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Bangladesh Needs A Computer Policy

THREE is a common belief that computer replaces labour and as such is not appropriate for a labour surplus economy like Bangladesh. This is another facet of the theory of "appropriate technology." The theory of appropriate technology which, in effect, is the West's attempt to buttress their monopoly of leading-edge technology by the Third World countries in place of the state of the art ones, the so called 'pandits' of development wish to make the Third World the perennial technological backwater.

World-wide statistics relating to computerisation does not support the theory that computerisation entails shrinkage of employment opportunity. Opposite is the truth. Computer only transforms the work environment. In most cases it does not replace manpower at all. It enhances quality of decision-making or product. It is important to recognise the role of the computer as an instrument which substitutes for, if at all it does, and enhances manpower at the skilled level where it is most scarce, rather one that displaces surplus unskilled labour. A properly designed computer policy will create many jobs, while enhancing the efficiency and productivity of management and workers at all levels. A recent US Department of Commerce study shows that more than 50% of the total labour force work in information related fields. Two decades back, it was 30%. Computer and office automation has brought about this qualitative change in the labour force. At present 80,000 personal computers are in use in India. The Department of Electronics of India is planning to market one million low-cost personnel computers dubbed as 'citizen's computer' by 1995. It is estimated that 2.5 million new job openings will result in the process.

It is obvious that computerisation is not the biggest problem now facing the country. Population, health, agriculture, housing etc. are the sectors that need and get the highest priority in planning and allocating resources. But computer technology is improving and the costs are falling with great rapidity. Its range of applications is very broad and it is widening everyday. As a result, computer is becoming a critical factor of production in many industries. Competitive viability of many production processes are dependent on computer application. Modern tele-communication system, environmental science, air and railway transports, international shipping and commodity trade are all dependent on computerised systems. It is well known that through massive use of computers, long range and accurate weather forecasts can be made. Through analysis of global data on weather, it is possible to make accurate forecast of rain or draught in terms of near-exact geological boundary and duration of the spell. Such weather forecasts can revolutionize agricultural productivity in our country.

By taking advantage of computer

technology, our scientific community can attain higher levels of productivity through analysis of readily obtainable satellite data on Bangladesh in the fields like agriculture, forestry, exploitation of mineral resources, coastal accretion, etc. Computer technology is a means; if properly used, by which administration, law-enforcement, land administration, fiscal management, planning and public sector can be made more efficient and responsive. Presently one of the major sources of foreign exchange earnings is the remittances of Bangladeshi expatriate workers. By a proper education and training programme, it would be possible to augment this by exporting higher levels of skills in the form of programmers and systems analysts, who would find employment abroad. Above all, this resource poor country of Bangladesh can fashion for itself a viable future only through the development and exploitation of skills of her manpower. The field of software export which offers multi-billion dollar prospects can be made the target of development. This is the only sector where we can make a significant stride with properly planned development of manpower and by infusing relatively smaller amount of capital investment.

Adoption and development of computer technology is going to be a vital issue of our survival, though it is not so transparent at the moment. Activities in the broad field of computer technology and its applications should constitute a fundamental strategy for our entry into the Twenty-first century.

As in all development efforts in our country, the effectiveness of the government initiative and directions is critically important for achieving the desired goal in this field. The Government should adopt a computer and information technology policy that would ensure:

the most productive use of computer technology within our constrained resources; concerted efforts at computerisation by avoiding redundancy; development of critical human resources; impetus to the lethargic private sector to exploit the potential national and international market relating computer and information technology and education system to be responsive to the needs of the emerging technology.

Science And Technology

The government of Bangladesh constituted in May, 1983 "a centrally institutionalised mechanism called the National Committee on Sciences and Technology (NCST) primarily to recommend national policies on Science and Technology." The Government announced its science and technology policy in February, 1986. But this policy did not mention anything about computer or information technology (IT).

The Government considered the

computer and information technology as a distinct discipline which would require separate intervention from the government. About the same time as the NCST was formed, the government formed the National Computer Committee (NCC) with a view to "bringing co-ordination and control in the field of computerization." The NCC worked through three sub-committees—one to deal with hardware, software, maintenance, etc.; another to identify application areas and fix priorities and the third one to look after manpower, training and research. The NCC which was headed by a Cabinet Minister did not have a permanent office or staff. Secretariat service to the NCC was provided by the Ministry of Establishment. NCC functioned for five years. With a view of strengthening the functions of the NCC as well as to creating a formal organisation with the charge of its day-to-day functions, the government through a resolution dated 12.2.1988 created the National Board (NCB).

The Government's intention was to develop the NCB as an autonomous body. But the resolution in question did not articulate the intention properly. As an interim arrangement, the NCB has been functioning as an attached department, initially of the Ministry of Establishment and now of the President's Secretariat. Presently however, activities are underway to pass a legislation to give the NCB an autonomous character.

Of late the NCB has announced guidelines for acquisition of computer and information technology equipment by the government of computer and information technology equipment by the government and autonomous bodies. The guidelines allow procurement of certain types of superconductor based systems with specific operating system costing upto Tk. 25 lacs without the Board's permission. It also requires, among other things, that no mini or mainframe computer be procured in the next one year; that Intel chip be preferred to Motorola chip and that the Board be consulted before procurement of a network system, etc.

It is now six years that government started intervening in the process of computerisation in the country. But the government is yet to declare a cogent policy on it. The resolution through which the NCB was set up and the guidelines of procurement issued by the NCB together may be considered as the de-facto computer and information technology policy of the government. But these documents are inadequate for a national policy. It promotes certain brands of chip and operating system and prohibits procurement of new computers higher capabilities (Mini and mainframes). The resolution, on the other hand, makes mention of activities like preparation of projects, holding seminars and workshops, co-ordinating computer related inland and foreign

training programmes. Mention of such specifics for the objectives of NCB perhaps indicates that that the authors missed the priorities and issues involved in promotion of computer technology in the country. One supposed objective of the NCB relates to empowering it "to prescribe syllabus for computer related courses, holding examinations and award of diploma, certificates etc. To bundle the responsibility of prescribing the syllabus of computer related courses with a bureaucratic organisation is not likely to help to promote computer education. It should, in my opinion, be the responsibility of an academic body.

Sri Lankan Experience

Immediately after coming to power, the former Sri Lankan President Junius Jayewardene commissioned a committee to recommend a computer policy for Sri Lanka. On the basis of recommendation of the committee, a Computer and Information Technology Council was set up in 1983. The President himself became the Chairman of the Council. The Council had a small set up of permanent staff in the President's office. Computerisation efforts were diffused through formation of committees in the key ministries of Finance, Education, Industries and Tele-Communication.

The strategy proved eminently successful. In spite of political turmoils, the growth of computer and information technology in Sri Lanka has been impressive. Before the formation of Computer and Information Technology Council there were hardly a hundred computers of all sorts in use in Sri Lanka. There were no formal computer training courses. By 1987, three Universities opened up computer science departments. Eight of the Universities built up micro computer laboratories and 300 Secondary Schools had acquired computers for use in the class rooms. In addition to hundreds of mainframe and mini computer, the number of micro computers use ran into thousands.

India's success in this field in the last five years has also been phenomenal. Mr. Gandhi's open door policy has resulted in nearly ten-fold growth in the field of computer and information technology. India is emerging as a formidable force in the world market of software. A strong political will coupled with a package of truly promotional measures based on a well thoughtout policy can materialised the desired breakthrough in the field of computer and information technology. In the context of the present situation in Bangladesh there is a need for change of heart of the policy makers as well as of the policy implementers. The policy of control of procurement, control of training, and control of market forces has to be replaced by an environment of promotion, encouragement and trust.