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We regret to announce the sad and untimely demise of Mr. Hakim Singh, Data Entry Operator on 15th July 2004, who had been actively involved in processing the JEPA material for a long time and processed some ofthe material of even the next issue

- Editor

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Policy Implementation Planning and Actualization

U.S. Bhola*

Abstract

Policy implementation as an area of theory and research has developed within the disciplinary tradition of policy studies, though somewhat independently of the general literature of social change, institution building, organizational behavior, innovation diffusion, and social and behavioral interventions. Implementation theory has, of course, resonated to the ongoing paradigm debate of the last half century and has moved from positivist top-down models ofpolicy implementation to critical, communicative and collaborative models of implementation. Using two classic reviews of implementation theory (McLaughlin 1987, and Lester, Bowman, Goggin and O 'Toole 1995) as the backdrop, a model for implementation (including both planning and actualization) ofpolicy objectives is offered, and elaborated in the context of two recent United Nations initiatives: one regarding Sustainable Development and the other about the Literacy Decade, 2003-2012.

Introduction

For as long as there have been sovereigns and subjects, the rulers and the ruled, there has been policy making, with expectations of compliance to the policy proclaimed. A systematic study of policy as a political process is however, quite recent. It was around the middle of the twentieth century when both policy makers and their policy advisors became self-conscious about the processes of policy analysis to be able to invent the language of justification for a particular policy, as part of policy formulation; and, later to direct their attention to the associated processes of policy implementation and policy evaluation.

This self-consciousness, about policy-making processes and the role of personal "standpoints" of individuals engaged in these processes, is much better established in the policy bureaus and universities of the West than in countries outside of the West. In too many Third World countries, for example, economies of scarcities are further confounded by scarcities of knowledge, in general, and of social scientific skills for policy analysis and evaluation, in particular. A recent UNESCO survey "based on 66

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responses ... shows that countries need immediate technical support in such fields as cost analysis, policy dialogue and formulation, analysis of the macro-economic framework and data processing (UNESCO Newsletter 5, 2003)." We have to be further mindful of the fact that mathematics comes only after the metaphor, and statistics make sense only within the general framework of a "script", developed to bound and delineate the processes of policy formulation and implementation.

Implementation as Planned Change

Learning from the Western Tradition

Policy implementation means to put a policy into action, to actualize, apply and utilize it in the world of practice by working with stakeholders, who could be individuals, groups, institutions and cultures and sub-cultures. In other words, policy implementation is an instance of bringing about a "planned social change" by working with people and social organizations on the ground.

The development of theory and research in implementation was indeed taking place much before its formalization as an area of study - as part of the scientific and systematic study of planned social change and social and behavioral interventions, e.g.: from social change (Etzioni and Etzioni 1964), diffusion of innovations (Rogers 1995, Bhola 1965b, 1966, 1967), social and behavioral intervention theories and practices (Hornstein, et. al. 1971), technology and social change (Bernard and Pelto 1972), modernization (Inkeles and Smith 1974), to communication and change (Schramm and Lerner 1976), planned change and development (Bennis, Benne and Chin 1976), socio-economic development in the Third World (UNESCO 1982) and systems design (Checkland 1981). This is by no means a comprehensive listing. Unfortunately, there was not much cross-fertilization between and among these various traditions of theory and research, dealing with the same phenomenon of planned social change.

Surveys of Implementation Theory and Research

Policy implementation was identified as a distinct area of theory and research in the USA in the early 1970s (Pressman & Wildavsky 1973). The ups and downs and the fresh and false starts in theoretical development of policy implementation during the last several decades are captured in two major reviews of literature: McLaughlin (1987), and Lester, Bowman, Goggin, & O'Toole (1995). While both of the reviews, summarized below, relate to the American scene, they are loaded with loud echoes of realities of policy making and policy implementation elsewhere around the world.

The *first review* of implementation theory, research and experience (McLaughlin 1987) talked of three generations of implementation analysts. In the early 1970s, the first generation of implementation analysts sketched the outlines of an "implementation perspective" and discovered that the relationship between policy and implemented programs was marked by uncertainty. Policy implementation was riddled with

complexity of levels and branches of governance, and was marked by variations in political and cultural contexts and interpretations of the language and intents of policy itself, across levels and locations. Rational strategies of scientific management and models of decision-making did not work.

The next generation of implementation analysts sought to capture the dialectic between policy and practice and analysed the multiple factors in the overall process of implementation. In so doing, they drew some important lessons. First and foremost, implementation was found to be "incredibly difficult." Mandates from the above did not determine outcomes in the locations below. While larger institutional structures and delivery systems did matter, policy implementation was ultimately found to be a matter of the smallest unit and of the street level bureaucracy (Lipskey 1979). External factors such as clarity of goals and lines of authority helped but individual beliefs, professional capacity and personal motivation were central. Both pressure and support in a right balance were needed for compliance, both in letter and spirit. Implementation problems could never be solved fully and finally. Policy itself changes in the process of implementation as both policy objectives and policy resources change. Muddling through with "incremental change" should not be seen as a sign of failure but perhaps as the way to go.

The conceptual challenge for the third generation of implementation analysts was to move away from positivism towards a model of social learning by "reflecting on action" (Schon 1983), thereby combining macro systemic world of the policy makers with the micro nominalist world of policy actors in communities.

The *second review* of literature of implementation theory and practice written by Lester, Bowman, Goggin, & O'Toole (1995) talked of four stages of development: (i) 1970-1975, when case study was not the only method of investigation but also was guide for authoritative decisions making; (ii) 1975-80 when efforts were directed to developing theoretical frameworks such as "top-down" and "bottom-up" and their operationalization to assure implementation; 1980-85, when the top-down and bottom-up models were put to test to explain both failure and success in policy implementation; and 1985-95, when both top-down and bottom-up models were revised and then synthesized into one integrated approach.

Synthesizing Top-Down and Bottom-Up Models

Move toward synthesis of the top-down and bottom-up models had already begun in the late 1970s. Ingram (1977) talked of policy implementation as bargaining; Montjoy and O'Toole (1979) brought in an organizational perspective; and Thomas (1979) proclaimed that the importance of the policy issue and perceived effectiveness of policy influences chances of policy implementation. He reminded that the averages assumed at the higher levels of policy system do not hold at lower levels and also that implementation as a developmental process, requiring a constant collaboration model to respond to a

territorial democracy, asserting again that "consensus building was a necessary and sufficient condition to attain saliency in implementation (p. 431)."

Elmore (1985) who, in 1979 had talked of the backward mapping new suggested joining "backward mapping and forward mapping." Sabatier (1986) and Linder and Peter (1987) made important contributions in elaborating and explicating the model. Yanow (1993) asserted that the first task for a policy implementer is interpretative, that is, to understand the deeper meanings of policy as encoded in "symbolic objects, symbolic language, and symbolic acts, including myths and rituals" associated with policy. He warned that the true goals of policy may often be deliberately kept vague because of the true nature of policy goals. Grin & Van de Graf (1996) talked in the Habermasian language of implementation as "communicative action".

Speaking generally, in the above discussion were embedded preferences for constructivist-critical modes of thinking (Berger and Luckmann 1967, Guba 1990, Ingram 1990), implying de-construction of policy as it came down from the centre to the locality. It was also suggested that participative and collaborative methods be used for negotiated re-constructions of policy, thereby appropriating policy and its objective to suit local purposes, and indeed encouraging the local design of policy implementation. Epistemology and ideology were combined with each other in these theoretical initiatives. There was a reiteration of the need for "a fully-developed model of implementation (Lester, Bowman, Goggin, & O'Toole 1995)." It was to be comprehensive enough to cover all policy contexts and arenas, and yet parsimonious in choice of variables. It should thus be able to serve both as a framework of analysis and mode of accumulation of tested experience. The reviewers wished the model to be usable in practice, and aspired for good operational definitions and precise measures of variables so that one could make warranted assertions both on antecedent conditions and on consequent outputs and outcomes of implementation.

Systems Theory Application to Policy Implementation

The chorus of voices above can be construed to be asking for a systems theory approach (Checkland 1981) to implementation. There is, of course, nothing more full and comprehensive than general systems theory that can include political, social, economic and cultural contexts and environments; as also a multiplicity of systems and sub-systems standing in lateral and hierarchical relationships. Systems theory is also natural for providing a perspective on complexity, and, indeed, complexity theory can be considered to be a twin of the systems theory.

It is not too often realized that the systems thinking involves constructivist thinking (Berger and Luckmann 1967) because systems are cognitive-social constructions with particular boundaries and hierarchies. Systems thinking also involves dialectical thinking (Basseches 1980, Mitroff and Mason 1981) which enables us to accommodate the reality of interactions between sub-systems at one hierarchical level, leading to "emergence" of new systems at a higher level of the hierarchy. This means that we need to work with an

expanded view of systems theory itself: conceptualizing an epistemic triangle (Bho a 1996) formed by systems thinking, constructivist thinking and dialectical thinking - ar and yet not rejecting positivist thinking in those cases and conditions, wherein m o i articulated and immediate causal relationships can be assumed and more certain consequences can be anticipated. Further analysis of the review of implementation literature, referred to above, also seems to demand a model of implementation that anticipates policy itself to change in processes located within the dialectic between macro and micro levels, and between leadership and control; and which accepts the reality that both agents and agencies of policy implementation have ideologies, class interests and inner lives that pull in different directions and need negotiations to

CLER as a Systems Model

The CLER (Configurations-Linkages-Environments-Resources) model (Bhola 1965b, 1967, 1982, 1988), presented below, is an applied version of the systems theory that can be used for "scripting" the process of implementation: to bound and image a parcel of social reality relevant to the purposes of policy implementation; invent suitable behavioral and social interventions based on an articulation of the dynamics embedded in that portion of social reality; and make plans and strategies for making those interventions to actualize policy implementation.

Models are by nature abstractions of principles learned in concrete situations. But models should not be so abstract that they lose touch with the concrete and the commonsense. Model users should be able to "think with" the model and put their particular realities back into the abstract model and thereby climb down into their own concrete settings and situations, and be able to do something about policy implementation on the ground. The CLER model is indeed a commonsense model, suggesting simply that to increase the probability of a policy implementation project to be actualized, the four components of the model should be optimized in a synergetic set of relationship.

Clearly we do not offer a prescriptive model but rather a generic one. The CLER constitute an empty set of theoretical categories which can be filled in by practitioners of implementation with strategies and tactics that make sense in their particular contexts - resonating their national ideologies and material and non-material endowments. The model user is invited to "think with" the model rather than "plug in the model" and to dispense with thinking things through. It is thus a "model-for-modeling" possible to transplant in multiple contexts, encompassing a whole range of domains from community development, poverty alleviation, education, health, food production, to HIV/AIDS or ethnic conflict - in countries that are developed, developing or in transition.

As a "model-for-modeling implementation", it is not restricted for use oniy at the front-end of implementation. It can also be used in administering the program process on a day-to-day basis. It can be well used to analyze the on-going processes of implementation and to evaluate the effectiveness of implementation strategies at the end.

Tests and Trials of the CLER Model

The CLER Model and the associated writing on it did win early appreciation. Bhola's (1965a) theoretical review of change-related social-scientific literature was cited by Chin and Downey in Travers (1973) with approval of being a promising taxonomy for use in planned change in various settings. Havelock (1971) had earlier commented that the taxonomy of change configurations presented in Bhola's CLER model permitted "comparative analysis of patterns of flow and relationships regardless of size and other differentiating characteristics of specific adopting units studied. If the configuration is closely similar, irrespective of time, circumstances and unit size, ... generalizations from one set of findings can be applied, at least tentatively, to the analysis of other settings; diffusion research in agriculture and technology can then be used at the very least to make shrewd guesses in medicine, social welfare, and education" (Havelock 1971).

During the next thirty years the CLER model was indeed tested analytically as a theory and tested-in-use in projects of planned change in different sectors of education and extension in scores of political and cultural contexts (See bibliographic references in Bhola, 1988). Zajc (1987), using a set of conceptual criteria of theoretical and practical goodness that included non-linearity and ability to handle complexity, relevance to multiple contexts, robustness and transparency of theoretical assumptions, relatedness to available research, fertility in regard to future research and theory building, ability to suggest practical strategies of intervention, and ease of recall, found Bhola's CLER model as one of the two (out of a total of 47 models she studied) to be of greatest promise as a tool for understanding and intervention.

More recently, Tiffany and Lutjens (1998), on the basis of a survey of practitioners and critical analysis, compared CLER with the planned change models of Lewin (1951), Bennis, Benne and Chin (1985) and Rogers (1995) and identified CLER as the model of preference and of wide usefulness in planned change, organizational analyses and research utilization (p. 286). Kemp, Morrison and Ross (2000) again chose CLER as the model of preference to implement instructional development (ID) strategies and to promote collaborative relationships within organizational settings.

Scripting Implementation of "Adult Education for Sustainable Development" by CLER

Two worldwide initiatives of immense significance for the well-being of the people living on the globe today were proclaimed during the year 2002. First, the "United Nations World Summit on Sustainable Development", held in Johannesburg, South

Africa, during September 2-4, 2002[1] which demanded that development itself be re-defined to focus on individual upliftment and community development - seeking to provide clean water, sanitation, adequate shelter, energy, health care and food security as well as protection of bio-diversity to the world's peoples. Second, the "United Nations Literacy Decade: Education for All", 2003-2012, launched on February 13, 2002 in New York[2], with UNESCO as the lead agency that placed literacy at the core of all development so that people, as educated and informed agents, could act in their own behalf to transform individual lives as well as those of their communities.

To pull the world back from the brink of disaster, and to strike a new path to prosperity and peace for all around the world, the Johannesburg Summit of 2002 adopted a simple but supremely significant objective: to seek ways of protecting nature while boosting living standards for the world's poorest people. It could indeed be asserted that the "World Summit on Sustainable Development" was, by implication, also a Summit on Adult Education. The Literacy Decade proclaimed by the UN and led by UNESCO is a confirmation of the central role of education - particularly adult education using adult literacy as its arrow-head - to give sustainable development a chance.

These two UN initiatives are significant both for their substantive and methodological reasons. First, their substantive significance lies in the fact that they talk of the necessity of sustainable development to save the globe from environmental disaster, clash of civilizations and violence between countries; and they focus on the role of adult literacy/adult education in bringing about sustainable development. Second, they have methodological significance because in both cases the UN "Policy Declarations" are joined with a "Plan of Implementation", or a "Plan of Action" to be followed at the international level by the UN or a UN-affiliated Agency, and at the national level by the respective member states of the UN. We will offer elaborations of the components and processes of the CLER Model in the concrete context of these two overlapping UN initiatives.

Practical Use of the CLER Model in Policy Implementation

It is not by happenstance that we have discussed two UN Plans of Action seeking influence member states regarding their national plans of adult education and sustainal

[1] United Nations. (2002 September). The Johannesburg Declaration on Sustainable Development. World Summit on Sustainable Development, Johannesburg, South Africa, 2-4 September 2002. www.johannesburgsummit.org/html/documents/summit_docs/1009wssd_pol_declaration.doc; and United Nations. (2002 September-b). Plan of Implementation. World Summit on Sustainable Development, Johannesburg, South Africa, 2-4 September 2002. www.johannesburgsummit.org/html/documents/summit_docs/plan-final 1009.doc

[2] United Nations. (2001-June) Draft Proposal and Plan for a United Nations Literacy Decade. (A/56/114-E/2001/93); United Nations. (2001 November). Social Development, Including Questions Relating to the World Social Situation and to Youth , Aging, Disabled Persons and the Family. A/56/572. Pp. 6-10; and United Nations. (2002 July). United Nations Literacy Decade: Education for All; International Plan of Action. (A/57/218)

development. In today's world of globalization, all of the policy processes formulation, analysis, implementation and evaluation - have indeed come to be interfaced, if not integrated, with frames and forces of globalization (UNDP 1999, O'Meara et. al. 2000).

To start the process of implementation planning, imagine an ensemble (Tiffany 1998): [{P} x {0} x {A}], where {P} stands for Planner(s), {O} for Objectives of change, and {A} for Adopters. To fit our present context of policy implementation, the basic ensemble can be translated into the following:

Context and Condition of Globalization

[Policy Implementation System]	X	[Policy Objectives]	X	[Policy Beneficiary/Target System]

The ensemble of P,0, and A, in a dialectical set of relationships implies, of course, that we learn to look at all the three in "atonceness." Paradoxically, the nature of human language, and the cognitive process of analysis, both demand that we conceptualize the members of the above ensemble as "separate", and deal with each of these, one by one, in an arbitrarily imposed sequence. The only way to resolve the contradiction is to continue to steal glances from one member in the ensemble over to the other two, noting how each of the three is in a continuous process of mutual definition and explanation of the other two members of the set.

Unpacking the Objectives of Policy

The first step in the use of CLER model, we suggest on the basis of experience, should be to unpack the objectives as embedded in a policy statement, and thereby starting the process of designing the implementation plans, and adopting ways of actualizing those plans on the ground. The distinction here made between an implementation plan (establishing a structure for activity) and actualizing the plans (making them real in the lives of individuals and communities - at home, at the workplace, and in economy and politics) is useful and should be noted.

All policies, as proclaimed, have a calculus of "means and ends" embedded in them. Ends are an expression of ideology; and means are practical theories and methodologies of planned social change. Goals for policy implementation are first generated and then operationalized by using this calculus of means and ends. That is not to say that the process is or can be always handled with intelligence. Indeed, objectives may often be implied rather than stated, and when stated, may not always be clear. It is possible to lose sight of objectives, leading to "goal displacement" in the implementation process. The list of objectives may be too ambitious and they may be discordant with each other. There may be an inherent sequence in a list of objectives, requiring that some objectives be fulfilled before it could be possible to implement some others. But some objectives may have to be theoretically organized: an objective may be "generative" in nature -

education, for example - and may be necessary to implement first to make achievement of all other objectives much more fruitful.

Ideally, the elaboration of objectives of implementation should lead to three-part "process-locus-indicator" chains that identify the process that will be performed (such as instruction, persuasion, motivation, trust-building, fabrication or construction, institution building, transfer of assets, etc.); the locus of the process (such as individual, group, organization, community); and the indicator that will be accepted as evidence of preferred results having appeared.

The objectives of the UN Summit on Sustainable Development are highly ambitious, and their implementation will require the coordinated effort of all of the Ministries of a Third World country. On closer examination, one would find that the "educational" objectives of the Summit may be the "generative" objectives as stated above. We should hasten to add that the education we talk about here is adult education, education of adults, men and women, who were bypassed or underserved by schooling but must now continue to play their roles in the family: of parenthood, food producer, craftsman, etc. A careful reading of the Summit materials (particularly their Plan of Action) would underline the need for an extremely extensive adult education movement that would cover rural and urban areas, and encompass everything from basic literacy, training for skills to classical adult education to enable people to continue culture making and preserving the best in their traditions.

Configurations-Mapping

The CLER model identifies four social configurations (Bhola, 1965b, 1982) - Individuals (I); Groups (G); Institutions/organizations (IS); and cultures and sub-cultures (CL). These four, in turn, generate 16 configurational relationships between Planners and Beneficiaries: I-I, I-G, I-IS, and I-CL; G-I, G-G, G-IS, and G-CL; IS-I, IS-G, IS-IS, and IS-CL; and CL-I; CL-G, CL-IS, and CL-CL.

These 16 configurational relationships can be used to develop configurational maps or socio-grams of both the planning and beneficiary systems, showing lateral and hierarchical relationships, overlaps and part-whole relationships. These socio-grams can handle social complexity and indicate optimal points of interventions and interconnections.

Elaboration of the policy implementation systems and the beneficiary systems should start with setting tentative social boundaries and listing of the current membership of agents and agencies within those systems. The boundaries should be considered tentative since new stakeholder sub-systems and structures may be discovered that may be later included in the coalition for planning implementation, and some others who may, in fact, be leaving or be deliberately isolated. Resistance and subversion from within may be discovered along the way.

Similarly, beneficiary systems that are the targets of future policies must be tentatively identified and bounded. Once again, boundaries are considered tentative

since in the process of implementation, boundaries may be revised. The delivery of services promised by policy may be segmented, sequenced or prioritized among target groups. Beneficiaries may be found to be linked through hierarchical levels or social and cultural pathways.

Configurations-mapping is not a merely technical process, it is a value-laden enterprise. Configuration maps are cognitive-social constructions. Some configurations may be deliberately omitted and made invisible. Only the convenient to reach may actually be reached. Some individuals may be fired, some groups could be disbanded, institutions could be bypassed or new organizational mechanisms may be created through institution building (Bhola 1976b, 1994). On the other hand, it may be used for negotiation and participation, leading to democratization of the processes of implementation.

Institution Building and Establishing Responsibility Points for Implementation

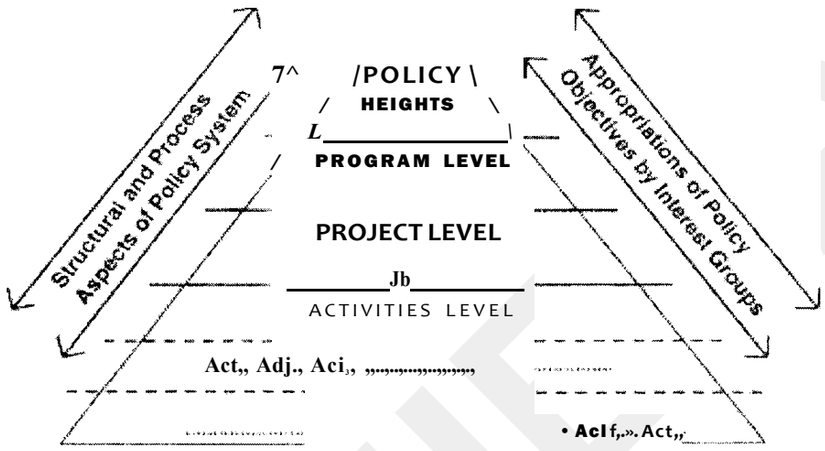
Configurations-mapping will, of course, map what is already on the ground to be able to get the lay of the field. But it bears repeating that, quite often, new configurations may have to be introduced through deliberate institution building (Bhola 1976b, 1994). Also, it will be necessary to establish a clearly visible organizational unit to act as the point of responsibility for orchestrating the total implementation effort and for guarding against compromising the integrity of the initial policy. Needless to say that they should have the material and non-material resources needed for doing the job.

The Policy Implementation Pyramid

Policy cascades from the highest centres of power and politics down to the grassroots. Policy implementation will, therefore, have to be pursued all over the pyramid of policy. It may not happen in one fell swoop. Policy makers will have to read the existing social conditions so as to choose particular instruments for implementation of the policy: mandates, inducements, capacity-building or system-changing (McDonnell and Elmore 1991). Policy will typically be elaborated as programs, projects and activities. Policy-making is a state function but its implementation may be collaborative, involving non-governmental organizations and the private sector. As the policy passes from the policy heights down to public and local communities, it is appropriated by various interests. Policy and policy implementation strategies are re-appropriated by people at all the various levels. While strategies for impjementation will be and should be developed anew at each level and location, it is essential that there be a point of vision and responsibility to establish limits of elasticity in re-negotiating policy objective, and thereby protecting the integrity of the initial objectives; and it is important to orchestrate all implementation plans for effectiveness and accountability.

In the case of policy implementation at the national level, implementer should find it useful to work with the policy implementation pyramid as shown in the graphic below:

The Policy Implementation Pyramid



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Note the top-down and bottom-up dialectic implied in the graphic. As the planners of implementation exert their pressure from above, those at the bottom respond by resistance, subversion and appropriation or misappropriation of the policy objectives.

Adult Education and Sustainable Development

The UN objectives cover a large range - water, food security, shelter, sanitation, energy, and bio-diversity - and will, therefore, involve multiplicity of institutions. We know by now that configurational approach may involve more than a census and configurational mapping. Several new coordinating and collaborative institutions may have to be created. New ad-hocracies and temporary systems of appropriate kinds may have to be established. A national effort to launch a civil society movement may become necessary as the existing NGOs (non-governmental organizations) are strengthened and revitalized (Bhola 1994).

The objectives suggest that the educational objective may be the central objective of the United Nations plan of action for sustainable development. Unfortunately, however, adult education institutions are the weakest of all developmental institutions in the Third World. In too many places, they simply do not exist; while elsewhere they are small in size and starved of budgetary resources. There are needs for building new civil society

structures, new social organizations in communities, capacity building through training and actual distributions of products and assets. Unfortunately, too many Third World countries undertake adult education work, if and only if there is donor funding available!

Linkage-Typing

The CLER model points to the need for proper and well-functioning linkages within and between configurations (Bhola 1965b, 1982), if the configurational network responsible for implementation planning and actualization has to get its job done, and if the beneficiary network of configurations has to be able to avail themselves of the benefits associated with policy - or be able to appropriate and adapt policy to its purposes, or perhaps resist policy implementation. The model also distinguishes between formal and informal linkages and points to the importance of both types of linkages. The task of linkage-typing, that is, marking up configurational maps to show present and future linkages for effective implementation is indeed done together with configuration mapping.

As part of the implementation process, implementers may create new linkages or block some that create "noise". They may prefer the informal over the formal. They may use these links for all different kinds of communication. They may make them one-way or organize them into participative network. The possibilities are immense in this age of the Internet.

Policy makers may sometimes want to be low-keyed about policies they are implementing to "let the sleeping dogs lie" and not raise the hackles of people and of those likely to resist. At other times, they may want to keep the discussion at the level of the professional and the technical and not talk at all about their structural implications and hidden purposes. Deliberate obfuscation of the language of the policy discourse may be practised to hide the sub-text in the text. Where the pragmatic ends and the unethical begins, will have to be decided upon in each particular case of policy promotion by those involved.

Environment of Implementation

In today's world, national level policy making and policy implementation takes place within the environment provided by Globalization. Under this global context, we may be located inside of a variety of environmental "bubbles" which may be supportive, neutral or inhibitive, and may come in many layers. All the configurations involved in a change episode may not be responding to the same one environment - the planners of implementation may be responding to one environment while the beneficiaries may be responsive to quite another environment (Bhola 1965b, 1982). Larger environments may not be, but immediate environments can be manipulated to enhance the process of implementation.

Regarding implementation of the project of "Adult Education for Sustainable Development" at the national level, it should be clear that the national simply cannot neglect the global. The United Nations documentation regarding the summit on sustaining development as well as the Literacy Decade indeed include detailed principles and pathways of how to implement these programs and projects at the international and national levels.

Resources

An important point introduced in the CLER model is that the resources are needed, both by the planner system to promote change and by the adopter system to incorporate change (Bhola 1965b, 1982, Tiffany and Lutjens 1998). Six different types of resources are identified as necessary: *Cognitive-conceptual,* of *Influence and Goodwill, Material,* of *Personnel, Institutional* and of *Time* - giving us the acronym CIMPIT.

Cognitive-conceptual resources. Conceptual-cognitive resources are needed, both by implementers and target groups. Individuals may need training, groups may need to learn facilitation skills. Capacity building may be necessary at the organizational level to improve organizational intelligence (Liebowitz 2000), and organizational health and effectiveness (Schmuck and Runkel 1999). Communities and sub-cultures may need enhancement in their knowledge capital.

Resources of influence, goodwill and the will to do. Influence is a good resource. Powerful connections, celebrity endorsements can both help implementation. The corporate world knows about the value of goodwill. In the policy world, the will to do and to persevere is important. Political commitments to a particular policy can get dissipated. Implementation then may be called off formally or by fiat and in silence. New more powerful constituencies may emerge that demand greater attention to another policy sector and an existing policy may then fall into relative neglect.

Material resources. Policy implementation initiative must have proper budgetary resources. Governments always have money! If there is no money in the budget for a particular initiative, it is so because it was not put in the budget by deliberate choice. Governments may sometime make uncertain allocations based on lottery revenues and taxes on gambling casinos. On the other hand, you cannot give the poor the gift of an elephant. To become beneficiaries of policy, the target group may have to invest resources of their own and they may have no funds or other assets to accept and advance implementation. Implementation for sustainability has today become a universally shared objective. Unfortunately, it can often mean imposing.user-fees for social services on those least able to pay!

Personnel resources. People are the loci of all visions, thoughts and actions. Personnel resources are important both for implementation planners and beneficiaries of implementation. Both commitment and competence are needed. It is possible in some contexts and settings that there may be money to hire but there may be no qualified

candidates to employ for doing the implementation. Clearly, human resource development is a pre-condition of effective implementation.

Institutional resources. Like material wealth, there is also the "wealth" of institutional resources including role design, institutional maturity through experience and accrued knowledge capital. Conversely, lack of institutional structures in the society may hinder policy implementation. A new policy may need a new institutional home and, therefore, institution-building may be an important part of the system of actualization. Such institutions may, in turn, work to establish complex networks of partnership and collaboration with agencies of the state, the civil society and the private sector.

Resistance within institutions may be practised by soft-pedaling or downright subversion of the policy intent. Playing to the rules is one strategy of subversion and not taking notice of new rules, another. Managerial solutions may not be enough: organization development (OD) for enabling people to handle their feelings about policy issues (Schmuck and Runkel 1999); monitoring of processes and outputs; adequate resource provision and capacity building to enable them to do what they are supposed to do (Bhola 1976b, 1994), all these may be necessary.

Time resources. Time is a resource taken for granted and its elasticities and rigidities are not always understood. Telescoping time is not often possible. By working with development planning cycles of 3 to 5 years but with budgetary cycles of a single year, policy implementers are almost always out of synch—hurrying, slowing, postponing. Technologies of Program Evaluation and Review Techniques (PERT) can be used to help in implementation.

Strategizing with CLER

What do we do after systematic elaborations of the components in the ensemble: [{P} x {O} x {A}], introduced above? (Bhola 1982; Tiffany and Lutjens 1998) First and foremost, it has to be remembered that the process of strategizing is not deductive, deterministic and formulaic. The thinking has to be reflective, dialectical and must involve multiple-scanning. In commonsense terms, it must involve a mental set or a perspective of "all-at-onceness" and planned re-iterations (Bhola 1976a).

Looking at the three descriptions under {P}, {O}, and {A}, in *atonceness,* write a prescriptive set of statements: things that can and should be done to {P}, {O}, and {A} to achieve the change objectives. Strategizing will involve manipulation of C, L, E and R in relation to the Planner system {P} and/or the Adopter System {A} or even the Objectives {O}, making small changes in objectives or their sequencing and phasing in their implementation. Organize the various discrete actions into a PERT-like network that is time-sensitive. Decide as to what things are to be done first, and what actions can be undertaken in parallel to each other. This network should also be generative, that is, actions taken first, should generate a desirable dynamics for subsequent actions. For example, participative planning may begin right from the beginning so that it can have

consequences above and beyond itself throughout the program of change. The same will be true about built-in formative evaluation. The grammar of artifactual action (i.e., implementation) will require that the process described above will undergo several iterations (Bhola 1976a).

From Planning to Actualization of Policy Implementation on the Ground

An elaboration by CLER will give us a plan for systematizing and structuring our implementation actions. Actualizing implementation in the lives of people will require getting away from the office desk and going among the people in communities and workplaces. The implementers will have to become mobilizers, educators, trainers, persuaders and organizers. Implementation will thereby become community action (Korten and Klauss 1984).

Policy, we have been saying, is a distributive or a re-distributive act. More often than not, policy implementation will seek to modify the existing structures and will challenge the existing vested interests. Policy implementation as a distributive plan does not always invite resistance or subversion. In all communities, there are people who see injustice in the existing distributions and are willing to act against their own vested interests for simple reasons of fairness and social justice. On the other hand, there will be cases of agreement in words and subversion in deeds. It is possible also that there will be organized resistance.

Policy, as we have defined and discussed, is a matter of governance. A policy being implemented surely has been mandated. The point is how to put "meanings" in the legally established "formal structure." Since policy once enacted is the law, legal remedies can and have been used to actualize implementation. Social interest legislation has come to be an important tool in policy implementation. Organized protest boycotts, blocking public services are other "power" strategies to have policies implemented as they were intended to be. At the other end, are the spiritual or faith-based strategies. People can be persuaded to let go their privileges and ostentation, if leaders of the Faith appeal to their general sense of the moral.

Between the strategies of power and appeals to the spirit, there are actions that implementers have to take to actualize policy objectives. On the one hand, implementers at the field level must educate the target group in regard to objectives of the policy, discussing both the text and the sub-text of the policy, so that it can be well understood and then actualized. On the other hand, implementers at the field level must enable policy target groups to "appropriate" the policy to their conditions and their particular purposes. This should be done of course within the elasticity of the policy objectives in question and without compromising the basic integrity of the policy objectives. There must be local guards built against policy abuses of the kind that have become prevalent in the food stamps, and special education sectors in the United States; and in Panchayti Raj in India.

Conclusion

Circumstances are often stronger than men and women are. The best laid plans can come to nothing if the context of policy implementation is uncongenial. Implementation may indeed be subverted by the implementers themselves, for lack of genuine commitment and necessary competence. On the other hand, the potential beneficiaries of policy may be uninformed or unaware of their own best interests; or may not have the abilities or assets to avail of what is being offered under the new policy. On the yet other side, those who have a vested interest in the status quo may be well-informed and well-organized to resist and subvert the implementation efforts.

The tasks for policy implementation are obvious under the above circumstances. First and foremost, a clear centre of responsibility for implementation must be established to continuously articulate the policy objectives and to vigorously orchestrate all the implementation efforts at various levels and locations. Other tasks will involve mobilization of the peoples' motivations, on the one hand, and the neutralization of resistance, on the other. Resistance may have to be neutralized by a combined use of the carrot and the stick, by appealing to the best instincts of people and to their sense of fairness, as well as by exposing them and their selfishness to public examination and/or ridicule, should that be necessary. Culture will have to be joined with the technology of implementation. A set of culturally-rooted incentives and disincentives will have to be developed as well.

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Periphery in the Service of the Centre IT Education and Training in India

A Case Study of Andhra Pradesh

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Abstract

India's integration into the global IT industry can be understood but as an instance of its incorporation into the world economy as a periphery being in the service of the centre. This process is also reflected in inequalities that are reproduced among social groups in the periphery countries. This is particularly evident as regards social access to IT education, which is a prerequisite for entry to the rapidly developing IT sector in India, for jobs and other social rewards. This empirical study attempts to understand the impact that the stratification system in India has on individuals and groups seeking entry into the IT sector. It examines India's IT education position and its linkages with the global IT industry on the basis of enrolment pattern for IT education in Andhra Pradesh. It reveals that IT education and training provided by private institutions in urban regions in the country is largely unresponsive to groups belonging to da/its and tribal communities and economically weaker sections among the upper castes too.

Introduction

The concept of globalization came into prominence in the 1980s and by 1990, it became a widely used concept in research and discussions in almost all social sciences and humanities, to describe and analyze in particular interrelated phenomenon involving flow of capital, technology, culture and human resources across national boundaries. This movement has been facilitated by information and communication technologies.

The neo-liberal perspective on globalization postulates that the economies of the countries are interdependent and globalization extends this interdependence through flow of factors of production, that is, capital, labour and technology. Interdependence is also facilitated by the comparative advantage with respect to the factors of production. If a country were in an advantageous position to export technology, it would do so. The comparative advantage puts countries in a position of equality. Scholte (1996) argues

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that globalization offers the prospects for complete realization of the promises of modernity.

According to Waters (1995), globalization refers to the process of growing interdependent market forces within and across the countries, through the constant growth of capital flows, cross-border transactions in goods and services and steady and widespread diffusion of the market. The process of globalization accelerated the flow of human resources from continent to continent and from country to country.

The neo-liberal perspective is historical and assumes that all countries are interdependent and equal while history shows that developing countries were brought into international system during the colonial period. The current division of labour in the international system of integrated production is not based on equality.

The neo-liberal perspective views that globalization is primarily driven by technology, economic organization, information and communications technologies and cultural patterns. States and governments are bystanders of globalization and the markets are engines of globalization (Rosenau, J. 1997).

Wallerstein's (1974) World Systems Theory assumes that economy was the primary driving force. This perspective describes that the world capitalist system is divided into the centre, the periphery and the semi-periphery. The countries of the centre, dominated primarily by the economically developed countries of Europe in the colonial era and by the US after the II World War, evolved as strong nation-states while peripheral countries that were once under the colonial rule of Europe have over time developed as weak nation states and became dependent on the countries of the centre. As part of the process of capitalist development, an international division of labour evolved, in which countries in the centre specialize in the production of manufactured goods and services and the periphery specializes in the production of raw materials and primary products, reinforced by unequal centre-periphery relations.

The process of globalization currently underway seems to perpetuate the existing inequalities across nation-states and also across social groups within the nation-states. As a result, globalization evokes counter-globalist political movements and reactions on the part of the underprivileged and the disadvantaged social communities (Clark, 1997).

Though the centre-periphery model is useful to understand the process of globalization, it cannot be assumed that all the countries in the periphery have a stable position at different points of time in the international division of labour. In the present context of globalization,' Information and Communication Technologies (ICT), as mentioned above, mediate the centre-periphery relations. ICT has reduced the need for physical movement of the people across the countries. Further, the increasing emphasis on service sector in countries of the centre, powered by the ICT, leads to exclusion of some regions and countries across space and time in a dynamic way, depending upon the changing thrust of capital and consequent changes in the division of labour. In the 1980s, the developed countries shifted production of products or parts of products to countries in the periphery to take advantage of lower wages, lower costs of infrastructure in peripheral countries. In the 1990s, in addition to shifting conventional manufacturing units, which

are labour-intensive, and in some cases, pollution-generating industries were also relocated in the peripheral countries.

The process of simultaneous inclusion and exclusion, a part of the dynamic process of capitalist expansion is shaped /influenced by the degree of expansion of scientific and technological education in the peripheral countries and the consequent availability of trained scientific and technical manpower. The study shows that exclusion/inclusion is contingent, apart from the issues on quality of human resources that a peripheral country can supply to global capital.

In India, for example, soori after Independence, institutions that provided scientific and technical education expanded significantly. Soon institutions were modelled after institutions in the West and English language continues to be the medium of instruction. An examination of the degree of access to educational opportunities and the value placed on educational credentials is useful to understand inequality in the access to education and increasing emphasis on higher educational credentials.

The literature on sociology of education addresses the question of social exclusion. It is argued that "in modern capitalist society, the two main exclusionary devices by which the bourgeoisie constructs and maintains itself as a class are first, those surrounding the institutions of property, and second, academic or professional qualifications and credentials. Each represents a set of legal arrangements to restrict access to reward and privileges. Property ownership is a form of closure designed to prevent general access to the means of production and its outcomes; credentials is a form of closure designed to control and monitor entry to key positions in the division of labour" (Parkins 1979: 47¬ 48).

Brown (1997) views that in an elite system of higher education, the possession of higher qualifications represents a passport into professional and managerial occupations. The growing competition for credentials is a social reality in the context of thorough scrutiny by employers due to heavy rush for graduate education. The over-supply of graduates has accelerated the problem of'credential inflation' (Dore 1976).

Credential inflation has also intensified competition for credentials from elite and most popular educational institutions, because degree holders from different academic institutions stand 'relative' to one another in an hierarchy of academic and social worth, even the market gives priority to status credentials *(ibid).* Access to opportunities is also influenced by the way education is organized in terms of public and private institutions.

Given the place of India in the international centre-periphery matrix and the organization of educational opportunities, the significant questions are: in what ways and how the Indian IT education policy regime has been responding to the dynamic international division of labour and what are its implications for access to IT education to different social groups in the country?

Objectives

The objectives of the study aim at examining:

- The institutional arrangements that have come into existence for providing IT education and training in India over a period of time;
- Implications of Indian integration into the global IT scenario; and
- Empirically, the accessibility and the degree of equitable distribution of opportunities through a survey of privately managed IT education centres in Andhra Pradesh.

Methodology

Available secondary data has been used to address the first and the second objective. Regarding the next objective, an empirical study was conducted in IT education training centres located in Andhra Pradesh. Sixteen training centres, four from each of the four major cities of Andhra Pradesh, namely Hyderabad, Vijayawada, Tirupathi and Warangal were chosen for the study. The primary data collected from a 10% random sample of the students enrolled in the sixteen training centres comprised a total of 240 students. Due to non-response from fifteen students, the sample size came down to 225 students. The tools used to collect data were the questionnaire, interview and focus group discussions. Primary data on the organizational aspects of the training were also collected from the heads of the IT education centres. Secondary data was gathered from sources such as published books and articles on IT industry, in general, and IT education, in particular.

Findings and Discussion

Key to information society discourse is the contention that 'information workers' are rising to a majority within the labour force of the advanced societies. According to Marc Porat (1977), as early as in 1967, as many as 50% of the American workers were engaged in the 'information sector' and they received 50% of the total employee remuneration.

The rise of information society in the west is fundamentally driven by the wider application of IT in all the spheres of life. Yet most of the western countries have shortage of IT professionals. According to the IT industry estimates, USA with its present ten million IT workforce needed to fill 1.6 million new jobs by the year 2002, in Europe there was a shortage of over 2,00,000 IT professionals, Japan projected nearly one million new jobs, Germany was looking for 20,000 IT specialists and Italy 15,000 additional manpower. All these countries looked towards India to fill the demand-supply gap-

As a part of the software development, regions and firms that concentrate on the most advanced production and management systems are increasingly attracting talent from around the world, while leaving aside a significant fraction of their own population whose educational level and cultural/technical skills do not fit the requirements of the new production system. For example, the Silicon Valley, the World Centre for the

Production of Information Technology is attracting every year thousands of engineers and scientists from China, Taiwan, Singapore, Korea, Israel, Russia and Western Europe, in general, and from India, in particular (Castells, 1999).

Rani and Varma (2001) highlight some interesting points with regard to the salary of IT professionals, which tends to attract most of the students. They observe that, until year 2000, with one-year experience the IT professionals drew Rs. 10,400-20,000 per month; and with two years' experience, they drew Rs. 20,000-37,500 per month. With two to five years' experience, these professionals could get Rs. 25,800-49,166 and with five to ten years' experience, they commanded a salary ranging from Rs. 39,000-1.08 lakh per month. However, the situation has changed since the global showdown in the growth of IT sectors after September 9, 2001.

These salaries were the highest ever paid for persons with comparable qualifications in other industries in the country. In addition, a vast array of perks such as life and medical insurance, subsidized restaurant food and benefits have become very common. Women professionals in the software sector account for 30% of the total, probably the highest proportion of women compared to any industry in the organized sector. Performance-based incentives, particularly stock options and over-seas trips were the other attractions offered by the IT industry.

Wide-ranging opportunities that emerged in the IT sector in the developed countries in the late 1980s and the expansion in 1990s have influenced the IT education in India. The IT education and training institutions were established both in public and private sector, to meet the increasing domestic and overseas demand for human resources for IT in India. The Indian urban middle classes have begun to attach a high level of prestige and esteem to IT-education consequent employment. The increasing global demand for IT workers, on the one hand, and the rising aspirations of the urban middle class, on the other, created conditions for the rapid expansion of IT education, both in public and private sectors.

Currently in India, over 700 engineering colleges supported by public funds and also privately managed colleges (formal sector) across the states produce 75,000 bachelor's degree holders per year. An interesting feature is that the engineers with bachelor's degree irrespective of the branch, in which they obtain training, have been shifting to IT industry after obtaining training in IT-related courses. In addition, a significant number of private corporate organizations offer various short-term and long-term courses. These organizations are also called non-formal organizations. The courses offered by the non-formal organizations tend to be tool-specific rather than concept-based courses. The non-formal sector in the year 1999 had 5000 training institutions and showed rapid growth at the rate of around 20% per annum (S.N. Maheswari, 2000).

According to an estimate, in 2000 about 0.5 million students were obtaining training in IT education through the non-formal sector. The non-formal sector operates strictly according to the principles of market. IT education and training tend to attract members from various social groups. With the growing importance of computer literacy and the demand from the software industry, both in India and abroad, different social groups have

begun to attach more significance to Information Technology education, both short-term and long-term. There are multiple factors driving different social groups to pursue IT education.

Although IT education has emerged as an important field, it tends to be influenced by fluctuations in the global IT industry demands. The changing demands for different software tools in the IT market determined the rise and fall of IT training courses and institutions that offered the courses. IT training institutions that have not been able to cope up with the changing knowledge requirements of the dynamic industry have suffered the most. Those who learnt only a specific software application tool became redundant very fast.

The redundancy and the slowdown after the September 9/11 attack on the World Trade Centre in New York City had seriously affected the Indian IT professionals who work abroad for employment. It seems that at present there are 40,000 jobless Indian software workers in the US who went on H1-B Visa (Verma, 2002) and most of these workers obtained diploma training in specific tools. The down-turn changed the earlier positive attitude and motivation of the aspiring youngsters seeking IT education.

According to *Data Quest* (2002), a computer magazine, out of 15 lakh students who did some sort of computer course in India in 2001, only 30,000 got jobs. It claimed that an overwhelming majority of undergraduates who were responsible for 70% of the industry's revenue realized that pursuing specific tool-based short-term courses would take them nowhere as the market demands for tools change. This realization led to a dramatic fall in enrollment not only in short-term 'diploma courses but also in long-term IT related professional courses, in the formal sector. This indicates how closely the prospects of the Indian human resources in IT sector is linked to the dynamics of the IT industry of the metropolitan countries in the centre.

The CEO of Aptech (2002), the second largest private enterprise offering IT education and training in India, admitted that the number of students opting for short-term courses has fallen by 30-40% of total IT education industry. The Indian IT industry continues to be overwhelmingly dependent on the US market. One can notice the impact of the slowdown on employment in India also. The per-company recruitment fell from 315 in 2001 to 128 in 2002. The growth rate of the IT industry is 7% in 2002 as against 24% in 2001. In the domestic industry, the average growth fell from 37% to 35%, in the software export sector, per company recruitment fell from an impressive 540 in 2001 to 218 by 2002. Even before the slow down began, most of the IT education institutes that offered short-term diploma courses concentrated on tool-based training, depending on the changing demands of IT industry.

As argued, the exclusion from the global market not only takes place spatially but also temporally. The foregoing discussion on the trends in IT industry and as a corollary, IT education and training in India indicates that a peripheral country gets included at one point of time and the same country may be excluded at another point of time from the process of development of the countries in the centre.

One can also see the reflections of the center-periphery relations within a country. For example, in India, big cities like Bombay, Delhi, Chennai, Kolkata, Hyderabad and Bangalore occupy a central position vis-a-vis relatively less developed cities and towns in the hinterland. The internal centre-periphery relations can be seen in the distribution of IT education and training institutions concentrated in the states in which the above mentioned big cities are located, and within these states, in towns and cities of relatively well developed regions.

The study also considered private educational institutions in order to understand the linkage between one's position in the social structure and access to a highly valued social position which can be made possible only by quality education. The study used information provided in the 2001 May issue of *Data Quest,* regarding the distribution of training centres established in the non-formal sector (non-academic institutional) in different cities and towns of India. Taking count of these centres in each state, the tabulated data, though incomplete, may reveal some trends.

TABLE 1
Distribution of IT Education Across the Regions

X *No*	*States*	*Frequency*	*Percentage*
1	**Southern states**	**1331**	**41.2**
2	**Northern states (BIMARU* states)**	**628**	**19.46**
3	**Western states**	**530**	**16.42**
4	**Eastern states**	**708**	**21.9**
5	**North-eastern**	**30**	**1.0**
	Total All India	**3227**	**100**

Source: ***Data Quest*, (2001).**
*** Bihar. Madhya Pradesh. Rajasthan, and Uttar Pradesh.**

Table 1 shows the distribution of IT education centres across different regions in the country. It reveals that distribution of the training centres is quite uneven and is concentrated in a few states. The southern states of Andhra Pradesh, Karnataka, Kerala, and Tamilnadu accounted for 41.2% of all IT education centres. In the case of Northern states, including larger states like Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh (BIMARU) accounted for only 19.4%. Even states in the western region, which are relatively more advanced in industrial development, are lagging behind the Southern states.

Uneven Distribution of IT Education and Training Opportunities in Andhra Pradesh

Andhra Pradesh has been one of the few states in India whose political leadership understood the potential of Information Technology for economic development. It has been consistently promoting the growth of IT sector, including the software industry and IT-enabled services, both in public and private sectors. The state government also

realized its potential in exporting software and human resources to other countries in response to the existing global demand. The government evolved several policies to promote the growth of IT industry and IT-enabled services.

The number of engineering colleges that offered professional education in Andhra Pradesh increased significantly from 32 in 1995 to 217 by the end of December 2002. Most of the IT training institutions that offer diploma courses, short-term and long-term, are privately funded and managed. Bachelor in Computer Applications (BCA) was introduced in 414 colleges and a Master of Computer Applications (MCA) course in 116 colleges. All together, these institutions produce about 10,000 IT/software undergraduates, about 5000 MCA's and over 16,000 BCA's per year (Chowdary, 2000).

Andhra Pradesh has become a major source of IT human resource in India. On an average, 23% of the total software manpower originates from the cities and towns of the State. Almost all social groups in Andhra Pradesh have attached great significance and meaning to IT professional jobs. This has created conditions for the rapid growth and spread of IT education and training in the non-formal sector across the state. However, these institutions are concentrated in a few well-developed cities and towns.

TABLE 2

Distribution of IT Education Centres at Regional Level

Name of Region	*Frequency of Centres*	*Percentage*
Coastal Andhra	**38**	**17**
Telangana	**18**	**08**
Hyderabad	**145**	**64**
Rayalaseema	**21**	**10**
Total	**222**	**100**

Source: ***Data Quest (2001)***

Table 2 demonstrates skewed distribution of the privately managed IT education centres in Andhra Pradesh. The pattern of distribution reveals that major cities such as Hyderabad have maximum number of IT training centres compared to any other city in the state, followed by the developed commercial district towns of the coastal region of Andhra Pradesh, a region more developed than Telangana and Rayalaseema regions.

IT education centres are not found in smaller towns, which are market centres for agricultural inputs and output and are nearer to the rural students who may be equally interested in undergoing IT training. In other words, IT education is not accessible to aspirants from small towns and rural areas.

Andhra Pradesh has also been experiencing the impact of the slowdown mentioned above. There has been a perceptible decline in student enrollment into IT education and training. As part of the present study, data pertaining to changes in the enrollment pattern in selection of the long-term and short-term courses were collected. To indicate the changes, data collected from one of the IT education and training centres included in the study is as shown in Table 3.

TABLE 3
Status of IT Training and Education in One of the IT Education Centres

Indicators	*Pre-slowdown*	*Post-slowdown*
Total number of students	**600**	**200**
Ratio of enrolment in long-term and short-term courses	**80:20**	**20:80**
Number of enrolments per week	**30-40**	**6-10**

Table 3 clearly indicates decline in enrollment rates in the IT education and training centres. Almost all the training institutions have been going through similar experience. Even well established large corporate training institutions, such as NUT and Aptech, were no exceptions to this trend. The head of one of the training centres belonging to a large private corporate IT education training mentioned: "two years ago we used to get a significant number of students, but the changes brought about by global forces made us vulnerable. We are waiting for the students' enrollments like a beggar, we are hardly getting five students per week".

The heads of other IT education centres expressed a similar concern. The attitude of students towards IT courses was also pessimistic. Majority of the students (75%) expressed doubts regarding their earlier decision to join IT courses. According to them, job opportunities seemed to have vanished with the slowdown in IT industry and the September attacks on World Trade Center in the USA. They seemed to revise their earlier expectations regarding their prospects on the basis of their perceptions about the ongoing developments in IT industry in the core countries. The recent upswing in the global IT industry has not yet made a qualitative difference to the demand for IT education.

Some Questions on Access

Data on social background of the students pursuing IT education and training in the privately managed IT education centres was collected. A look at their social background and its relationship with their motivations, expectations and anxieties may be quite revealing. Table 4 provides a brief description of the age groups of students enrolled in IT education and training centres included in the present study.

The Table indicates that almost 50% of the respondents fall in the age group of 16-20 years. In other words, half of the students are those who were pursuing either intermediate (10+2) or under-graduate degree programme and were learning computer skills simultaneously. The second largest number of students falls in the age group of 20¬ 25 (43%). This group consists of those who completed or were about to complete their undergraduate degree. This section was under pressure to improve its credentials by acquiring a diploma in IT especially in software tools.

TABLE 4
Age Profile of the Respondents

Age group	*Frequency*	*Percentage*
16-20	**111**	**49**
21-25	**97**	**43**
26-30	**17**	**08**
Total	**225**	**100**

The two groups accounted for more than 90% of the total sample. Although diverse age groups were registered in IT education, the driving force of the training industry in the non-formal sector was the college going students. The number of students whose age was more than 26-30 was relatively fewer compared to students from other age groups. The study indicates that the students in the 15-25 age group outnumbered all other age groups in IT education and training. This trend demonstrates that even those at the master level education were pursuing IT education to enhance their credentials.

Rural - Urban Contrast

Rural and urban disparities in educational opportunities tend to be greater in India; and Andhra Pradesh is no exception to this. Data on place of residence of the respondents in the study indicate that 66% of the respondents hailed from urban areas and 34% from rura areas. Although two-third of the population of Andhra Pradesh lives in the rural areas, their representation in education, particularly IT education, is comparatively less.

TABLE 5
Rural and Urban Background of Respondents

Place	*Frequency*	*Percentage*
Rural	**76**	**34**
Urban	**149**	**66**
Total	**225**	**100**

The trend indicates that majority of the students benefiting from IT education opportunities belong to urban areas. The fundamental reason for relatively lower representation of the rural population in IT education is that private investors in IT education do not seem to be investing in rural areas due to lack of infrastructure and purchasing power among majority of the rural population and consequent low returns on investments.

A small section of the rural elite gained access to higher education by sending their children to residential schools, shifting their households to the city for children's education or by allowing their children to commute to nearby towns and cities. Rural households that cannot afford to exercise any of these options are left out. Jayaram

(1990), while outlining rural and urban differences, pointed out that these advantages of the urbanites become barriers for rural students. Latently, this has the effect of insulating educational facilities from being absorbed by the latter group.

The degree of access to IT education according to religious background is presented in Table 6. The study revealed that sixtyfive per cent of the respondents were male and thirty five per cent were female students. The trend shows that the presence of women in IT education is significantly higher compared to other educational streams. This is supported by data on the proportion of women employed in IT industry, discussed earlier

TABLE 6
Religion and Gender

Gender	*Hindu*	*Muslim*	*Christian*	*Total*
Male	**109 (60)**	**29 (85)**	**06 (75)**	**144 (64)**
Female	**74 (40)**	**05 (15)**	**02 (25)**	**81 (36)**
Total	**183 (100)**	**34 (100)**	**08 (100)**	**225 (100)**

***Figures in the parenthesis are row percentages**

Table 6 provides information on religious composition of the respondents. The largest number of respondents (80.4%) belonged to the Hindu religion, followed by 15.2% Muslims and Christians accounted for 4.4% of the respondents. Among the Hindu respondents, 60% were men and 40% were women. ~~The reasons for the relatively lower~~ representation of Muslim community are both historical and religious. After independence, Muslims could not utilize educational opportunities provided by the state compared to the extent that other religious groups could utilize. This may be because of economic and religious factors and of an increasing emphasis on religious education. It is also important to understand the religious connotations attached to women's education.

A female respondent, belonging to Hindu community, felt that due to her parents' constant encouragement, she was motivated to pursue IT courses. According to her, the other reasons for her parents' encouragement were that it improved her chances of finding a qualified and well-settled groom, and also leading an independent life in economic terms. Moreover, IT jobs were considered as women-friendly by nature, in the sense they do not involve handling machinery or field operations. For example, most of the jobs are in-house jobs with a decent working environment.

The experience of a female respondent, belonging to Muslim community, was quite in contrast to her Hindu counterpart. According to her, she was not getting any support from her family, particularly from her parents. Her brother had encouraged her to join the IT course. She was also interested to pursue higher education. She stated that her religious rules did not encourage women to pursue higher education and mentioned her resolve to fight against these rules.

The process of globalization of professional jobs in IT sector appears to transform the pattern of values and educational preferences and priorities among the members of urban

middle classes. A woman respondent in the study approvingly quoted Azim Premji, chairman of WIPRO, one of the largest Indian multinational IT Company: "every mother in India wants to see her son or daughter as a software engineer". She too felt that IT was an important avenue for women to lead an independent life and improve their chances of getting better marital alliances. As mentioned earlier, the proportion of women employed in IT sector is higher compared to other industries and it seems to be increasing with growth of IT- enabled services such as call centres. According to Agarwal (2003), the proportion of women employed in the call centres exceeded more than 40%.

In India, caste remains an important axis of stratification. One's caste background in combination with class background tends to determine the degree of access to educational opportunities.

Class disparities tend to provide differential access to the members of social groups, based on their positions in the class structure. In the study, each student was asked to categorize his or her parental household in terms of social class - upper, middle and lower - on the basis of their own perceptions and their own evaluation. The responses regarding class background of students belonging to different castes are presented in Table 7.

TABLE 7

Caste and Class Background of Students

*Caste**	*Upper Class*	*Middle Class*	*Lower Class*	*Total*
OC	**08 (73)**	**119(60)**	**04 (26.5)**	**131 (58.2)**
BC	**03 (27)**	**65 (32.5)**	**04 (25.5)**	**72 (32)**
SC	**–**	**14(7)**	**07 (47)**	**21 (9.3)**
ST	**–**	**01 (0.5)**	**–**	**01 (0.5)**
Total	**11 (100)**	**199(100)**	**15 (100)**	**225 (100)**

*** Categorization was done on the basis of the respondent's statement on their membership in particular caste groups in terms of the following official nomenclature of the categories.**

(i) Other Castes (OC) includes respondents who hail from upper castes, namely Brahmin, Vaishya (Komati), Khsatriya, Kamma, Reddy, Kapu, Velama etc.

(ii) Backward castes or other backward castes consist of Golla, Gouda, Chakali, Mangali, Mudiraju. Kammari, Kummari etc.

(iii) Mala, Madiga etc castes under SC; and

(iv) Lambadi, Yerukal and Koya comes under ST category.

The proportion of the upper castes students pursuing IT education is twice as high as the number of students from the backward castes and five times the proportion of scheduled caste students. On the whole, majority of the students enrolled in different IT courses belonged to upper castes.

Members of the backward castes have been gaining access to the educational system over the period of time. In Andhra Pradesh, government agencies such as the Backward Castes (BC) Corporation have been providing financial assistance to the Backward Caste

students interested in pursuing IT education. The dalits, most of who reside in rural areas, seem to be lagging behind. It has been observed that due to lack of awareness regarding the help that governmental agencies like Scheduled Castes (SC) Corporation and the social welfare department extend, they have not been able to gain access to the same degree as the BCs.

The pace and process of acquiring education among the lower castes and classes, particularly among scheduled castes, seems to be very slow and halting. Though the government has taken up the cause of ameliorating the dismal educational situation among the Scheduled Castes and Scheduled Tribes, the response has been far from satisfactory (Chitins, 2000). Although the Government policies accorded a lot of importance to education with special emphasis on the education of women, SCs/STs and its spread in rural areas, with respect to execution and performance, the achievements in the realm of higher education are restricted to men of higher strata and in urban areas (Jayaram, 1990).

Lareau (1997) viewed that social class is a major predictor of educational and occupational achievement. Educational institutions play a crucial role in the process of social reproduction, and sort out students into social categories and award credentials and opportunities for mobility.

The study shows that 5% of the respondents categorized themselves as belonging to upper class, 88% to middle class and 7% to lower class. Representation of the middle class is more pronounced compared to the other social classes. This class attaches a lot of significance to IT education in view of the possibilities of improving economic status and consequently social status. Since it is perceived that IT education provides immediate employment prospects compared to other educational streams, the Indian middle classes seem to attach greater value to IT education.

According to the study, 73% of the higher-class respondents belong to the upper castes whereas 27% of the respondents belong to the backward castes. "No scheduled caste respondents were found in this category. Sixty per cent of the respondents who categorized themselves as belonging to the middle class hailed from the upper castes, 29% of the respondents belonged to the backward castes and only 7% belong to scheduled castes, while the representation of scheduled tribes was negligible. It appears that there is a positive association between class and caste, in the sense that proportionately more upper caste students belong to higher class.

Brown (1997) argues that the social elite have continued to leverage the benefits of private education throughout the 20th century and the same trend is continuing even today. The demand to equip their offspring with academic credentials has been gaining momentum with each passing day. The foregoing account states that the middle class, cutting across different castes have been pursuing IT education with obvious expectations of improving economic and social status.

Concluding Remarks

Historically, India has been integrated into the global system of production since the colonial era. The movement of capital, technology, cultural and human resources is driving the current phase of globalization. IT education became prominent in the context of phenomenal growth of IT industry in the era of globalization.

There are multiple pull factors like high salaries, relatively immediate employment opportunities as perceived by the students as well as their parents. Social prestige, chances abroad, and 'push' factors like unemployment, under-employment, lack of proper working conditions are responsible for greater demand for IT education. The economic and social rewards associated with IT industry opportunities, apart from the global factors predominantly shaped the growth of IT education and training in India, in general, and Andhra Pradesh, in particular.

The organization of IT education and the changes in enrollment patterns as a consequence of fluctuations in the developed countries clearly indicate linkages between Indian IT education, on the one hand, and IT industry in developed countries, on the other. These dynamic linkages reflect the temporal changes in the centre-periphery relations. In these contexts, countries like India occupied a peripheral position since the colonial period.

The rapid changes, like the increasing emphasis by the international IT industry on Business Processing Outsourcing (BPO), indicate the changing relations between the centre and the periphery. According to Roy et al (2003), the Business Process Outsourcing is one of the fastest growing industries in India; the growth rate of 70 per cent a year accounts for $2.4 billion, employing 200,000 people. Multiple factors responsible for growth of BPO in India are highly qualified and skilled human resources, robust communication infrastructure, a large English-speaking workforce, and more importantly low labour costs, compared with the West. These are the compelling reasons for choosing India as the BPO destination.

However, the question is if some other countries like China, Russia and the Philippines offer the same services at a low cost what would happen to India?

Is it not necessary to change the policy of the IT industry and IT enabled service industries to focus more on domestic IT related developments such as development of software products and IT-Enabled services to different regions and different sections of the society? or still are we ready to act as a periphery to the core nations?

Regarding the questions of issues of accessibility, the study also revealed that the distribution of IT education opportunities in the country is skewed as indicated by the cities and in relatively more developed towns of different states. The underdeveloped hinterland of the big cities, in general, and particularly, the rural areas are deprived of educational opportunities in the field of Information Technology.

Based on empirical data, the study concludes that the indicators of social background such as caste, monthly income, rural and urban background and gender play an important role in facilitating access to particular social groups by simultaneously denying the same

opportunities to other social groups who are socially, economically and culturally marginalized within the society. There is a need to expand the IT education opportunities to all sections of the society in order to provide human resources to match the potential demand both outside and within the country.

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Higher Education in the New Millennium
The Need for a Paradigm Shift

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Sanjeev Bhalla*

Abstract

Spectacular advancements in information technology, expeditious globalisation, declining state support, the amazing pace of production and multi-dimensional dissemination of knowledge in all fields, massive reduction in the status of the government as a major employer, growth of service and technology intensive industries, all these developments have significantly affected the higher education system as never before. While opening up new vistas of opportunities, they have also thrown up more formidable challenges especially to a sector where the approach had always been seller-centric rather than customer-centric. The change, being imperative and compulsive, does not permit any leverage in terms of time. The Indian higher education system, one of the most credible in the world, has all the competencies to deal with the situation, to get its act together as fast as possible, to move from learned to learning oriented infrastructure and from residential to distance and distributed learning and, above all, to distinguish and understand the difference between the future of higher education' and 'higher education of future.' This paper is designed to stimulate thoughts, encourage substantive discussion and identify an appropriate agenda for the higher education of the near future.

Introduction

Globally, the contemporary higher education system is faced with an unprecedented challenge, precisely because of dramatic changes brought about by metamorphosing economic and political realities of the contemporary world. The consequent shake-up is baffling the countries across the globe irrespective of the hemisphere they belong to. The countries across Europe, Asia and Pacific Oceania are following a two-pronged strategy to strengthen their education systems. To curb the exodus of their own students to better placed educational institutions and systems elsewhere (read US), leading to the heavy erosion of their own student base, they are also making hard endeavours to change, expand and outreach in order to maintain cohesion with the demands of the changing times. Under the changed circumstances market and product positioning have become

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fundamental strategic points around which the higher education system of the future is going to revolve. This'realization has led to a complete paradigm shift from the 'Future of Higher Education' to the 'Higher Education of Future.' The former is a kind of contemplative question with academic inclination that probably relies heavily on the past experience and the present factors for making projections for future. The latter is more dependent on visualization of the possibilities and the pace of change in the future scenario than on how things have shaped up in the past, for making future projections. The first approach appears to be reactive, while the second one proactive. The end outcomes of both the approaches are likely to be different altogether and so would be the strategies and actions.

India is among the comity of nations where the changed ground realities have started to impact the higher education system, although the pace of change leaves much to be desired. Needless to say that with 248 university-level institutions, more than 12,600 colleges, 80 lakh students and 3.96 lakh teachers, India has one of the world's largest higher education systems. While the numbers may look impressive, they cover only 6 per cent of the relevant age group and around 89 per cent of student enrolments are in undergraduate education. In order to increase access to education, India has encouraged private initiatives. The government-run colleges are a few, while privately managed trusts or societies have founded greater number of colleges. With the opening of the economy after 1990s, which has led to drastic change in the skill requirement of the work-force on account of unprecedented changes taking place in the information technology, new factors have started emerging. Globalisation has brought about forceful changes in the cultural, economic, social, political milieu characterised by global competition, integration of markets, mobility, communication networks and information flows. All these issues have brought to the fore that the driving force behind the 21st Century economy is knowledge and that developing human capital is the best way to ensure prosperity. Higher education is, therefore, an investment in the human capital, which affects growth in two ways. First, human capital levels act as a driver of technological innovation. Second, human capital stocks determine the speed of absorption of technology.

In view of the fast pace of change, the intra- and inter-national skills' race of this century will value the skills and knowledge of the entire workforce, rather than only a few as has been the case so far, as a key to economic prosperity, national security and social well-being. Since academic institutions precisely inculcate and nurture such skills among the student community, they need to further open up to new ideas and strive to achieve and maintain excellence. Given the kinds of radical changes in the general education scenario and job market requirements, India *per se* can no longer continue to be the model of general education as she has been persisting in for the large bulk of the student population. Rather, she requires a major investment to make human resource productive by coupling the older general disciplines of humanities, social sciences, natural sciences and commerce to their applications in the changed context. This also necessitates the acquisition of adequate field-based experience to enhance knowledge

with skills and develop appropriate attitudes. Given the fact that our educational institutions are the key elements of the national research enterprise and the source of the next generation of scientists, engineers and other knowledge professionals, there is an urgent need to re-engineer the road to higher education from the present stalemate. The need of the hour is to take a fresh look at higher education and introduce such changes as will restore confidence in the ability of the public funded universities and **colleges** for providing education relevant to the present context and, that too, cost **effectively**. Besides, several other issues like equity vs. excellence, privatisation of universitie growth of self-financing colleges, the concept of university education as a 'non-i **good and** the emergence of open universities are increasingly getting into the focus.

Education: A 'Public Good'

Any debate on educational reforms generally begins with the issue whether education is a 'public good', and should we try to keep it outside the commercial realm - if we can do it at all? Probably that means heavily subsidising it. The 'public good' ethos is linked to socio-democratic ideals of equality of opportunity, access for many, and ultimately also quality. Since the fundamental assumption that higher education would help erode the socially inherited structural inequities and provide opportunities for social advancement through equity of access and opportunity, it would continue to be regarded as the public good and would keep on getting public support [Blaug 1970, Tomilinson 1986, Levin, 1987]. The contention that the availability of the higher education should not be limited by financial considerations also appears to be valid especially in a develop' ~ "~ such as India where the largest section of the population comprises lower lower income groups without much of economic and social security. Unlike in developed countries, a student's chance of entering a school/college/university in India continues to be tied to family income. In the light of the fact that even though a higher education does not automatically guarantee a higher paying job or greater income, yet the lack of it can pose to be an insurmountable barrier when it comes to the milestones of making career choices, job entry, promotions and more fulfilling jobs. The importance of higher education can further be seen in the context of its inter-generational impact. In fact, a college/university education is increasingly a prerequisite for opportunities for effective labour force participation and for economic and social mobility. Not only do the direct beneficiaries of the free education realize increased income, occupational and employment opportunities and personal growth, they also ensure greater opportunities for their children and families. The most dramatic example of how education can influence the economics and sociology of an individual, his family and by implication that of the nation is the G. I. Bill of Rights in US, under which a generation of World War II veterans received a full tuition support and stipends to attend post-secondary educational institutions. A 1988 report by a congressional subcommittee on education and health [source: www.freehighered.org/h_gifact.html] inferred that 40 per cent of those who attended college under the G. I. Bill would not otherwise have done so. It also deduced that each dollar spent educating that 40 per cent alone produced a $6.90 return (more than

$267 billion in 1994 dollars) in national output due to extra education and increased Federal tax revenues from the extra income the beneficiaries earned.

There has, however, always been a debate whether publicly funded and regulated institutions really always achieve the goal of public good, better than the private ones? In fact, many 'public' educational institutions such as NID, NIFT, IIMs, IITs etc. are today engaged in for-profit operations in part of their work. And many 'private' institutes do not receive public subsidies and yet operate as not-for-profit organisations. BITS is a glaring example in this regard. Although, there is little doubt about the continuance of the state support to higher education in India, the big question is how long and how much? The first part is difficult to answer at this juncture although the social and political objectives, economic logic and historical and cultural factors may provide some clues regarding the extent of subsidisation of the higher education. It is, however, certain that there would definitely be a sharp decline in the contribution of the state to the total finances of educational institutions over a period of time due to emergence of many other issues - such as health care, social security and universalisation of primary education - meriting immediate attention. Inspired by business prospects, many banks in India have started providing educational loans to students aspiring for higher studies in India as well as abroad [http://www.hindustanlink.com/careertex/educational-loans-india.htm]. Another issue that also crops up prominently in this regard is that should we regard universities like any other service provider? In fact, higher education has entered a period of significant change as educational institutions attempt to respond to the challenges, opportunities and responsibilities facing them in the new century. In the rapidly changing circumstances, they are no longer only the knowledge producers or vital human capital formation instruments but are also important service providers as well. The expectations of students and parents have changed considerably. Not only do they expect their tertiary studies to help develop their qualities as citizens in a changing world, they are also aware of the need to acquire even more sophisticated professional skills to equip themselves for a complex labour market.

Before probing the vital issues confronting the Indian higher education system, it would be pertinent to have an overview of the current status.

Current Status

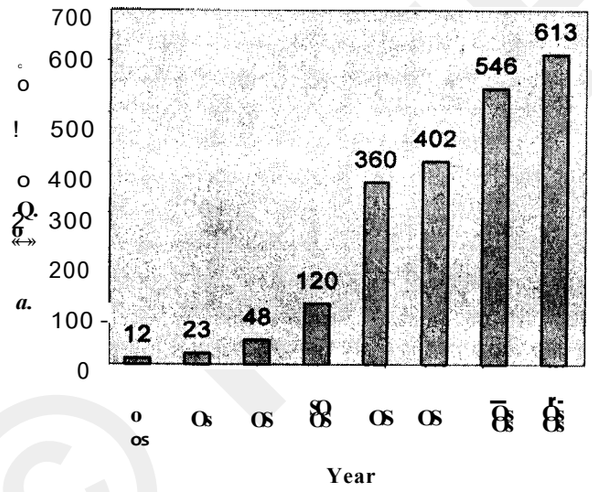
General Profile

Indian higher education system, at present, comprises 248 universities and equivalent institutions including 116 general universities, 12 science and technology universities, 7 open universities, 33 agricultural universities, 5 women's universities, 11 language universities, 11 medical universities and 64 other equivalent institutions focusing on journalism, law, fine arts, social work, planning and architecture and other specialized studies. In addition, there are 12,342 colleges where 88.7% of undergraduate and 93.38% of postgraduate education is imparted. The number of students in 2002 reached the level of 80 lakh, of which 86.25% study at affiliated colleges and remaining 13.75% in the

universities. There are 3.96 lakh teachers in the higher education system, of which Universities share only 19.98% while the remaining 80.02% are employed in colleges. Students' enrolment in these institutions of higher education is around 88.83% for UG level, 9.54% for PG level and remaining 1.63% for research, diploma and certificate level. In 2001-2002, around 42% of the students were enrolled in Arts stream, 20% in Science, 21% in Commerce each and the remaining 17% in Professional courses. Figure 1 shows the trend in enrolment in higher education in India from the pre-independence to the post-independence era.

FIGURE 1

Enrolment in Higher Education India, 1901-1997



Source: [Higher Education in India: Vision and Action: Country Paper, Indian National Commission for Cooperation with UNESCO, Department of Education, MHRD, GOI, New Delhi.]

A majority of the colleges, being arts, science and commerce colleges, offers education in humanities, natural sciences, arts and commerce There are about 550 engineering and technical colleges, 655 medical colleges, nearly 600 management institutions, 700 teacher education/training colleges and 1100 polytechnics. About three-fourth of the total number of colleges are private colleges of two types: privately managed but publicly funded known as (government) 'aided' colleges, and privately managed and self-funded known as 'unaided' colleges. A substantial number of private colleges belong to the former category that receive government aid to meet almost the whole of their recurring expenditure. The private aided colleges have not contributed significantly to easing the financial burden of the government, as more than 95 per cent of the recurring expenditure, and sometimes even the capital expenditure, is met by

public exchequer. Hence, strictly from the point of view of finances, such private colleges do not have any significant role.

Over a period of time, a noticeable emphasis on women's education can also be seen. The number of women's colleges has recorded a substantial increase. In 2001-02, India had 1500 women's colleges with enrolment of women standing at 37.65% of the total students' enrolment. However, girls, in general, have shown more inclination towards non-professional stream as is evident from the fact that 87% of the enrolment in this category is in Arts, Science and Commerce while only 13% of the total girl students have made their way to the professional courses. The highest enrolment of the women has been reported at 56.70% for Goa, closely followed by Kerala (55.9%), while Bihar reported the lowest at 24.45% in 2001-2002. The data presented in Table 1 present a view of the phenomenal expansion of higher education in India since 1950-51.

TABLE 1

Growth in Higher Education in India

Institutions	***1950-51***	***1990-91***	***1996-97***	***2001-02***
Universities (incl. Deemed)	**30**	**117**	**214**	**248**
Colleges	**750**	**7346**	**9703**	**12342**
Enrolment (000s)	**263**	**4925**	**6755**	**8000**
Teachers (000s)	**24**	**272.7**	**321**	**396**

Source: [UGC Annual Reports 1996-97, 2001-2002.]

The higher education system in India encompasses a vastly heterogeneous student body: demographically diverse (age, gender, region, social background, etc.); educationally disadvantaged (most of them without the traditional qualifications for entering into higher education and who have had no other opportunities to make up for the lost time); and economically weak (large majority belonging to low and lower middle income groups). Most of these students are in the lower rungs of their career looking for opportunities to improve their qualifications, professional competence and/or acquiring new skills.

Rising Migration of Students to Other Destinations for Higher Studies

It may be further mentioned that a large number of students from India are also going abroad, especially to the US for higher education. It will be pertinent to mention in this regard that India topped the list for the first time with 66,836 students - or 11.5 per cent of all international students in the United States - doing bachelors, or post-graduate degrees in the US colleges and universities as in 2001. Nearly 75 per cent of the Indian students go there for graduate studies and the rest for undergraduate studies. About 30 per cent of Indian students coming to the US are women. An idea of the extent of increasing migration of students from India to the US, the major destination for higher studies, could be had from Table 2.

TABLE 2
International Students by Leading Places of Origin

Year	*Number of Students from India*	*% of Total Foreign Students in US*
1993-94	**34796**	**7.7**
1994-95	**33537**	**7.4**
1995-96	**31743**	**7.0**
1996-97	**30641**	**6.7**
1997-98	**33818**	**7.0**
1998-99	**37482**	**7.6**
1999-2000	**42337**	**8.2**
2000-2001	**54664**	**9.9**
2001-2002	**66836**	**11.5**
2002-2003	**74603**	**12.7**

Source: [Open Doors 2003 Report, published by Institute of International Education, US. Also available at http://www.opendoors.iienetwork.org/]

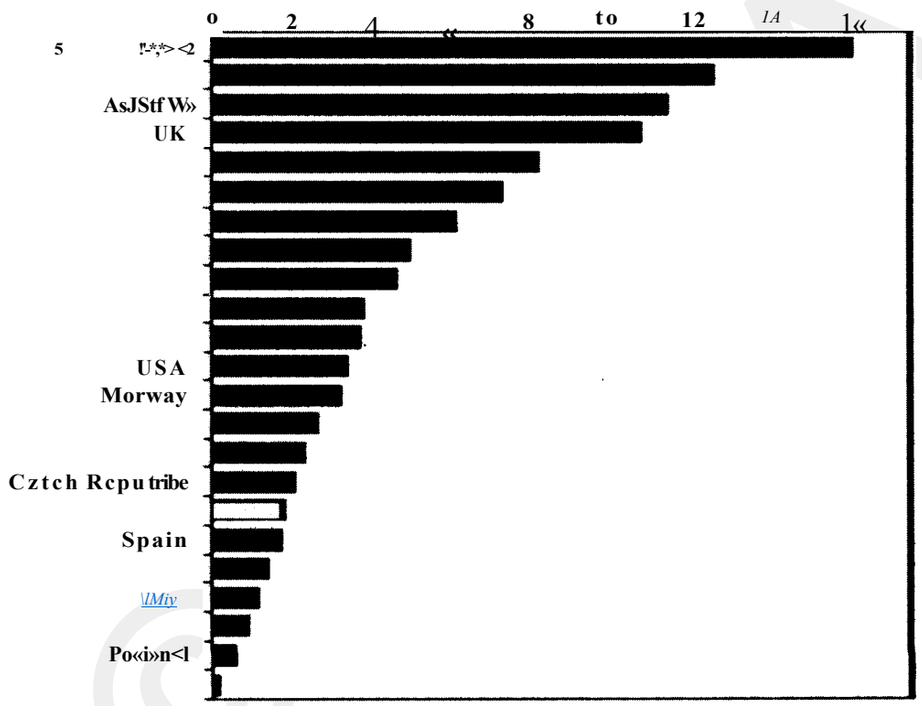
Despite all the difficulties in getting visa to migrate to the US for the purpose of study, gaining some work experience and employment as well, especially after the 9/11 backlash, US remains the most preferred academic destination for most Indian students, though other countries such as the United Kingdom, Canada and Australia are also considered strong back-up destinations. This perhaps explains the relatively smaller 12% increase compared to the large increases (22% and 29%) in 2002 and 2001 respectively. A sharp increase in the number of students from India in the early 90s was followed by several years of decline. After 1996, the trends have again swung in the positive direction and the Indian student population in the US has more than doubled. The perception that higher studies in the US would provide them cutting-edge skills and, as a consequence, better job offers, either in the US itself or back home in India, may be the cause of this steady increase in Indian students going to the U.S. Among all Indian students in the US, around 78% go for graduate, 18.5% for undergraduate and rest 3.3% for other studies. Over 70% of the Indian students go for higher studies in the Business Management, Science and Technology streams. Figure 2 further illustrates the number of foreign students in higher education in OECD countries (1998).

In 2000-2001, as many as 547,867 international students were studying in the United States. In 2000-2001, over half, or 55 per cent of these students came from their places of origin in Asia, followed by Europe (15 per cent), Latin America (12 percent), the Middle East (7 per cent), Africa (6 per cent), North America (6 per cent), and Oceania (6 per cent). Asia has always been the leading source of foreign student enrolments in the United States, with the exception of one year, that is, 1979-1980. The percentage of enrolments from Asia has ranged from a low of 29.7 per cent in 1954-1955 to over 55.1 per cent in 2000-2001; the highest percentage was nearly 60 per cent (59.4 per cent) in 1992-1993. There have been very sharp percentage increases since the late 1970s and

early 1980s, especially beginning in 1983—1984 [Source: http://www.bc.edu/bc_org/avp/soe/c i he/news letter/N ews2 8/textO 10 .htm].

FIGURE 2

No. of Foreign Students Enrolment in Higher Education in O E C D Countries (1997)



Source: www.minedu.fi/julkaisut/pdf/strategy.pdf

With regard to India, the data suggest that:

- After receiving most part of their post-secondary education in India, the students, by and large, go abroad for gaining a final punch in their skills. A foreign degree, especially from a good US institution may help in fetching a good job there itself with better pay, perks, enough space for professional and personal growth and challenging career opportunities, and if one is to return to India, the possibilities of getting a good job are bright.
- Graduate education in India is fairly competitive, especially the quality Business Management, Science & Technology Education, leading to the entry of a few in the premier institutions of the country. For the rest, the choice is extremely limited as they have to pay same or higher level of fee in private institutions,

most of which are not really known for imparting and maintaining quality education.

While the option to earn while you learn and pay for education out of the earned money is available abroad, especially at the graduate level, such programmes are yet to take-off in India.

Education for foreign students is quite expensive in the US. Table 3 below shows the annual tuition fees for US universities.

TABLE 3
Annual Tuition Fees for US Universities

University Type	*Tuition Fees (annual in U.S. Dollars)*
Private Institutions (High Cost)	**$ 19,000**
Private Institutions (Low Cost)	**$ 12,000**
State Institutions (High Cost)	**$ 13,000**
State Institutions (Low Cost)	**$ 6,000**

Source: [http://www.infozee.com/application-issues/cost-of-education.htm]

Due to the exorbitant cost, this option may not be available to a large part of middle and lower income groups. However, the issue is not whether to facilitate migration of students, seeking post-graduate education, to the US, it is much more than that, that is, it is of enlarging the scope and depth of quality higher education in India itself. This calls for the establishment of more high quality and' necessarily highly priced institutions within the country itself.

Sources of Finance

The various sources of institute level financial support for higher education in India are: (a) government - central government and state governments; (b) students e.g., fees, and other maintenance expenditure; and (c) the rest of the community at large, e.g., donations and endowments.

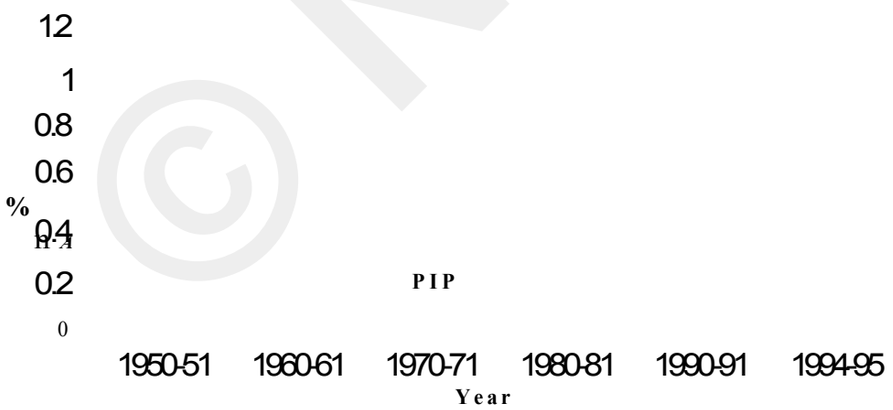
The relative shares of various sources in "total" expenditure on higher education in India have changed considerably over the years. The share of the government has increased in financing higher education, and correspondingly, that of every other source, viz., student fees, community contributions, and other internal sources declined steeply, though in absolute money terms there has been a significant increase in the contribution of these sources as well. The share of government (central and state) increased from 49 per cent in 1950-51 to 76 per cent in 1986-87. Students' contributions fell from 36.1% in 1950-51 to 12.6% over the same period. The share of'other' sources (including voluntary donations, endowments, etc.) also declined from 13.8% to 11.5%, though the decline has not been as sharp as the decline in the share of the fees [Education in India, various years, MHRD, New Delhi]. Further, a look at the expenditure on higher education during the

plan period reveals that at the inception of planning in the country (1950-51), India was spending Rs. 172 million (0.19% of GNP) on higher education. Government expenditure alone was of the order of Rs. 42,035 million (0.4% of GNP) in 1996-97, and it has risen further during the subsequent period. This impressive growth is, however, considerably offset by increase in prices and increase in population, more particularly, in student numbers in higher education. While there was an increase in nominal value of state grants to the academic institutions over the period of time, it went down in real terms due to inflation outpacing the rate of increment in the grants. Nevertheless, on the whole, the trends suggest that higher education had a good start during the 1950s (with real growth of 7.5 per cent per annum), and had its golden days during the 1960s, with the real expenditure increasing at an annual rate of growth of 11 per cent; but it suffered significantly during the 1970s, with the rate of growth coming down to a meagre 3.4 per cent as educational planners aimed at consolidation of higher education instead of its rapid expansion. It showed some tendencies to recover during the 1980s. Though the growth in expenditure on higher education had been erratic during the 1980s, it had increased on the whole at a rate of growth of 7.3 per cent per annum. The 1990s heralded an era of austerity leading to further decline in its growth.

Figure 3 illustrates the expenditure on higher education as % of GNP

FIGURE 3

Expenditure on Higher Education as % of GNP



Source: [http://planningcommission.nic.in/reports/sereport/ser/vision2025/edu2025.pdfj

Higher education in India, at present, is constrained by considerable paucity of financial resources, with escalating costs and increasing needs for developing supporting infrastructure, on the one hand, and shrinking budgetary support, on the other. Table 4 depicts the expenditure on education by state and central governments.

TABLE 4
Sector-wise Educational Expenditure by State and Central Governments
(Rs. Crores)

Sector	*1990-91*	*1991-92*	*1992-93*	*1993-94*	*1994-95*	*1995-96*	*1996-97*
Ele. Education	**7955.53**	**8684.32**	**9477.32**	**11369.43**	**12638.93**	**15740.05**	**18285.42**
Sec. Education	**5531.11**	**6198.84**	**7178.08**	**7994.58**	**9049.53**	**10380.81**	**11200.02**
Adult Education	**273.15**	**228.52**	**210.97**	**308.76**	**338.31**	**312.03**	**376.60**
Univ. & Other Higher Education	**2311.85**	**2443.78**	**2699.95**	**3036.00**	**3525.35**	**4013.63**	**4212.65**
Tech. Education	**753.01**	**809.46**	**907.12**	**1071.70**	**1189.26**	**1386.15**	**1463.92**
Physical Education	**18.80**	**25.37**	**19.06**	**58.66**	**27.68**	**32.16**	**36.78**
General	**238.48**	**241.02**	**266.51**	**306.55**	**294.15**	**434.85**	**804.29**
Language Dev.	**111.73**	**126.30**	**193.97**	**153.31**	**168.93**	**159.00**	**149.62**
Total	**17193.66**	**18757.61**	**20952.98**	**24268.99**	**27232.14**	**32458.68**	**36529.3**

Source: [http://www.vigyan.org.in/research/asci/_edu_exp_tot.htm]

Quality Assurance and Accreditation

As part of its responsibility to enhance the quality of the university/college teachers, the scheme of Academic Staff Colleges was launched by University Grants Commission (UGC) in 1986-87, under which 45 such Colleges have been set up so far. These colleges conduct four-week orientation programmes for training new teachers with innovative techniques and also three-to-four week refresher courses in various disciplines for in-service teachers to enable them to update their knowledge. Since the Academic Staff Colleges cannot cater to the needs of all the teachers, 72 departments of universities and specialised institutions have been selected to conduct refresher courses, in addition to the Academic Staff Colleges. These centres have prepared reading material for the use of teachers. The Academic Staff Colleges also conduct seminars of two-to-three days' duration for the principals located under their catchment areas. They sensitise the teachers about students' expectations and perceptions, provide them an understanding of the academic context of higher education and also help them develop insights into the dynamics of working in the educational system. Up to 31st March 1997, nearly 1.14 lakh teachers had participated in retresher courses and 42,000 teachers in orientation courses.

Similarly, in order to discharge its responsibility towards the maintenance and promotion of standards of education, the University Grants Commission (UGC), in 1994, established the National Assessment and Accreditation Council (NAAC) under Section 12 CCC of the UGC Act for accreditation of the educational institutions as part of its strategy towards quality assurance in higher education. It is a kind of an Inter-University Institution of quality assessment and accreditation. NAAC's responsibility is to assess

and accredit institutions of higher education that volunteer for the process, based on certain criteria which can be applied to the functioning of the institution in totality. NAAC's process of assessment and accreditation involves the preparation of a self-study report by the institution, its validation by the peers and final decision by the Council. Though assessment and accreditation is voluntary on the part of the institutions, UGC has already indicated that its plan-based development support to educational institutions will be related to the outcome of assessment and accreditation. It has already extended financial support to the extent of Rs. 5 lakh to each university to meet the expenses involved in undergoing the accreditation process. Likewise, the autonomous colleges are provided with financial support for this purpose as part of their annual grant from the UGC. So far 47 universities, 75 affiliated colleges and 20 autonomous colleges have volunteered to be accredited by NAAC. Around 10 universities and 25 colleges are in the advanced stage of finalising the self-study report in a few months time. The on-site visit to seven institutions - one university and six colleges - has already been completed. For a few more institutions, the on-site visit is being planned. Besides, the UGC has also set up Audio-Video production facilities. The current Educational Media Production Centres (EMRCs/AVRCs) are state-of-the-art technological facilities that significantly enrich the learning packages in the realm of higher education. The media packages prepared by such centres are transmitted on the nation-wide television network as well as through selected radio stations. A dedicated, satellite-based teleconferencing network is being developed on an experimental basis in cooperation with the Indian Space Research Organisation (ISRO) for providing interactive teaching-learning support to distance education programmes offered by open universities in India.

Although various monitoring agencies such as UGC and AICTE (All India Council for Technical Education) have been making substantive efforts in order to update the higher education system, unprecedented changes in the technical, economic and international scenario world-wide, all having remarkable implications for higher educations system, leave much scope to work on a fast track.

What Changed the Destiny?

The forces driving change in higher education today, not only in India but world-wide, are many and varied: Knowledge Explosion, Globalisation, Accelerating Technological Change, Non-linear Knowledge Transfer, Age of Knowledge, Changing Societal Needs, Financial Imperatives Technology Drivers and Market Forces. All these factors have led to a paradigm shift away in the education system which leans more towards learning rather than instructions, which is technology-intensive rather than manpower-intensive, which is driven more by market-forces rather than academics, and which has a global-focus rather than a regional or national one. Some of the most prominent changes that necessitate the total metamorphosis of the higher education are listed below:

Prominent Changes

Modern digital technologies such as computers, telecommunications and networks are reshaping both our society and social institutions. These technologies have helped vastly increase our capacity to know, to do things, to communicate and collaborate with others. They allow us to transmit information quickly and widely, linking distant places and diverse areas of endeavour in new and productive ways. They allow us to form and sustain communities for work, play and learning in ways unimaginable just a decade ago. The power of the Internet to disseminate information and facilitate communication has already made it the prime tool in marketing education, staff recruitment, educational administration and the delivery of e-learning as well as e-education [Pearson and Cochrane, 1995]. In this regard, it would be pertinent to distinguish between the last two terms. While the former implies information technology directly related to teaching and learning, the latter involves the wider technology infrastructure in higher education that supports administration and research, as well as teaching. The former may be a short-term goal in the context of India; the latter is a long-term objective. The development of products such as virtual classrooms, multi-media projectors, video-conferencing and plasma-video-panels have already made inroads into the relatively affluent institutions in India. Under changed circumstances, the velocity of knowledge transmission will be incredibly fast. It will no longer be a static, finite mass bound by space and time, but perpetually self-multiplying and self-renewing in proportion to R & D investments. Learners will also be able to go beyond the classroom and obtain information in a variety of forms - text, data, sound, video - from all over the world, at any time of the day or night and at rapidly diminishing costs. In fact, being distributed, the Internet shall allow access to significant educational resources to be more radically de-coupled from where students live than ever before, more so, because the Internet functions both as a communication system and an electronic library, though not in a strict sense of the word 'library'.

Impact of IT

In this age of information, where knowledge, research, creativity and innovation will be at a premium, the impact of revolutionary and fast paced developments in IT is enormous and is captured below:

- Information technology changes the relationship between people and knowledge. It is likely to reshape in profound ways knowledge-based institutions such as our colleges and universities. Since knowledge is both a medium and a product of the university as a social institution, it is reasonable to conjecture that a technology, that is expanding our ability to create, transfer and apply knowledge by factors of 100 to 1,000 every decade, will have a profound impact both on the mission and the functions of the university.

Technology is creating an open learning environment in which the student has evolved into an active learner and consumer of educational services, stimulating the growth of powerful market-forces that could dramatically reshape the higher education enterprise. One of the outcomes of rapid IT change would be the need to examine and redesign the nature of work in higher education. However, besides IT, this re-conceptualization has also been re-powered by sharpened mission statements, new forms of accountability, changing student characteristics, re-centering on student learning and financial hardship. It will significantly influence the activities of the educational institutions (teaching, research, outreach), their organization (academic structure, faculty culture, financing and management), and the broader higher education enterprise. It is clear that the access to advanced learning opportunities is not only becoming a more pervasive need, but it could well become a defining domestic policy issue for a knowledge-driven society. Higher education would be compelled to define its relationship with these emerging possibilities in order to create a vision for its future in the new millennium. The rapid pace of change, the expansion of knowledge and the increasing demands for technological competence would create a pressure for enhanced adaptability to new teaching-learning methods.

The administrative set up of the educational institutions would become more cost-effective and time-saving. The traditional means of delivering services and programs will be reinforced by technology, particularly at the administrative support level. Information previously communicated through written materials will be accessed by electronic means. Managing budgets, scheduling of facilities, keeping records, admitting students, protecting the safety and security of the campus will all be enhanced and improved through technology.

As a result of increasing use of information technology, there would be profound change in the nature of jobs. The private sector's history is one of replacing people with new technologies - eliminating, downsizing or restructuring employment. It appears higher education is no different than the private sector in this regard. This would also lead to a marked shift in the balance between clerical and professional/technical employees, decreasing the number of the clerical and increasing the number of the professional/technical manpower. The growth areas in professional employment on campus would be among part-time/guest faculty and support professionals.

Rapid strides attained in the information technology would provide an opportunity to cross inter-institutional barriers to allow for an open class discussion across the Internet with students from other institutions, or in other countries. Using computers for information retrieval for course preparation, reading assignments and assigned papers would now become possible in addition to the entertainment, chat rooms, web pages and social communication that computers have made possible. However, the role of technology application

This would also ensure that technology would only serve the primary functions of higher education but does not define them.

- Like the printing press, this technology not only enhances and broadly distributes access to knowledge, but, in the process, it shifts power away from institutions to individuals. For the first time in our history, it is now possible, in principle, for students in India to have access to the same world of knowledge at the same instant as the students in the most affluent countries of the world have.
- While most teaching in higher education will continue to be done by local teachers, students will also have the chance of hearing outstanding lectures from elsewhere e.g. on film, video or via broadcasting. Of course, there can be no question of simply replacing live teachers by packaged ones, although in some cases quality can be enhanced by making available the lectures of outstanding teachers supported by classes given by local teachers.

Although availability of a wide array of information technologies will significantly increase students' power and opportunities, teachers' role would remain at the core especially with regard to enhancement in the critical thinking skills of the students. The basic need for face-to-face human interaction would always remain strong. This is also desirable as students' interactions with faculty members (inside and outside the classroom) and with peers has powerful, positive influences on a wide range of educationally desirable outcomes. For instance, students' hostels, at least in the technical educational institutions, are powerful places for learning. The amount of information dissemination among the students in the hostels would, definitely, not be possible, to this extent, in the distance or off-campus learning mode. The faculty-student-peer interaction would always remain as the value-added component of in-person human interaction in the learning process as it generates the intellectual sparks that ignite teaching and learning. The 'virtual experience', therefore, can never be as effective as the 'real experience.' However, as suggested earlier, there would definitely be a dramatic change in the nature of activities, organization and management of the teaching programmes.

Impact of Globalisation

Another major factor that has pioneered a sea change in the higher education system all over the world is 'globalisation', which essentially refers to integration of the world economy into a single international market. Market economies now prevail in countries accounting for over 80 % of the world's population. This is a huge increase from the 30% figure that prevailed a decade ago. It may be mentioned here that the market-based systems reward enterprise, risk taking, skill and agility, but offer less security and a constantly changing environment. In such a context, education is vital since those who compete best have an enormous advantage in the fast paced world economy. The global labour market is increasingly integrated for the highly knowledgeable and the skilled - corporate executives, scientists and technologists - offering high mobility and wages. However, market for the unskilled labour will remain highly restricted by national and

state barriers. The impact of globalisation will not remain confined to the higher education but would bring complete transformation in the cultural, social, economic, environmental and political environment. Movement of capital, products, technology, information and intensified competition in almost all the markets for goods and services would necessitate the economic restructuring worldwide. This would, in turn, lead to organisational downsizing (corporate, government, educational), outsourcing, global orientation of business in terms of strategic financing and marketing style, formation and rapid growth of virtual companies/home based businesses. Globalisation would also significantly affect the current structure of 10am to 5pm workdays, job security, predictable hierarchical relationship, corporate culture security blankets, and, for large and growing sectors of the workforce, the work place itself. All these actions would force total change in the skill requirements and job profiles and compel the higher education system to reorient their programmes to meet the changing requirements. Also, under the World Trade Organisation (WTO) Agreement more specifically General Agreement on Trade in Services (GATS), foreign institutions will make inroads in the domestic higher education sector by providing alternative learning opportunities leading to award of degrees of their universities. It may be mentioned here that GATS includes educational services in five parts: Primary Education, Secondary Education, Higher Education, Adult Education and other Educational Services. The education would be beyond the purview of GATS only when it is imparted free of cost, which obviously is not true in regard of India. Therefore, the government will be forced to open the educational services sector to foreign players as well.

Some of the important impacts of the globalisation are indicated below:

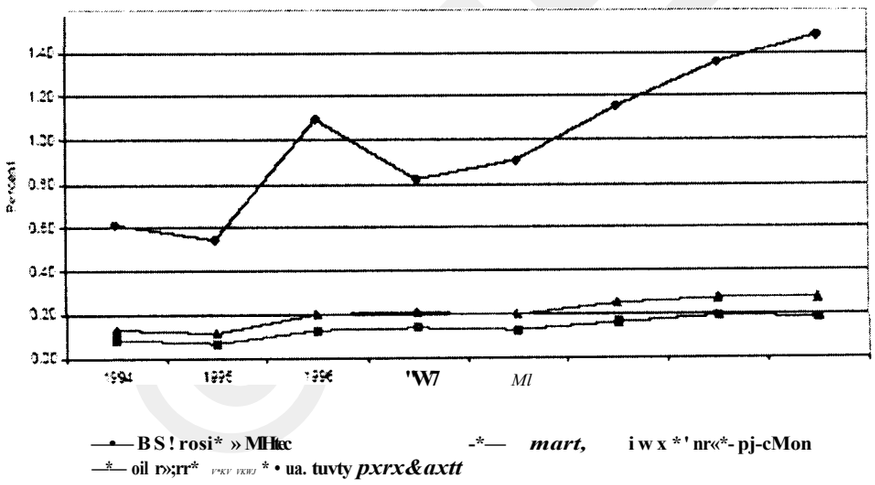
A growing part of international student community will become market-driven rather than state-driven or aid-oriented [Scott 1998]. The international market in education services is becoming a booming sector and the international marketing of domestic universities and the recruitment of students will be central elements of it.

Inter-institutional and inter-regional mobility of the teachers would be another fallout of globalisation. Developing countries, in general, would face the problem of emigration of researchers and academic staff to the global centres of research. A massive problem of brain drain, therefore, exists on a global scale at the expense of the developing and the 'second world' regions of the world. This may accentuate further due to competition among the institutions to get the best brains. Figure 4 highlights the income loss to India due to emigration to USA.

The scope of setting up campuses abroad may not be possible for a host of institutions except for the well-equipped premier institutions, as they will have to compete with the best in the world. More and more universities which adopt a more market-oriented, entrepreneurial approach to the recruitment of students will get the increasing number of mobile students while others get the remaining ones which essentially means that better resources and brains will go to the early

birds than to the laggards. This would further improve their credibility, market value and resource generation capacity. They will further combine recruitment of foreign students with extending their educational supply to promising markets in other countries by setting up local campuses under full authority of the mother institution. In this mode, the process of internationalisation shifts from the demand to the supply side. In an effort to market Indian education abroad, the government has been discussing plans to promote the world-renowned Indian Institutes of Technology (IITs). According to a release, the government will first set up IIT campuses abroad, in such developing nations with growing demand as Sri Lanka, Singapore, Mauritius and countries of the West and Southeast Asia. Expert committees believe that institutions with good brand equity operating abroad can establish a base from which other institutions can springboard. [http://www.wes.org/ewenr/03Sept/AsiaPacific.htm]

FIGURE 4
Estimates of Lost Income From Indian-Born as Percentage of Indian GDP



Source: [http://www.wcfia.harvard.edu/seminars/pegroup/Desai-Kapur.pdf]

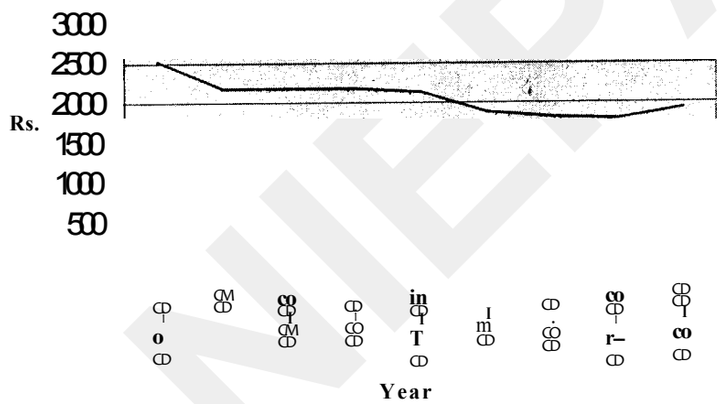
- Globalisation would result in introduction of new degrees (bachelor/master), introduction of credit point accumulation systems (where they do not exist yet), introduction of quality assurance and accreditation, teaching in English, on-line teaching and other forms of transitional education (moving the learning, not the learner), recruitment of foreign professors, young scientists and students and marketing of higher education products, institutions and systems.

Declining Public Expenditure

Waning support of the state per student, in the face of rising costs, is the third major factor that has brought about a dramatic change in thinking, strategies and action of the higher education institutes, especially those exclusively/heavily financed by the government. There has been a steep decline in the public expenditure on higher education per student. Figure 5 brings to the fore the public expenditure on higher education.

FIGURE 5

Declining Public Expenditure on Higher Education per Student (in 1980-81 prices)



Source: Analysis of Budget Expenditure on Education (various years) (New Delhi: MHRD)

The research findings that primary education ensures the highest returns led the government to accord the highest priority to primary education sector in inter-sectoral allocation of educational resources. One noteworthy research effort in this regard is the World Bank research conducted in 1993, which studied eight South East Asian economies - Hong Kong, Indonesia, Japan, Korea, Malaysia, Taiwan, Singapore and Thailand - and found that the single largest contributor to economic growth is primary education. The study reported that the primary school enrolment explained between 58 per cent (Japan) and 87 per cent (Thailand) of the predicted growth [World Bank Review 1995]. Increasing allocation to elementary and secondary education in India, therefore, needs to be seen in this context [Tilak 2001]. Besides, changing social and economic priorities such as concerns about health care and its escalating costs, expanding social safety net, and the growing needs of elementary and secondary educational systems have also resulted in relative decline in government funding of the higher education institutions. It has shifted more of the costs of post-secondary education from the larger society (e.g., through taxes) to the individual student (e.g., through higher fee, loans etc.). The imbalance between demand and available resources is further aggravated by the

increasing costs of higher education, driven as they are by the knowledge- and people-intensive nature of the enterprise as well as by the difficulty educational institutions have in containing costs and enhancing productivity. It has also stimulated the entry of new for-profit competitors into the education marketplace thereby leading to the cost optimisation efforts on the part of such institutions. The first visible sign of such thinking is that educational institutions have started 'outsourcing' services such as maintenance of the campus, canteen, health services, placement services and even hostels. However, in order to achieve the intended benefits, quality, service, customer satisfaction, cost and other factors must be projected before outsourcing, and monitored very carefully afterwards. The ever-increasing shortage of funds is not only forcing these institutions to go for the austerity measures but also offer academic programmes for profit. An increasing number of public funded institutions have already started floating market-oriented academic programmes such as MBA, MCA, Bio-Tech. etc. Besides, the UG and **PG** courses offered are being reoriented to the career opportunities so that students may have motivation to join them even by paying much higher tuition fee. The courses are being restructured to include basic and emerging interdisciplinary application-oriented areas. These changes would be further strengthened with the increase in competition with the local private educational institutions and with those of the franchise of foreign educational institutions. However, given the fact that private institutions value productivity, efficiency, accountability, hierarchical organizational structures, technical leadership, a customer-orientation and 'bottom-line' results while public educational institutions emphasize autonomy, shared governance, qualitative (as opposed to quantitative) judgments, faculty prerogatives, peer leadership and merit, the work culture and flexibility in both is bound to be different, at least till an appropriate change in the mind-set takes place.

Emerging Job Profiles

Emergence and fast growth of knowledge-based industries has also influenced the demand pattern of the labour force. The rapidly inflating knowledge content in regard of pharmaceutical, bio-technology, speciality products, medical/para-medical, bio-chemicals, entertainment, advance materials, automobile, communications, geomatics, robotics and automation, aerospace etc. has changed the job profiles. Under the changed circumstances, the educational system of the country need not focus on producing industrial workers and labourers but the knowledge workers [Prime Minister's Council on Trade and Industry, GOI 2000]. Such people must be at the cutting edge of knowledge, be competitive and innovative. It may be mentioned here that more than half of the GDP in the major OECD countries is now knowledge-based. About two-thirds of the growth of world GDP is expected to come from technology-led businesses. The scenario would not be different for India in the near future.

Transformation of Assumptions

The pace of production and multi-dimensional dissemination of knowledge in all fields, made possible by increasing access of the people to the latest technology, has raised the demand on the educational administrators, teachers as well as the students. The access to information to students through Internet has forced the teachers to keep themselves updated and make their teaching and learning processes more integrated and interactive. The traditional instructor-centred approach would not work any more. In its place is a learner-centred view of informed knowledge construction among teachers and learners. This shift is not merely a modification of current teaching techniques (e.g. predominantly lecture-driven); it forces a fundamental transformation of assumptions about learners, teachers and the kinds of interactions that lead to knowledge, skill acquisition and learning.

Free Market Economy

Shift from centrally planned and mixed economy concepts to the free market economies and consequent withdrawal of the governments from the direct economic activities such as production, marketing, financial, telecom, transport and other services has resulted in the decline in the traditional government jobs. The state is, no longer, the principal employer of the educated youth in the country. The hard reality is that majority of employment opportunities now are in the private sector and this sector is specific in demand for skills and upholds the principle of accountability. Table 5 shows the marked shift towards private sector employment in the organised sector.

TABLE 5

Employment in Organised Sector

Year	*Public*	*Private*	*Both*
	(% Change over preceding year)		
1993	**0.60**	**0.06**	**0.45**
1994	**0.62**	**1.01**	**0.73**
1995	**0.11**	**1.63**	**0.55**
1996	**-0.19**	**5.62**	**1.51**
1997	**0.67**	**2.04**	**1.09**
1993-97 (Average)	**0.36**	**2.07**	**0.87**

Source: [http://planningcommission.nic.in/plans/rnta/mta-9702/mta-ch21.pdfj

The private sector employs only those who possess skills and competencies required by it. The requirements are continually changing because this sector has to keep pace with its global competitors. In the private sector, job surety (if the person concerned has the required skills) has completely replaced the job security, which was why the government jobs were so sought after. All these factors have led to the remarkable decline in interest in general education courses, as they are perceived incompetent to

impart skills and knowledge required for their employment. That is why so many institutions are cropping up to provide professional courses in the areas of management, engineering, bio-tech, medical, para-medical and multi-media courses which are primarily market driven.

IT-enabled Skill Specialisation

The fast development of the services, technology-intensive and export-oriented industries has further reshaped the requirement of job skills. The changes will be all pervasive and faster after Jan. 1, 2005 when most of the restrictions from international trade, foreign direct investments would be removed under WTO norms. The products and services, by and large, would be IT-enabled. Increasing use of information technology to transact business intra-company, across the extended supply chain, technical applications and inter-company affairs demand specific skills and not the general ones. A job under the changed circumstances would, at times, also demand interdisciplinary skills with continuous updating, which cannot be accomplished under the traditional educational system. This definitely compels the higher education institutions, especially in the public sector, to change themselves without any further loss of time.

Applied Research and Development (R&D)

Increased importance of intellectual property rights in the wake of implementation of WTO norms on Trade Related Intellectual Property Rights (TRIPS) has led to a shift from the theoretical to application oriented R&D. Since all the stakeholders and public as such now expect practical tangible results from research, there would be radical decline in the research support where tangible results are not visible. In fact, the identity of any institution as well as the flow of research funding and consultancy jobs to it would be increasingly tied to its achievements. Growing trend of increase in the investment in R & D especially in the speciality and knowledge segments and shifting R&D and production facilities closer to the top scientific and technology centres, as is evident from the action of top twenty pharmaceutical companies, would further enhance the status of application oriented R&D performers. This would necessitate a radical reorientation from academically enriching and career promoting theoretical research to practical research prospects of acquiring patents, copyrights and subsequently i of the same. It needs to attract the best academics, both as teachers and as researchers, and substantially invest in cutting-edge research. In order to achieve this objective, educational institutions must establish technology incubator units involving faculty, professionals, students and industry, where work on new technologies is facilitated. This would promote commercialisation of research and knowledge, end outcome of which would be the generation of more resources, solid contribution to the society and improved relevance. Indian educational institutions probably will have to work harder with great focus as their contribution to a large number of inventions and discoveries, that have taken place all over the world, has been abysmal. One inspiration

oriented R&D performers. This would necessitate a radical reorientation from academically enriching and career promoting theoretical research to practical research

can be China. For example, in China in 2000, universities and scientific research institutes accounted for 13.2% of domestic patent applications [SIPO 2001]. It may further be noted that the focus has to be on the commercially viable research and consultancy because the routine research projects and consultancy jobs would not generate enough savings as the funding agencies in such cases are not prepared to pay even a 15-20% overhead cost. In fact, the educational institutions will have to try out different models in the dynamic settings with lots of permutations and combinations and find out which model suits them and why and then proper planning and execution need to be give a great attention.

Open Lifelong Schooling

The fact that an increasing number of students are getting enrolled with open university system clearly suggests that educational institutions per se need to maximize the opportunities and accord priorities to the part time and distance education. The cumulative enrolment statistics of students for IGNOU by 2002-03 was 10 lakh spread over 78 academic courses and it is estimated that in the coming five years students registered with open universities will constitute more than a quarter of the total student strength of all higher education institutions. In fact, it is estimated that the adult need for higher education will become far larger than that represented by traditional 18 to 22 year old students [Dolence and Norris 1997]. The need for advanced education and skills on continuous basis will require both a personal willingness to continue to learn throughout life and a commitment on the part of our institutions to provide opportunities for lifelong knowledge enrichment. Therefore, four or five years of full-time study in a residential college, especially after initiating into a career, may no longer be the most frequently travelled road to education. Formal education will tend to be more a life-long continuum, and dispersed rather than a one-shot limited period-centralised activity in respect of contents, instruction, materials, human resource, evaluation, accreditation, certification and management. Both young, digital-media savvy students and adult learners, therefore, will likely demand a major shift in educational methods, away from passive classroom courses packaged into well-defined degree programs and toward interactive, collaborative learning experiences provided when and where the student needs the knowledge and skills. With increasing use of internet both by the systems i.e., Distance Learning Programs and the Conventional Residential programs, the unwelcome distinction between them may disappear where the first type is regarded as of poorer quality. This will definitely promote the distance learning in future.

Foreign Franchise

Increasing publicity of the market relevant courses by private institutions and franchisees of foreign universities has forced the other Indian educational institutions not only to offer parallel/better programmes but also publicise them by posting well-designed web sites and also through print and electronic media. As a result, they have to incur

expenditure on advertising their own accomplishments and evidences of their effectiveness in order to attract those who do have better ability to pay the tuition fee in most marketable academic programmes. Aggressive marketing strategies in future would see a perceptible increase in such expenses. The entry of the foreign academic institutions through their franchises, in India, does not appear to be posing a big challenge currently as the dichotomy between the main US campus and the off-campus in India in terms of the quality of faculty and infrastructure tends to act as a deterrent to prospective students.

The changes summed up above are external in nature but merit taking internal measures to measure upto them. It may be further noted that the world is changing faster than we realise. Rapid strides in technology, transportation and communication systems have allowed thoughts, people, goods and services to travel thousands of miles in seconds or hours. This affects everyone in all spheres of life. The systems not catching up with the rest would have to pay a formidable price in the form of accumulation of obsolescence, further deterioration and non-retrievable loss of opportunities to change.

Challenges Ahead

Globalisation and advancements in information technology, while opening new opportunities, have also thrown formidable array of new challenges. In future, market driven courses are likely to be the focal strategic points of the educational institutions. Higher educational institutions may also need to adapt rapidly to the top-down influences of globalisation and the new technologies, as well as the bottom-up imperatives of serving the local labour market, innovating with local companies and providing professional development courses that stimulate economic and intellectual growth. Educational institutions, at the same time, have to conform to nationally and internationally acceptable standards of performance, and must keep on assessing continuingly to find out a relationship between what we they do/intend to and what is the end outcome. The fundamental difference in the rapidly outdating Higher Education system and the emerging one, therefore, is that while the former has been exclusively performing the social welfare function, the latter one will have to perform the business function as well. It is this addition, which will make tremendous difference to the projections, planning and execution of the academic programmes in coming times. It shall also force a trade-off between the two, which may be questioned on the basis of ethical and egalitarian considerations.

Imminent Challenges

Some of the challenges, confronting the higher education, are indicated below:

1. Educational institutions need to keep on carefully assessing the major requirements of the stakeholders of higher education system, to sense their changing needs, expectations and perceptions of higher education, and to understand the various forces driving the change. This would provide a context for decision-making during the time of

rapid technology-driven innovations. Just as with other social institutions, our educational institutions must become more customer-focused. Only a win-win situation for all the stakeholders would help institutions' growing up. In view of the fact that the Indian education system, by and large, is not market oriented and its failure to realise the potential of the information technology requirements has led to a large non-formal education system of creating quality software professionals (enjoying brand equity and large market capitalisation), the task appears to be tough. However, it is no longer a matter of choice but a compulsion to change.

2. Must anticipate possible changes, develop appropriate strategies and make adequate investments in time. Information and communication technologies, through the Internet and satellite transmission, have opened up avenues of developments in educational delivery modes in which geographical limitations are eliminated. Thus, all the programmes can be effectively judged and audited by the customers and in case they are found inferior, they could be left with little hesitation.

3. Switch over in the role of a teacher from instruction provider to that of the facilitator of student learning [Barr and Tagg 1995]. Only the facilitator would be able to improve students' receptivity to knowledge by influencing their perceptions of the nature, limits, certainty and utility of the knowledge. The traditional boundaries between the roles, responsibilities and activities of teachers and learners will be blurred. Automated searches of the literature, a common practice elsewhere and gaining acceptability in India, can mean that the teachers find students using references not known to them. Powerful ways now exist to survey and select from up to date libraries research papers, books, bibliographies and data. In a culture of teaching where teachers are supposed to know it all, this can be threatening. Yet, the teacher would still be extremely important because Internet access to the learners may result in the contrastive linking and ironic juxtaposition of sources instead of the critical narrative [Landow 1992] which is better possible with a competent teacher/facilitator. The technology can assist with carrying this duty out, but it cannot discharge that by itself.

4. Must overcome strong resistance to change as most of higher education institutions share the legacy of a style of governance that is more adept at protecting the past than preparing for the future. The system of education spending and management also often protects the interests of teachers and the government rather than those of parents, students, communities and the poor. Teachers and administrators - all have reasons to prefer things to remain as they are, or to change only gradually because it disturbs the status quo and puts tough demands on them. This resistance to change is more visible especially in regard to auditing of the faculty for performance in teaching, research and publications. Private educational institutions, on the other hand, are far more adaptive to the change as they are primarily driven by market pulls and pressures.

5. Will have to 'do more with less' with decline in the state support. In all likelihood, it will be met through increase in the instructional workload, greater use of non-traditional instructional delivery systems and increase in the class size [Kellogg Commission 1997]. This would become essential because the disadvantage of reduction in state support

cannot always be passed on to the students but would result in the recasting of internal priorities. There may also be substantial cut in the administrative costs and welfare facilities to the students. Another way to achieve cost-effectiveness is to employ fewer faculties on full-time basis and more on part-time. This strategy will, in fact, reduce expenditures, because part-time and temporary staff will receive fewer or no fringe benefits and their compensation typically will be lower than that of full-time staff. Such a strategy is a double-edged weapon. There would be less continuity of service to students and quality of service may be compromised as less qualified personnel may be used. There is also the ethical issue of using part-time and temporary staff to do the work of full-time professional staff without equitable compensation. Similarly, better efficiency can also be accomplished through a considerable reduction in full-time staff contracts to only those durations when students are enrolled. For instance, the faculty may have to earn their salaries for the summer vacations, as is the usual practice in the US. To augment resources in another way, which is being practised, is to charge different fee for different courses. This implies that higher fee may be charged for premium courses and vice-versa.

6. Must look for new patterns of governance and leadership capable of responding to the changing needs and emerging challenges of our society and its educational institutions. Educational institutions must be governed, led and managed like other corporations to benefit the stakeholders. Like the boards of directors of publicly held corporations, the university's governing board should also consist of members selected for their expertise and experience. Selling this idea to the funding agency, for the government, in this case, is a tough job, yet it has to be done.

7. Must be seen as playing a key role in lifelong learning and may it be seen as an even bigger contribution in future by:

- Increasing and widening participation, particularly from groups who are under-represented in higher education, including people with disabilities and young people from semi-skilled or unskilled family backgrounds and from disadvantaged localities;
- Offering opportunities later in life to those who missed out first time round;
- Increasing its contribution to the economy and its responsiveness to the needs of business;
- Collaborating more closely and effectively with other institutions and with the world of work;
- Exploiting new technology and flexible delivery so as to make itself more accessible and ensuring that maximum use is made of its facilities through longer opening hours.

This is a challenging agenda. Universities and colleges, employers and employees, the private sector and Government will all need to work together to create a learning society in which many more people can benefit from world class education and training.

8. Must meet the expectations of undergraduate student employment and develop effective mechanisms to enhance the employment prospects. Since, technology is transforming the workplace, requiring greater technical skills for a growing number of jobs, there is a need to reorient the academic programmes to help them develop necessary skills and expertise to function effectively in a technologically oriented workplace. It is important that skills, as a result of education, have economic value beyond their intrinsic merit, as the new jobs would be skill-rich. The expectations of all the stakeholders are rising due to fast dissemination of information among the customers (read students and researchers) and have, therefore, become important in deciding the policy goals.

9. Must ensure quality and cost-effective Communications and Information Technology (C&IT) services for researchers and should, in due course, introduce charges for services on a volume-of-usage basis.

10. The new scenario could be that of academically independent, but constructive partnership among the educational institutions as no single institution can do it all, and increasingly, it will be the quality of partnerships, the things we choose not to do ourselves, but to share with others, which will determine success. Similarly, there would be increasing convergence between various disciplines as the most exciting new knowledge is emanating from interdisciplinary research.

Rising upto the challenges summed up above is not a matter of choice but a compulsion to stay afloat. The faster they are taken up and addressed, the better it would be for the higher education system of the country.

Adverse Fallouts Meriting Correction

The restructuring process and consequent developments may introduce certain distortions in the higher education system which need to be addressed and taken care of so that the most vulnerable section of the population may not suffer on account of their financial, societal and residential disadvantages. Some of such adverse fallouts are indicated below:

1. Many students, with exclusively rural background, with little or no prior exposure to the use of educational technology will find themselves in an environment, especially when they join the urban based educational institutions, which is both unknown and intimidating. This needs to be corrected, otherwise the gap between the urban and the rural learners would further widen, making it utmost difficult for the rural youths to compete their urban counterparts in the job market. This would further under-represent and marginalise the rural population in the better paying jobs. In view of the fact that India has a large rural sector and a large rural population, widening educational divide between rural-urban sectors does not hold good for India's future.

2. With decline in the state support, the educational institutions will be forced to substantially cut in the administrative costs and welfare facilities to the students. This may widen the gap between public and private institutions. In regard of the latter, admissions would depend upon the 'affordability,' hence, there would be no dearth of

resources for providing the best possible infrastructure and avenues for extra-curricular activities to the students.

3. With rapid rise in population, increasing education costs and slow rise in incomes, the intra-family competition for resources may further hurt the efforts to educate and empower the women. The aspirants of education with disabilities - whether physical, learning, or health-related would be other casualties in the resource allocation decision making in a family.

4. The rising costs of higher education would affect students differentially, on the basis of income/place of residence (Urban/Rural), social hierarchy, gender, age, disability, or other student characteristics. Other affected parties would be poor and marginalised groups such as scheduled castes, scheduled tribes and people having inadequate income which also comprise a large section of the minority population, especially Muslims. It is inequitable when qualified potential students are unable to enrol in institutions because educational opportunities are lacking or because of their inability to pay. USA can serve as a role model when it comes to public funding of education. The Federal Student Aid (FSA) programs are the largest source of student aid in America. These programs provide more than $60 billion a year in grants, loans and work-study assistance like Pell Grants, campus-based aid, Stafford Loans and PLUS Loans. [Source: http://studentaid.ed.gov]. Though given the resource crunch which the Indian federal and state finance are facing, it is highly unlikely to be implemented.

5. The institutions and departments with access to greater resources would be able to make use of technological advances, thereby make other institutions, primarily state financed, as educational disadvantaged. This, in turn, would adversely affect their student intake, teaching and research quality. It would be a learning disadvantage to the candidates getting admitted into such institutions because of their inability to afford technology, or because the institution they attend does not have technology support. Rural/small town educational aspirant population is likely to suffer because of the inadequacy/absence of Internet access, high-speed connectivity and sufficient infrastructure. This digital divide has to be cared for.

6. The priority to develop and capitalise on the specialised knowledge in order to generate resources may lead to neglect of core areas, which will eventually weaken the very foundation of education. Similarly, increased emphasis on the research and consultancy jobs may adversely affect the motivation to teach and considerably reduce the student-teacher interaction time.

7. Increasing use of Internet may not merely enhance educational practice but also start to change our view of what education is, or needs to be. It will further influence the values and the sensitivities that are implicitly transmitted in the educational process. This makes the role of facilitator extremely important because the technology, for its fascinating nature, may overtake the role of a teacher and in the process may make the educational process more insensitive. Similarly, the increasing use of internet-based education may result in the geo-political compression, which essentially means 'cultural homogenisation', in other words, loss of cultural diversity. However, part of such loss

will be balanced by discovering and rediscovering of the cultures and other different elements through much improved intersection,

All the above elements have their serious implications and it is obligatory on the part of funding agencies as well as the state to ensure that grievances arising out of above factors are timely and appropriately redressed. These factors, however, should not be used as pretexts to slow down the restructuring of the higher education system because the mind-set, that technological advances make the life worse for the disadvantaged, is self-defeating.

The Issue of 'Autonomy'

Another important question that needs to be probed is that of extent of autonomy especially to the public funded institutions. Academic freedom and institutional autonomy are frequently confused with each other, but they are two quite distinct concepts [Ashby 1966]. Institutional autonomy has to do with the notion that institutions of higher education should be left alone to determine their own goals and priorities and to put these into practice [Berdahl 1990]. The basis for the enlargement of institutional freedom is that it will increase the effectiveness of institutions in responding to the changing needs of society, in general, and the economy, in particular [Sizer 1992]. Autonomy, it is argued, is the essential pre-requisite for a quality-obsessed, but procedurally efficient, educational system. It is a widely held notion that the strong central control and dependence on state are dysfunctional, because they dilute the capacity of the higher education institutions to take more adventurous and flexible response to what are regarded as society's changing needs. The matters requiring larger institutional autonomy pertain to selection, assignment, guidance, evaluation, payment and retirement of academic personnel; promotional policies; organization of faculty for development of policy; teaching and research activities; and curricular development and instructional resources. 'Academic freedom' means the freedom of members of the academic community, individually or collectively, in the pursuit, development and transmission of knowledge through research, study, discussion, documentation, production, creation, teaching, lecturing and writing.

The concept of autonomy, however, runs into the risk of freedom beyond the 'framework.' It is so because of the risk, to become self-referenced, more focused on the institution rather than on the customers' and other important social goals, and heavy dependence on personal ideas and judgement of the leader of the institution rather than on hard unequivocal evidence, is quite high. Autonomy is most desirable as long as the goals of all the stakeholders are common and are being taken care of without the necessity of any intervention. However, the problem arises when the goals become divergent or the emphasis is different for each of the stakeholders. The endorsement of institutional autonomy and diversity carries with it a presumption of institutional responsibility and self-discipline. This also is the essence of Lima Declaration of 1988. The autonomy with responsibility is, therefore, most desirable. Both the elements are not mutually exclusive and, hence, can go together. However, who would decide on such matters? This question

has to be seen in the larger social context, which dictates that this task is a shared responsibility.

Preparing A Road Map to Measure Up to the Time

The emergence of new competitive forces, driven by globalisation, changing societal needs, economic realities and technology are likely to force a massive restructuring of the higher education enterprise. As industry has learned, in an increasingly competitive global marketplace, the educational institutions have to focus on what they can do to compete with the best in their areas of specialisations, where they are truly world-class, and outsource other products and services [Peterson and Dill 1997]. It is important to understand that the most critical challenge facing most institutions will be to develop the capacity for change. Only a concerted effort to understand the important traditions of the past, the challenges of the present, and the possibilities for the future can enable institutions to change and thrive during such critical times. This will require not only that such institutions develop a unique vision, but beyond that, they also should be prepared to focus resources to achieve it. They must also be alert to shift resources when necessary, possibly even deleting some programs and activities in order to initiate or focus on others. In all such decisions, not only important criteria e.g. quality, centrality and cost-effectiveness must always be upheld but it must also be recognised that:

- Students are active participants - not passive recipients - in the learning process.
- Students approach this process from multiple frameworks, and they need to develop critical, reflective thinking skills, the ability to gather and evaluate evidence and the ability to make one's own informed judgments in a world in which multiple perspectives are increasingly interdependent. Besides, learning demands consideration of multiple educational outcomes that include complex cognitive skills, ability to apply acquired knowledge to real life problems, an appreciation of human differences, practical competence skills, and a coherent integrated sense of identity [American College Personnel Association 1994].
- Students' academic and cognitive developments are shaped by their out-of-class experiences as well as their formal academic experiences.
- Employability of graduates is a key task for higher education and that work experience can be very valuable in helping students to develop. This factor would largely determine the marketability of the educational programmes offered by the institutions as well.
- Prospective students differ in terms of their financial capabilities. Therefore, availability of assistantship/scholarships/loans would help them to take fair advantage of system. The presence of such help-programmes would also make the institutions more student-friendly and marketable.

Cognition of the above ground realities makes the educational process connection to students' experience a central component of learning [Magolda 1992] because knowledge acquisition is no longer the only focused area, but it also encompasses the processes by which students acquire new knowledge and skills, interpret the new ideas, build up attitudes, perceive people and relate their educational experience with the real world situations. The guiding principles for preparing a road map, hence, be based on the considerations as given below:

1. The changed scenario necessitates devolution of authority and responsibility to the lowest possible level e.g., state to universities and universities' apex governing bodies to the academic departments, which stand closest to the action. Such an autonomy as an alternative to growth in state support is by far the most warranted for the reason that if granted more control over their own destiny, educational institutions, especially public owned, would be forced to appreciably enhance their capabilities and competence, become more entrepreneurial and protective to protect and augment their interests by serving the public better. University Grants Commission and other agencies must ensure with respect to each institution the quality assurance, the provision of public information to all the stakeholders such as students, parents and employers, standards verification, the maintenance of the qualifications framework and a requirement that the arrangements for these are encompassed in a code of practice which every institution should be required formally to adopt as a pre-condition of continuation of public funding.

2. In this age of a techno-scientific revolution, when the sheer quantity of knowledge and information is expanding exponentially, when the needs of a constantly growing and increasingly varied student population are burgeoning, the quality of training for teachers and the quality of teaching in higher education institutions demand top priority.

3. As universities abandon their isolationist existence and increasingly interact with other segments of society, there is a need for them to adopt a more professional management. This includes opting for a new type of leadership capable of interfacing with user and other groups in society, and at the same time, capable of providing academic and administrative leadership within a decentralised system of administration. This would require complete end to the political appointments.

4. The new funding arrangements must be based on the principle that the costs of higher education should be shared between those who benefit. Research studies have demonstrated beyond doubt that higher education confers real economic benefits and those having availed higher education tend to earn much higher than others. The nation's investment, therefore, must be balanced by the commitment of the individual. Public funding *per se* be utilised towards improving quality, standards, widening access and opportunities for all in furtherance of higher studies. There has to be a comprehensive spending review after every two years to ensure best utilisation of the public funds. In regard of the institutions where funding is exceptionally at high levels, there is a need to examine whether they represent a good use of resources. The outcomes of the review should be published in the institute's annual report. The Funding Bodies should make

such a review a condition of public funding. However, the allocation of funds has to be balanced with the students' growing expectations for technology support and services. Without this, educational institutions may not find many takers.

Necessary safeguards, however, need to be introduced in order to ensure that socially, economically and physically disadvantaged groups of the students get some support to shoulder the expense of getting higher education. More support and encouragement are particularly required in case of those students from families with incomes inadequate to support higher studies of their children or are without a background of higher education to stay in education, as there is high probability of their dropping out before completing their education. It may be further mentioned that in most of the countries, merit-based aid (scholarships based on marks/grades) is a common point in the education system. While the issue of rewarding merit cannot be overlooked and contradicted, it may also mean that many meritorious students without financial constraints get scholarships. By implication, many more with slightly lesser merit but with urgent financial need do not enter higher studies at all. This definitely is a moot point in a country where socio-economic and other bottlenecks keep one tied down leaving little scope to focus on studies alone unlike the students from relatively well-off families. Another common misconception that financial aid in the form of soft loans to the students, from lower middle and lower income families, will make it easier for them to attend higher studies does not appear to be justified because the access to loans is tied to the repaying capacity of the family and individuals, through rules (unqualified for the loans) as well as psyche (encumbrance of loan-indebtedness). Those with little economic backup have every chance of not availing such 'opportunities'. It is, therefore, required that special provisions are made for such disadvantaged groups in public funded institutions. The costs associated with such a provision must be borne by the government as a social and human rights obligation rather than the institution.

5. For raising the resources, what educational institutions may do is to make their courses attractive to students both from within the country and abroad by making them of world class standards and by taking up consultancy assignments. Besides focusing on the core competence in the areas of studies, the development of professional skills such as communication, self-management and planning also need be given as vital supplementary inputs to enhance the employability of the students. Institutions need to review their programmes to consider whether such programmes have the right balance of breadth and depth.

6. There are exciting opportunities both within India and further afield for universities and colleges to build on international links to enrich the programmes they offer their students and increase the effectiveness of their graduates in the labour market. For example, IIM Ahmedabad [http://www.iimahd.ernet.in/acads/Programs/pgp/xcg_prog.htm], IIM Bangalore [http://www.iimb.ernet.in/html/m-frames.jsp?ilink=85&pname=fpmstudent.jsp], and IIM Kolkata [http://www.iimcal.ac.in/Programs/Step/exchpart.asp] have established student exchange programmes which serve to increase the brand equity of the respective institutes in the international arena.

7. Teaching Assistantship to the PG students for conducting undergraduate classes and tutorials must become a common practice. This would help the graduate students to continue their studies through earning while learning. The institutions may also have to create undergraduate research opportunities to help them support their education through their involvement in the research projects/consultancy jobs.

8. In the era of e-journals and availability of colossal information in the Internet, UGC and other agencies should extend to the public funded institutions adequate resources, at least during the transitional phase, to help them secure appropriate network connectivity to all sites of higher education delivery as early as possible. This could be done on the pattern of IITs and IIMs, where the MHRD finances the availability of a plethora of e-journals and databases.

Concluding Remarks

The unprecedented pace of change in the global scenario makes it imperative to initiate and speed up changes in the Indian higher education system as expeditiously as possible. Currently, countries like the US, Australia, Singapore, ECM cluster have already radically modified their educational systems to grow and expand even beyond their national boundaries.

A considerable number of Indian, other Asian and Latin American students are being lured by them by shaping up and massively improving the employment value of their programmes and offering liberal loans and assistantships to them . Since Indian higher education system is considered to be highly credible, especially among third world countries, this is the appropriate time to change and attract, at least the third world students, to whom India could be projected to be offering world class education at affordable cost. Any loss of time would cause irreversible damage in terms of loss of market, credibility, resources and opportunity to transform to meet the new challenges. To integrate globally, anticipating and facing competition in the higher education system, is the best bet. Governments can help the situation by establishing standards, supporting inputs, adopting flexible strategies for the acquisition and use of inputs, and monitoring performance.

We must, in particular, look at the objective of increasing the international competitiveness of the Indian system of higher education. The vitality and efficiency of the higher education system would be tested by the extent it acquires a worldwide degree of attraction. In fact, competitive pressures are themselves a safeguard against conformity.

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Challenge of Universalization of Elementary Education in India[+]

V. N. Kothari*

Abstract

India is far from attaining universal enrolment of children of 6-14 years age, though many Asian countries in similar positions have already done so. This paper tries to explain the scenario - through the use of variety of data sources such as the Census, the NSS, NCERT and NFHS surveys in terms of gender, age, rural-urban location, expenditure groups, village amenities, supply and health and disability status of children. It is found that the shortfall is not confined to low expenditure groups. Also low enrolment is found among 6-9 age group, when the opportunity cost cannot be important. Since village infrastructure and health and disability status seem to be important, specific measures are required to tackle these problems.

Literacy Status

Literacy is the starting point of all education. What is the extent of literacy in India? Where do we stand in regard to attainment of literacy in India? The definition of literacy in our census and surveys is very simple. According to the 1991 census, a person who can both read and write with understanding in any language is to be treated as literate. Formal education is not necessary for an individual to be counted as a literate person. According to the National Sample Survey (NSS), a person who can read and write a simple message in any language, with understanding, is considered literate.

According to the UNDP's *Human Development Report 2000,* adult literacy rate (age 15 and above) in 1997 for India was only 55.7 per cent. The *Report* listed 174 countries and categorised them as high human development, medium human development and low human development countries. India is classified into medium category. Out of 93 countries in the medium human development category, only 4 countries namely Egypt (53.7 per cent), Morocco (47.1 per cent), Iraq (53.7 per cent) and Pakistan (44.0 per cent) have recorded a lower level of adult literacy as compared to India. 38 countries have already attained adult literacy rate of 90 per cent or more. Clearly, that India has a long way to go.

[+] **Originally written in September 2000, for the *Essays in Honour of Professor PR. Panchmukhi,* which is yet to be published.**
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A comparison with Asian countries which were similar to India in broad economic conditions about four or five decades back is even more instructive. Table 1 shows adult literacy rate around 1998 in 10 selected Asian medium human development countries. China and Indonesia have adult literacy rates of 82.8 per cent and 85.7 per cent respectively. Philippines, Thailand, Srilanka and Vietnam fare even better, recording adult literacy rates above 90 per cent.

Youth Literacy Rate

Granted that the adult literacy rate is extremely low in India, is the situation improving at a satisfactory rate? We have two clues to this question in the *Human Development Report 2000.* One is the youth literacy rate (age-group: 15-24). The second is the primary school going age group enrolment. If the youth literacy rate is higher than the adult literacy rate, it would indicate that the adult literacy rate is improving. In other words, the youth literacy rate in comparison with adult literacy rate would tell us whether the literacy attainments are improving with each succeeding age cohort not. From Table 1, we can see the youth literacy rates in 10 selected Asian countries. It is remarkable that while China, Indonesia, Thailand, Malaysia, Philippines, Srilanka, Iran and Vietnam have attained the youth literacy rate exceeding 90 per cent (and indeed except Iran, exceeding 95 per cent). India and Pakistan are lagging behind at 70.9 per cent, and 61.4 per cent respectively. Education profile of *Human Development Report 2000,* shows that only 6

countries.

TABLE 1

Adult Literacy Rate, Youth Literacy Rate and GDP Per Capita in 1998 in Ten Selected Asian Countries

Country	*Adult Literacy Rate (%) age 15 & above, 1998*	*Youth Literacy Rate (%) age 16-24, 1998*	*GDP Per Capita (PPP US $, 1998)*
China	82.8	97.2	3105
India	55.7	70.9	2077
Indonesia	85.7	97.3	2651
Iran	74.6	93.2	5121
Malaysia	86.4	97.1	8137
Pakistan	44.0	61.4	1715
Philippines	94.8	98.4	3555
Srilanka	91.1	96.5	2979
Thailand	95.0	98.8	5456
Vietnam	92.9	96.7	1689

Source: *Human Development Report.* *2000,* **Table 1, pp. 157-160 and Table 11, pp. 194-197.**

Primary Age Group Enrolment

The *Human Development Report 2000* provides data about the primary age group enrolment ratios (adjusted) as well as data about children reaching grade V. Table 2 shows the relevant data for 10 selected Asian countries. The adjusted primary school age-group enrolment ratio is the enrolment of primary school age (regardless of the education level in which the pupils are enrolled) as a percentage of population of official primary school age. Primary age enrolment ratio falls far short of 100 per cent in India, while the other countries, except Pakistan, have attained universal primary school enrolment. India's public spending as a proportion of GNP is not particularly low when compared as China and Srilanka. Also it will be noticed that there is a 14 per cent deficit in female enrolment ratio as compared to male enrolment ratio. Further, only 59 per cent of children reach grade V in India. Elsewhere, the rate is very high, mostly exceeding 90 per cent.

TABLE 2

Enrolment Ratio in Primary Education (Adjusted), Children Reaching Grade V, and Enrolment Ratio in Primary Education Among Females as % of Male Ratio and Public Education Expenditure as % of GNP in Selected Asian Countries

Countries	*1997*	*Children Reaching Grade V*	*Enrolment Ratio in Primary Education of Females as % of Male Ratio (1997)*	*Public Education Expenditure as % of GNP*
China	**99.9**	**94**	**100**	**2.3**
India	**77.2**	**59**	**86**	**3.2**
Indonesia	**99.2**	**88**	**99**	
Iran	**90.0**	**90**	**98**	**4.0**
Malaysia	**99.9**	**99**	**100**	**4.9**
Pakistan				**2.7**
Philippines	**99.9**		**100**	**3.4**
Srilanka	**99.9**		**100**	**3.4**
Thailand	**88.0**		**103**	**4.8**
Vietnam	**99.9**		**100**	**3.0**

Source: ***Human Development Report 2000,*** **Table 11 and Table 28.**

Enrolment/Attendance Rates

For India enrolment rates or attendance rates for age groups 6-14 years are available from the Census of Population 1991, National Family Health Survey (NFHS) for 1992-93, National Council of Applied Economic Research (NCAER) for 1994, National Council of Educational Research and Training (NCERT) for 1993 and the National Sample Survey (NSS) 50th Round conducted during July 1993-June 1994. Table 3 shows the data about school enrolment or school attendance from these sources, with rural-urban and

male-female breakup wherever possible. The Census and the NCERT data refer to enrolment. NCAER provide ever enrolment rates for 6-14 age group in rural areas. NFHS and NSS data are school attendance rates based on sample survey of households.

TABLE 3

School Enrolment or Attendance Rate Among 6-14 Age Group in India According to Various Sources

	P	*M*	*F*	*P*	*M*	*F*
CENSUS, 1991		*6-10*			*11-13*	
Total	**51.2**	**56.6**	**45.4**	**63.8**	**72.5**	**54.2**
Rural	**46.0**	**52.3**	**39.3**	**58.5**	**69.1**	**46.6**
Urban	**68.3**	**70.7**	**65.8**	**79.0**	**82.3**	**75.3**
NFES 1992-1993		*6-10*			*11-13*	
Total	**68.4**	**75.0**	**61.3**	**66.2**	**76.3**	**55.3**
Rural	**63.5**	**71.4**	**55.0**	**61.2**	**73.4**	**47.9**
Urban	**84.1**	**86.2**	**81.8**	**80.1**	**84.2**	**75.7**
NCAER, 1994			*Ever Enrolment Rates 6-14 years*			
(Rural)	**71.4**	*11.*	**64.8**	**-**	**-**	**-**
Sixth All India Educational Survey - September 1993 (NCERT)			*Age-Specific Enrolment Ratios*			
		6<11			*1K14*	
Total	**68.4**	**73.2**	**59.1**	**57.1**	**65.0**	**48.2**
NSS 1993-94			*School Attendance Rate (%)*			
		6-9			*10-14*	
Rural	*61.1*	*12.9*	**60.8**	**66.7**	**75.9**	**55.8**
Urban	**85.4**	**87.3**	**83.4**	**84.3**	**86.8**	**81.6**
Est. Total	**71.9**	**78.1**	**67.9**	**71.3**	**80.3**	**63.6**

(Estimated by multiplying rural rates by 0.74 and urban rates by 0.26), being their shares in population

Source: **(1) Census of India, 1991 - State Profile, 1991, India, Table 19, pp. 82-83.**
(2) *National Family Health Survey (NFHS) 1992-93 - India,* Table 3.10, p.56.
(3) *India Human Development Report,* Table 6.3, p. 105, NCAER data refer to rural areas only.
(4) *Sixth All-India Educational Survey Main Report,* Table 40, p.304.
(5) *SARVEKSHANA,* Vol. XX, No.l, 68th Issue, July-Sept. 1996, Table-24, pp. S-66 to S-71.

Table 4 summarizes the data given in Table 3.

TABLE 4
Enrolment/Attendance Rate (%)

Age Group	*Census*	*NFHS*	*NCAER (only rural)*	*NCERT*	*NSS*
6-9/10	**51.2**	**68.4**		**68.4**	**71.9**
10/11-13/14	**63.8**	**66.2**	**71.4 (6 to 14 age)**	**57.1**	**71.3**

Generally, enrolment rates provide an exaggerated picture. This is because there is a tendency to enlist the names of eligible children in school registers in the class 1. Therefore, the drop-out rate between class I and II is generally shown to be on the high side in official statistics. The surveys such as those by NPHS and NSS ask questions about school attendance, which are likely to be more realistic. However, contrary to expectations, the Census and the NCERT reveal lower figures as compared to the NFHS and the NSS. Census figures seem to be particularly on the low side.

On the whole, however, it seems that as of today (2000) the age specific school attendance rates would be around 75 per cent. One significant point that comes out is that even when many middle level human development countries have attained the goal of universal primary education, we are still far away from it. The relative deficit in school attendance among females, in general, and rural females, in particular, is very pronounced as shown in Table 5.

TABLE 5

	Rural Male Rate + Urban Male Rate		*Rural Female Rate + Urban Female Rate*		*Female Rates - Male Rate*	
	6-10	*11-14*	*6-10*	*11-14*	*6-10*	*11-14*
NFHS	**0.83**	**0.87**	**0.67**	**0.63**	**0.82**	**0.72**
NSS	**0.84**	**0.87**	**0.73**	**0.68**	**0.87**	**0.79**

Female rates relative to male rates are in deficit of 13 per cent to 18 per cent for the age group 6-10. This deficit widens to 21 per cent to 28 per cent for the age group 11-14. Rural female rates relative to Urban female rates show even wider relative deficit.

One observation that may be made is that the attendance rates revealed by the NFHS and the NSS for the age group 6 to 10 and 11 to 14 are not very different. This would mean that those who get initiated to the school by and large continue to be in the school. Actually, the NCAER is *(India Human Development Report,* by Abusaleh Shariff, p. 112) specifically discusses the discontinuation rates in rural areas for the age group 6-14 years. The *Report* finds the average discontinuation rate to be 6 per cent. This being average for 8 years period 6 per cent x 8 = 48 per cent, discontinuation rate for 6-14 age group in rural areas is lower than often-reported figures. These figures are based on nominal enrolments and, therefore, they give a false impression of high drop-outs between Class I

and Class II. For example, NCERT's 6th All India Educational Survey reports, that as on 30th September 1993 these were 27 million enrolments in Class I and only 20 million enrolments in class II. Another point to be noted is that the enrolments at the age of 6 to 10 are low, even though at that young age work for gain or work for the household is not likely to be important. One may speculate about the reasons for non-enrolment at a very young age. This is a problem that deserves a careful investigation.

There is an indirect method of checking the proportion of school attendance. If any enquiry reveals a 10-14 years age group person as illiterate, it can be safely inferred that such a person has never attended school. Table 6 shows the percentage of illiterate among 10-14 age (both years inclusive) by sex and rural-urban residence as per the NFHS and the 50th round of the NSS.

TABLE 6

Illiteracy Rate (%) Among 10-14 Age Group (both years inclusive) by Sex and Rural-Urban Residence

		Male	*Female*	*Total*	*Female Rate + Male Rate*
Rural	**NFHS**	**20.9**	**42.9**	**31.5**	**2.05**
	NSS	**18.1**	**35.5**	**26.0**	**1.96**
Urban	**NFHS**	**09.5**	**15.7**	**12.5**	**1.65**
	NSS	**07.4**	**11.4**	**09.3**	**1.54**
Total	**NFHS**	**17.2**	**35.9**	**26.6**	**2.00**
	NSS	**15.7**	**30.T)**	**22.2**	**1.91**

Source: (1) ***National Family Health Survey 1992-93,*** **Table 3.8, pp. 49-51.**
(2) ***SARVESHANA,*** **July-Sept., 1996, Table 19, pp. S-45 to S-50.**

The overall magnitude of illiteracy, and, therefore, non-enrolment is 22 to 26 per cent. Among females, non-enrolment rate is twice as much as that obtaining for males. Among males, in urban areas non-enrolment is on the low side. Even among females, in the urban areas non-enrolment is moderate. However, in the rural areas, non-enrolment among males is about 20 per cent and among females it is 35 per cent to 40 per cent. As discussed earlier, these non-enrolment rates should be compared with almost universal enrolment of children of 6-14 age in many Asian and medium level human development countries.

The National Family Health Survey provides the following data about educational attainments of 15-19 age group. Table 7 shows the relevant data. We may infer that illiterates among 15-19 age group never went to school and those who remained literate but below primary level complete, entered the school but dropped-out. It can be seen that dropping out is at best 10 per cent but never enrolled, as can be inferred from the percent illiterate, is more than 30 per cent, that is, three times the drop-out.

TABLE 7

Education Level of the Population (15-19 Age Group) by Sex and Rural-Urban Residence, According to the NFHS 1992-93

Educational Level	*Rural*			*Urban*			*Total*		
	M			*M*			*M*		
Illiterate	23.0	52.8	38.2	10.3	19.2	14.8	19.5	3.8	31.9
Literate below Primary	8.6	6.7	7.6	5.4	5.3	5.3	7.7	6.3	7.0
Primary complete	19.9	15.0	17.4	15.4	15.5	15.5	18.7	15.1	16.9
Middle school complete	27.3	14.5	20.7	30.0	23.3	26.6	28.0	16.8	22.3
Others above middle school	21.3	11.0	16.1	38.9	36.7	37.8	26.2	17.9	21.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Ratio of primary & above to literate and above	0.89	0.86	0.88	0.94	0.93	0.94	0.91	0.89	0.90

Gross Enrolment, Net Enrolment and Age Specific Enrolment Ratio

Much of the complacency arises due to high gross enrolment ratios at primary school stage. The three concepts involved are defined as follows:

$$\text{Gross Enrolment Ratio} = \frac{\text{Enrolment in Classes I to V or (Classes VI - VIII)}}{\text{Number of Children in the age group 6-10 or (11-13)}} \times 100$$

$$\text{Net Enrolment Ratio} = \frac{\text{Enrolment of 6-10 age persons in Classes I-V or (11-13 in classes VI-VIII)}}{\text{Number of Children in the age group 6-10 or (11-13)}} \times 100$$

$$\text{Age Specific Enrolment Ratio} = \frac{\text{Persons 6-10 or (11-13) enrolled in any Class}}{\text{Number of Children in the age group 6-10 or (11-13)}} \times 100$$

1993,

TABLE 8

Enrolment Ratios, 1993

	Primary Stage	*Upper Primary Stage*
Gross Enrolment Ratio	81.9%	54.2%
Net Enrolment Ratio	64.2%	44.8%
Age Specific Enrolment Ratio	66.4%	57.1%(11 to 13 age)

Gross enrolment at primary stage exceeds the net enrolment by a wide margin, indicating the presence of over-age students at the primary stage. The same story is repeated at the upper primary stage. The mismatch between class and age of the enrolled student is a persistent phenomenon in our schools.

Enrolment and Economic Factors

The next problem is to enquire into the factors that lead to low enrolment. How is enrolment influenced by economic factors? The data available from the NSS 50th Round throws partial light on these issues. Tables 9 and 10 presents data relating to rural and urban areas respectively.

TABLE 9

Adult Literacy Rate (Rural Areas) (%) Age 15 & above and School Attendance Rate (%) Age Groups 6-9 and 10-14, by Sex and Household Monthly Per Capita Expenditure Class

MPCE Class (Rs.)	*Male*			*Female*			*Total*		
	Adult Lit. Rate	*School Attendance Rate*		*Adult Lit. Rate*	*School Attendance Rate*		*Adult Lit. Rate*	*School Attendance Rate*	
		6-9	*10-14*		*6-9*	*10-14*		*6-9*	*10-14*
1	*2*	*3*	*4*	*5*	*6*	7	*8*	*9*	*10*
Less than 120	**33.5**	**50.1**	**54.6**	**9.8**	**36.3**	**31.1**	**21.0**	**42.9**	**42.9**
120-140	**36.7**	**55.6**	**58.6**	**10.6**	**41.8**	**36.6**	**23.5**	**48.9**	**48.9**
140-165	**42.6**	**64.5**	**65.4**	**14.7**	**49.6**	**43.2**	**28.5**	**57.2**	**55.2**
165-190	**47.8**	**67.6**	**68.5**	**18.4**	**52.7**	**44.1**	**33.0**	**60.6**	**57.3**
190-210	**51.6**	**68.5**	**72.6**	**21.6**	**57.0**	**50.6**	**36.8**	**63.1**	**62.3**
210-235	**55.8**	**75.5**	**75.6**	**24.8**	**60.9**	**53.3**	**40.4**	**68.7**	**65.4**
235-265	**59.3**	**78.9**	**80.5**	**27.5**	**65.8**	**57.2**	**43.6**	**72.8**	**69.6**
265-300	**63.1**	**79.9**	**82.3**	**32.8**	**73.6**	**64.8**	**48.3**	**77.1**	**74.5**
300-355	**66.9**	**83.8**	**84.0**	**37.0**	**76.0**	**67.8**	**52.3**	**80.1**	**76.6**
355-455	**71.1**	**84.9**	**85.7**	**43.0**	**77.3**	**72.9**	**57.5**	**81.4**	**80.0**
455-560	**75.5**	**87.7**	**90.3**	**46.7**	**82.2**	**73.7**	**61.7**	**85.1**	**82.7**
More than 560	**81.5**	**91.3**	**90.6**	**57.1**	**87.4**	**78.5**	**70.1**	**89.6**	**85.1**
Not recorded	**60.2**	**74.5**	**72.3**	**30.9**	**68.6**	**59.4**	**46.0**	**71.9**	**67.1**
All	**58.9**	**72.9**	**75.9**	**29.2**	**60.8**	**55.8**	**44.2**	**67.1**	**66.7**

Source: Columns 2, 5 and 8 from Table 22, pp. S-57 to S-62 and Column 3, 4, 5, 7, 9 and 10 from Table 24, pp. S-66 to S-71 NSSO, *SARVEKSHANA,* Vol. XX, No.l, 68* Issue, July-Sept. 1996.

establishment or collecting water, fuel and fodder and looking after younger siblings so that the time of the adult members is freed for gainful work. The second possible way in which economic factors may influence attendance at school is through inability to incur necessary school related expenditure. Such expenditure may consist of expenses on books, stationery, clothes, transport etc. Thus, even though schooling may be free and opportunity cost may be absent, inability to incur necessary out of pocket expenditure may adversely affect school attendance. Finally, the households which suffer from discrimination, which do not have adequate labour market information, which lack market contacts or which do not have any literate adult, may have very low appreciation of opportunities consequent upon literacy and education. In other-words, such households heavily discount the future earnings prospects of education.

TABLE 10

Adult Literacy Rate (Urban Areas) (%) Age 15 & above and School Attendance Rate (%) Age Groups 6-9 and 10-14 by Sex and Household Monthly Per Capita Expenditure Class

MPCE Class Rs.	*Female*			*Total*					
	Adult Lit. Rate	*School Attendance Rate*		*Adult Lit. Rate*	*School Attendance Rate*		*Adult Lit. Rate*	*School Attendance Rate*	
		6-9	*10-14*		*6-9*	*10-14*		*6-9*	*10-14*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Less than 60	**55.1**	**67.8**	**64.6**	**27.3**	**53.6**	**51.5**	**40.8**	**61.2**	**57.7**
60-190	**61.4**	**73.4**	**72.8**	**31.0**	**67.0**	**63.6**	**45.9**	**69.9**	**68.3**
190.230	**67.8**	**76.4**	**78.8**	**40.4**	**75.1**	**70.3**	**54.1**	**75.8**	**74.5**
230-265	**74.0**	**82.4**	**82.9**	**46.3**	**80.5**	**77.1**	**60.3**	**81.5**	**80.1**
265-310	**79.2**	**88.3**	**86.3**	**53.9**	**84.2**	**80.6**	**66.9**	**86.4**	**83.6**
310-355	**83.9**	**92.1**	**87.6**	**61.4**	**86.5**	**85.8**	**73.1**	**89.5**	**86.8**
355-410	**86.8**	**93.1**	**90.5**	**67.1**	**92.4**	**89.2**	**77.4**	**92.8**	**89.9**
410-490	**89.1**	**93.6**	**92.0**	**71.5**	**92.3**	**91.2**	**80.9**	**93.0**	**91.6**
490-605	**91.4**	**95.6**	**94.0**	**77.9**	**93.9**	**89.8**	**85.1**	**94.8**	**92.0**
605-825	**93.1**	**99.2**	**95.5**	**84.1**	**97.1**	**95.8**	**89.0**	**98.2**	**95.6**
825-1055	**95.2**	**98.6**	**97.6**	**87.3**	**92.9**	**96.3**	**91.7**	**96.1**	**97.0**
More than 1055	**96.3**	**97.5**	**96.2**	**92.0**	**98.5**	**93.5**	**94.4**	**97.9**	**95.2**
Not recorded	**84.2**	**93.2**	**84.5**	**60.5**	**80.7**	**71.4**	**73.0**	**87.5**	**78.1**
All	**83.8**	**87.3**	**86.8**	**63.7**	**83.4**	**81.6**	**74.2**	**85.4**	**84.3**

Source: Same as for Table 9.

M P C E Class and School Attendance

Tables 9 and 10 show for rural and urban areas for the 50th Round of NSS (1993-94) household monthly per capita expenditure (MPCE) class and adult literacy rates and school attendance rates among 6-9 and 10-14 age groups. As expected, MPCE class and

adult literacy rate and MPCE class and school attendance rate are directly related. Higher the MPCE, higher the adult literacy rate as well as higher the school attendance rate. This is true of rural as well as urban areas.

What is, however, of particular significance is that even at the highest MPCE class in rural areas, the school attendance rate among 6-9 and 10-14 age groups among boys as well as girls falls short of 100 per cent by 10 per cent to 20 per cent. Thus, among boys of 10-14 age group in the MPCE class Rs.560 and above, school attendance rate is 90.6 per cent, while among girls it is 78.5 per cent. In the urban areas among the top four MPCE class, the school attendance rates for boys as well as girls are around 95 per cent to 90 per cent respectively. In other words, if at the highest MPCE class in rural areas, the school attendance rates are significantly below the complete coverage, the reason cannot be the opportunity cost. Also, it is worth noting that at all MPCE levels among boys, the school attendance rates in rural areas are slightly better for the 10-14 age group as compared to 6-9 age group. Children of 6-9 age group are far too young to take up paid or unpaid work or attend to other domestic chores. They cannot be said to be held back from the school on account of opportunity cost (except in rare cases). We must look for other causes.

Among the girls in rural areas, the deficit in enrolment is more significant than in urban areas. We summarize below for the two lowest and the two highest MPCE classes for the rural and the urban areas the ratio of female school attendance rate to male school attendance rate for 6-9 and 10-14 age groups. At very low levels of MPCE, the relative deficit in enrolment among girls is quite pronounced in rural as well as urban areas and it becomes more severe for the girls in 10-14 age group. In rural areas, the disadvantage persists even at the highest MPCE level. In urban areas, the disadvantage is almost absent.

TABLE 11

Ratio of Female Attendance Rate to Male Attendance Rate

	Age Group 6-9		*Age Group 10-14*	
	Rural	*Urban*	*Rural*	*Urban*
Two Lowest MPCE Classes	**0?72**	**079**	**057**	**0.80**
	0.75	**0.91**	**0.62**	**0.87**
Two Highest MPCE Classes	**0.94**	**0.89**	**0.82**	**1.00**
	0.96	**1.01**	**0.87**	**0.99**
All MPCE Classes	**0.83**	**0.96**	**C_87**	**0-94**

Household M P C E Class and School Attendance Rate

As seen above, among 6-9 or 6-10 age group, even at higher MPCE levels, the school attendance rate falls short of 100 per cent. Opportunity cost in the sense of work for gain or work for household chores cannot hold back such tender age children away from school. Tables 12 and 13 show the data about households without any adult literate,

proportion of adult illiterates in such households to total adult illiterates, school attendance rates among 5-14 years age group and dependency rates (that is, 0-14 and 60 and above age per 1000 in 15-59 age group) for rural and urban areas respectively. In rural areas, according to the NSS 50* Round (1993-94), as many as 37.0 per cent households in the rural areas and 39.7 per cent households in the urban areas had no adult (15 and above age) literate person at all.

TABLE 12

Households with No Adult Literate Member, Illiterate Adults in Such Households, School Attendance Rates and Dependency Rate (Rural Areas)

MPCE Class	*HH with No adult literate member per 1000 HH by MPCE class*	*Illiterate adults in HH in column 2 as percent of all adult illiterates by MPCE class*	*Dependency Rate by MPCE class*	*School Attendance Rate 5-14 age by MPCE Class (%)*	*Percent of Children (Age Group 5-15)*	
					Not attending school	*All persons*
	2	*3*	*4*	*5*		*7*
Less than 120	**644**	**81.4**	**1227**	**40.0**	**9.5**	**5.7**
120-140	**570**	**74.4**	**1097**	**46.2**	**9.5**	**6.3**
140-165	**523**	**73.1**	**1002**	**53.0**	**13.7**	**10.5**
165-190	**465**	**69.2**	**923**	**55.8**	**14.9**	**12.2**
190-210	**422**	**66.8**	**867**	**60.0**	**10.4**	**9.4**
210-235	**390**	**65.4**	**802**	**64.2**	**10.1**	**10.2**
235-265	**362**	**64.1**	**738**	**68.1**	**10.0**	**10.4**
265-300	**318**	**61.5**	**703**	**73.0**	**7.0**	**9.5**
300-355	**289**	**60.5**	**669**	**75.7**	**6.4**	**9.5**
355-455	**259**	**61.2**	**624**	**78.0**	**4.9**	**8.1**
455-560	**232**	**60.6**	**583**	**80.6**	**2.1**	**3.9**
560 & Above	**166**	**55.3**	**499**	**85.1**	**1.5**	**3.6**
Not recorded	**409**	**75.8**	**763**	**67.2**	**0.2**	**0.8**
All	**370**	**66.3**	**785**	**63.9**	**100.0**	**100.0**

Note: HH = Household; Adult = 15 & above age.
MPCE = Household monthly per capita expenditure.
Dependency rate = Persons 0-14 age and 60 and above age per 1000 Persons 15-59 age.

Source: 1) Column 2 in this and the next Table from Table-13, pp. S-1 to S-4, *SARVEKSHANA,* Vol. XXIII, No.4, 79th Issue, April-June 1999..
2) Column 3 in this and the next table is calculated on the basis of Table-3 (pp. S-2 and S-4), Table 13 (pp. S-19 and S-24); Table-16 (pp. S-32 and S-35), and Table-22 (pp. S-59 and S-&1).*SARVEKSHANA*. 68* issue.
3) Column 5 in this and the next table calculated from Table 24, pp. S-66 to S-61. *SARVEKSHANA,* ie.
4) Column 4, 6, 7 in this and the next tables from the above tables.

TABLE 13

Households with No Adult Literate Member, Illiterate Adults in Such Households, School Attendance Rates and Dependency Rate (Urban Areas)

MPCE Class	*HH with No adult literate member per 1000 HH by MPCE class*	*Illiterate adults in HH in column 2 as per cent of all adult illiterates by MPCE class*	*Dependency Rate by MPCE class*	*School Attendance Rate 5-14 age by MPCE Class (%)*	*Percent of Children (Age Group 5-15)*	
					Not attending school	*All persons*
1	*2*	*3*	*4*	*5*	*6*	*7*
< 160	701	74.8	1141	56.0	16.7	6.5
160-190	668	63.9	1035	62.3	14.1	6.3
190-230	561	60.8	869	72.7	17.8	11.0
230-265	503	54.3	838	78.4	13.7	10.7
265-310	432	52.6	704	83.7	11.3	11.6
310-355	372	48.4	658	86.7	7.9	10.0
355-410	328	48.2	615	89.9	6.0	10.1
410-490	331	58.9	558	91.0	5.0	9.4
490-605	317	66.4	514	92.3	3.9	8.5
605-825	318	64.6	451	95.8	2.0	7.9
825-1055	338	49.4	413	96.2	0.8	3.4
1055 & above	317	70.0	278	95.9	0.8	3.2
Not recorded	402	47.4	618	81.8	1.0	1.0
All	397	55.3	644	83.1	100.0	100.0

Note & Source: As in Table 12.

It is instructive to summarize from Tables 12 and 13 the data for 4 lower MPCE classes, 4 middle MPCE classes and 4 upper MPCE classes. This is given in Table 14.

TABLE 14

Adult Literacy and School Attendance Rates

	% of Households Without Literate Adult by MPCE Class		*School Attendance Rate 5-14 Age by MPCE Class (%)*	
	Rural	*Urban*	*Rural*	*Urban*
4 Lower MPCE Class	52.0	58.3	44.7	69.4
4 Middle MPCE Class	37.0	36.5	66.4	87.6
4 Upper MPCE Class	24.6	32.1	78.5	94.6
All MPCE Classes	37.0	39.7	63.9	83.1

It is worth noting that more than half of the households in the 4 lower MPCE class had not a single adult literate member. In the urban areas, this figure was even higher

than in the rural areas. Also in one-fourth to one-third households even among the 4 upper MPCE classes in rural as well as urban areas, there were no literate adults. This means neither opportunity cost nor inability to bear the expenditure of education could be a cause for these upper MPCE households. A heavy discounting of the benefits of education might possibly explain such high percentage of households without a literate adult and less than universal school enrolment of 6-14 age.

In the urban areas, however, the benefits of education seem to be perceived better, if we look at the school attendance rates. In the urban areas, among the 4 upper MPCE class, 94.6 per cent of the children 5-14 age, are attending school. At lower MPCE level 69 per cent are attending school. In the rural areas at lower MPCE level, school attendance rate is only 44.7 per cent. Here perhaps opportunity cost, inability to incur expenditure and heavy discounting of future benefits of education are combining to keep down the school attendance rate. From the figures given in Table 15, it will be seen that a significant proportion of those not attending school belong to the 4 middle MPCE class.

TABLE 15

Percentage of Children (Age Group 5-14) Not Attending School by M P C E Class

	Urban	*Rural*
4 lower MPCE class	**62.3**	**47.6**
4 middle MPCE class	**30.2**	**37.5**
4 upper MPCE class	**07.5**	**14.9**
	100.0	**100.0**

One demographic factor to which attention may be drawn is the heavy burden of ipendency at lower MPCE levels in rural as well as urban areas. Dependency burden is ifined as the number of persons 0-14 age and 60 and above age per 1000 persons in 15¬) age group. The difference between the lowest and the highest MPCE class in this gard is spectacular.

	Rural	*Urban*
Lowest MPCE	**1227**	**1141**
Highest MPCE	**499**	**278**

The adults at the lower levels of MPCE have to carry a heavier load of dependency as indicated in Table 16. This might have an adverse effect on sending children to school. Unfortunately, at lower levels of MPCE, high birth rates seem to be persisting as shown in Table 17.

TABLE 17
Birth Rate by **MPCE Class**

	0-4 age persons per 1000 Females 15-49 age		*Urban/Rural Ratio*
	Rural	*Urban*	
4 Lower MPCE Class	**743**	**627**	**0.84**
4 Middle MPCE Class	**519**	**394**	**0.76**
4 Upper MPCE Class	**355**	**254**	**0.72**

Health, Physical Environment Factors and Class Room Situation

Economists generally concentrate on factors related to income or expenditure to explain low levels of enrolment. However there are also certain general factors operative which lie beyond the household but influence household behaviour. These are physical environment factors and school related factors. Among the physical environment factors sanitation, roads, transport, general law and order, water supply, control of communicable diseases, health facilities etc. A low level of development of these facilities can adversely affect school attendance. Thus, the NCAER Report classifies the villages into low, medium and high development groups. In the low village development groups, ever enrolment rate was only 59.9 per cent among 6-14 age group as compared to 80.9 per cent in the high development villages. This enrolment rate is even lower than 65.3 per cent obtaining for the lowest household income group (Rs.20,000 or less). As high a proportion as 71 per cent is without access to sanitation according to the *Human Development Report, 2000.* The same Report shows 53 per cent of the children under five age as being underweight. According to the NCAER Report (p. 137) in the rural areas 1138 per lakh among 5-14 age suffered from major morbidity such as epilepsy, heart disease, hypertension, tuberculosis, diabetes, mental disorders, leprosy etc. Physical disability (excluding bitot spot), such as night blindness, impediments, related to the visual, auditory, vocal and locomotor systems was 2896 per lakh children 5-12 years age group. Among scheduled castes, this rate was as high as 3325. Among Muslims, it was 3792. (p. 149). Bitot spots prevailed among 2090 per lakh population 5-12 years in rural areas. Bitot spots are an indication of extreme malnutrition.

In urban areas, the slums provide a very discouraging environment. With unsatisfactory sanitary conditions, inadequate water supply, clashes around issues of daily living, lack of physical safety, irregular transport, general insecurity of tenure of tenements, regular attendance at schools is a real challenge.

If we add to this the classroom situation with poor physical conditions, irregular teaching, unsympathetic treatment of children, instruction through a language which may be at variance with the spoken language of disadvantaged or minority groups etc., we would understand why we are far from universalizing primary education, not to mention the quality of education imparted.

Identification of Socio-Economic Classes

Which socio-economic classes are in need of special effort? The NSE 50th round data enables us to approach the problem from economic, employment status and social class point of view for rural and urban areas for males and females. Table 18 shows the school attendance rate among 5-14 age by MPCE class, social group and household type. If we take school attendance rate below 50 per cent (that is, below 500 per 1000), no group in urban areas is in need of special attention. In the rural areas no group among males needs special attention. However, females among the households in the 4 lower MPCE classes, scheduled tribes, scheduled castes and agricultural and other labour need special effort. Thus, if we take 70 per cent (that is, below 700 per 1000) attendance rate as the cutting point, the groups in need of special attention are urban females in the 4 lower MPCE households, scheduled tribe and scheduled caste women in urban areas and women belonging to casual labour. In the rural areas, the groups are men and women in the 4 lower MPCE classes women in the 4 middle MPCE classes, scheduled caste and scheduled tribe men and women, women in self-employed households, and agricultural labour household men and women.

TABLE 18

School Attendance Rate per 1000 among 5-14 Age Group by MPCE Class, Household Social Group, Household Type and Sex and Rural-Urban Residence

	Rural				*Urban*			
	M	*F*	*P*	*F/M*	*M*	*F*	*P*	*F/M*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
Lower 4 MPCE Class	**586**	**417**	***447***	**0.71**	**737**	**667**	**694**	**0.91**
Middle 4 MPCE Class	**735**	**580**	**664**	**0.79**	**887**	**861**	**876**	**0.97**
Upper 4 MPCE Class	**835**	**727**	**785**	**0.87**	**955**	**955**	**840**	**0.98**
All	**710**	**559**	**639**	**0.79**	**853**	**807**	**831**	**0.95**
Schedule Tribe	**579**	**409**	**498**	**0.71**	**797**	**697**	**749**	**0.87**
Schedule Caste	**643**	**462**	**560**	**0.72**	**775**	**686**	**734**	**0.88**
Others	**749**	**610**	**684**	**0.81**	**868**	**830**	**850**	**0.96**
All	**710**	**559**	**639**	**0.79**	**853**	**807**	**831**	**0.95**
Self-Employed	**745**	**590**	**673**	**0.79**	**825**	**785**	**806**	**0.95**
Labour *	**622**	**470**	**551**	**0.76**	**710**	**611**	**663**	**0.86**
Others **	**825**	**709**	**771**	**0.86**	**918**	**882**	**901**	**0.96**
All	**710**	**559**	**639**	**0.79**	**853**	**807**	**831**	**0.95**

Source: *SARVEKSHANA,* **68th Issue, Table No. 24, 26(R) and 26(U) pp. S-66 to S-77**

In rural areas labour means agricultural labour and other labour.

In urban areas labour means casual labour.

**** Others in urban areas means regular wage and salary earners.**

Conclusion

To conclude, it may be emphasized that we are far from attaining the goal of universal enrolment of children 6 to 14 years of age. The gap in regard to females arid scheduled castes and scheduled tribes and casual and agricultural labour is rather wide. There is a mismatch between age and class. Perhaps, the normal age of entry into school differs with different groups of people. It is even possible that under-nourishment, severe morbidity and physical disability are delaying their entry into the school. Environmental factors such as inadequacies of sanitation, infrastructure and riskiness of life in unfavourable habitats may also be contributing to low enrolments. Opportunity cost considerations or affordability of out of pocket expenses may be present but there seem to be factors operative at levels beyond the household which need to be tackled at the village, community or habitat level. Also, there are special problems associated with construction labour, seasonally migrant labour, street children, children engaged in gainful activities, clandestine, illegal or criminal activities. For girls and for the first generation learners, school has to become more attractive. Unless we take adequate steps, we as a country are likely to remain stuck up at 80 per cent - 85 per cent enrolment rates, while most of the countries would be heading towards 100 per cent enrolment.

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REVIEW ARTICLE

Educational Research and Policy Decisions

R.P. Singh*

In a recent publication (2003) titled **International Handbook of Educational Research in the Asia-Pacific Region,** Part 1& II, the relationship between educational research and policy-making has received a good deal of attention. Apparently, this area has largely remained ignored in India. Occasional questions apart, no one seems to have seriously considered exploring the background of policy-making and recorded the exact sequence of events in their run up to a policy implementation and the eventual fall out of the same when stock is taken. Any serious student of Indian educational system will know that a number of policy decisions have failed to yield positive results. In some cases like the 11+3 of the Mudaliar Commission ended up in creating a greater mess than the one it tried to address both at secondary and the higher education levels. We also have records of certain decisions made by Union Ministers of education in the past wherein failures of policies match successes in almost equal measure. During K.L. Shrimali's regime his trip to Holland and Europe gave us Rural Institutes. Somehow, they failed to achieve the goals set for them. On the other hand, India's Agriculture universities that flaunt their America's land-grant colleges lineage proved to be overwhelmingly successful. It is one of those cases wherein a failure matches success. But the question is not what succeeded and what met with a disaster. The real point is the sequence of events in the background and also its level of success. The reason why such an exercise is necessary is because we seem to have a naive belief that once a policy is made mandatory it should succeed. We do not realize that the success or a failure of a policy depends largely upon people's acceptance or rejection. Just as in life we discover that only a few of our efforts pay dividends, similarly all decisions are subject to the law of averages.

So far, perhaps only one publication **(Educational Policies in India—Analysis and Review of Promise and Performance, 2002, NIEPA)** has tried to address this problem. The Education Policy Unit of the National Institute of Education Planning and Administration organized an in-depth discussion on the Analysis and Review of National Education Policy and the Programme of Action 1992 and toward that end developed a detailed paper. Sectorial analysis of the policy implementation yielded informed analytical papers. This effort also seems to fail to match the model I happen to have in my mind. For example, the first paper in the book cited above, written by A.K.Sharma on the implementation of the Educational Policy (1986), gives the genesis of the recommendation for the start of Common School program along with the reasons for its

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inclusion in the policy, but without assigning any reason for its failure declared it to be non-functional. One should have expected him to have at least referred to a debate on the question and mentioned the demand by several groups to be sincere in its implementation. But he did nothing of the sort. Similarly, he talks of the failure of MLL but mentions nothing about an acrimonious debate between the two sponsors of the idea and a certain role the MHRD played. In his opinion, the NCTE - a doubtful starter, gets a green signal and is declared to be performing well because it has not allowed the sub-standard teacher education institutions to survive. Perhaps he did not read the Anand Sarup report or chickened it out before telling the truth for the fear of official reprisals.

Someone should have prepared a paper on the exact sequence of events leading to the formulation of a policy. After that the same paper could also carry the record of the process of a policy implementation. The third stage is to make available some details about the manner the policy tried to resolve a given problem. Toward the end, the paper could have carried an assessment about the success or failure of the implemented policy and the next stage of the same, if any.

There are several ways to trace the genesis of a problem-area, which demands the evolution of an immediate/cautious approach for its eventual resolution. For example, it is the job of the Ministry of Agriculture to oversee the demand and supply scenario of agricultural production. Everyone knows that India's population is increasing, therefore, to meet its food requirements, the Ministry has to prepare itself in advance. It is the responsibility of the Ministry of Agriculture to locate an agency that will calculate the demand and suggest ways and means to meet it. This obligation definitely falls within the Ministry's prerogatives. The agency that undertakes this job is actually doing so shall have to apply certain norms. These norms shall then constitute the research design. In the present case, the Indian Institute of Management, Ahmedabad has done the job. The decision the Ministry takes would form the basis of a policy. This then is one such example where the Ministry of Agriculture takes an advance action for a future demand. But it is possible that the problem at hand could demand an immediate solution. One will then have to look out for some quick-fix response. Could research help out in this situation too? For a quick answer too, research can furnish a pilot design and its simultaneous replication on several fronts. These experiments also form part of a policy formulation.

Put against this backdrop, the issue, in its totality, does deserve a close review. In that process, firstly, we should take stock of the ground reality vis a vis educational research. For example, it is essential to find out who needs research evidence and why? Is it an institution or an individual? Is the demand for a long-range decision-making purpose or research is needed for a limited objective? Also, it is imperative to discover the nature of the query. For instance, if a private management is trying to find a solution to its financial problems, one must assess the typologies of the parties involved. Before one decided to undertake research to help in resolving such a problem, a number of questions would require straight answers. One should know how and which queries to make first. While there is no guarantee that a research can really help resolve problems, (because research

takes time to show any result and also there is always a possibility that matters might get resolved even without any intervention), it is necessary to know whether there is a possibility that the findings/recommendations, as and when they do come, will be given a fair trial. Then there are questions like: who is undertaking research, who is financing it and how much time it will take to complete a project or exactly what does the researcher gain out of such a venture? Educational research is not like medical research where the gains are commensurate with the money and time involved in getting a drug patented, Secondly, we should examine the level and quality of research currently being done in this area. Surely, we are not alone who get confronted with problems in education. Each and every nation today is faced with some intractable educational problem. Traditionally, we are used to finding answers for educational problems intuitively, if not according to our convenience.

It is also good to remember that the problems of private and public undertakings are different. Therefore, what succeeds in a private establishment may not necessarily succeed in a public undertaking. If some problems are poverty-related, there are others that might relate to learning, memory, student behaviour, teacher training etc. Education, like any other skill and information area, is growing. True, it does not have comparably gifted members and serious workers (may be because the chances of getting rewards are limited) and also the one's who join it do not command the same levels of respect as people from other Disciplines do. But that should not dishearten us. Instead, it should inspire us to try achieving comparable heights that others now command. Thirdly, we must explore areas wherein some pioneering efforts are needed and which promise results.

There are a few additional considerations too that are involved here. We must make a distinction between basic and non-basic research. Basic or fundamental research in social sciences is mostly philosophical and is directed to yield results in the form of principles or theories. Ideologies impact in colouring decisions. Seldom do they come out boldly in the open. Political philosophies like that of Marx or Hegel merely furnish criteria for an analysis of social reality and may at times lead to some decisions. They could be motivated to reform society but it is not necessary that a philosophy must result in policy formulation. Policies are needed by societies to resolve their day-to-day problems. Here, the idea is to suggest ways and means to the resolution of a problem. Here, thinking is involved in first analyzing the precise nature of the problem, then weighing steps that measure up to its resolution and finally selecting one out of the several that normally crowd the scene. The nature of the steps that get suggested for the eventual application may come from some pilot projects, theory or a possible suggestion emanating out of a successful experiment.

The ground reality about institutions engaged in educational research is, that besides institutions set up by the Government of India like the NCERT & NIEPA etc. that are supposed to work within the framework of the Ministry of Human Resources Development, Indian universities too have departments of education wherein some advance level research in various aspects of education is regularly undertaken. Directly or

indirectly, therefoie, the Government is funding research. In other words, the Government is interested and also involved both in training and employing research workers. By implication, therefore, it is natural to assume that research, if meaningful and necessary, is welcome. Parallel to the Government, there are numerous private agencies too, that are involved in educational research. Besides a few private-funded agencies/ NGO's, the most famous name involved is that of the Tatas. It would be quite revealing to discover and count the numbers involved. The Government of India has set up organizations like the Indian Council of Social Science Research, the Indian Council of Historical Research, the Indian Council of Philosophical Research etc. to finance research in certain specific areas. Then there is an Indian Institute of Advanced Studies. Several State governments have also set up their own organizations to assist and fund research. The important point to note is that in Independent India research has come of age. Both private and public sectors have found to their pleasant surprise that research funding has paid dividends. Therefore, no one is averse to funding or conducting educational research.

Unlike several nations, where the Government demand for any kind of research has to go to the universities only, in free India, we have both the Government as well as private bodies to undertake all kinds of researches. One does not have to go far to find out reason for this. The Government of India does not seem to trust researchers very much and, therefore, appears quite unwilling to accept that researchers outside its own supervision could also provide meaningful and timely results. Universities on their part have done little to deserve this trust. But in this category too, there are brilliant exceptions. Agriculture universities and the Indian Institutes of Technologies have paid back several times over the investments made in their setting up and support. But the general assumption seems to be that unlike Government's own employees, university staff will not feel responsible enough to deliver on time. The Dreamy Professors might turn out to be a big bother. The Government's own employee cannot afford to be either irresponsible or else one is answerable to one's boss. In fact, it is the question of one's accountability. Theoretically, the universities enjoy autonomy.

The other question one needs to answer is: Who wants research guidance? Uninformed decisions could prove to be national disasters. Civilizational advancement is impossible without research or critical evaluation of the existing scenario. No matter how trivial or ordinary looking decision one might be taking, a lot of critical thinking furnishes it necessary support systems. Success or ft another matter. Failures do not signify ignorance or 1 decisions are a projection of a dream, failures or succ< dreaming. Both help taking a determined step forward.

One question that has come up for repeated discussion on the theme relates to the point: How come educational researches do not seem to be informing decision-making? The write-up of T. Neville Postlethwaite in the Handbook, referred to above, holds out no promise for either the researcher or the policy-maker. In his opinion, the twins (the researcher and the user of research) are not likely to meet. This is so either because the

policy maker was not taken initially into confidence; or, the researcher had a small or bad sample and hence, the findings turn out to be of no consequence.

If only we were to delve a little deeply into the existing demand and supply situation in India of the said need, the chances are that we would be in for a big surprise. For instance, if we looked around and tried to correlate research findings with the policy making, we will be forced to concede that commissioned research has indeed been extremely useful. For instance, the location of primary school and the distance expected of a child to travel before reaching school was decided on the basis of a national survey. Each Census carries numerous questions prepared by Government's own institutions so that the furnished data could be used for policy implications. The setting up of National Institute of Open Schooling is the result of a pilot project from where some useful facts and figures were collected and a policy evolved to implement. In fact, what we need is a proper impact study on the subject.

Numerous changes that occurred in Indian higher education after Teacher Commission Report (1984-5) are a testimony to the fact that research can contribute, and indeed does, in critical areas of decision-making. The setting up of Academic Staff Colleges, improvement in libraries and the working conditions of teachers, their grade revisions, increase in house allowances etc. were indeed the direct result of various researches conducted by NIEPA's Higher Education Unit. Similarly, the Kothari Commission had earlier received plenty of research input. Parallel to this, we should notice that Institutes like Indian Council of Applied Manpower Research, Indian Council of Applied Economic Research continuously inform India's budget making. In the areas of space, defense strategies, economic research, poverty alleviation etc., we find a positive correlation of research findings with policy making.

Meanwhile, we should not forget that research findings need to be given wide publicity when they are found to have credible/authentic evidence. Mere reporting of research findings in the journals is seldom found to be either useful or sufficient. Research also needs wider and larger responsive audience. In the article printed in the **Handbook** titled: **Policy-Making, Planning and Change in Tertiary Education,** the trend apparently is that while the State is unwilling to withdraw from policy making, it is, in fact, approaching this area through adopting market mechanism. The goals set for education to achieve are the pursuit of excellence, increased competitiveness and efficiency. One needs to ponder over one problem. For achieving excellence, one needs to define excellence. A definition like that will have to be contextual. There can hardly ever be a universally acceptable concept of excellence. This means that for a theoretical concept, one needs a different kind of set up for conducting research than that of an applied type of research. Each research variant will need its own establishment. Therefore, one has to decide who will do fundamental research and who will take up some other type of research. This question also needs a policy input. Of late, one notices that numerous terms have become popular. We should look beyond the word and grapple with the reality that lies beyond it.

Under the major theme title: **Educational Research and National Development,** the Handbook carries several articles such as: **Educational Research and Regional Development, Globalization and Education in Asia, Comparative Indicators in Education, Dissemination of the Findings of Educational Research and Donor Support for Educational Research.** This section deals comprehensively with the definition, problems, donors, dissemination and relationship of educational research with regional and national development. Tuijnman records the way research in education has grown over the past couple of decades. For instance, during the 1980's educational research was treated *less for how it informed policies but more for how it improved educational practice.* In the 1990s, there developed a strong emphasis on practice-oriented research that would immediately benefit teachers and school leaders. The 21st century is witness to yet another stage in research development wherein politics has started playing a direct role. The empowerment of practitioners and legitimacy of their knowledge base may well start impacting research funding. Pointing to a recent development, educational research is currently being called upon to show a relationship between education and the raising of the quality of its workforce. The reason behind it all is to demonstrate that education does really contribute to a nation's economic growth. It has been argued that monitoring of student's achievement in science and mathematics in the region needs being paid attention.

A number of issues and weaknesses in educational research stand identified and some important suggestions too have been made. For instance, researchers should involve practitioners in both design and actual conduct of school innovation projects. Steps taken by New Zealand Ministry of Education in 1999 for underpinning policy by sound research need to be paid attention by the concerned parties all over the Asian region. While we all know about the inadequacies of educational research vis a vis policy-making and classroom instruction, it is suggested that a good balance between basic research and applied development work will lead to research being accorded due respect. Unfortunately, in India we do not have many capable researchers to enter the area of basic research. The NCERT was the first institution that had in early 60s started with Foundations of Education for the purpose, but very soon the Government decided to close it down as the dividends seemingly failed to match investment. I am quite sure the organization must be ruing the day when it took such a negative stance.

Dissemination of the Findings of Educational Research is a useful area to explore. I have a feeling that so far no nation has succeeded in evolving a model worthy of being followed by others. The best model that a UNESCO group had come across was discovered in China. They had evolved a process through which the summaries of meaningful researches were disseminated on the national television channel during prime time viewing. Other than this" there existed no model worthy of being cited. The usual method is only to have research reports published either in Journals or in books.

We have discussed in some detail the nature (research for what?), impact (its relationship with educational reform), needs and priorities of research in education, the areas being constantly ignored relate to training of research workers, regional co-

operation in educational research and the challenges before research to inform reform-initiators. Perhaps the basic reason lies in semi-professionalism confronting this area. We, in India, do not have qualified and mature comparativists to undertake this job.

Currently, the problems Education *per se* faces lie in swiftly changing times and the lack of identification of prospective skills that could be offered in advance. The ICT, globalization and the unpredictable nature of financing education are increasingly growing into areas of concern. We seem to have overstretched our demands on education and believe naively that the panacea for all our ills lies in it. Unfortunately, this is not true or else the developed countries will not face problems of unemployment, non-usable skills, irrelevant knowledge etc. As technology advances, it brings cheer to some homes but utter destitution and misery to those of others. The unequal world is becoming even more sharply divided. We do not talk these days of only economic divide but of digital divide too. The more we train people, the less they appear to become equal to the task on hand.

There is a vast difference between the relevance and value of researches undertaken in Education and in other Disciplines. The most useful researches currently being undertaken in India fall in the fields of technology and agriculture. One finds their impact all around. For instance, the IITs and Agriculture universities have done more for the Indian economy and the common man than all other branches of academic areas put together. A single improvement in a seed strain yields more money to the nation than the total amount spent on the setting up of an agricultural university. These universities are responsible for making India self-sufficient in food. Even such academic subjects like sociology, political science, economics etc. have made outstanding contributions to our knowledge and one notices their impact on informed decision-making every day. A recent study on the contributions of the Indian Institutes of Technology **(Times of India,** 25.01.04) to India's knowledge industry has attempted to prove that they are worth more than their structure in gold.

Unfortunately, this is not so apparent in Education. This is one question that needs some exploring. It might amaze some to note that in the fields of agriculture and technology, the educational background of the users of highly sophisticated research is close to illiteracy. But no such luck seems to have come in the share of India's educational researchers, wherein the educational background of research users is as high as those of the researchers themselves.

There is some scope for discussing our Research compendia called **Surveys of Educational Research,** the NCERT brings out every five-year. Studying the trend, one will have noticed that the First Survey covered the years 1950-73 and brought out the titles of M.Ed, and Ph.D. theses (1939-61) with a supplement until 1966. The areas included numbered 16. The total number of researches reported was 342. While the number of non-Ph. D. researches was 269, the number of Ph.D. was a meagre 78. The 16 areas included: Philosophy of Education, History of Education, Sociology, Personality, Learning & Motivation, Guidance, Tests and Measurement, **Curriculum,** Methods Textbooks, Programmed Learning, Correlates of Achievement, **Educational Eva**luation &

Examinations, Teaching & Teaching Behaviour, Teacher Administration, Economics of Education, Social & Adult Education and Educational Surveys. Since then 4 more Surveys have come and the Sixth is about to come out. Each survey has covered more areas than its predecessor. The Second Survey added Comparative Education, Educational Technology, Higher Education and Non-Formal Education and its coverage increased to 806, of which 10% were research projects taken up by government employees. The Third Survey added to its list of areas covered: **Language Education, Researches in the USA & UK by Indians and Priorities in Educational Research.** Incidentally, it covered 158 NCERT projects plus 168 funded by other agencies. Decade-wise the Ph.D.s in Education were as follows: 1941-50i=10, 51-60=63, 61-70=234, 71-80=850, 81-83=266. The trend is clear. Ph.D.s in Education became increasingly numerous. But the non-Ph.D. researchers remained many more (1017). The Fourth Survey did not add anything new to the neglected areas, which included Theoretical Research, Case Studies, Law and Education, Politics of Education, Policy Research or Experimental researches, Curricular Changes, Educational Administration and Teacher Transfer Policies etc. The Fifth Survey added Creativity and Innovations, Guidance Counseling, Curriculum Development, pre-Primary Education, Moral Art and Aesthetics, and Education of Girls and Women. Since then we notice the emergence of some more areas such as Education of the Challenged Children, Education of Minorities, Tribal Education etc. and currently the number of areas being covered might as well have exceeded 38. Still, the Indian effort comes nowhere near the work done elsewhere in the APR.

Compared with the Indian publications, the above cited **Handbook** covers many more areas and with expected appropriateness. Somehow, there is a feeling of mismatch between the research efforts and the usability of research findings. Surprisingly, the best usable research in almost all academic fields in India is either coming from Foundations like that of the Tatas or Birlas or from the Institutes and bodies like the NCERT, ICSSR, ICAMR, NIEPA, ISRO, ICAR etc that work within the framework of the Governments' various Ministries. Somehow, the Indian universities have refused to take the bait of exploring into those areas that may someday help the Nation build a sound knowledge base. There is no reason to believe that prospective researchers from universities will continue to remain apathetic to their social obligations. This is more true for Education than for other Disciplines. It looks as though they do not know how to take into confidence policy-makers or the users of the research findings. I think this is one area that needs to be addressed on a priority basis. One also suspects that unlike agriculture scientists and the technologists, educational researchers have not learnt the art of exhibiting properly their wares. They have thus far failed to correlate their research findings with demonstrable success. Or, may be they have no rapport with the actual research users. Alternatively, either they think poorly of their products and consider them unworthy of being put on sale in the market; or, they lack confidence in their efforts. In either condition, educational researchers remain losers. Personally, I would be interested

to see that someone came forward to take up the gauntlet (of conducting usable educational research) and took the bull (of policy makers) by its horns.

We need to note that a number of institutions, both national and international, are willing to finance educational research. I think it would be a good idea if a list of donor institutions along with their addresses and proformas etc. were made readily available.

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BOOK REVIEWS

Lewis M. BRANSCOMB, Fumio KODAMA and Richard FLORIDA (eds). (1999): ***Industrializing Knowledge: University-Industry Linkages in Japan and the United States,*** Cambridge, Mass: The MIT Press, Pages: 630, ISBN 0-262-02465-9, Price: not stated (hc:alk. Paper).

The traditional role of the institution of university has been retention, reproduction and reinterpretation or generation of possible new knowledge. For some time, these roles have been under challenge. The nineteenth century ideal of a university as the location where knowledge flows unencumbered and where-di*logues across .disciplines of knowledge take place freely is lamentably a threatened neaT-**Textrrtct** happening. Ironically, our contemporary society, as the editors of this volume too assert, is claimed to be generating new knowledge at an unprecedented pace and with a never-imagined volume. It should, therefore, surprise us. Is there then a new emergent institution that has undertaken this job of production of new knowledge? University as an institution is dwindling. In response to post-modernist challenges, several countries opened up new experimental 'cultural' universities; others less from the former challenge but more to tune with the fast changing industrial and research fashions continued creating or destroying disciplines after disciplines. Universities are groping to adjust. But to what should this adjust? Some authors hinted that firms are the generators of new knowledge; firms they also claimed reproduce knowledge. So, arguably industrial firms can parallel, if not substitute University. Others hint that firms can force university to adjust to generation of new modes of knowledge. Are we to believe then firms are the repositories and the generator of knowledge that the institution of university has so far undertaken! Holders of intermediate position subscribe to the view that an adjusted university in strong ties with the firm would assume a network-institution – the new social set-up for knowledge. This belief rather unquestioned has been at the back of the present volume.

Such a belief, however, does not answer the question raised by either the genealogist critic or the critics from the nineteenth century ideals. Does university have claims to exist? In fact, Kodama and Branscomb in their prefatorial paper talks about another strategic dimension. This book, they indicate, is the outcome of the strategic negotiations and the trade negotiations on market access between Japan and the United States. They indicate that these two countries have differences in culture, institutions and consequently in their linkages between firm and the university. Strategy negotiations, while attempting to locate symmetric institutions, failed. International politics had influences even on the England-Continent axis of Nineteenth and early Twentieth century; German universities and its chemical firms too, in particular, the famous I. G. Farben had extensive links; and yet such questions on legitimacy of university or on industrializing knowledge did not arise. This volume surely did not look back. Our question remained unanswered. A reader is supposed to share the belief that a new form of knowledge institution is emergent.

Another assumption remains in the background. The background belief is that much of technical knowledge is tacit. In fact, this and the necessity of strategic negotiations possibly had influenced the enactment of the somewhat infamous Bayh-Dole Patent Act, 1980 of the USA that legitimizes and operationalizes private property rights out of public investment and public good. Much discussion in this volume necessarily referred to the post-Act scenario in USA. Voices against this Act and against the loss of public appropriability or non-excludability do not find a right corner in this volume though. Mowery, Nelson, Sampat and Ziedonis have contributed a paper in this regard in the present volume. The dominant assumption is that private exchanges between academicians in university who might hold tacit or quasi-public or near-private information and the private firm eager to exploit such tacit knowledge is extremely important for national strategy and without such private appropriations the new emergent institution of knowledge will fail to come up. In fact, there is another group who, while discrediting private appropriations, believe and argue that a society will underproduce appropriate and valued knowledge unless private interests are sustained through incentives of property rights. This efficiency argument has many takers. The resulting academician is an academic-entrepreneur in the language of another contributor Etzkowitz.

I have spent some time on this aspect because my country administrators have accepted much of the above beliefs without questioning and no public debate has taken place. The lobbyist in India cites USA. That alone is often sufficient to convince. Consequently some of our establishments have set targets for patenting or for earnings from firm through sponsored/consultancy researches or primarily through handing over exclusive licenses. All this happened without a murmur of protest on the loss of public availability of information. We have research university-types for graduate studies and the run of the mill universities for undergraduate studies. Allocation for higher education is threatened. Ministry or Departmental funds often go for this university-industry mode. This book provides an important tool to our lobbyists.

A forgotten aspect in this book is that contemporary firms are under great threat - markets are volatile, unpredictable and uncertain or unexpected technological twists sweep off an existing market from under a firm. Firms are collaborating at an unprecedented pace putting to shame even the German cartels. They are shying away from durable investment in R&D and are following another path as well simultaneously; in order to ensure that sudden unpredicted technological outcomes do not sweep them off, these firms are collaborating with university research in order to coordinate more 'the what of research; and 'the what of outcome'. Increase in patenting rates is just but a pointer to this dangerous precipice. These two aspects clearly point out to an emergent threat to the whole undertaking of knowledge as such - the what of knowledge is increasingly being determined by what are the interests of a few quasi-cartelised large firms. Industrialising knowledge is in fact the controlling of what of knowledge.

Unfortunately, we do not have a paper in this volume looking into this aspect of control. We do not have papers here also on the decreasing durable investment by firms

Unfortunately, we do not have a paper in this volume looking into this aspect of control. We do not have papers here also on the decreasing durable investment by firms in R&D visited simultaneously by the increasing ties between universities and the firms. The globalisation of research sponsorships by the Japanese and the US firms are perhaps more to ensure that unpredicted and unwanted technological challenges do not dethrone the reigning gods and less for scouting out talents in places like India, China and Brazil. Public announcement of research data, such as obtained through human genomics project, have great potential in destabilizing for example the chemical-route based large pharma MNEs. Chinese participation in global rice genomics project has precisely been to counteract the dominance of agri MNEs.

Knowledge is political. Etzkowitz' academic entrepreneur is a political lobbyist spending half of her time in lobbying for and in collaborative linking up with competitors. The model of competitive bidding for research is thus suspect. Editors praise a public space of publication, which they argue rates the standing of a university. However, more than **95%** of editors, reviewers and the high impact-factor rated journals do appear only from the few developed countries, in particular from the USA. Lobbying in publication is a known story. Given this, as some papers here such as by Fogart and Sinha, and that by Candell and Jaffe, argue from the increasing returns based distributive implications that industry linkages of university research is distributional over geographic spaces and over contiguous geographies sometimes. From an alternative perspective therefore, one might conclude that public spaces, even if remain starved off public information of knowledge, would satisfy distributive justice through engendering spin offs and through catalyzing national competitiveness. This again is suspect. Growth theories will condone because there would be growth in this putative distribution. However, what would happen to the underdogs in the USA, the backward industries and people with old knowledge of production! Finally, an advanced research in a laggard country such as India could then be distributive only over a small region in California and not over its own people who paid for the research.

Transfer of technology cannot be distributionally proper unless it is informationally distributive. If we take case-by-case approach, as a couple of papers in this volume do, transfers would appear seamless. There are jumps and omissions, however. An undertaking of knowledge in university through its acts of commissioning or of omitting would be blatantly skewed while in terms of successes in transfers of technology, it would appear very efficient. The Japanese participation in writing joint papers could thus be treated also as acts of exclusion. Finally, the Nineteenth century university ideal proved it right in its undertaking of unvitiated and hence uninfluenced generation of knowledge and its disciplines. Can the university-industry linkage institution ensure growth of untampered knowledge? Politics of knowledge then comes to the foreground in its both aspects - the global and the national.

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Brij KOTHARI, **P.G.** Vijaya Sherry CHAND and Michael NORTON (ed.) **(2003):** ***Reading Beyond the Alphabet - Innovations in Lifelong Literacy,*** Sage, pp. **282,** Price: Rs. **350**

As the title of the book suggests, its content relates to various innovative programmes taken up by voluntary groups of motivated individuals to help the poor to become literate and also to retain related skills for their entire lifespan. We all know that quite a percentage of the poor who find no use for literacy or numeracy lapse into illiteracy. Presented in 16 chapters and in eight parts, the present publication is precisely all about the literacy-deprived section of society. In the words of the editors, "this book is a collection of cases to promote lifelong literacy, with a creative bent. It is a small collection gleaned from a National Conference, titled: Reading beyond the Alphabet: Innovations in Post- and Lifelong Literacy, held at the Indian Institute of Management, Ahmedabad." Without a doubt, the editors continue, "this collection is but a fraction of the creative ideas in this vast country. Although the existence of creativity is never in doubt, if there is a serious lacuna, it is in the active search, identification, support and promotion of creative ideas and innovation." The editors take note of a reality though commonly known is seldom verbalized. In their own words: "Euphemistically speaking, the policy climate has not always been conducive to innovation. Many innovations succeed in taking root as pilot projects, despite the odds, but remain as 'neat' projects and ideas to be presented at conferences and written about in books. If at all they influence policy makers, it is usually after an inordinately long period of persistence in the face of several rounds of rejection." And the reason lies in the fact that "given the extremely hierarchical nature of relationships within policy making, ideas in policy making circles are likely to emanate from or are distilled through a handful of experts and decision makers. Today an idea or innovation born outside policy circles faces an uphill task even to be heard, let alone be considered seriously." In this sense, the present collection is a challenge to that coterie of policy makers to come out of their committed grooves and to match these efforts or confront the ground reality with their own innovative programmes

The message being delivered through this collection is very loud and clear. Since literacy empowers an individual, literacy has to be linked to everyday life. It should be made an essential part of a non-literate person's journey into literacy. For people with or without some basic skills "one can creatively introduce new literacy-based empowerment, development and enrichment opportunities that could not or simply were not part of the non-literate person's life-world earlier." Motivating adults can be easy if they are shown that classroom activity is not only transferable to life-situations but can also improve their quality of life as well. In other words, the only way literacy skills can remain alive and their learners remain literally motivated lies in the way the skills are related directly to one's actual life and occupation.

The chapter titles of the book are almost self-explanatory. For example, chapter two of the Part Two is Van Dhan: Literacy in Support of Livelihoods in Bastar. Or see others

Taleem se Taqat: Educating Adolescent Girls in Delhi Slums or Participating Village Level Land-use Mapping; A Post-literacy Exercise etc.

The description of each project work is absolutely unforgetable. For instance, it is not easy to forget the way tribal from Bastar were motivated to help themselves through a demonstration of employing literacy skills to their own poverty problems, which has ultimately convinced them about the practical uses of their learning. Similarly, girls in Delhi slums learnt life-skills through community workers who went through first themselves a programme, which they were to employ in offering identical courses to these girls. In all these innovations, changes are first brought about in the curriculum that takes into account age, interests, experiences, needs and pace of learners. I wonder whether the same can be said of other curriculum makers too.

The message of the book is "Keep them Literate", once you introduce them to literacy and numeracy skills. Like Dawson, everyone should come to experience the excitement of being able to write one's name even if one were 98. Worth reading and mulling over the message and the experiments.

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Varghese PALAMATHAM (2003): ***Management of Autonomous Colleges,*** Rajagiri Publications, Rajagiri College of Social Sciences, Kalamassery, Kerala, pp. xx+188, Price: Rs. 295 (Hardbound)

The book under notice is an updated and extended version of a doctoral thesis. It is an inquiry into the practice of autonomy in colleges and an invitation to academicians to be autonomous. The author opines that our education system as it stands today is unsatisfactory. It neither meets the needs of our current society, nor does it prepare the young for the future. There has been a tremendous expression in higher education and India is operating the world's third largest system, next only to those of USA and USSR. On the positive side, India has contributed value-added quality manpower to the world, and it is estimated that about half a million Indian graduates are currently working at a premium level across the world.

Many piece-meal attempts at reforming and revitalizing Indian higher education system have been made or better planned and proposed right from Calcutta University Commission onwards. But there has been no spectacular attempt or success at the implementation stage. However, some concrete measures introduced at improving the quality of higher education are: the semester system of course and curriculum planning; continuous internal evaluation of students; and University Grants Commission's (UGC) College Science Improvement Programme (COSIP), and College Humanities and Social Science Improvement Programme (COHSSIP). The author notes that UGC's programmes

met with considerable success because funds were distributed directly to the affiliated colleges by the UGC.

In India, the main structure of higher education is based on the university system to which colleges are also affiliated. It was borrowed from London University, UK, in 1857 with the establishment of the universities of Calcutta, Madras and Bombay. The colleges were affiliated to them, and they were mainly the examining bodies. The London University incorporated this system by middle of the nineteenth century and discarded it in 1882 due to its inherent deficiencies and defects in the matter of keeping standards and quality. It may be of interest to note that some colleges were functioning even before 1857, and in ancient India, there were institutes of higher learning and these were independent. The author points out that there is no foolproof alternative to the affiliating system of education. However, an alternative was put forward even before 1947 in the form of Autonomous College within the affiliating system itself. The idea was suggested by Calcutta University Commission and endorsed by Indian Education Commission (1964-66). The first legislation towards autonomy was passed by the Senate of Agra University in 1954 conferring autonomy to colleges under the university. The State Legislature passed an amendment to the Agra University Act. But due to fierce resistance, autonomy was not granted to any college in Agra University. Subsequently, Mahajani Committee on Colleges (1964) recommended that one of the practical methods of improving higher education in India would be to select a few colleges on the basis of their past work, influence traditions, maturity and academic standards; give them an autonomous status with freedom to develop their personalities, experiment with new ideas from their own syllabus in consultations with the university, devise and conduct examinations and initiate new measures. The author has provided a list of 127 Autonomous Colleges in 29 universities and in nine states.

Palamattam reports about the study of experimentation of autonomy in ten selected colleges in Tamil Nadu over a ten-year period. Out of these, three were women's colleges while the others were mixed (co-educational) colleges.

It was found that apart from constraints like the lack of administrative stability at the top, large scale financial support for academic improvement and reward for creativity, the high degree of positive ratings for the management by the faculty and the students was a strong indication that the managements of these colleges were capable and resourceful agencies to administer the programme of autonomy and they were sufficiently tuned and oriented to undergo change and manage change required in bringing about autonomy to the colleges. In colleges, where the initiative came from the faculty are the ones that are run in the best possible manner as autonomous institutions. But, in some colleges, due to the lack of initial involvement of the faculty, the enthusiasm for implementation in these institutions was low, and to that extent, the quality of the programmes, the processes and the products suffered in these institutions. Planning and preparation were very effective in those colleges where the teachers were allowed full freedom and involvement than in others where the management and higher authorities were the principal actors. This suggests autonomy in the business of the academicians than that of any other group. For

colleges running efficiently, planning for autonomy was a long process. They examined their strengths and weaknesses, the opportunities and challenges before them. It was done for each department and for the whole college. They submitted detailed plan proposals for autonomy to the university, the UGC and the Government.

The highest degree of success for the programme of autonomy was in those colleges that had a high level of coordination among the various departments and functionaries like government agencies; the parents, public and other stake-holders and collaborators in education. It is suggested that partnership with local bodies and industries is an area that can be exploited to the advantage of the institution and for the cause of education. More teachers experienced autonomy in syllabus designing than in course and curriculum planning. Innovative methods of teaching and evaluation of the students gave satisfaction to a large number of teachers. All the colleges had varying degrees of internal evaluation that was done by the course teachers. Most colleges had 50 per cent marks allotted for internal evaluation. The remaining 50 per cent were for semestral and external examinations. Two colleges conducted cent percent internal evaluation in postgraduate classes.

The basic objective of autonomy was a change from the current affiliating system of university education. It effected the structural reorganization in the colleges and led to the formation of board of studies, academic council, examination departments, etc. There is a suggestion that a college with determination and vision could make use of this facility to the great advantage and satisfaction of the faculty, the students, and the general public. This can make the college more effective, relevant and dynamic. About the role of the principal, it is deserved that a more permanent and properly oriented principal can better influence the working of the autonomous college programme. The democratic orientation, the participation culture, a suitable administrative set up, an advanced and proper planning gave women's colleges an edge for successful experimentation with the concept of autonomy when compared to the mixed colleges.

In the case study of Lady Doak College, Madurai, information is provided about the administrative and academic structures, the hurdles in the implementation of the autonomy and the factors that contributed to its success. In this college, more of the components of autonomous functioning of a college were visible. The author concludes that the experiment of autonomy as such is not a failure in any of the college. All the colleges were at varying degrees or stages of success. Some of them had not gone to many of the attainable details of autonomous functioning.

There are still many apprehensions about the concept of autonomy in colleges and role of teachers and administrators. In this context Ramamurthy Committee for Review of National Policy on Education (1990) observed that the process of grant of autonomy to colleges will not materialize into tangible results unless there is an unreserved participation on the part of the entire academic community. The then UGC Chairman pointed out that autonomy can be brought about by being an accepted way of academic management. However, the concept of autonomous colleges and the programme of establishing the same have come under criticism mainly on account of apprehensions on

the part of teachers regarding increased workioads, arbitrariness on the part of the management, likely lack of recognition to the products of these colleges, etc. (p. 223). T. Rajagopalan poses the question - why are colleges reluctant to apply for autonomy? It is pointed out that it cannot be only financial constraints, since the University Grants Commission has increased the grants to autonomous colleges, the answer partly lies in their opposition to the concept from trade unions. This is strange since autonomy goes to empower the teachers (The Hindu, December 23, 2003).

In sum, the book will be of interest to all those who would like to push the movement of autonomous colleges. For the ease of the readers, the author has produced a good deal of information. It is a matter of concern that even after 25 years, since autonomy was granted to colleges, the movement has not gained momentum. The experience of the functioning of American colleges may be of some interest. The efforts of the author will be rewarded if the book succeeds in giving a push to the setting up of more autonomous colleges. It is a challenge for the academic community. The publisher has done a good job. A useful contribution.

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Jacky LUMBY (2001): ***Managing Further Education: Learning Enterprise,*** Paul Chapman Publishing, London, A Sage Publications Company (London), pp. 183, Price $18.99.

'Managing Further Education: Learning Enterprise' is the sixth volume in the series. Jacky Lumby presents an account of self- governing schools and colleges in England with a focus on theory, research and practice. The period since the incorporation of colleges in England in 1993 has been one of tempestuous change. There are twelve chapters in the book devoted mainly to the management culture of self-governing educational institutions. The book focuses on management aspect of people, finance, marketing, quality, changing structures and roles, information and communication, teaching-learning process, working with employees, evolving the culture and the future perspective. *According to the author, the core of further education has been, and remains, students and staff coming together to achieve learning and that provides continuity. (P,l)*

But with the changing system, familiar patterns of learning do change - resource-based learning centres, a wider range of staff working with students, less group-based teaching and more individual paced work, and so on.

With change in political philosophy, the educational institutions are also being recognized. For example, in *South Africa, colleges are attempting expansion and reorganization to educate the previously excluded black majority. In China, vocational schools and colleges face the need to become more responsive as previously strictly*

state-controlled entry is breaking down in the face of market forces. In Hong Kong, the vocational training council has embarked on a fundamental reshaping of vocational education in response to the shifting economic base. (P. 2).

In England, the further education sector is of a great significance, educating and training 3.8 million students in 1998-99. As Hall (1994) points out, every town of any size has one and sometimes more than one college of further education. Further education colleges are not standard, bureaucratically defined institutions but rather each is a product of its own history, the policies of its previous governing bodies and Local Education Authority, and the local demand from employees and communities. Their curriculum is a 'mix' of what is offered in colleges and schools. Consequently, locating further education in a distinctive position between school and universities is not easy (P. 3). The beauty of further education is its comprehensiveness as these colleges do meet the needs of a diverse student profile.

The 'new manager' of further education has been sandwitched between state executive bodies such as the Further Education Funding Council (FEFC) and staff within their own institutions. FEFC does not provide fund to the so-called sixth form colleges. Sixth form colleges cater largely for the 16-19 cohort and offer A-levels and General National Vocational Qualifications (GNVQS). Much of the research into further education in the 1990s indicates that the state has been successful in achieving massive shifts in the FE work place and its culture (Robson, 1998, P. 585).

Analyzing the role of the leader in further education, Harper (1997) argues that the term 'Leader' is rarely used in further education. So is the case with term of 'manager'. Following incorporation in 1993, an unprecedented number of principals retired from their post, perhaps recognizing that the job was both more difficult and different in nature. The job requires various facets of the leadership role: technical, human, educational, symbolic and cultural.

While analyzing the change in the role of governors, *Lumby observes: Prior to 1993, the membership of governing bodies included democratically elected members of the local education authority (LEA) and stressed the democratic process. The post-incorporation increase in the number of business-based governors appeared to change the emphasis, and lead to fears that colleges would lose the sense of democratic accountability and be run like business to increase funds rather than to serve the community (P. 17).*

Five possible differences in the nature of leadership in colleges emerge. These are: (i) external focus national/regional issues and partnerships; (ii) vision and inspiration-creating a vision or legacy and inspiring others; (iii) systems creation-creating organization wide systems, managing by exception; (iv) distant from staff-power distance perceived as great; and (v) educational leadership setting educational values and broad parameters for curriculum development. A transformational leadership that tries to adopt to internal environment.

People, students and staff are the heart of further education. Post-incorporation colleges were assigned the responsibility of recruitment, appraisal, pay and employee

relations. The tasks became challenging, particularly when institutions can be multi-sited and staffed by more than **50** per cent part-timers. Cost-cutting measures put the staff on working harder and linking funding to the introduction of new contracts.

In UK, two major mechanisms have been selected to achieve this goal: first-opening state-funded colleges to a market or quasi-market and, second, using the funding methodology as a lever to achieve lower limit costs simultaneously with higher levels of participation (P. 41). These twin mechanism have been actualized by empowering colleges to:

- employ their own staff;
- enter into contracts on their own behalf;
- manage assets and resource; and
- act as a legal body undertaking activities in furtherance of their purposes as providers of education.

A debate on the effects of opening colleges to competition has followed because it is argued that further education colleges should be market driven. As a philosophy, marketing would focus more on identifying needs and developing the curriculum to meet needs. The term covers a diverse range of approaches and practice that it is not easy to characterize how colleges understand or enact the concept. (P. 68)

Similar is the position of achieving quality. There are three dimensions referred to so far as concept of quality is concerned: quality control, quality assurance and total quality management (TQM). Quality control is an after-the event process; quality assurance is before the event and TQM incorporates quality assurance and extends as well as develops it.

In practice, colleges are likely to be involved with all of these. In the survey of colleges, the inspection system was indicated to be the third most important factor demanding cultural change. Only funding and market demands were more significant. Quality assurance systems were the second most important tool used by the colleges to achieve cultural change (P. 81), with changing structures and roles, colleges need to restructure.

The most significant factors leading to college restructuring from 1993 to 1999 listed by the author, in order of preference are: resources/funding; teaching and learning needs; to increase responsiveness; to improve communications; to increase staff motivation; quality assurance/self assessment and others.

It is observed that the degree of significance of changes in structure may be uncertain, changes in role were far more immediately felt as significant by individuals.

The technological advances of the last decade have revolutionized the management of information and communication in organizations. The strategic need according to the author is for a holistic management of information and communication, of which computerized systems are only a part.

Management Information Systems (MIS) is a necessity as the sector of further education has grown with larger number of students and staff, given the ever-growing number of part-timers, leading to larger and more complex organizations, demanding more sophisticated record-keeping. External demands for data (in terms of volume and complexity) are huge. MIS, according to Coles 1989, FEU, 1993, Harper, 1997 can be useful if:

It is led by user needs;
It is owned by the users;
It is reliable;
It is in a form which is accessible and comprehensible; and
It takes account of the micro political environment.

It is reported that there is a little research to date on how communication strategies in further education are formed and evolved, and how they are experienced in practice. To manage a curriculum for this kaleidoscope of students, some structure or form is needed to impose a shape on the diversity. Colleges need to find ways of meeting the dual aim of helping students become autonomous learners and reducing costs. The use of more flexible learning has seemed to offer hope of meeting both educational and financial needs.

Another issue in further education which has been examined related to the vocationalisation of the curriculum. Colleges are certainly segmented in structure, by faculty, by site, by performance area. They are forced to be mechanistic in their approach by government requirements.

Innovation in FE curriculum may require adjustment of emotional processes as well as in technical aspect. Obviously, it implies evolving the cultural process with respect to all critical elements change in objectives of organisations leadership curriculum innovation, application of ICT, planning, budget-control, cost-cutting, professional development of faculty, MIS, responses to marketisation etc.

In other words, it is an evolving process of cultural change. Leadership style will determine this process. In the ultimate analysis, the author concludes that colleges of further education have reconciled with the post-incorporation culture. What they have learned is to go out and create opportunities, to harness a range of resources and to shape their own future. Learning enterprise in both the senses is an epithet well earned by the sector (P. 170).

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Arun C. MEHTA (2003): ***Progress of Literacy in India - What the Census 2001 Reveals,*** National Institute of Educational Planning and Administration (NIEPA), New Delhi, pp.89, Unpriced. (Paperback)

Census is considered to be one of the most reliable sources of data on socio-economic and demographic variables. The Census of India 2001, the 14th in the series, was conducted form 9th to 28th February 2001 in two phases, namely, house listing operations and population enumeration. The data generated by the Census of India 2001 provides benchmark statistics on the people of India. The Census statistics are used for assessing the impact of the developmental programmes and identifying new thrust areas to focus efforts on improving the quality of life in the country. The first set of data for 2001 Census disseminated in March 2001 and with this little available data, the Sub-National Systems Unit of the NIEPA conducted a seminar on 'Progress of Literacy in India: What the Census 2001 Reveals' on 5th October 2001. The title under review is the report on the seminar.

The report is divided into two sections. The first section is about the proceedings of the seminar. This section gives excellent introduction to the seminar along with bird's eye view of the different papers that were presented in it. Section two is provided with five papers, which were presented in the seminar.

The first paper is 'India's Literacy Panorama' by Mahendra K Premi. The paper focused on literacy level and its growth pattern in the state and at the district levels; male-female differential in literacy rates; the nature and distribution of districts, where the number of illiterates has gone up during the 1990s; and factors responsible for a slow growth in literacy.

'Impact of Primary Education on Literacy: An Analysis of Census 2001 Preliminary Data' is the next paper by Arun C. Mehta. The definitions of literacy given by UNESCO, Arun Ghosh Committee (1994), and the National Literacy Mission are discussed in the first part of the paper. The paper also discusses the possible errors in enumeration and recent trends in the growth of literacy. Further, the paper attempts to assess the contribution of formal as well as non-formal education systems to total literates produced between the period 1991-2001. In addition, indicators such as male/female differential in literacy rate and number of decades required to achieve universal literacy have also been analysed, thus giving a clearer picture about literacy development in the country.

The next paper is 'Some Significant Features of Literacy Data of 2001 Census Projection of Literacy Rate for the Population of Age 15+' by A.B.L. Srivastava. This paper is about trends in literacy, indicating that the growth in literacy has been faster during the decade 1991-2001 than that during 1981-1991. While discussing the gender gap in literacy, the author links the slower growth in female literacy to the enrolment and drop-out of children at the primary stage. Further, the paper highlights the state-to-state variations in literacy rate. The author appeals for a greater attention that is needed to be paid to adult literacy programmes for the vast population of non-literate adults. The author concludes that in the coming years, programmes like District Primary Education

Programme and the Sarva Shiksha Abhiyan will play an important role in the progress of literacy.

'Changes in Gender Disparity in Literacy Rate during 1991-2001' is the next paper, presented in the seminar by N.K.Bhargava. While discussing the issue of gender disparities in literacy, the author observes that in spite of various efforts made by the Government of India, female literacy has been a major challenge for the country. Further, the author analyses the provisional population figures to show that the female literacy during the last 10 years has grown at a faster rate (14.87 percentage points from 39.29 per cent in 1991 to 54.16 in 2001) as compared to male literacy (11.67 percentage points from 64.13 per cent to 75.85 per cent) during the same period, though there are variations in overall literacy rate and female literacy rate across the states/union territories and districts in the country. The paper also presents the analysis of literacy on the basis of Index of Gender Disparity, stating that value of gender disparity was found to be more than 40 in two states namely Rajastan and Bihar in 1991.

The last paper presented in the seminar is 'Maharashtra: A Socio-Spatial Analysis of Literacy Trends with Special Reference to 2001 Census' by Barnali Biswas and Saraswati Raju. The authors observed that India's progress in literacy has been tremendous during the last five decades. However, a large disparity in literacy between different sections of populations, based on gender and residence, remains consistent. Further, the paper points out that the national average percentages in literacy, both in rural and urban areas, are lower in the proverbial BIMARU states. The authors' analysis was exploratory and it brought forth the significance of historically embedded patterns in literacy that seems to continue persistently in even otherwise enhanced literacy achievements.

Further, the report provided an informative annexure thereby giving the detailed state-specific Census 2001 population and literacy data. This concise, well-organised report is an important choice for those who work in the area of education for their interest in the distribution of literates and literacy rates of different age groups, educational attainments of literates, percentage of children of age group 5-14 attending schools and literacy rates of Scheduled Castes and Scheduled Tribes population.

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Ronald S. BARTH (2003): ***Lessons Learned,*** Corwin Press, Inc., Pages: 117, Price: Moderate, ISBNO-7619-3843-5 (Paperback)

The author of the book has vast and deep experience of sailing and educating. Hence for development of both, good and amicable relation is the answer of all questions, solution of the puzzles and agitating problems. Relation has a vast arena to flourish but it is

always remarkable that there should be dialogue between two and more than two. It ardently requires forgiveness, responsibility, hospitability, co-operation, concern, sacrifice and dedication. Without establishing good relation, neither cruise nor school can run smoothly. It rather promotes and encourages a man or a team involved in both to fight tooth & nail in adverse circumstances. Even in worst cases, they do not lose patience, face the challenges and reap consequences boldly.

The author has shared his experiences through some interesting stories, anecdotes and examples. Readers, on the one hand, are bewitched by the interesting stories and, on the other, receive path and feel relieved of foggy atmosphere and illusion. This art of story telling is purposeful in many ways. It inculcates norms, ethics of human values, factors and ingredients of relationship, directives for workers & sailors, rules mandatory of workplaces, organization and institutions. Hence, this book is rather a monument of educational and navigational development. Overall, it is an attempt of human emancipation from hatred, enmity, despair, disdain, escapism and shirking from responsibilities.

The book has twenty-four headings. Each heading is rather essence of the story or its introducing remark. Author's experience has been depicted in such an artistic way that eagerness to know and to reach the culmination is the guiding factor. This way, the book serves the purpose of one and all. All stories conclude with findings, morality, ways of life concentrating on relationships leading to cruising and working. 'Good Though' (Chapter 9 page 9-11) stresses on honest attempts, not result. Because result is corresponding effect of attempt, everywhere, optimism flows. "How much better to reflect than to attack. Encourage rather than demean. How much better to slowly fill the glass than to shatter it."

In a short notice, without undergoing intellectual exercises, the author is able to show us the way of reality, naked truth to which man generally does not dare see. Leadership is integral, whole and one. As divided loyalty is no loyalty, similarly, divided leadership is no leadership. The author says, "Shared leadership is an elusive motion. It's difficult to describe, to define, to exhibit and it is even more difficult to get team members to exhibit" (Page 62).

Summing up the book, cruising rules and working rules, 24 each, have been enlisted for readers to be easily digested and executed. Glossary (page 109-110) gives the appropriate meaning of technical words. All terms of human relationship have been explained with examples out of one's suffering and living. Every such term which is at all concerned with human values has its denotation and proper connotation too. Everywhere there is a thirst of self-introspection 'Who I am' and 'Who shall I be'. There is a great impetus to be true and to share.

Since learning is a continuous recourse and learned lesson is a source of positive enflamed, digested and experienced feeling and knowledge, it attracts the readers, learners and scholars a lot. A great deal of mental food peacefully levels and cures the ailment and anxiety. In a pensive mood, the passive listener may be easily and smoothly entertained by the flight of Cruising Rules of the author, recollected and cherished

empirically within forty years span of well spent life with public dealing constantly. In collecting delightful passages of amalgamated joys and sorrows, anger and ego under the umbrella of sentimental activities and follow the soothing path of pervasive, a bit salty and soury relationships, more heart touching in this wonderful complexities and complicated vast universe. The unique collections of cultivated ideas and ideology based on philosophy and creative works of mind under work culture and work place with passions, tolerance and realization linger longer. The accumulated learning is everlasting for the next generation and evergreen at the stage of memory for positive and effective result. Life is full of hardships. The rainy day leads to another. The author, as an actor, writer and man of knowledge and man of chair holds all sorts of obligations, responsibilities and liabilities created by close and persistent relationships with favourable surroundings. The reality of life far from self-interest guides the author to be linked with friends in wide variety of manners and behaviour. A broad embodied mind and heart in this lovely world is kind enough to embrace all sorts of pain, pleasure and ups and downs of life. In his flight of imagination, every creativity is guided by mental exercise and activity causes great source of inspiration to balance the attitude and behaviour of mankind. His personal day-to-day life is mirrored through creative writing to induce and stimulate the pursuit not by command and order but by persuation, maintaining calm in calamities and adverse circumstances.

The posed reputed and active hero of the drama of learning process holds the stage of all junctures, adventures and thrills of every moment of life to devote oneself to have a glance at the lovely wide world assuming miles to go before one's sleep. The endless journey of action, reaction and interaction bid fair to be a unique collection for all to go through the growing cherished constant observation and experiment to assure the reader nearer to reality.

The series contains warm and wise useful lessons and valuable practices to attain not sordid but splendid pleasure of life. This master-piece of impulse and instinct not only encourages the human race but secures and ensures the vast world through grand pieces of soothing and easing peace lulling the unrest world of nuclear physics outside and war and peace inside to flare up the sentiment and emotion like a demon to spoil the entire tranquilly of the soul. The treatment of relationship and friendship still living for refined device of life far away from the clunch and agony of self-interest as the guiding force in this cow-dung civilization and horizon of growing multiplicated and complicated wants. This series, with their value added dignity, deserves to quench the thirst of learning and cheerful life and elevates the explosion of norms, moral judgement, self-appraisal and morale to strengthen the depressed and despirate's well-being encircled in vast world by pathos and sufferings.

The author captures abrupt successful and powerful steps and as a primary actor presents and serves the cinematographic picture tuned in reality not instantaneous picture because the writer and the actor are same and the author tends to approach the surroundings in which he is acting with his day to day activities in a critical manner to ease the odds and odes of life.

The author identifies essential wisdom for happiness and success at home and work, as good husband and as life partner. Barbara Banban deeply enriched in the relationship and many moving lessons learned with her joined venture and valuable assistance in composing, editing and touching, finally has been integral to many stages in varied moments of happiness and relationships.

RONALD S. BARTH is always thoughtful. His book "Lessons Learned" deserves much because learning is a lifelong process. As a matter of fact, human destiny is a choice, not a chance. New vision for global human development includes learning as a social infrastructure because human being is both means and end. Hunger of knowledge, hunger of having a glance at lovely wide world, hunger of living in an educated and cultured society are more intense and ever-insatiable. Robert Paste opines, "Miles to before I sleep". Learning is not a filling of a pail but the lightening of a fire? William Butler Yeats is true to his word.

Our relationships with some persons who take care are more important and pervasive. The recollection of life with others is a bit blurry and colourful. Our experiences carry learning. Teachings are universal and everlasting. Relationship gives abundant and buoyant joy. Life is a bed of roses and thorns but relationship can be as taxing and toxic and they can be replenishing and fulfilling.

In this wonderful and unique collection, the author correlates work and life. Life with witty entertaining, instructive and poignant surroundings is graceful.

The language is simple, flowy and expressing terms and terminology easily, and with authority on language.

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Marion MATHEW, Kimberly OGADHAH and Emma Cains Bridget CRUMPTION (eds.): ***Towards Responsive Schools - Supporting Better Schooling for Disadvantaged Children:*** Case Studies from Save the Children, DFID Publication Serial No. 38. (Undated)

Social deprivation and disadvantage are universal phenomena. There is no society with perfect equality. Disadvantage and deprivation are self-reinforcing and operate in vicious circle. Education is considered as a powerful tool that can help improve the conditions of the disadvantaged and the deprived through providing opportunities for economic and social mobility. However, the system of education also gets adversely affected by several structural weaknesses as a result of interplay of several social, economic, demographic and political conditions prevailing in different societies, resulting in educational disadvantage of the marginalised sections of the society.

The book under review is an outcome of a coordinated research project by staff of Save the Children (United Kingdom), co-funded by the Department for International

Development (DIFD). It is a compendium of nine case studies from nine different countries - **4** in Africa, **3** in Asia, **1** each in Middle East and Latin America - where an international non-governmental organization (Save the Children) was seriously involved in promoting the cause of education.

The book is divided into **5** sections. While section **1** deals with an overview of issues related to educational disadvantage and explains the wider contexts within which the questions raised by the nine case studies could be located, the remaining four sections consist of the country case studies grouped, based on the contexts that lead to educational disadvantage.

The contexts are unique and the constraints, which promote disadvantage, are specific to the contexts. Yet, there are a few common under-currents, which lead to disadvantage, which gets manifested in various forms. The issue of poverty is one such factor and has been aptly enumerated in the study. Another aspect, which bears commonness in all country contexts, is the concept of useful education. In the entire discussion, useful education is understood as the one, which at least helps children:

- Become literate and numerate;
- Acquire basic skills to equip them for life challenges and improve their livelihood options;
- Become responsible members of society, trained in what their respective community considers good values; and
- Extend their understanding of the whole world around them.

The studies reveal how an interplay of geographical, social, economic, demographic and political factors lead to poverty in a way unique to each context and how this exerts an adverse impact on the educational opportunities of the children. However, the studies stand out on the count of arguing that poverty is not just a matter of classification based on certain absolute measures like GNP, household income and allocation of resources to education, but as a matter of experiencing it. The implication here is that the indicators used to study poverty enable us to understand poverty only at the peripheral level and reveal only the tip of an iceberg.

The several studies are primarily concerned with identifying processes, which could move the school in a direction more appropriate to the needs of the disadvantaged. An important common feature among all the studies is the thrust given to schooling. All of them argue strongly for a case for effective schooling for the educationally disadvantaged children as indicated by the degree to which the schooling prepares them for actual life conditions they face, rather than for mere enrolment of the disadvantaged children.

Learning for Life in the Hills is a case study from Society for the Integrated Development of the Himalayas (SIDH), a local NGO in Jaunpur, a marginalized tribal hill region of the Himalayas in Uttar Pradesh.The significant aspect of the study is the partnership of the two agents of change - the local NGO and an international development agency- that helped addressing the problem of educational disadvantage.

The second study is a Case study from Mali, a distinct one from the first study as there was no local NGO with the potential to act as an effective partner..

The third section presents a detailed account of the different conflicts in these countries. But the issue common in all the three is the issue of the effect of conflict on the schooling of children in the respective countries.

The Lebanon case deals with long-term effects of unsolved Palestinian conflict on the children who are forced to stay in refugee camps where schools are provided with the assistance of United Nations Organization, which follow a rigid system and do not address the most significant issue of self-esteem and identity.

The Liberia study examines a short-term project with a group of demobilized child soldiers. These child soldiers form a group suffering from extreme damage. Any peace initiative in this context presupposes the reintegration of these child soldiers into the society. The study demonstrates the value of educational programmes in post-conflict situations, both in improving the life opportunities of children affected by war and in supporting the process of reconciliation at the community level.

This fourth section highlights the plight of educationally marginalized children in Pakistan and Mangolia. Marginalisation in these two case studies is the result of international economic pressures. The section brings out how education can play a role in effectively mitigating the problems leading to educational vulnerability and the pivotal role that an international agency can play in this direction. The Pakistan study portrays the plight of poor children who become, vulnerable due to an interventions consumer led base on child labour, in the football industry in Sialkot, that left the significance of adopting the styles of schooling to the demands of the changing situations, in reducing vulnerability among children drop out not only because of child labour (the need to work) but also because of poor quality of schooling practices.

The study in Mangolia contrasts with the Pakistan study in that the cause of vulnerability is rooted in the changes that accompanied/followed the collapse of Soviet Bloc, which influenced the economy, political thinking, the daily lives of the population, family coping mechanisms and the ability of government to support the disadvantaged. Marginalisation in this context is due to the loss of a protected place within soviet economy and the withdrawal of subsidies, which previously supported a well-resourced education system.

The final section "Linking Schools and Society" looks at the issue of linking school systems more closely to the societies they are intended to serve, through recasting them in such a way that they accommodate and become sensitive to the needs of the key stake-holders - children, teachers and parents.

The study from Ethiopia - where only about **20%** of children of school age actually attend school - portrays the casual relationship between extreme poverty and under-resourcing, on the one hand, and educational marginalization, on the other, in the Somali speaking region of Ethiopia.

:nd school - portrays the casual relationship between extreme poverty
resourcing, on the one hand, and educational marginalization, on the other, in
iking region of Ethiopia.

The study from Peru describes an attempt to engage the key educational actors in e active participation in national debates on educational reform in Peru, where State

provision of education has declined owing to economic and political instability. The study reveals that the focus of 'Save the Children' efforts was to build a relationship with school users. The findings of the study advocate a stronger role for civil society in shaping schooling practices.

The book is very well organized and the editors deserve appreciation for the apt categorization of the studies. Each section narrates similar contexts of the studies grouped therein. Each case study is followed by Editors' conclusions. The conclusions so drawn are precise, logical and emerge out of the study. The book is a must for any reader interested in understanding the dynamics of the schooling process in varying social, political, spatial, economic and religious contexts and the role of Civil Society and NGOs in promoting schooling for the cause of the marginalised.

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Naila KABEER, Geetha B. NAMBISSAN and Ramya SUBRAHMANIAN, (eds.) (2003): ***Child Labour and the Right to Education in South Asia: Needs Versus Rights?*** New Delhi: Sage Publications, ISBN: 0-7619-9601-X (US-Hb) and 81-7829-163-0 (India-Hb), Pages: 412, Price: Rs. 365 (Hard and Paper Back)

Ever since the near-universal ratification of the United Nations Convention on Rights of the Child, the discourse on children's rights has provided the substance and the context in which debates related to children's issues have got placed. Cynics have perceived these rights as a threat to the interests of the family and have, therefore, resisted their fulfilment; while conservatives have attempted to present the interests of the child as coterminous with that of the family. Countries, including those from South Asia, were quick to ratify this legally binding treaty; but have since then held varied interpretations of its meaning as well as differed on the priority to be accorded to these rights.

Given the indivisibility of child rights and their corresponding interdependence; the problem of child labour denotes a matrix of child rights violations, wherein children are deprived of more than one right, such as their right to liberty, right to education, right to recreation, right to housing, right to health and adequate standard of living, among others. But it is the denial of their right to education that has now become the defining feature of the problem of child labour. This position, which views all children out of school as child labourers (or potential child labourers), has emerged from a growing body of literature that points to a latent desire among parents to send children to schools, if schools are functional and respect their rights as well as demonstrate efforts on the ground where children have been withdrawn from work and mainstreamed into formal schools. Moreover, the sense of frustration built over several years with directionless efforts towards 'gradual elimination' of child labour, without any clarity about the exact nature or content of this method, the predominantly remedial nature of most of the official

programmes and an absence of concrete strategies to attack the root causes of the problem, have turned the tide of work on the issue of child labour. The book under review attempts to examine these twin issues of child labour and education in the context of 'the apparent conflict that is posed between the economic needs of families and the rights of their children'.

Although the title indicates a South Asian perspective, the main focus of the papers is the situation in India and Bangladesh. The contributors of this volume are researchers, developmental workers and policy makers who have worked on these issues in the two countries. As the editors explain in the preface, the book is an outcome of a workshop on 'Needs versus Rights? Social Policy from a Child Centred Perspective' held in New Delhi in July 1999. The workshop was part of the South Asia component of the Social Policy Programme of the Institute of Development Studies (IDS), Sussex. The emerging issues were fed into the larger research agenda of the IDS Social Policy Programme for South Asia which is being carried out in collaboration with Jawaharlal Nehru University and the Bangladesh Institute of Development Studies, Dhaka. Not all papers presented at the workshop are included in this volume and although the editors make references to the key findings of all papers in their introductory chapter, the readers are still deprived of all the detailed contributions made.

In the introductory chapter, the editors raise questions about the relative hierarchies of children's rights and parental needs. They explain that the purpose of counter-positioning 'needs versus rights' is to provoke the participants to reflect on their own positions on the relationship between the two. The following reflections have, however, not touched upon the two crucial issues. Firstly, should the enjoyment of rights, particularly right to education, be conditional upon the resources available for their fulfilment? This is a pressing concern since political interpretations of rights have always favoured the existing arrangements that do not allow one to claim a right prior to the creation of the 'ideal' environmental conditions for their implementation. Secondly, the question is not of the relative value assigned to needs and rights or a conflict between the two but that of qualifying basic needs as rights, not only by recognising children as right-holders but also the marginalised families and communities as bearers of rights.

An important concept of 'intergenerational contracts' between parents and young children (as discussed by Kabeer in the workshop) is also presented in the introductory chapter, wherein it is recognised that the definition and operationalisation of these contracts would be influenced by the human needs of either parties during their respective life cycles. But given the orthodox notion of parental (often paternal) control over children during the early stages of the life cycle, an element of power relationships is inadvertently introduced, in a way that can be considered to be manipulative.

The contributions are arranged in four sections. The first section deals with 'Alternate Perspectives on Children, Childhood and Child Labour' and presents three very thought-provoking articles. **Susan Bissell** presents a children's perspective on the social construction of childhood in the context of Bangladesh. The work done over five years examines the reality of children's lives in Dhaka in the socio-economic, political scenario

affected by the American trade sanctions against Bangladesh's export-oriented garment industry. Bissell strongly contests the notion of 'ideal childhood' and questions why contemporary society believes it to be necessary and attainable. She proposes that the key to child-centred social policy is to create a convergence of needs and rights. Neera Burra highlights the diametrically opposing views held on the issue of child labour, each claiming to be in the 'best interests of the child'. Based on her field research on child labour in different sectors in India, Burra says that the child should be under the care of an adult till the time he/she can take his/her own decision with the State being the ultimate arbiter of at least some of the children's interests. Kaushik Basu's article, which is the only article in this volume to be reproduced from an earlier publication, proposes that international labour standards should be devised in order to express the muted demands of the third world. He calls this the "third formulation" of international labour standards that do not consist of deontic rules such as 'child labour must never be used' but those which facilitate openness, leading to wage rise, increasing bargaining power and therefore better standards of living. He also argues that enforcement of these labour standards are best left to the International Labour Organisation and not to the World Trade Organisation since trade sanctions may not be the right way of dealing with labour standards.

The second section deals with the 'Socio-Economic Context of Work and School' with an elaborate account of social exclusion of children in work and education in the Indian context by Geetha Nambissan and an essay by Mohammad Talib on the modes of learning-labour relations. Nambissan provides the readers with an insightful account on the social exclusion encountered by Dalit and Adivasi children in India and identifies structures and processes of schooling that exclude them from accessing education. Based on his experiences with working class school children on the outskirts of Delhi, Talib's essay suggests that the social and cultural world of child labour is ignored by the school, although its potential for politically informed pedagogy is immense and the discourse on right to education fails to accept the existential world of the learner.

The 'Policy Context for Addressing Child Labour and Education' is the theme of the third section but there is a bias towards discussing educational policies with little attention given to policies pertaining to child labour, particularly relevant in the present-day new international economy. The first paper in this section by R. Govinda gives a regional perspective and reviews the intent and implementation of educational policies. He concludes that legal provisions and policy statements alone cannot solve the problem which needs to be viewed in its totality. Dhir Jhingran's paper analyses the policies and programmes of the central and state governments in India and assesses their contribution towards ensuring access and enrolment in schools. He identifies additional allocation of resources and social mobilisation as a pre-requisite for realising universalisation of elementary education. The essay by Ramya Subrahmanian focuses on the role of communities as envisaged in the policies and as observed empirically in villages of Karnataka. Drawing from analyses of the way the Village Education Committees function, she argues that although communities are viewed as allies at the policy level,

the deep-rooted social and economic divisions that prevail within communities often hinder the processes of consensus building and uniform action. Keiko Miwa presents a case of Government-NGO partnership in the field of education in Bangladesh with a specific focus on the Basic Education for Hard to Reach Urban Children Project. Miwa identifies selection of NGOs, their monitoring, inter-organisational learning, access and quality as the key issues emerging from this complex partnership.

The fourth section of this volume deals with a collection of field experiences in 'Operationalising the Right to Education' and focuses on various government and non-government interventions. Diverse strategies such as the Pratham experience of working in Mumbai Municipal Schools (written by Rukmini Banerji); M.V. Foundation's experience of establishing schools as institutions for eliminating child labour (written by Shantha Sinha); and the CINI-ASHA experience of mainstreaming child labourers in Calcutta are discussed along with the Lok Jumbish experience (written by Shobhita Rajagopal) of helping children balance their work and education by attending the Sahaj Shiksha Kendra (non-formal education centres) and the Bangladesh Rural Advancement Committee's non-formal education programme (written by A. Mushtaque R. Chowdhury) which has helped 1.4 million children to graduate so far with an additional 1.1 million children still attending these centres. Debates on child labour and education are often polarised due to dogmatic positions held on definitions, goals and processes. Sometimes these deeply entrenched view-points hinder constructive dialogue and possibilities of striking a common ground. One of the significant contributions of the editors is that they have been successful in bringing together these rich diversities within a single volume.

The concluding chapter by Naila Kabeer gives an excellent review of various competing explanations for child labour and educational failure. Drawing from existing literature as well as essays in this volume, Kabeer suggests that there is a broad relationship between poverty and child labour, but it is also influenced by other socio-economic differentials. She further argues that sound educational policies, political will and adequate resources can overcome obstacles of deprivation and discrimination and help eliminate child labour.

But despite being promised earlier, the editors fail to revisit the needs-rights framework in the final chapter and miss out the opportunity to highlight the relevance and scope of each opposing position within the broad child rights framework. This reviewer is hopeful that the larger research project, of which these issues form the hypotheses, will eventually answer some of these questions.

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R.GOVINDA and Rashmi DIWAN (ed.) (2003): ***Community Participation and Empowerment in Primary Education,*** Sage, New Delhi (India) ISBN 0-7619-9674-5, Pages: 255, Price: Rs. 295

The question of community participation and empowerment has been at the centre of discussion among educational planners, activists and academicians for quite sometime. In the mid-1980s, the concept of community participation and empowerment took a significant turn when the process began to involve with financial packages, both external and internal, in different states of the country. The goal of universalization of elementary education visualizes the significance of community participation in primary education by forming various functionaries that can accelerate the collective practice in schooling.

The book 'Community Participation and Empowerment in Primary Education' edited by R. Govinda and Rashmi Diwan is a collection of essays focusing on the experiences of community participation in primary education from different states. By documenting the experiences of the communities' involvement in education, the book deals with keywords such as community, participation and decentralization and so on in association with the management of primary education as well as other developmental issues. The volume consists of case studies that review the dialogues between community and primary education in different states.

Visualizing the case studies from different parts of the country, the book would suggest the ways of understanding the models of partnership among the participants in primary education, viz. government, NGOs and civil society. The volume traces the grassroot level activities of empowering the community in Kerala, Rajasthan, Bihar, Madhya Pradesh and Karnataka. Apart from the primary education sector, the book also addresses key issues in literacy campaigning and watershed management.

The national policy on education (1986) had suggested participation as well as empowerment of the local self-governed bodies in primary education. When the concept of decentralization became an important component of educational reform, participation of the community in school activities became a major agenda. Community participation, in the vocabulary of policy makers, implies the redistribution of power, a mechanism of power shifting and partnership among the participants of everyday activities in education. It suggests strategies for establishing linkages between the school governing authority and the local community.

The introductory note clearly states that community is obviously not a homogenous notion and the contextual analysis of this would be instrumental for a better understanding of the entire discourse. The basic assumption driving the involvement of local self-governed bodies in the management of primary education is that the combined functionary mechanism would ensure more inclusive participation. However, the caste, class, religious and gender compositions could influence the nature of participation and the nature of conflicts arising out of such participation. Though the editorial note problematizes this internal power structure and the hierarchy associated with the modes of grouping or community formation, the forthcoming empirical analyses could not pay

much attention to this conceptual debate. Some theoretical and conceptual explanations do marginally appear in the thick descriptions, but there is a visible lack of connectivity of those flashes with the cases collected from the field.

The book identifies the problems related to the question of empowerment, the definition and accomplishment of which is even more complicated. Can empowerment of the local political bodies go along with the genuine representations of the already excluded sections of the local community? Mere participation even if it is fully legitimized cannot be equated with empowerment. In the absence of a contextual analysis of the dialogues within and between schooling and community participation, the question of power shift and democratization of partnership remains unsolved.

Alongside the developments at the policy level, there have emerged major programmes and schemes of primary education in different schemes of primary education in different states, particularly during the last **10** years. In order to facilitate effective community involvement and empowerment in primary education, different organizational configurations are emerging or have emerged across the country. Various forms of informal and formal groups have surfaced under different programmes such as the mother -parent teacher association under DPEP in Kerala and core group and women's group under Lok Jumbish in Rajasthan. Some of them tried to evolve special strategies for bringing the community and the school closer, a view to establish linkages as part of democratization and decentralized planning.

Decentralization of educational governance is often emphasized as one of the significant means for community participation and empowerment. But the concept of decentralization itself brings more complexities, as it needs to be developed with a governance structure, which can reduce the internal anomalies of inequity and authoritarianism. The papers attempt to explain these issues with a wider empirical notation.

Reviewing the situation in different states, one can identify different approaches towards establishing a system of local governance and community participation in education. The basic principle seems to be to transfer the responsibilities of educational governance to the democratically elected local self-government bodies (Panchayati Raj bodies). But this also depends on the seriousness with which the state governments have been promoting local self-governments, which is quite uneven across the country.

One positive development that all the case studies indicate is that the movement for enhancing community participation in education has travelled a long way from a state of informal arrangement to a formalized policy intervention under the banner of decentralization through the Panchayati Raj system.

The volume is dense with stories of people's participation in primary education, literacy campaigns and a few other programmes like watershed management. Case studies from the states of Kerala, Madhya Pradesh, Karnataka, Rajasthan and Bihar, throw light on the local level participation, mobilization and the problems and prospects associated with it. However, the crucial theoretical questions such as how community is defined in different context, and how the dialogues, between the community and

educational activities differ from context to context, are given less significance. Key words could have been further-more problematized, especially in terms of their definition and practice in varied situations.

However Sadhana Saxena in her article 'Community Participation and Literacy: Beyond Semantics' made a creditable effort to conceptualize the question of participation and empowerment to a certain extent. In fact, she explores the theoretical underpinnings of the key words "community" and "participation" and the specific connotations they have acquired with reference to classical understanding of communities and their unequal status in the society.

By raising the question of gender in the social and political context of Rajasthan, Vimala Ramachandran provides insights into the depressing trend in the policy implementation when it comes to the question of girls' education. Along with the question of gender she brings the casteist practice and attitude which prevails in the community in general and inside the school atmosphere in particular. She identifies the constraints that women face in involving them in the Village Education Committees. The point is that individual leaders get isolated due to the male bias in administrative culture and the feudal structure of bureaucracy.

Michael Tharakan's Study talks about the experiments in community participation in school education, from the Kerala context. The article travels from village to village by narrating the involvement of the local people through government and non-governmental initiatives. The movement takes place under various projects like DPEP, Total Literacy Campaign, People's science movement by KSSP and the People's Plan. However, the densely covered empirical literature does not attempt to bring conceptual explanations about the terms such as 'community participation' and 'empowerment'. The highly descriptive report undermines the possibilities of constructing analytical categories for a more contextual understanding of the process of community involvement in primary education.

The internal dynamics of the community, the hierarchy and power inherent in it and when it comes to the question of participation and empowerment how these factors take positions and operate have to be unmasked in an understanding of community participation and education. In the absence of such analysis, the underlying issues of caste, class, religion and gender go unnoticed in the broad umbrella of the term 'community'.

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Barbara BRUNS, Alain MINGAT and Ramahatra RAKOTOMALALA (2003): ***Achieving Universal Primary Education by 2015: A Chance for Every Child,*** Washington DC: World Bank, pp.242, Price: US$22.00, ISBN: 0-8213-5345-4, (paperback)

In the context of the global challenge of Education for All, the book under review presents a very useful analysis of the current situation, examines the magnitude of the task yet to be accomplished, and lists out some policy measures to achieve the task. Rich with tables, graphs, and boxes in the text, in addition to 100-page annexes of tables and figures, the study might arouse considerable interest among the educational planners. Though the Jomtien and the Dakar EFA conferences have outlined six major goals relating to EFA, many of the policies and strategies adopted by the governments, and also by the international organisations have been actually focusing on primary education only. The present study by the World Bank is also confined to primary education. It is also highly selective in further choosing the issues under primary education.

Universal primary education should mean not only universal enrolment of all children of the relevant age group, and universal retention of the children until they complete the full primary education cycle, but also universal achievement of certain acceptable minimum levels of learning. Many studies have confined themselves to the first component, some to the first two, and very few covered all the three dimensions. By arguing that universal primary education should mean universal primary completion, the authors of the present study examine enrolment and completion, placing emphasis a little more on the later. By analyzing the progress in primary gross enrolment ratios, and primary completion rates since 1990, during the decade of the 1990s, the authors present a global score card on the progress since the Jomtien. Quite interestingly we note that in many countries the situation in terms of primary completion rates had worsened between 1990 and the most recent year. For example, in Zambia the rate fell from 97 per cent in 1990 to 83 percent in 1995; in Congo it declined from 61 per cent to 44 per cent in 2000. While such declines are sharp and can be noted in a good number of counties in Africa, the worsening of the situation is not confined to Africa. In East Asian countries the decline is not so sharp, nevertheless we find a decline in Thailand, Malaysia and Vanuatu. Countries in Europe and Central Asia, Middle East and North Africa and in Latin America also experienced a marginal decline (e.g., in Poland, Belarus, Albania and Estonia in Central Asia; Bahrain, Syrian Arab Republic, United Arab Emirates, Iraq and Qatar in Middle East/North Africa; and Ecuador, Guyana, Belize and Venezuela in Latin America). Except in Afghanistan, there has been marginal to significant progress in all the South Asian countries. Based on the current trends, the authors of the study project that at global level, primary completion rate would reach around 85 per cent only by 2015! According to the detailed scorecard, of the 155 developing countries, only 37 countries have achieved universal primary completion; another 69 countries can be expected to reach the goal by 2015 and as many as 86 counties are "at risk" of not

reaching the goal, of whom 43 are "off track." This score card should make all those counties and international organisations involved in EFA seriously worried.

The authors have tried to identify determinants of progress in EFA in 44 countries. Of the five variables used in the regression analysis, pupil-teacher ratio was found to be statistically not significant, and the value of the coefficient also turned out to be too small. However, a casual examination of the primary completion rates and pupil-teacher ratios might reveal that there is a strong relationship. For example, the pupil-teacher ratio was 11 each in Hungary and Poland and 12 in South Africa, and the primary completion rate in these countries was above 96 per cent. As the statistics in the *World Development Indicators 2003* indicate, in 12 developing countries where the pupil-teacher ratio is above 50, the primary completion rate is below 45 per cent; and conversely, in 15 countries where the pupil-teacher ratio is below 20, the completion rate is above 90 per cent.

Percentage of GDP spent on primary education is the most important variable in terms of the level of significance and also the size of the coefficient, followed by average teacher salary (as a multiple of GDP per capita) in explaining the progress in EFA, i.e., improvement in the primary completion rate. The other two variables are primary completion rate in the base period and average repetition rate. Quite importantly, in many regions average teacher salary as a multiple of GDP per capita has declined significantly over the years - from above 15 in 1975 to about 7 in Francophone Sahelian Africa, from about 12 to 5 in Francophone Africa, and from above 5 to below 5 in Middle East. In other regions, the decline is not so sharp and the overall ratio remained below 5.

An important contribution of the study is in terms of estimates of resource requirements for reaching the goal of universal primary completion. The simulation exercise based on a set of assumptions, produced estimates of costs of primary education and gaps in resources (for external financing) for a set of 47 countries. While in case of some countries the gaps are large, on the whole for the group of 47 countries, the investment gaps do not seem to be much, as the difference between total resource requirements and the availability of total domestic funds for primary education is quite small, hardly abut $ 2000 million per annum on average, or a total of $23,000-30,000 million for the 15 year period (in 2000 constant US$). Since external aid to basic education is rather declining over the years, this may, however, pose a big challenge to the international community. This chapter (chapter no. 4), including the compact disc that gives, in addition to the whole document, database on primary completion rate, country simulations and simple hands-on model (in Microsoft Excel format) should be useful to many involved in similar exercises at national or international levels, though at national levels, one can attempt at much better exercises, say for example, as attempted in India (by the Tapas Majumdar Committee), as detailed and reliable data might be available at the country level.

Rich with data on certain important aspects of primary education in a selected list of developing countries, the study serves a useful purpose. It is somewhat narrowly focused, and as a result, many closely related important dimensions of primary education, not to

speak of all the **EFA** goals, do not find a place. A variety of unnecessary, if not confusing, classifications have been used for grouping the countries, e.g., IDA countries, countries eligible for IDA loans, counties eligible for IBRD lending, etc. The study concludes with recommending three sets of policies (not policy *options)* to expand supply, to improve quality and to stimulate demand by relieving household constraints. The several needed initiatives have been mentioned in a one-page box (p.l 16), which in fact could have been outlined in detail, along with a discussion on their strengths and weaknesses. Many of the policy choices, anyhow, do not necessarily stem from the quantitative exercise carried out in the study; and many of them are not non-controversial. On the other hand, if one has to derive policy implications from the regression analysis of determinants of EFA progress carried out in the study, it is clear that spending on primary education (as a proportion of GDP) has to be stepped up, and secondly, there is the need to increase the average teacher salary (as a multiple of GDP per capita). Neither of the two figures in the list of policy choices is given here. Instead, the authors suggest a variety of measures, including greater private provision and grants to cost-effective private (termed as nonpublic) providers, multi-grade teaching, recruitment of local teachers, shorter formal training for teachers, etc. Such policy suggestions, without serious discussion on them, may, in fact, undermine the value of otherwise useful study.

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