

DRAFT EQUITY ACTION PLAN

**National Agricultural Higher Education
Project**

**Indian Council of Agricultural Research
(ICAR)**

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Introduction

Education development world over has led to promoting economic development bringing in economic empowerment, human development, social equity and inclusive growth. In the community of nations, countries which have been in the fore-front of developing quality education have acquired leadership. Government of India also gave major emphasis on developing primary, secondary and higher education for promoting development in all sectors and using science and technology for human development. An overwhelming demographic divide still persists in the access to quality higher education with several communities still remaining under represented, contradicting the very objective of equity within the social growth of the country.

The Indian Council of Agricultural Research (ICAR) has the mandate for the coordination and quality assurance of Agricultural Higher Education at Agricultural Universities (AUs) in India. The ICAR-AU System comprises 61 State Agricultural Universities, five Research Institutes (known as Deemed Universities), three Central Agricultural Universities, and four Central Universities with agricultural faculty.

ICAR has taken the lead in analyzing the challenges facing agricultural higher education in India. The ICAR is going to implement the National Agricultural Higher Education Project, at a total cost of USD 165 million, with credit of USD 82.5 million from the International Development Association (IDA). The Project Development Objective is: “To support participating Agricultural Universities and ICAR in providing more relevant and higher quality education to agricultural university students.”

Potential Beneficiaries: Project activities would target the 73 institutions that form the ICAR-AU System, consisting of State Agricultural Universities (61), Deemed Universities (5), Central Universities with Agricultural Faculty (4) and Central Agricultural Universities (3). The institutions have reserved a total of 15% seats for students belonging to the Scheduled Castes (SC), 7.5% to the Scheduled Tribes (ST), 3% to the Physically Challenged (PC) and 2% to the students belonging to the lagging states¹.

¹ (i) Andaman & Nicobar Islands, (ii) Arunachal Pradesh, (iii) Dadra & Nagar Haveli, (iv) Daman & Diu, (v) Goa, (vi) Lakshadweep, (vii) Manipur, (viii) Meghalaya, (ix) Mizoram, (x) Nagaland, (xi) Sikkim, (xii) Tripura, where educational facilities in agriculture and allied science subjects either do not exist or have no AUs.

Project Activities:

The Project will support three components:

Component 1 – Support to Agricultural Universities: would finance investments by participating AUs to improve the quality and relevance of agricultural education and research toward agricultural transformation. The component has three sub-components.

Sub-component 1a – Support to State-level AUs - would specifically target reform-ready State-level AUs and support competitively selected and performance-based Institutional Development Plans (IDPs), financed through ICAR's existing Development Grant window. The IDPs under this subcomponent seek to improve: (a) learning outcomes and future employment for AU students; and (b) faculty teaching performance and research effectiveness. Through the IDPs, the AUs would identify and prioritize key challenges, propose interventions to respond to these challenges, and set timelines and indicators for measuring achievement of greater quality and relevance attributable to these interventions. The IDPs would also leverage other funding sources (e.g., existing or additional state-level funds, private sector, foundations) along with ICAR's Development Grant. NAHEP would finance each IDP through a subproject grant directly to the participating AUs. Activities financed under each IDP would include: (a) capacity building and training for agreed governance reforms that promote AU autonomy and sustained accreditation; (b) updated infrastructure (i.e., minor civil works, goods) for research and teaching; (c) faculty development (i.e., training, consultant services); (d) networking with industry and other learning institutions, both national and international; (e) increased vocational education through the launching of certificate programs; (f) more effective student job placement; and (g) own-revenue generation for AUs. Each IDP would also specify a Twinning Plan with a recognized high-performing university, either in India or abroad.

Sub-component 1b – Centers for Advanced Agricultural Science and Technology – CAASTs - would support competitively selected CAAST proposals by reform-ready AUs to establish multidisciplinary centers for teaching, research and extension on critical and emerging agricultural topics (e.g., land and water radiation use efficiency; scalable technology; effective pedagogy and knowledge transfer; agro-industry; and agro-entrepreneurship). Multi-stakeholder consultations would inform the geographic locations and core themes for the proposed CAASTs, after which participating AUs would compete for CAAST funding. Approved AUs would be financed through a CAAST subproject grant directly to the participating AU. The sub-component would finance: (a) research and teaching equipment (i.e., goods); (b) faculty and scientist development fellowships, (c) student scholarships, primarily at the postgraduate level; and (d) costs associated with twinning arrangements with similar centers (e.g., universities, research centers) both outside and within India (i.e., training, consultant services, and non-consultant services).

Subcomponent 1c - ICAR innovation grants to AUs – would primarily support technical assistance and consultant services required to: (a) make AUs reform ready (i.e., attain accreditation) to permit their participation in subcomponents 1a and 1b; and (b) promote mentoring of non-accredited AUs by existing reform-ready AUs and other interstate and international academic partnerships.

2. ***Component 2 – Investments in ICAR Leadership in Agricultural Higher Education*** – would finance ICAR’s internal reforms to enhance its effectiveness in: (a) coordinating, guiding and managing agricultural higher education across the ICAR-AU System; and (b) its interactions with AUs and key stakeholders nationwide through interventions that increase the quality and relevance of agricultural higher education. As the Education Division/ ICAR is responsible for national coordination and quality assurance of agricultural higher education, the component would leverage ICAR’s comparative advantage in: (a) assessing systemic challenges across the ICAR-AU System; and (b) incubating solutions.

The component would finance goods, training, consultant services and non-consultant services such as: (a) change management services to aid the Education Division/ ICAR in its internal reforms; (b) partnerships between the Education Division/ ICAR and other globally recognized agricultural higher education institutions; (c) digital information systems for AU data collection, analysis and dissemination to improve quality metrics in agricultural higher education; (d) enhanced methods to consolidate and disseminate global best-practices in agricultural higher education (e.g., national and global benchmarking); (e) institutionalization of stakeholder and advisory inputs to better inform research, education and extension across the ICAR-AU System; and (f) an External Advisory Panel, drawing on national expertise relevant to agricultural higher education, to provide a vehicle for best-practice dissemination and adoption by the participating AUs.

Component 3 – Project Management and Learning – would support NAHEP project management, primarily through the Education Division/ ICAR, to administer, supervise, monitor and evaluate overall project implementation. The component would support: (a) an NAHEP Steering Committee that would provide strategic guidance to the Education Division/ ICAR throughout project implementation; (b) a Technical Committee to evaluate IDP, CAAST and Innovation Grant proposals; (c) a communication strategy to build awareness among AUs and other stakeholders regarding the objectives and activities of the proposed NAHEP; and (d) training and capacity-building for both ICAR and the AUs to achieve and sustain increased quality, relevance and effectiveness of agricultural higher education across the ICAR-AU System.

Key Social Impacts and Application of Bank Safeguards Policies

The project will finance limited construction activities such as establishing/upgrading higher education facilities such as classrooms, library buildings, etc. within the existing premises. These activities are not expected to cause any significant environmental or social impacts. Likely environmental and social impacts, which will be limited in nature, may include temporary construction related impacts. No civil work involving compulsory land acquisition or involuntary resettlement shall be financed. Therefore, the World Bank’s Operational Policy on Involuntary Resettlement (OP/BP 4.12) has not been triggered. Some of the potential partners could be in low-income states, are located in states and communities inhabited by tribal communities. Therefore, the World Bank Operational Policy (OP/BP 4.10) has been triggered.

Equity Action Plan

ICAR has prepared this Equity Action Plan (EAP) which addresses issues of gender equality and social inclusion also keeping in view the needs of the Scheduled Tribe and the Scheduled Caste students and faculty members fulfilling the requirements of OP 4.10. This EAP has been prepared using mostly qualitative research methodologies, including an online survey with the primary stakeholder - students and faculties from various social backgrounds, including ST and SC groups. This will be further discussed and finalized with intensive stakeholder interviews and focus groups discussions with male and female students and faculties from various social backgrounds, including ST and SC groups, and poor and disadvantaged communities. The EAP identifies key issues and problems affecting academic performance and overall development of students and recommends a set of actions to address the same, which has been discussed in this document.

Summary of Recommended Actions

Key recommended actions in the EAP/IPPF include: (i) improving the learning efficiency, skill-sets of the students, including those from socially and economically vulnerable groups including ST and SC, (ii) supporting faculty to improve their knowledge levels, pedagogical skills, and sensitivity to gender equality and social inclusion issues in agriculture educational institutions, (iii) encouraging institutions of excellence to organize annual technology innovation forums to enable students from various colleges share experiences and innovations; (iv) promoting mentorship amongst students and teachers (to aid needy students and younger faculty members); and (v) supporting research scholars as a part of Institutional Development Plans.

Objective and Scope: This EAP is prepared in line with the Government of India's commitment to Inclusive Growth, and in complying with the World Bank's Operational Policy (OP 4.10). The Objective of the EAP is: *"To ensure that all students and faculty in the project institutions have equal opportunity to avail the benefits of the Project with substantial improvement in the performance of students with special attention to the needy and ST and SC categories."* All project assisted institutions will be responsible for preparing and implementing the Equity Action Plan (EAP) as an integral part of project implementation for NAHEP.

Strategy: Every institution faces a different challenge to improve academic performance. In addition to the caliber of students in an institution, its facilities, management, quality and efficiency of the teaching faculty, and measures to address students' felt needs including relating non-cognitive skills and behavioral issues have a bearing on student performance. The Project institutions are to make Equity Action Plans (EAP) to improve learning outcomes for students and employability of graduates with special attention to the needy ones including those from the SC and ST categories. The project

aims to ensure that all participating AUs improve the student performance and placement rates, as well as, faculty research effectiveness, as measured by the h-index. Institutional targets are set for all students with special attention to socially and economically underprivileged groups including SC, ST, OBC and Women students. Achievement must be maintained during subsequent years so that high graduation rates are achieved by every institution. All Institutions should include Institutional EAP in their Institutional Development Proposals.

Recommendations

¥ ***Attracting students to agricultural education-*** Institutions need to attract students to agriculture as a career option. Admission process should not solely rely on test scores and school grades but also include the candidate's background of agriculture, values and ethics of vocation. The image of agriculture can be improved by introducing specialized knowledge-intensive areas; focusing on developing professional opportunities in production, processing, marketing and supply. Simultaneously, series of incentives such as specialized scholarships, awards and rewards and future incentives/job security could be made focus points.

¥ ***Measures for Improving Academic Performance of students-*** Institutions need to identify and support students who need extra support. Various criteria might be used to identify the students in need, including for example, those who fail in more than 40 or 50 percent of their subjects in a given year, lose a year or more during their degree programme, or consistently get low marks. Some students may fail to secure employment at the end of their degree programme because of overall low performance or inadequate skills at the completion of the course. Some of the reasons for these weaknesses are: low entry level marks (i.e., inadequate preparedness for the curriculum), irregular attendance of classes, low self-confidence, weak language skills in English (this is particularly in case of students from the rural areas), which is the medium of instruction or even in the main vernacular language and generally it is observed that weaker student does not communicate their difficulties and do not seek help due to factors including low self-esteem or even self-inflicted stigma. In addition, students may not do well because of a number of institutional factors, including vacancies in faculty and technical staff positions, deficiencies in faculty teaching skills, lack of library facilities or restricted opening times, poor academic support, inadequate student support services, lack of effective monitoring of student performance, or regular feedback to students, inadequate hostel facilities, poor quality placement offices, etc.

The participating AUs should strive to ensure that all students perform well academically and achieve their post-college goals i.e. securing good jobs or entering postgraduate courses, according to their choice, suited to their capabilities, and in line with the education they have received. Institutions must also ensure that the entire faculty be well trained in Pedagogy especially with regard to addressing the needs of weak students. Some possible interventions to improve the performance of weak students include the following.

- ***Enhancing Communication and Presentation Skills.*** One key factor affecting academic performance of students and employability of graduates is their inability to effectively communicate. The EAP therefore emphasizes taking measures to help students improve their proficiency in learning. The strategy could include English language labs, tutorials for technical and everyday English, opportunities to make presentations in the classroom, etc. Language and

soft-skills development should be provided throughout the degree programme and not only in the final semesters in preparation for job interviews. Interactive and confidence-building programmes should also be implemented.

▪ ***Promoting Peer Learning Groups and Fostering School Spirit.*** One of the issues that students face is inability to cope with the demand of higher education. It is seen that establishing peer learning groups has benefitted students (experience of other Bank funded projects). Peer learning groups help students share their experiences and address their academic difficulties. Students often like to study in groups, and forming groups of 10-12 good and weak mixed students can be effective. They can revise lessons and undertake group projects also. Good students can help weak ones – the act of tutoring also helps good students. AUs should promote and establish such peer-learning groups.

¥ ***Make curriculum industry oriented*** – The agricultural higher education system must provide for updating of curriculum over regular frequencies to help learning match industry requirement. This way employability skill would be better and so do the prospects.

¥ ***Provision of adequate trained and qualified faculty*** –All faculty must possess adequate qualifications and training before taking up education. Periodical refresher training is a necessity to ensure adherence to performance standards. While updating curricula the faculty must be acquainted with the newer studies and technologies to keep them abreast and conduct proper delivery.

¥ ***Improving teacher effectiveness*** –this will require several measures including the following:

(i) Updating Domain Knowledge to enable faculty members keep abreast of latest developments in domain knowledge. (ii) Training in Pedagogy will support teachers in select undergraduate institutions to undertake refresher training in pedagogy to enhance their effectiveness. (iii) Fostering Positive Teacher Behaviors will involve behavioral training to the teachers to enhance their self-understanding, improve their sensitivity, leadership and management skills. A third important area for improvement of teacher performance is their behavior toward students (especially weak ones). An important ‘first resort’ is to counsel teachers who show unpleasant behaviors, help and guide them. Besides having a formal Counselor, Faculty Mentoring program could be introduced to help faculty members that are younger and may seek help (iv) Faculty Appraisal can be undertaken with using self-assessment forms and under the oversight of the Head Of Department (HOD), Deans, Faculty Committee, etc. It can usefully include student evaluations but also monitor content delivery in accordance with the course file extension and training for ensuring sustainable growth and development, better infrastructure, and adequate faculty, etc.

¥ ***Academic reforms-*** The semester system of education should be adopted in all institutions as it enlarges curricular space, encourages and supports accelerated learning opportunities, and has the ability to accommodate diverse choices that dynamic and motivated students may like to have. Higher education has thus far been largely examination-centered. The end term examination, to a

great extent, insulates students from quest of knowledge, the excitement of discovery and joy of learning, and often leads to insensitive cramming up of superficial information. It may therefore, be more prudent that the assessment of student performance be carried out through a combination of internal and external evaluation where the internal assessment should be the continuous one.

¥ ***Inclusive growth*** -To achieve the inclusive growth, it is essential to enhance the enrollment rate, provision for equal access to all, creating educational facilities for backward and disadvantaged groups, and promoting sectoral education in areas where manpower requirement is expected to grow. For this, there is need for increasing the capacity of students intake, establishing / strengthening new colleges/universities in backward and disadvantaged areas, creating new Centres of Excellence (Centre for Advanced Agricultural Education & Technology).

In order to strengthen degree programmes in the emerging and frontier areas of science and technology, some fellowships need be earmarked in cutting edge areas. For maintaining the increasing trend of girls seeking admissions, scholarships/fellowships for girl students belonging to the marginalized groups should be instituted. Also, a separate provision of special research grants should be extended for innovative PG research.

Farm graduates need be empowered by linking production and post - harvest technologies in a mutually reinforcing manner. For this, the agricultural universities should set up Agricultural Technology Parks. These parks could promote technology incubation and dissemination. It will also establish economic viability of new technologies. Such parks, linked to appropriate public and private sector enterprises from the point of view of marketing arrangements, will help to enhance self-confidence of farm graduates and stimulate them to take a career of self-employment.

¥ ***Supporting Innovation and Knowledge Sharing***: NAHEP will support establishment / strengthening of ‘Institutions of Excellence (Centre for Advanced Agricultural Education & Technology)’. These centres may bi-annually (preferably) organize innovation and knowledge sharing forums / workshops for the benefit of students, young researchers and faculty from surrounding institutions. These events can promote competition amongst institutions to show case innovations and enable students to share their learning experiences, facilitate interaction with industries and private/public R&D institutions and thus expose them to break through technologies.

¥ ***Implementation Arrangements***: Each participating AU will prepare and include the EAP/IPPF in the Institution Development Plan submitted for funding. There shall be institution level student-faculty committees to monitor the implementation of the EAPs. The Dean / HOD will be generally the nodal officer responsible for implementing the EAP. The institutional arrangements will integrate professional capacity and expertise to plan and implement actions in fulfilment of the EAP/IPPF. The ICAR will have a nodal officer responsible for monitoring and supporting the EAP implementation.

¥ ***Monitoring and Evaluation:*** The EAP implementation shall be monitored as a part of the overall project monitoring. The project needs to build adequate mechanism for monitoring and evaluation of EAP. This could also be an online MIS that can be administered at ICAR. Such a mechanism should allow ICAR to capture information of all participating institutions on project's PDO level indicators as well as other indicators deemed useful for the institute's own internal decision-making. The MIS system should also be designed to generate the data on the students' performance with special attention to the vulnerable categories. For institutions without an MIS in place, a supplementing database should be created and linked to the core database. This will enable the MIS system to provide policymakers, at national, state and institutional levels, a summary analysis of the collected data through an interactive, web-based application capable of generating reports for all NAHEP indicators and providing the unit level data required for the computation of each indicator. The system will incorporate a series of validity checks to avoid spurious data entry. An IT firm should be hired for the development, installation, training, and capacity building for the NAHEP MIS and databases. The MIS will be funded through Component 2 Investments in ICAR Leadership in Agriculture Higher Education.

Stakeholder Consultation and Disclosure: This document was prepared through feedback received by an online survey with the primary stakeholders, the students and faculty members. Series of stakeholder consultations will be held and this document will be finalized subsequently.

The EAP will be disclosed by the ICAR on its website and the document shall be locally disclosed at all the participating institutions.

Grievance Redress Mechanisms: Every participating institution would set-up a Grievance Redress Mechanism for students and special committees to deal with grievances against any incidence of sexual harassment / indiscrimination. Any grievances can also be sent to the PIU at ICAR, which will be documented and addressed through GRMs to be established in the concerned institutions. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB noncompliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the

World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World

Bank Inspection Panel, please visit www.inspectionpanel.org.

The Table below summarizes the EAP Actions for the students and faculty.

Details of Equity Action Plan

S.N O	Item	Actions	Implement ation Agency	Frequency	Monitoring Indicators
i.	To identify weaknesses in all students and take remedial steps	Institutions to plan and administer diagnostic tests at the beginning of each semester in order to identify the types of assistance required. Accordingly, institutions will execute bridge courses (e.g. extra classes, tutorials to be conducted by other faculty) and other measures to bring all students to the required level of proficiency to cope with the main subjects	Project institutions	Diagnostic tests and plans completed at the beginning of each semester; remedial measures carried out continuously thereafter	Percent of students transiting from First to Second year with all first year courses passed
ii.	To improve language competency, soft skills and confidence levels	The preparation of guidance tools for teachers to transact with students that are culturally or linguistically less exposed to professional technical education / by including English as part of the main syllabus	Project institutions	Continuous	Better transition rates for first and second year students
iii.	Institution to improve non-cognitive and soft skills including communication and presentation skills through their wide use in curricula / project based work, and where needed, to provide special skills training to students with	To be decided by the institution. This could include special labs or workshops or sessions with external experts/ consultants / faculty / senior students	Project institutions	Continuous	Improvement in job placement of students, especially among those with disadvantaged backgrounds

S.N O	Item	Actions	Implement ation Agency	Frequency	Monitoring Indicators
	priority to the weak students				
iv.	Give young faculty priority in opportunities to upgrade their domain knowledge	Institutions to identify needs and indicate in their Faculty Development Plan, how they would build equity to upgrade faculty qualifications and skill	Project Institutions	Yearly	Increase in the percentage of faculty enrolled for such opportunities
v.	Training of faculty in subject matter and pedagogy, particularly to improve the performance of weak students	Training Needs Analysis (TNA) to be carried out for all faculties in all project institutions / AUs by appropriately qualified/trained experts, especially to weak students.	Project Institutions	TNA to be done before the preparation of Institutional Development Proposals; reporting every six months and remedial actions on a continuous basis	Percent of planned training completed against targets
		All institutions to prepare Faculty Development Plan for the Project period (using identified providers for Pedagogy or National Training Calendar for subject training), giving priority to the faculty with the most significant gaps in knowledge and skills as diagnosed by the TNA	Project Institutions		
		Domain training is to be done on the basis of need/ link up with industry to keep abreast of cutting edge technology	Project Institutions		
		Training providers to furnish training evaluation results (which indicate the extent to which the gaps	Project Institutions		Progress in training plan every 6 months (by name, department,

S.N O	Item	Actions	Implement ation Agency	Frequency	Monitoring Indicators
		in a trainee's knowledge or skills including teaching of weak students have been addressed) to Institutions and the SPFUs			individual characteristics (including SC/ST/OBC, M/F, age, years of service, level, degree qualifications), type and duration of training received, etc.
vi.	Make campuses physically and socially gender friendly; especially provide adequate and suitable facilities to women students and faculty	Institutions to specify in their IDPs what actions they would take to ensure a gender—friendly campus—both 'soft' actions. By providing ramps, lifts, toilets and hostel facilities, where needed	Project Institutions	At the time of IDP and actions implemented as proposed	Institutions to Provide descriptive reports of actions taken including number of beneficiaries
vii.	Hold innovation and Knowledge Sharing Workshops yearly to improve knowledge sharing	The institutions to organize workshops with thematic focus	Project Institutions	Yearly	Number of workshops conducted/ participants attended and thematic areas covered
viii.	The AUs and Centres of Excellence to organize workshops with thematic focus	By organising rural camps / field surveys	Project Institutions	Yearly	Number of workshops conducted/ participants attended and thematic areas covered
ix.	Special efforts for training/ internship/ placement of weak students	By greater networking with industry	Project Institutions	Regular	Percent of weak students received internship / placements; Percent of students

S.N O	Item	Actions	Implement ation Agency	Frequency	Monitoring Indicators
					benefiting due to industry linkages (limited placement services)
x.	A two tier grievance redress mechanism (GRM)	Introduce, and publicize widely, a two tier GRM at the (i) institution; (ii) PIU. In addition to a hotline (telephone), an email address would ensure anonymity	Project Institutions	Continuous	Number of grievances received and time taken to resolve
xi.	Ensure that institutional mechanisms to protect and address the needs and concerns of women students are established.	Strengthen/ establish Gender Committees in each institution	Project Institutions	Continuous	Policy on human resource management for students management and ensuring their participation
xii.	Peer Learning Groups of students	Develop Peer Learning Groups of students for joint study and joint projects (Senior student and faculty may be the resource person)	Project Institutions	Continuous	Increased rate of students performance
xiii.	Appointing Student Mentors and Faculty Advisers for Students	Assigning Student mentors for 6-8 junior students and Appointing Faculty Advisers for 10-15 Students/student mentors. Faculty Advisors can guide the students and monitor their progress	Project Institutions	Continuous	Increased rate of students performance