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Focus On BAU

Economic Relevance Of University Education

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IT is almost a universally accepted fact that the expansion of education especially higher education, is the propeller of economic growth and development. According to a World Bank study (1994), the estimated social rate of return from higher education is 10 per cent or above in developing countries. Investment in higher education is, therefore, the key to increase labour productivity and enhance long-term economic growth. For many centuries the third world countries remained largely deficient in their supply of skilled and semi-skilled manpower much needed to bring about any significant technological innovations and changes in their production, distribution and support service systems. This resulted in retarding their pace of development and perpetuating endemic poverty and malnutrition in these countries. History unequivocally supports that such trained manpower can only be produced on a sustained basis through the formal education system — primary to university education. It has been demonstrated over and over again that it is not the growth of physical capital but that of human capital which is and has been the principal source of economic progress and prosperity in the West. Even in the newly emerging developing countries of Asia and Africa the establishment of university systems and building up of human as well as physical capital infrastructure have provided a continuous supply of leadership for the much sought for tasks of development.

The growth of education in general and university education in particular contributes to the total economic growth process in a number of ways such as: (1) university acts as the major supplier of trained manpower and a more productive labour force by equipping it with increased knowledge, skills and craftsmanship; (2) a university provides widespread employment and income generating opportunities for different levels of people involved directly and indirectly in the education process; (3) universities are the sole producers and suppliers of educated leaders for academics, administration, bureaucracy, private sector business and NGOs; and above all (4) universities offer opportunities for unimpeded culture, heritage, art, literature, history, fine arts that form the basic elements of intellectual developments for the progress of civilization.

What contributions agricultural university and colleges have so far made to promote economic development in Bangladesh? Well, their activities are diverse and achievements are variegated. Bangladesh Agricultural University (BAU) system have been the repository of knowledge in different branches of agriculture. About 15 thousand bachelors, 5 thousand masters and 67 Ph. Ds so far produced by this university are all engaged in the sub-sectors of agriculture, namely, crops, livestock, fisheries, forestry, etc. and act as the principal change-agents in the total agricultural transformation process. Over the recent decades the foodgrain production has gone up more than two-folds, poultry manifolds; and fisheries tripled. These are the direct contributions. The indirect ones are even more pronounced and have high value added. We may have a look at the large number of agricultural research institutes, which are endowed with the influx of trained scientists and technologists produced, supplied and nurse by the BAU systems. The university has produced dozens of world class breeders of plants, animals and fish who are engaged in various national and international institutions making significant contributions to their respective fields. Thousands of agricultural graduates are working in the field as agricultural extension personnel and it is for their hard work and devotion that the previous fallow lands in the dry winter months have now turned into irrigated lush green fields with boro paddy. The agricultural engineering graduates are working to promote the agricultural mechanization process, while the agricultural economics graduates are deeply involved in rural development programmes of Govt. and NGOs, agricultural credit and rural financing, and project planning, monitoring and evaluation of the economic fermentation of the society.

It is this large continuous flow of agricultural graduates that facilitates the material transfer, design transfer and capacity transfer of technology from the experiment stations to farmers' fields. Through the university education system and its end-product i.e., the graduates, exotic varieties, animals, equipment, crop and animal production techniques, versatile management practices — all have been gradually evolved and adopted to local conditions. The BAU system as the pioneering institution for agricultural innovations has institutionalized local capacity and strengthened multiple facets of crop sciences, fisheries and livestock sciences, engineering, economics and social sciences through advanced research and training.

The research-base of universities is to be strengthened in order to attain the target of resource-utilization of the developing countries including Bangladesh. There has been a proliferation of studies which indicates that returns to a great deal of investment in agricultural research have been two to three times higher than those to other agricultural investment. As a matter of fact, well-managed and relevant agricultural research can generate large returns ranging between 25 and 100 per cent a year. It is in the areas of research and extension where the universities can have direct relevance with economic development. But very often these institutions are to encounter a host of problems that thwarts the fullest exploitation of their potentials and possibilities. The world system today in changing fast and the universities must respond accordingly. It is important to extend necessary supports in favour of higher education and research for ensuring its relevance in society, improvement in quality and attainment of its internationalized character on priority basis.

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As identified by UNESCO and World Bank, problems now faced by the Universities of Bangladesh are two folds namely, resource constraints and quantitative expansion. These two constraints are causing gradual deterioration in the quality of research and teaching because of over-crowding, lack of physical facilities, inadequate staffing, poor library resources and insufficient scientific equipment and instructional materials along with their poor maintenance facilities. Demographic growth requiring higher enrollment and expected economic growth resulting from the awareness that development correlates well with investment in higher education are the reasons that led to the quantitative expansion of Universities in Bangladesh. In spite of financial and other related constraints, the BAU system through its research activities has succeeded in developing and releasing a number of important crop cultivars, techniques and technologies which have direct bearings on nation's agricultural growth. They include: two HYV rice under the name BAU-63 and BAU-16, two HYV mustard seed under the name of 'Sampad' and "Sambal', four Soybean cultivars named as Devis, Bragg, 'Sohag' and G-2, two sweet potato cultivars named as 'Kamala Sundari' and 'Tripti', three Mukhi Kachu (Colocasia esculenta) cultivars in the name of 'Latiraj', 'Bilashi' and 'Dowlatpuri' (in collaboration with Bangladesh Agricultural Research Institute), techniques of producing rhizobial biofertilizer, soil testing kit, techniques of controlling guava wilt, improved production technology of banana and pineapple, production of poultry vaccine, fish and shrimp culture in paddy field, development of fish feed for 'magur' (Clarias batrachus) culture, artificial breeding technique for 'magur' and 'shing' (Heteropneustes fossils), grafting of African 'dhaincha', perennial cultivation of leafy vegetables, development of vaccine against New Castle disease and fowl pox, improved varieties of scavenging poultry, balanced poultry feed, artificial animal insemination, urea-molasses treated straw blocks as cattle feed, development of modern methods for preservation of fruit juices, improved plough, seed drilling machine, fertilizer spray machine, solar dryer, low-cost irrigation channel, soil-cement and ferro-cement grain storage structure, development of biogas plant etc.

The BAU system has now added newer dimensions with more and more collaboration with national and international institutions through growing exchange of students, bilateral research programmes, expert visits, exchange of teaching and research materials, participation in seminars and discussion forums. The university has also built up fruitful development partnership with national and international agencies and provides competent expert services in research and policy planning by the senior level staffs from different faculties. All our endeavours are directed to turn this premier university of our country into a quality institution capable of meeting the demand of agricultural education, research and extension for the 21st century.

What we are now working for is to produce quality manpower, generate appropriate technologies and diffuse relevant information to the farmers. We believe, by establishing linkages with different agencies, the university will be able to create an observable and tangible impact in the entire agricultural sector of Bangladesh in the coming years as per demand of the situation.

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