## Industrialization Vis-a-Vis Technical Education

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THE Government of Bangladesh is laying great emphasis on rapid industrialization of the country. The fact that the Prime Minister himself is in charge of the Ministry of Industries, bears ample evidence to the point. During the last few months. the Prime Minister visited several developed countries, and addressed several forums, both at home and abroad, inviting capitals for investment in Bangladesh. He is taking great pains to explain to different groups of prospective investors the favourable climate and the bright prospects that exist for investment in Bangladesh. Promise of transfer of profits, safeguard against nationalization and other incentive have been offered. The efforts have started producing encouraging results. A number of investors both from home and abroad have responded favourably and the ball is well on the move. It is expected that increasing response, from investors will be comming in near future.

Agricultural development in Bangladesh is gradually reaching a point of saturation. Considerable increase in food production has taken place over lest decades. With limited land resources, fragmentation of land. frequent visits by devastating floods. tidal bores, cyclones, and droughts. the prospects of further development in agriculture are rather dim. With commendable development in agriculture achieved during the last decades, we have not been able to produce sufficient food for our people which has crossed 11 crore mark. The country is unable to provide minimum basic amenities of life to the teeming millions. Standard of life of the common man is fast falling. Poverty is rapidly increasing. For the common man life has become an unbearable burden. By the turn of the century, the population will cross the 20 crore mark. Construction of residences, schools and other facilities for the added population will eat up more cultivable land. With our agriculture vulnerable to the vagaries of nature and reduction in the quantum of agricultural land, how are we mendation also include introduction going to feed and sustain our vast population and provide them with the basic amenities of life?

There is only one alternative open to us. To survive as an independent nation and sustain our vast population, we must go for rapid industrialization of the country. We must set up industries both in the manufacturing and cottage industry sectors. Time is running against us and

so is the growth of population. Industries big and small should be set up in our cities and towns, villages and market places and in homes as quickly as possible. We have a vast manpower and a hard working manpower and we must utilize this manpower to our best interest and for our survival.

Through crash programmes, we must train our youths both men and women and put them in productive jobs. There is no other way to find employment to our vast and fast increasing unemployed youth population. Through rapid industrialization we can provide basis amenities of life to our teeming millions. There is no scope for complacency among the fortunate few. The society will be destroyed, the country will sink and all the blessings of life we are enjoying now will be washed away unless we can make life meaningful and worth-living to our teeming millions.

Recently a five-day forum on technological planning for industrial development in Bangladesh was held in Dhaka under the auspices of the Science and Technology Division. The forum has made several recommendations for promoting science and technology in the country. A total of 83 representatives from different minorities and entrepreneurs including 14 foreign experts participated in the forum. Explaining the outcome of the forum at a press conference. Education Minister. Sheikh Shaheedul Islam said that a consensus was reached among the participants in the forum about possible stratagies for technology-based industrial development in Bangladesh. Sheikh Shaheed also said that Bangladesh's 4th five-year plan was being formulated for the first time under a perspective plan to integrate technology planning into socioeconomic development programmes of the country. The Minister also said that the participants of the forum unanimously agreed on the need for formulation of specific policy for the import of technology. Their recomof research facilities in the industrial establishment, establishment of design engineering and introduction of national codes and standards. He also said that the forum pleaded for strengthening the adult education system, vocational training and distant training programmes.

It is a well established fact that no country can achieve industrial development without a sound base of science and technology education of its own.

In the Indian sub-continent, Pandit Jawaher Lal Nehru, the 1st Prime Minister of India, correctly realised the importance of science and technology education for industrial development. Among his first few important acts as Prime Minister, he got the Act of establishment of five Indian Institutes of Technologies passed by the Parliament. The 5 I.I.Ts have developed into centres of excellence and have provided leadership in establishing a sound science and technology base for industrial development of India. The level of science and technology education and industrial development in India is now a matter of pride for that country and envy of the entire world.

Steps for development of schiece and technological education were initiated almost at the same time in early fifties in the 3 countries of India, Pakistan and Bangladesh. India has made tremendous progress in science and technological education and has already entered the era of high technologies. Pakistan has also achieved remarkable progress, but Bangladesh is trailing far behind. Whereas India and Pakistan have entered the era of high technologies. Bangladesh is still struggling with its basic science and technological education. And this is not the end of our failure. To make the situation worse, the quality of basic science and technological education has been declining over the last decade. What could be more unfortunate for this nation?

In the light of growing awareness among the leaders of the country regarding need of integration between industrialization programme and science and technological education, let us give a critical look at the state of affairs that now exists in the field of technological education in Bangladesh.

The Bangladesh University of Engineering and Technology, (BUET) established in 1962, is at the apex of the system of Engineering and Technological Education. The BUET is yet to provide effective leadership in engineering and technological education. The University is living in isolation and offers little guidence and helps the other levels of technical education. Similar institution in other countries carry out extensive Research and Development works. producing new concept and ideas, techniques, processes and products

for industrial development, apart from offering high level technological education. But BUET is still preoccupied with the problems of undergraduate level engineering education. Its activities at the postgraduate level fall short of expectation and so also its contribution towards industrial development.

The 4 Engineering Colleges now designated — Bangladesh Institutes of Technology (BITs) are still struggling with initial problems of their existence although some of them were established two decades ago. Except for producing graduate engineers, their contribution to industrial development is insignificant. It is high time, that the BUET shifts its emphasis from the under-graduate to the post-graduate levels of education and intensifies its Research and Development (R&D) activities. It should also help and guide the BITs in their staff development and improvement of quality of their products. The BITs are still short of adequate and qualified teachers and other physical facilities. The BITs should also undertake Research and Development works especially directed towards industrial development of the country. The BUET and the BITs should maintain liaison with industries situated around them and help them solve their technological problems.

The state of affairs at the mid-level technical education is far from satisfactory. 18 polytechnics, including one for women, have been set up in the country over the last 3 decades. Normally with the passage of time. efficiency of an educational institution and the quality of its output [ ] improve, but in the case of the polytechnics the reverse has taken 📆 place over the last few years. The : 🚚 functioning of the institutes has been! seriously effected by shortage of ! teachers and session-jam and the Carry Over System of examinations. Session-jam has been caused by frequent closure of the institutes due to political disturbances, shifting examination dates under pressure of students, and delay in announcement of results.

The students admitted in 1986, 87 /7 88 are yet to join classes. The students of 1989 session will soon lings up with them. What could be worse than this? More than 50% students are lost due to session-jam. It is causing serious wastage of manpower and resources.

(To be continued).