



Brainstorming Session on Strengthening National Agricultural Education System

30 October 2023

NAAS Committee Room I, NASC Complex, New Delhi

Concept Note

Preamble

Agricultural education in India has a rich historical legacy, tracing its origins to the medieval era with prominent institutions like Nalanda and Takshashila Universities incorporating agriculture as part of their curricula. The evolution of agricultural education over time, led to the establishment of various agricultural colleges and universities across the country. These institutions have played a pivotal role in addressing food scarcity and advancing agricultural practices. However, in the present context, several challenges have emerged in effectively integrating the elements of teaching, research, and extension within the existing framework of agricultural education. There is need for a critical look into the background, historical evolution, achievements, concerns, and needed reforms in the agricultural education system of India.

Historical perspective

1. **Ancient efforts:** Agricultural education can be traced back to the ancient universities of Nalanda and Takshashila, where agriculture was included as one of the subjects in their extensive curricula.
2. **Early 20th Century:** The establishment of veterinary colleges and agricultural diploma courses marked a significant step forward towards formal agricultural education in India.
3. **Bengal Famine and Awakening:** The dire consequences of the Bengal Famine in 1943 highlighted the urgency of addressing agricultural and food-related challenges. This period led to a realization of the need for improved agricultural education and research.
4. **University Education Commission:** Recognizing the deficiency in education system, the Government of India appointed the University Education Commission in 1948, which emphasized on the pivotal role of agricultural education in ensuring food security for the nation's burgeoning population.
5. **Concept of Rural Universities:** The Education Commission also recommended the establishment of rural universities. The transformation of the Indian Agricultural Research Institute into a Deemed-to-be University in 1958 marked the conceptualization of rural universities that integrated teaching, research, and extension functions.
6. **State Agricultural Universities:** The report of joint Indo-American Teams in 1955 and 1959 and recommendations of Cummings Committee in early 1960s paved the way for the establishment of State Agricultural Universities (SAUs) across India, solidifying

the concept of integrated agricultural education based on the Land Grant System of agricultural education which integrates the education with research and extension.

7. **First Agricultural University:** In 1960, the establishment of Gobind Ballabh Pant University of Agriculture & Technology (initially Uttar Pradesh Agricultural University) marked a significant milestone in agricultural education. It adapted farm, farmer, and consumer centric system. Today, we have 63 State Agricultural Universities (SAUs), 4 ICAR institutes with deemed university status and 3 Central Agricultural Universities (CAUs). They have all played significant role towards agricultural Growth in India.

Some Successes

1. **Green Revolution and Beyond:** ICAR and State Agricultural universities played a pivotal role in India's Green Revolution resulting in significant improvements and transformations in Agriculture. These institutions continued to adapt and contribute to subsequent agricultural revolutions in different sectors.
2. **Integration of Mandates:** State Agricultural Universities successfully integrated teaching, research, and extension activities, which generated national public good and helped in rapid dissemination of knowledge from research labs/experimental stations/farms to students, extension workers, and farmers alike.
3. **National Agricultural Research System (NARS):** The collaboration between SAUs, ICAR institutes, and private institutions within the NARS framework significantly contributed to the development of new agricultural technologies and increased production. Indian NARS is currently one of the largest in the world with credible performance and laudable achievements aiming at food, nutrition and environmental security.

Current Concerns

1. **Funding constraints:** Agricultural universities face limitations in obtaining adequate funding financial support from the central government. As a result, funding patterns vary widely across different states, impacting the quality of education, research, and extension efforts.
2. **Weak linkages:** The disturbing dilution of integration between teaching, research, and extension within the agricultural university education system is adversely impacting the output and creating disparities in faculty status, human resource issues recognition, and collaborations.
3. **Slow pace in responding to emerging challenges:** The agricultural education system needs to align with evolving agricultural needs, technological advancements, and changing societal demands.
4. **Proliferation of Universities:** Proliferation of universities particularly private agricultural colleges/universities established with inadequate planning, infrastructure and meagre resource allocation adversely impacted the expected outputs.
5. **Bifurcation of SAUs:** Bifurcation of SAUs into different disciplines, like veterinary, fishery, horticulture Universities is indeed a retrograde step and against the principle of integrated education
6. **Lack of robust assessment system:** There is lack of robust review and assessment system that rewards merit and excellence in science, especially linked to innovation which hampers the quality education. Also, there is lack of student based teacher evaluation system linked to incentives and rewards for excellence.

The Brainstorming Session

For accelerated agricultural growth, so critical to address Sustainable Development Goals (SDGs), reforms in existing research and education system is necessary. Also, to address successfully the emerging challenges, and to embrace secondary and speciality agriculture, capable human resource and reformed education system will be critical to improve livelihood of smallholder farmers and to make agriculture an attractive and economically rewarding profession. Hence, higher investment in existing agricultural education system associated with needed reforms is extremely important and fully justified, to achieve evergreen revolution. The Brainstorming Session to be held in hybrid mode intends to help evolve a transformative path for revitalizing and reorienting agricultural education system, aligning it with the evolving needs of new education policy (NEP) for both the farmers and Indian agriculture. Considering the present challenges and concerns, potential and opportunities, a **Brainstorming Session on Strengthening National Agricultural Education System** is planned to be organized by the Trust for Advancement of Agricultural Sciences (TAAS) jointly with Indian Agricultural Universities Association (IAUA) in NAAS Committee Room I, NASC Complex, Pusa, New Delhi on 30 October, 2023. About 50 participants from diverse stakeholder groups are expected to attend.

Objectives

- To identify key areas for further improvement as envisaged under new education policy (NEP) to ensure sustainability of Land Grant System of education.
- To explore innovative interventions for integration of teaching, research and extension in agricultural universities/institutions.
- To identify mechanism to build strong collaboration among ICAR, SAUs and line departments of the Central/ State Governments.
- To devise strategies for improving the financial health, autonomy, governance, restructuring and modernization of the agricultural education system in India.

Expected Outputs

- The linkages among three functions of the SAUs through sound policies and governance, ensured.
- The role of SAUs reviewed to understand the relevance of human resource development under NEP.
- Ways to strengthen collaboration among ICAR, SAUs and line departments suggested.
- Strategy for improving financial health. of SAUs proposed.