

INDIAN AGRICULTURAL EDUCATION: CHALLENGES AND PROSPECTS

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India is a country of agriculture. Our country was facing food shortages at the time of independence. We were subsequently autonomous in the production of food grains despite the population growth due to the green revolution. The role played by agricultural graduates is an important factor in the success of the Green Revolution. State agricultural universities in all states were set up in order to provide education in the field of agriculture after independence. New Delhi, Indian Council for Agricultural Research regulates and guarantees the effective spread of agricultural education. At the same time, they are controlled by the government of the respective agricultural universities. Although agricultural universities do commendable work, they face some financial constraints, lack of autonomy, inbreeding, the lack of faculty competence in new agricultural studies etc., in today's liberalized and globalized era of the World Trade Organization and General Trade Agreement in the Services. As agricultural training is a professional training, remedial measures must be taken to ensure that our growing population receives sufficient food. In this context, the status of farming education in India highlights challenges and suggests strategies to overcome them.

Key words: Agricultural education, State Agricultural University, Indian Council of Agricultural Research (ICAR)

Introduction

India is a country that's farming. The main livelihoods of more than 80 percent of rural India's population are agriculture and their alliance activities. It provides jobs for around 52% of the workforce. It contributes between 14 and 15 percent to Gross Domestic Product (GDP). India faced food shortages at the time of Independence. Since 1966, India's agricultural sector has achieved spectacular growth. Indeed, despite the population growth, India is today self-sufficient in most food grain. The production of food grain has grown in India from 51 million tons in 1950 to approximately 245 million tonnes. In the history of global agriculture, this growth represents a significant achievement in itself. India's green, white, blue and yellow revolutions have resulted in substantial growth in agriculture, milk, fish, oil seeds and fruit and vegetables. All these revolutions brought the farmers prosperity. These achievements include a number of factors that lead to government policy, farmers' receptivity and the creation of higher-level agricultural training institutions. The new race of skilled people has contributed to generating new technologies and their evaluation, refining and eventually distribution through extension methods to the farming community. Further development of qualified human resources is needed to sustain, diversify and realize the potential of agriculture sectors. The development of farming human resources is an ongoing process undertaken by agricultural universities. Farming universities provide education in a variety of agriculture disciplines including agricultural sector, agriculture, forestry, horticulture, veterinary and animal production, dairy, food technology, fishing and information technology, agriculture, agritourism and business management, etc. It teaches at the diploma, graduate, master's and doctoral levels. There are currently 53 state agricultural universities (SAUs), five universities, one central agricultural university, and four central agricultural universities. Financial and technical support for all of these educational institutions comes from the New Delhi Indian Council for Agricultural Research (ICAR).

Objectives of the study:

1. To know the issues of agricultural education.
2. To know the status of farming education in India

Literature Review and Analysis

Kulshrestha, A.K and Pandey K. (2013), It is a process of building up personality and making him or her rational, capable, receptive and intelligent. Education is the ability to meet life's situation. Twenty-first century is marked by a multiculturalism that has emerged as a result of industrialisation, urbanization, globalization and family disintegration. The century of stress and stress is described. Education should prepare the youngest generation to understand and face the realities of globalization, because it is seen as a tool to develop cognitive qualities, tolerance and understanding of people.

Singh, L.(2013)In terms of context and the person in question, globalization has many meanings. Globalization refers to integration of the world economy by uninhibited trade and financial flows, as well as by mutual technology and know - how exchanges.

Singh,T.S.(2012), Education is just as old as mankind. It is an endless process of internal development and development and extends from the cradle to the grave. Education really means humanizing humanity and making life advancing, cultivated and civilized. For the development of the individual and society, it is extremely important. By education people develop their thinking and reasoning, problem-solving and creativity, intelligence and ability, positive feelings and abilities as well as good values and attitudes.The person is well balanced by education, aesthetically rich, culturally sound, emotionally stable, mentally alert, morally upright, physically strong and healthy, socially efficient, vocationally self-evident, and internationally liberal. Education is the whole of life, as the ever-growing man and society is a constant and dynamic process.

The pattern 'land grant' was laid down in India by agricultural universities that helped incorporate various subjects into the course as well as providing the students with convenient practical exposure. All education disciplines have undergone dramatic changes, including agriculture education. There is now a need for agricultural education to be developed in keeping with changing national and international scenarios. Present and future agriculture practices are characterized by stagnating/declining productivity and profitability, degradation and depletion of natural resources, increased risks associated with climate changes, unsafe livelihoods for millions of small and marginal farmers, regional imbalances in agricultural productivity, rising input costs, vulnerable markets, unsound profits, changing food habits, increased quality consciousness, higher post-harvest losses, fragmented processing industry, globalization of trade and commerce, inefficient technology transfer system, poorly coordinated natural disaster management system, etc. Present and future and circumstances require a renewed drive for better quality and relevance in agricultural higher education, which will facilitate and implement the function of human resources development in order in in in to prepare self - motivated professionals and agri - enterprises with regard to changing general higher education and higher education.

In spite of the significant contribution carried out by the ICAR and agricultural universities for human resources development for the agricultural sector, the present Indian higher agricultural education sector face challenges of low access, not meeting quality standards, lack of financial support, gender inequality, inbreeding, inability to update the course curriculum at right time, lack of faculty competence in cutting edge technologies etc. The SAUs are established through the legislative acts of the respective states and with major financial support from them leading to administrative and policy controls. It has been observed that pace and quality of technology generation and human resource development in many of the SAUS has gone down. The reason for this slackening are inadequate state funding, reduced faculty strength, inadequate faculty development programmes, lack of modern infrastructure for education and research etc. Establishment of new state agricultural universities and new faculties/colleges without providing necessary financial and faculty support has aggrieved the problem.

1. Directly visible aspects/issues

Generally speaking, graduate agricultural education is not a first choice and a favourite for students. In general, bright pupils choose medicine and engineering first, depending on the case. Only those who are not accepted in these preferred industries are admitted to farmer's universities, subject to few exceptions.

Financial difficulties: Agriculture is a state subject. Therefore, the statutory responsibility for agriculture vests with the state governments. The SAUs receive their annual budget from the state government. It is seen that the major portion of budget grant is utilized to meet the salary component of the university and thereby only limited grant for other operational expenses. Therefore, SAUs face difficulties in maintaining buildings, practical laboratories, infrastructure etc. This ultimately affects the quality of agricultural education. This situation needs to be overcome by providing sufficient budget to meet all kind of necessary expenses to the SAUs. In order to have uniformity throughout India, and overcome such administrative problems arising due to two bosses, the agricultural education and research may be appended to the concurrent list of the constitution and leaving agriculture with the state thereby placing SAUs under direct control of ICAR.

1. Indirect aspects/ issues

Agricultural education aims primarily at the preparation of human resources for agriculture. Agriculture education also faces some of the following indirect issues, in addition to the direct issues mentioned above.

Poverty unemployment and malnutrition among agricultural dependant population: Global food demand is expected to be doubled by 2050 and at the same time natural resources are continuously reducing and deteriorating. Inadequate attention to agriculture has led to increase in prices of food products and thus making it inaccessible to poor people. Poverty is closely associated with malnutrition. India has large number of poor people (250 million out of approximately 1000 million worldwide). Approximately 75% of poor people reside in villages. Most of them are small and marginal landholders and landless labourers. They over crowd agriculture for their livelihoods with limited or marginal productivity.

Integration of agricultural education and job creation: In India almost, every graduate desire for a white collar job preferably in government sector. But due to financial crunch and governments resolve to phase out nonperforming assets, job opportunities in this sector have also reduced. Agriculture education being a professional discipline it can satisfy these conditions. Although the present course curricula of agriculture and allied faculties as suggested by ICAR do satisfy this need but still there is scope for reorienting them to address stakeholders' concerns and needs.

Demand of stakeholders: Farmers and consumers as major stakeholders of agricultural system would be more aware on usefulness and relevance of S & T findings. Their expectations and concern would form an integral part of agricultural S & T activities and programmes. Sound monitoring and evaluation system would be required to be set up to review the relevance, utility and impact of different agricultural education programmes.

Global forces: WTO has not only influenced the trade but the education sector also. Agricultural education needs to be harmonized with existing and emerging issues related to WTO and free market economies. Throughout the world, agriculture is becoming competitive in terms of price and quality of its produce. Price and brand equity have become most important aspect in globalized era. Therefore, it is essential to lay more emphasis on new frontier science subjects like biotechnology, nanotechnology, precision agriculture and information and communication technology, legal aspects, good trade practices, ethics of IPR, market intelligence etc. in present agriculture education curriculum.

Distances & disconnects: With time and space, inter as well as intra university dialogues and cooperation have reduced. Even faculty of different departments in a college do not sit together to address the academic issues, lest the inter college interactions. Further, such interactions/ linkages/ collaborations with the general universities, ICAR organizations and other reputed organizations like IIMs and IITs are almost nil. This affects the teaching learning process as well as the academic environment in the institutions which needs to be overcome by taking proactive approach.

Recommendations

Education is a dynamic process. To say something final on it is not possible, particularly in the modern era. Education in the emerging Indian Society in its totality, changes with the changing situation and developing circumstances. The educational expansion, universalisation of elementary education, higher and professional education and overall quality of education are major challenges before the country. It has to conform to certain ideologies and adopt itself to various condition rapid growths of population, political, social, economic growths and the like. Therefore, there is need to review, reconsider and rearrange educational theory and practice. Many proposals to improve state of agricultural education have been put forward by eminent persons and discussed at relevant forums also. Some progress is evident due to such efforts but still further actions are required to make it responsive to the present needs. Improving the quality and relevance of agricultural education requires a fundamental change of approach in governance and control, financial sustainability, accountability, autonomy, transparency and meritocracy.

Following recommendations can be implemented to make agricultural education in tune with present needs.

At the centre state level

ICAR guidelines should be binding on state authorities to have uniformity in all the agricultural universities in different states throughout India. ICAR should play leadership role in improving overall governance of the SAUs by ensuring adherence to the provisions of model act for agricultural universities. Agricultural universities should be encouraged to be self-sufficient. Grant full autonomy and avoid political interference. Functioning of any university is influenced to a great extent on Vice-chancellor. Selection of each Vice chancellor should be by a committee of eminent scientists who are also known for their impeccable integrity. The recommendation of selection committee should go directly to chancellor for action. Establishment of learning forum at the central level comprising of state and institutional leaders to discuss the changing skill requirements, challenges faced by SAUs, strategies for effective governance, deliverables and its quality through sharing of knowledge, experiences, good practices and study visits. Formation of international review committee to put Indian higher agricultural education at par with world class universities. Eminent educators, scientists, researchers from India and abroad should be

included in international review committee. The main task of such a committee should be to recommend specific and detailed action plan to modernize Indian agricultural education system.

At the University level

The Board of Directors or the Board of Governors in collective form is the highest decision-making body in agricultural universities. The Management Board / Board of Directors should therefore ensure good governance and take on their collective and personalized responsibilities through prudent means. They must provide autonomy and accountability to universities and respect them. Creation of college committee, including external experts in the field of teaching, research and development work by faculty members, to monitor and assess the performance of these activities. Maintaining a sufficient professional strength: each SAU should have its own short-and long-term master plan for its development of human resources and human resource development. Each child follows its own unique way of learning and processing information. In various ways, they learn the material. Some people learn from oral repetition, while others learn through practical work. They learn by writing it out. People differ in their way of learning. Some students are visual students while others are kinaesthetic or auditory students.

Conclusion:

Concerted efforts would be required to transform Indian agricultural education system to make it more sensitive and responsive to the need of stakeholders. ICAR is making concerted efforts to improve the agricultural education. India is not short of talent. With aggressive but sensible political will and commitment of all stakeholders, Indian agricultural education system will definitely achieve excellence and help the country to second green revolution.

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