climb all the hills, see the waterfalls, swim in all the beaches, roll in the meadows, wander in the forests, ride the elephants of Assam, frolic with the lions of Gir and pluck the flowers beside the Dal Lake. A good atlas is a present that boys treasure most, and intelligent elders know it. But if a mere 15,000 copies are brought out, a fine tool is wasted, and an opportunity is lost.

–H.Y. S.

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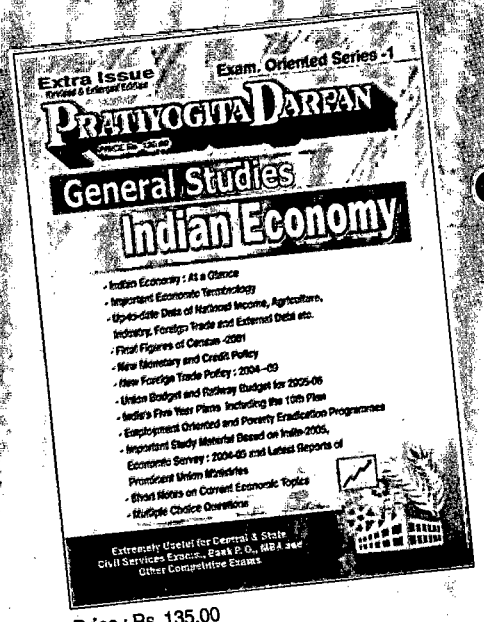

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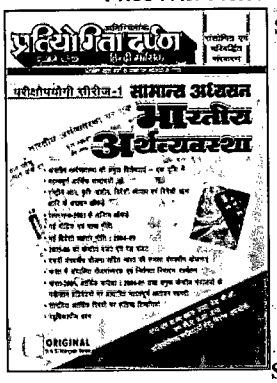

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