



PROCEEDINGS

IAUA 8th Regional Committee Meeting
On
“Sharing Experiences and Strategies about
Changing Paradigm of
Agriculture University Governance Systems”
May 9-10, 2019



Sponsored by :
**Indian Agricultural Universities Association
(IAUA)**



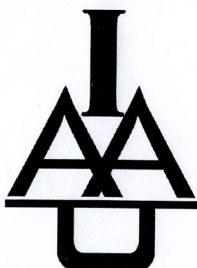
Hosted by :
**GB Pant University of Agriculture & Technology
(GBPUAT), Pantnagar**

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1. The first part of the report deals with the general situation of the company and the results of the audit. It is a summary of the findings and conclusions of the audit.

2. The second part of the report deals with the specific findings of the audit. It is a detailed description of the problems and weaknesses identified during the audit.

3. The third part of the report deals with the recommendations of the audit. It is a list of suggestions for improving the company's performance and efficiency.

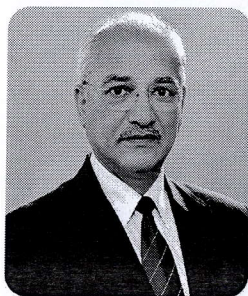


डा० तेज प्रताप

कुलपति

Dr. TEJ PARTAP

Vice-Chancellor



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FOREWORD

The Vice-Chancellors conference on the theme of sharing experiences and strategies about changing paradigm of agriculture university governance systems was a timely event that was focused on to deliberate as to how old thinking behind setting up of the farm universities has steadily changed to present day affairs in SAUs and how the farm universities have evolved from Land Grant Pattern institutions to present day land scarce, funds starved institutions with a variety of management problems. The conference created a vibrant platform to deliberate on the factors influencing the SAULICAR education system and adoption to the changes that are shaping the future functioning of the farm universities.

The participating Vice-Chancellors deliberated on the issues in the two-day meet, touching sub themes like, self appraisal of SAUS-ICAR Agriculture Education Ecosystem - Assessment of strengths, weaknesses, opportunities and threats faced by, the system, Envisioning SAUS-ICAR ecosystem as a world class university, Entry of private institutions in agriculture education new challenges, Strategic thinking on managing change that is impacting farm universities, etc. Specific recommendations were drafted by the competent participants that have been compiled into this proceeding.

I take this opportunity to thank Dr A.R. Pathak, President, Indian Agricultural Universities Association for choosing Pantnagar as the venue for the conference. I am happy that the proceeding of the conference is being published under the overall guidance of Dr. J. Kumar, Dean, College of Agriculture. I complement Dr. Kumar and his team for their sincere efforts in bringing out this publication.

(Tej Partap)
Vice Chancellor

RECOMMENDATIONS OF THE CONFERENCE

The 8th IAUA Workshop was held during May 9-10, 2019 at G B Pant University of Agriculture and Technology, Pantnagar, Uttarakhand. At the end of two days deliberations the participants of the workshop came up with the following recommendations:

1. In order to improve the quality and relevance of agricultural education, there is a need for fundamental change of approach in governance and control, financial sustainability, accountability, autonomy, transparency and meritocracy.
2. There is an ardent need to check the establishment of new agricultural university(ies) by bifurcating the existing one(s) in the state and also the mushrooming of private colleges as that will cause major damage to education and employment sectors. Instead, the idea of 'broad farm universities' need to be strengthened.
3. The SAUs and colleges affiliated to general universities, engaged in teaching agriculture and allied subjects, need institutional changes, which include changes in statutes and governance towards academic independence and excellence and to enlarge the scope of providing education and learning.
4. The SAUs, despite being funded by state Govt. and ICAR, face shortage of funds. There is, thus, a need to explore new ways of income generation and funding and adopting them for strengthening the funds in the universities. Management of universities should thrive for provisions of fund raising through innovative ideas of technology and knowledge that can be sold to rich farmers as well as industrialists and at the same time attract good students and hardworking staff. Entire syntax of university administrative set up needs change of perceptive and purpose.
5. The underperformance of the graduating students when they face the real-world farming situation as well as in selling themselves for jobs, is a major concern and must be addressed urgently. The delivery approaches and methods of classroom teaching and hands on training/ practice in equipping the graduates with necessary skills must match the requirements of farming systems/ situations.
6. Conceptual and perceptual changes are needed in skill development of all components of the university, be it students, teachers, administrator or supporting staff. Quality research with academic background support and worthy extension provisions including functional help of KVKs and KGKs, and entire paradigm of scientific development of agricultural science should be raised.

7. Future farm universities must have excess and ability to utilize new trans disciplinary knowledge such as biotechnology, nanotechnology, information and communication technologies (ICTs), space technologies and material sciences and become central to developing new technologies and innovations.
8. State oriented restricted admission regulations are not in line with the future aspirations of making the university global. Provisions have to be made for open nationwide admissions and for international students.
9. Integration of SAUs and ICAR institutes for teaching and research could be a futuristic step and may address the rural, peri-urban and urban needs in a better way. Moreover, SAUs should be permitted to admit foreign students directly.
10. IAUA should hold series of dialogues on **envisioning future pathways**, including inviting experts to give valuable inputs. Also, 50 years long documented history of past experiences should be studied to learn lessons from it, especially to understand specificities of the agricultural education ecosystem.

PROCEEDINGS OF THE IAUA WORKSHOP ON SHARING EXPERIENCES AND STRATEGIES ABOUT CHANGING PARADIGM OF AGRICULTURE UNIVERSITY GOVERNANCE SYSTEMS

Context

The idea behind this event was to provide a platform to deliberate on the factors influencing the SAU-ICAR agriculture education ecosystem and how to adapt to changes that are shaping the future. The event focused on how the old thinking behind setting up of the farm universities has steadily changed to present day affairs in SAUs and how they have evolved from Land Grant Pattern institutions to present day land scarce, funds starved institutions with a variety of management problems.

Since independence, agriculture higher education in India through State Agriculture Universities (SAUs) has been greatly influenced by the Land Grant pattern of Farm University Model of the United States. As a result, agricultural higher education establishments in the country accepted education, research and extension activities as integral to their functioning. Although every effort was made by these institutions to provide facilities for high quality education, research and extension, rapid expansion of education and training facilities, coupled with reduced financial allocation has resulted in loss of quality in the educational and training activities and an uneven standards of achievements of graduates and post graduates coming out of the various institutions.

Declining Autonomy and increasing bureaucratization: The agriculture universities are created by an Act of the State Legislature as autonomous institutions. Accordingly, the universities established earlier were provided with full autonomy in their functioning. The ICAR also developed Model Act in 1964 which was revised in 2009 and this provided framework for establishment and functioning of agricultural universities. However, with the passage of time, much of the functional, administrative or even academic autonomy has been eroded because of financial dependence on state governments. Without the necessary autonomy in all aspects of academic management, from envisioning to setting of academic agenda and curricula and lack of responsiveness to stakeholders, attaining academic excellence by the universities is becoming difficult. The Land Grant Model which was successfully attempted initially was abandoned subsequently for various reasons.

Financial health of the Universities and what it would need to set up a healthy financial system: Agriculture being a state subject, the statutory responsibility for agriculture education is in the domain of State Govt. Over the years, the establishment cost of agricultural universities has risen to almost 90 %, while the operational budget has reduced to about 10%. It is evident that the universities are starved of operational funds, which affects the quality of academics and research and development. This situation is further aggravated with the creation of multiple universities in the State, bifurcation or sectoral division of universities. Consequently, this led to pressures to increase establishment costs. Further, mushrooming of private colleges exclusively as business propositions with little concern for quality has worsened the situation.

Whether a progressive or retrogressive thinking on the structure of Farm Universities in India (Subject based vs inclusive) is dominating the process? While in the developed countries agriculture institutions are being merged to create bigger and multi-disciplinary academic institutions, in India we continue to favour cleavage of broad farm universities into subject-based smaller universities. Presently, there are 67 State Agricultural universities; five deemed universities, four central universities with strong agriculture faculty, and two Central Agriculture Universities. Agriculture universities that were set up initially were multi faculty multi campus universities. With passage of time, most of them have become single faculty universities viz. Agriculture, Forestry, Horticulture, Fisheries, Veterinary sciences, etc.

Contrary to consolidation in thinking, ongoing thinking continues to favour splitting. The reasonput forward was to make them more relevant and effective in meeting the growing and renewed challenges facing the country. Whether those objectives were fulfilled or not is open to debate. It is not clear whether the circumstances have changed or the value placed in this idea was misconceived. This aspect should be discussed for developing new thinking. While the demand for trained agricultural graduates cannot be overlooked, in view of the reduced investments and declining strength of experienced faculty, compounded by fewer admissions at Master's and Ph.D. levels, the practice of multiplying Universities rather than consolidating them is incomprehensible.

State of Vice Chancellorship of Farm Universities: Being the Chief Executive Officer of the university, the Vice-Chancellors face the challenges of diminishing funding and escalating costs, dwindling state support and political interference, fierce competition to attract and retain the best faculty, pressures from the group of students and non-teaching employees. The outcome is almost unmanageable complexity. Notwithstanding such systematic and organizational complexities and limitations under which they work, the Vice-chancellors in the capacities as principal academic

and executive officers of their universities are expected to lead their universities towards excellence.

Wanting a change - is there clarity in the thought process? As an immediate intervention, in addition to financial investment, the SAUs and the colleges affiliated to general universities engaged in teaching agriculture and allied subjects need institutional changes, which include changes in statutes and governance towards academic independence and excellence and to enlarge scope of providing education and learning.

DELEGATES DISCOURSE

"A Running Commentary on the Experiences and Thoughts shared"

The meeting dwelt on above issues in the two day workshop, touching sub themes, listed in the attached program (Annexure-1). Participating in the meeting were several Vice Chancellors, Deans and Directors of the universities and those from host university (Annexure-2)

Key messages from Inaugural Session

Dr Tej Pratap Singh, Vice Chancellor of the host University welcomed the delegates from IAUA member universities. While explaining why this theme was chosen for the meeting, he emphasized that if an old and mighty university, such as Pant varsity is feeling the heat of changes, both external to the university as well as internal, it is prudent to expect that most of the other farm universities are facing similar situation. There may be few among the IAUA members who are also passing through good times because of benevolent state support, but most of the other universities are not that lucky. Explaining the programme agenda, he expected that the delegates to the workshop will find the structure of the two day programme interesting and will have useful deliberations.

Dr Pathak, President IAUA, reiterated the significance of opening up a debate among the IAUA members on the common issues that the members may be facing. He emphasized that through such dialogue we learn from each other, our mistakes and innovations to solve problems, we debate common issues for arriving at a common understanding and we prepare ourselves for a joint advocacy and solutions to common problems. He said that was the significance and value of IAUA sponsored meetings. He said that the number of participants (around 70) was manageable and it is possible to listen to every one's view point and the outcomes are also of use to almost every one.

The important external / internal factors that are pressing issues for us include;

First major issue is that there exists a common problem of shrinking government funding (grant in aid). We have grown up with this process of government feeding us and we need to understand that it has become necessary to learn ways of diversifying income generation and funding. This platform of IAUA offers us opportunity to share experiences and apply our minds together to plan strategies.

Second major issue is that many of the member universities are victims of the process of university land being taken away for other purposes, while others are scared of becoming such a victim. Already inadequate land with the farm universities is being further squeezed. An important internal factor that bothers most universities, barring few, such as GBPUAT, Pantnagar, is the land resources scarcity of the farm universities. We are witnessing most disappointing developments of new private farm universities being established on just four hectares of land. What kind of agriculture education and training the students will get in such farm universities? Graduates coming out of such institutions will then compete with our students. On the basis of marks obtained, these alumni of private universities will have an edge over students coming out of our state agriculture universities. We cannot shy away from debating this point; we have to find a solution to this generic problem.

Third major issue is about shrinking funding, like that of shrinking land space. There was a time when Vice Chancellors of farm universities were expected to be present in the campus all the time and they indeed used to be but in the present times most of us are out chasing funding from Govt. The wasted valuable time and efforts of Vice Chancellors have a cost the institutions and they have less time for quality thinking on improving academic and research environment, which actually is the primary responsibility of a Vice Chancellor.

Fourth major issue that the IAUA members must be discussing is about the process of dividing multi subject farm universities into more and more subject-based universities. The process started some decades ago and is now wide-spread. During the past few decades, we have done great harm to ourselves by supporting a thought that classified agriculture universities like Govt. line departments, such as agriculture, horticulture, forestry, veterinary-livestock, fisheries, etc. would generate specialists. It happened at the time when in USA and Europe and near home in China, there was a contrary process going on. It was the process of merging subject based universities into larger multidisciplinary universities.

In our country, while MHRD-GOI was busy opening central universities with multidisciplinary character, we were busy promoting the cause and process of smaller narrower subject based universities. We called this process bifurcation, trifurcation,

lean thin and smart and what not to justify our actions. Why it was thought that it will be good, I do not know nor do I want to know now but the coming times indicate the need and forewarn us not to delay debate on mergers to become larger and stronger – so as to save ourselves from extinction.

The time of market forces led decision making has come faster than we imagined and therefore, these challenges we may not have foreseen a few decades ago, but they are there becoming stronger day by day. Let us give time to ponder over them using our collective wisdom to help solve our common concerns.

Fifth major issue is about the opposite directions our academics have taken w.r.t. farmers strategies. It also can be explained as paradox of farmers' knowledge x knowledge of agriculture graduates. While knowledge and skills of farmers are integrated, the knowledge and skills we give to students are single subject based – straight jacket system of knowledge and skills. That is the reason, our alumni underperform when they face the real-world farming situation as well as in finding jobs for themselves. Something is wrong, let us accept, only then we shall be open to discussion on it.

Sixth emerging issue is about state farm universities X private farm universities / colleges that are swelling in numbers faster than we can think. Already, the number of agriculture students in private agriculture colleges and universities is probably more than state agriculture universities. This process has the potential of becoming a major threat to our growth and existence, not very far away in the future. If we are concerned about it then we need to think about strategies to counter balance the impact.

Seventh emerging issue is about our tenacious approach of restricted admissions in farm universities that has become the greatest enemy of ourselves but an opportunity for private players. We have to be accommodative as graduates from private farm universities knock our doors for further studies. Gujarat has become an example where admission issue went to courts, first High court and then Supreme Court. As of now students from ICAR accredited farm universities are given weightage but they can be both private or Govt. Things may change any time in favour of numbers in our democratic set up.

Nevertheless, good news at present time is that the demand for agriculture graduates in the job market is steadily increasing when compared to other disciplines like engineering. Though, sadly enough, we did not notice the opportunity, it was realized and captured by private sector farm colleges / universities. Threat for us is looming large to stay relevant with respect to number game otherwise we may get outnumbered

by the private graduate production factories. We also have to take note of the fact that we have double responsibilities as compared to private farm institutions. Our double role demands generation of farm knowledge through research in agriculture sciences and fulfilling the nations need of HRD with respect to farm sciences.

Further deliberations on above issues went on as under:

Dr N.S.Rathore, Deputy Director General of ICAR, the **Chief Guest** of the event, highlighted the emerging threats to Indian Agriculture University system of ICAR. Quoting "**3F's threat**", he elaborated it as, 1F –Fighting for financial survival, 2F-frustration of domination by the growing privatization, 3F-Focus on development i.e. changing within for sustainable growth. He thought that our system will have no identity if private agriculture education continues to grow at the present rate. He reported that by the end of 2018, there were 66 private universities and over 600 private agriculture colleges engaged in imparting agriculture education with as many as double/ triple the students that are there in 72 state and central agriculture universities with 390 colleges. Five private agriculture universities are already accredited by ICAR and other accreditation bodies. This means that they are there to stay and have the opportunity to grow stronger and faster.

Dr Rathore mentioned that IAUA members are outnumbered both in terms of number of institutions and student. In the time to come, we are going to face a different kind of threat, student power from private institutions flooding PG admissions and job opportunities. While they have the right to both but all of us are concerned about quality of education in private institutions. It would be wrong to say that all private institutions are imparting sub-standard education. In fact some of them are better than us. We must also accept the fact that some of the state funded universities are not maintaining the minimum required standards.

Dr. Rathore visualized that a combination of factors, such as, the growing demand for agriculture graduates in the job market, in agribusiness, restricted supply of trained / educated manpower from state and central farm universities, and the declining state funding to farm universities, have combined to create a favourable environment for the establishment and growth of agriculture education in private sector. He said that this trend is disturbing.

He mentioned that IAUA picking up this theme for deliberations in this meeting is very appropriate. He asked everyone to discuss in detail the common problems of funding growth and visibility, currently facing and further deliberate on future challenges. He wished to draw the attention of the house to the standard norm of ICAR system about requiring 36 teachers for 90 students. He informed that he was

aware that many of the IAUA members are today able to maintain it only with staff support from AICRPs and KVKs.

Even while ICAR permits limited use of research and extension staff of these programs in teaching, but future seems bleak where state Govts are withdrawing from committed conditions of AICRPs and KVKs, on staff services, he warned. He thought that over a period of time, a lack of understanding has grown among state bureaucracy about the ICAR-Agriculture system and the way it has been working. He said that we must work to highlight the beautiful synergies this system has evolved between teaching – research-extension for flow of knowledge and skills as well as for efficient use of human resources, he advised.

Reflecting on the vision for the future, **Dr Pathak** outlined his view point for further evolving this integrated system of ICAR and Farm universities system, as under:

- a. Our universities should be temperate in nature
- b. Teachers of the farm universities be devoted to teaching. Research scientists only to research and extension scientists only to extension
- c. We must bring responsibility and accountability in governance. Governance is also about timely action, transparency etc.
- d. Core syllabus should have teaching focus
- e. Future is not about Govt jobs but preparing students to face real world challenges of creating a professional space for themselves.
- f. Awakening policy makers and bureaucracy about the value of farm universities have and will be adding to society
- g. Make right contacts outside of the system

Dr Pathak summed up his inaugural address with the remarks that IAUA member universities are passing through defining moments and, therefore, it is high time all should recognise the need for joint thinking, planning and action, more actively than before.

Session-I: Self Appraisal of SAU-ICAR Agriculture Education ecosystem vis-a-vis changing times

The participants to the workshop were given a choice of following the planned programme of presentations or alternatively shift to moderated sessions for intensive discussions on issues. General consensus was to change the mode of discourse leaving aside planned programme. Dr N.S. Rathore moderated this session. He proposed abandoning prepared topic presentations and instead have impromptu discussion on the strengths, weaknesses, opportunities and threats we face.

SWOT analysis of SAU-ICAR ecosystem

Strength of the SAU-ICAR ecosystem

Participants were asked to make a mental analysis of the strengths and weaknesses, opportunities and threats to the agriculture higher education in India and more particularly SAU –ICAR run integrated ecosystem and share their thoughts.

It was emphasized that it is important to understand the changing values, as we can survive only if we change with time, i.e. adaptation to change was an absolute necessity for our SAU-ICAR higher agriculture education system, to our farm universities and for the central role ICAR plays in it. In the national academic environment, there are over 900 universities / institutions, 42000 colleges, which accommodate over 3.9 crore students wanting to take degrees in variety of subjects. In comparison, agriculture education takes a small space with 70 universities, 390 colleges and around 26,000 students.

Contrary to general universities, agriculture universities have important role in agriculture research and technology and we are bound by mandate to contribute to managing food and nutrition needs of the country. Farm universities are not only rated for what degrees they give and also how many but they are also evaluated for their contribution towards the production of food grains, vegetables, fruits, dairy products, etc. Therefore, the growth and sustainability factors of farm universities are wider than general universities. Our sustainability is measured with respect to our role in managing ecology, economy and social changes. Farm universities are thus, mandated to have multipleresponsibility and accountability.

Listing strengths and opportunities, participants shared stories about the new income generation opportunities for farm universities, more promising examples were from industries. Punjab Agriculture University (PAU) has in recent past been earning around Rs 30 crores annually from chemical efficacy testing fees. In Maharashtra, agriculture students of RAWE were involved in a state wide program of controlling worm disease

which they did effectively, receiving much admiration. Four farm universities of Maharashtra work jointly for establishing and sharing good research and education infrastructure.

National Agriculture Education and Research System (NARES) is considered by several developing and developed countries, as one of the unique institutional infrastructure set up by India for agriculture R&D. Overall, the system is designed to maintain well trained faculty, 15-25%, students with scholarships selected by ICAR who are spread across the country and rate of unemployment among farm graduates is far less than other areas, such as engineering, management and basic sciences and social sciences. An indicator of high demand for agriculture education is the applications for admissions received by the universities in the order of an average 5000 applicants for 100 seats.

Work culture in agriculture universities is undoubtedly better than other universities. It is also a sign of improving standards that new entrants to the faculty are more meritorious and proving to be better researchers and teachers. Our universities seem to have succeeded in creating more awareness about the value of agriculture education among the stakeholders and public appears better informed of new opportunities for agricultural graduates / agricultural scientists. For example, in the education expo held in Bengaluru in the recent past, demand for agriculture education was top listed. It is a guess that by 2025 World will look towards India and China for significantly contributing to managing research and education challenges of food and agriculture.

Against this backdrop, it could be safely conclude that a well-structured agricultural education exists in this country. Scientists have responded very well to technology generation and transfer and KVK based extension education is a unique idea of India.

What is needed today is retraining of our scientific manpower in new / emerging fields of science and technology. We lack coordination within and among universities, competitive spirit among scientists and institutions. International partnerships of our universities are very weak today and require massive efforts. It would be a good to consider shifting extension (KVK-SMS) staff to teaching and research and then deciding after how many years, e.g. 5 or less or more, needs to be debated.

Should the contribution of agriculture education and research not get reflected in GDP? If so, how can that be achieved. From students' satisfaction view point, farm universities may be scoring better. Because of improved placements, about 67% UG students get placements today, so the satisfaction levels are high. There are 57% girl students in agriculture education and most of them get jobs.

Reflections on the weaknesses of SAU-ICAR ecosystem

These get reflected in less integrated approach in academics and lack of recognition of the outcomes of agricultural education by the policy makers and bureaucracy of the country. One may also like to see it this way, that we have failed to put across to the policy makers the likely impact of changes the farming sector is going through and the scale of investment support agriculture education and research needs for finding solutions for managing these changes.

Graduates produced by our universities are considered not competent enough in basic knowledge and current needs of outside world. There is a general perception that graduates of today may not be skilled enough to meet the demand of agribusiness community and that they are less employable. The blame is also attributed to teaching faculty who are not educated/ trained in emerging fields of farm science. Some Vice Chancellors held the view that universities also bear the burden of faculty with low commitment and diverse category of students, emerging from largely state restricted admission systems forced upon the universities. Faced with financial crunch, some universities may not have been able to upgrade their education technology and technology enabled learning may be weak in many of our institutions.

There is a decline in practical approach in educating the farm graduates. Some delegates thought there was declining trend of maintaining adequate class attendance and discipline among students today than in the past but other delegates felt that was the difference in perception of older generation and new generation. While older generation of teachers valued class attendance and discipline more than learning and students' performance rating, the new generation of students ostensibly recognise use of technology for learning and performance outcomes. They want old academic regulations to change.

Delegates were unanimous in voicing their concern on dwindling strength of teachers and difficulties in managing good teaching and research. Many highlighted the often quoted inbreeding issue among faculty, where all degrees are from the same university and faculty has rarely seen the outside world. The higher-ranking officers of the universities, namely the Deans and Vice Chancellors, are also a part of the inbreeding factor, with hardly any exposure of outside institutions. That does not speak well for system of providing able leadership for managing institutions.

The teaching faculty was seen as maintaining the mind set of educating / training students for government jobs, whereas the market today demands students with agribusiness mindset and training. The minority view point was that we may have failed to train the new generation in the right way.

Research outcomes of agricultural scientists measured in terms of varietal release and effective coverage of land area by the varieties developed and released by university scientists was also a point of debate. The viewpoints expressed by the delegates reflected the view that the current practice of varietal development and release system was becoming obsolete. It has given clear advantage to private companies involved in seed business. A period of 10-12 years from breeding research to varietal release was a long period in today's context. The dominating thinking was that the old policy of mismatched funding for seed varieties research and development needs to be changed. Increasing dominance of private sector at the cost of exclusion of agricultural universities, who were otherwise dominating in this role was pin pointed as the risk of in accepting business as usual.

The career advancement scheme (CAS), designed with several checks and balances has been so diluted that it has become a kind of assured career advancement. The participants, therefore, felt that it has led to complacency and uncommitted mind set among the academic fraternity. Some felt an impression is gaining ground among the stakeholders that the Under Graduate courses taught in agriculture universities do not match with the needs of the agro-industries and that teachers were not available for teaching new courses. Others were of the view that while the system is there our problem lies in not adopting it. The blame game against farm universities is that these institutions maintain poor linkages with the stakeholders, be it farmers, industry as well as policy makers.

Continuing the debate on weaknesses within these institutions, few Vice Chancellors highlighted the "challenged autonomy of farm universities". While academic goals are focussed on training manpower for enhancing productivity and change was needed elsewhere. Our research and academic training is slow in capturing new needs, such as the emerging focus on nutrition related agriculture. Even though it is part of existing curricula indirectly, but the system will need to gear itself to give special focus on this in academic and research. Nutrition security research in agriculture is so far weak. We are not working with integrated systems. Whether university academic education, research systems, and extension system largely practice straight jacket approach, in isolation and are compartmentalized.

We are not changing our farm education system like agricultural education in other countries have changed or are changing. The system for farm education, first separated decades ago, has been integrated with general universities, in recent years. Nearer home, China is pursuing integration of subject based farm sciences universities as well as general universities and farm science universities. A delegate asked is social welfare included in our mandate? Clarity on this question will also determine whether

the farm science universities have to think of academic excellence, diversification and self-sustenance? And whether or not providing social services to farmers are essential part of our mandate?

The social sciences sector in agriculture universities has weakened over the past decades so much so that institutions do not find any meaningful academic role being played by them in policy arena, strategic thinking, feedback systems, etc.

Scenario of enrolment of foreign students in our farm universities is also pitiful. Just 193 students got enrolled through ICAR in 2018. Most of these students come from non English speaking countries and have poor academic background. We have failed to evolve and put in place a strategy for attracting brighter students to our universities. Our ICAR monitored stringent system for inviting and enrolling foreign students stands in the way. Otherwise why would it be that a private university admits ten times more foreign students in its various courses, including agriculture, than the total number of students ICAR sends to state agriculture universities.

The question was raised on the need for ICAR to regulate foreign students' admission even in present times. Why can't it be left to individual universities? Let them be challenged to open up and invite foreign students to raise finances. Incentives of marks in credit rating of a university for this would go a long way to encourage universities go an extra mile for inviting foreign students to their institutions. The present system is not good for the future and was considered fit for continuing the discussion within IAUA during upcoming meetings.

Issue of limited number of students in agriculture universities is also equally important. Delegates analysed the perception, approach and circumstances leading to this situation. First it was highlighted that less than one hundred thousand students are graduating in agriculture in India and among these the combined output of State Agriculture universities, can disappoint any one.

According to All India Studies in Higher Education (AISHE) 2017-18 report all India students strength in PG, Ph.D. and M.Phil. in agriculture was 22768, horticulture 3059, Forestry 740, Sericulture 47 and the total was 26614. Under graduate level enrolment in agriculture disciplines was 48000. For a country of the size of India with 70+ farm universities in different subjects with that many students, these enrolment figures do not give a bright picture of the future. These are abysmal low numbers.

The issue of increasing seats in state agriculture universities should be high on the agenda. It is high time that intake is enhanced five times and even more, to accommodate the surging demand in the country. As an example 100 or 150 seats



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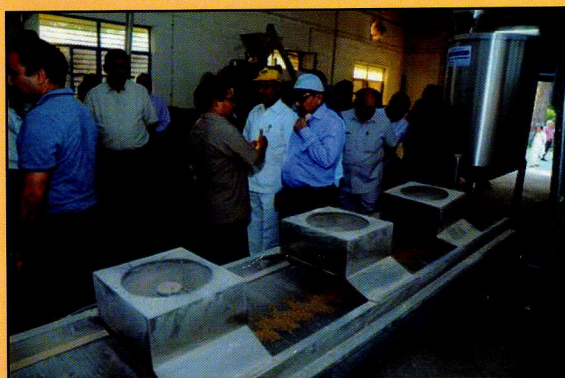
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PARTICIPANTS VISITING CAMPUS

against 10,000 to 15000 applicants for undergraduate programme in agriculture speaks of a vast gap in demand and supply. It is this reason that private agriculture colleges and universities are coming up faster than expected. Issues of standards, ranking, etc would take backseat under such circumstances.

It is said that "*students are not opting to study agriculture, and those who do are not taking up agriculture / agribusiness after graduation*". It is a perception not based on facts. The fact is that admissions in agriculture universities are done on merit and there is no preference given in admissions for those students coming from farming families. A quick survey of student community will reveal that most of the students are from urban and non-farming families. Over 40% are girls and only a few come from farming families but even among them only a miniscule % number would have worked on family farms during youth with the parents.

Further, those who are from farming families and have invested family money in studies will not do so to become farmers but for taking up a job. Small farming family holdings are such that they do not need M.Sc., Ph.Ds or even graduates to do farming on these small plots of family farms. Scattered farms, a big constraint to Indian agriculture further discourages most people from wanting to develop agribusiness.

Perceived threats to SAU-ICAR ecosystem

After lengthy deliberations on weaknesses, shifted to listing of threats to the system. If circumstances do not change, what can happen to agriculture universities? Private sector is entering into the system in a big way and weakness of SAUs can be opportunities for private sector—they are going to boom further. Retaining good faculty and keeping them motivated has to be on the agenda of institutional capacity building for meeting new challenges. SAUs and CAUs, today face a multifaceted threats. If you do not recognise needs of new generation of students; if you do not recognise new age farmers needs; if you do not recognise the needs of industry and if you do not recognise the need's of the policy makers for continuing feedback of knowledge and information, the threats would expand.

The industry today is impressed with disruptive technologies. In fact, industry has become captive to disruptive technologies. Under this backdrop, producing graduates suitable to their needs is nearly impossible. It is important that basic knowledge of science has to be imparted and acquired. Producing students without that would be suicidal. Many of the needs of industry are in fact not possible to be accommodated within the framework of academics. Therefore, what is needed is to work on academic strategies that enable universities to produce graduates with a mindset that fits well

into the kind of human resources with a particular aptitude.

Our threat also comes from an old mindset that still prevails without any valid reason. It is that farm universities are established on LAND GRANT PATTERN. Except for few, such as GBPUAT, Pantnagar, were never established on this pattern. They were given little land resources and now even that land of the universities is being taken away with one or the other excuse. Government finds it an easy target for opening new establishments. The concept was abandoned in USA long back, but we keep talking about it. Let us be clear—there is no land grant pattern principle used in establishing Indian agriculture Universities, barring GBPUAT and PAU. There also land is being taken back for non-farm purposes.

A permanent state of inadequate finances, pressure of generating their own income, tightening financial management systems and encroachment on the autonomy of the universities, particularly financial autonomy, are threats to healthy growth of the universities. It can be said of many universities, that they are today just surviving financially, not running as an academic institution should be. Comparing how foreign universities have been changing as per the needs of the society, internationalising and flourishing, namely Wageningen University, we were reminded of the contrasts.

Autonomy, access to adequate funding resources, freedom of management within the system are key ingredients of a well-functioning university system. Today, Indian farm universities can only dream of such management environment. Therefore, the view point was that it would be improper to compare those institutions and our environment. Public outcry about making world class universities without much investment of resource, various kinds of controls and changes in management systems is impossible.

Forcefully stated minority view point advocated that the need for thinking on strategies for re-merging subject based universities in India. If banks have that strategy to become stronger, possibly it will do well for universities also.

If, we do not understand what are the kinds of changes we need to adapt to and make, it will be difficult to talk about strategies of change process. Therefore, let us go deeper into the change process, understand it better and then plan next step towards adaptation to change.

Threats are in fact contemporary challenges of Agriculture Universities and they are visible in the following four areas and changes are therefore, required in all of these: Governance, Quality assurance, Infrastructure needs, Quality of teaching faculty and students.

Maharashtra private colleges of agriculture were quoted as example of production of poor-quality agriculture graduates and when it spreads everywhere, which it is, the plight of academic environment in agriculture and its output will take us downhill.

Imagining Opportunities of SAU-ICAR ecosystem

"Wide acknowledgement of the fact prevailed that knowledge being delivered is becoming obsolete faster than we are able to replace". Therefore, there is a need for critical thinking to this evolving crisis.

Fatigued with weaknesses and threats, delegates could find fewer thoughts on opportunities that wait agriculture universities which they should be harnessing. Few disjointed thoughts, that were shared during the deliberations included; extending our wings to digital education, including artificial intelligence in the curricula, and adding new subject areas. Some other areas, mentioned as opportunities were, innovations in communication skills, collaboration with stronger institutions and foreign institutions, joint degree programs within country and with foreign institutions.

While India is thinking of developing world class universities, few floated the idea of looking at ICAR and all agricultural universities as one University that can match the level of a global agriculture university and matching the scale of a world class university in many respects. What needs to be done should be discussed further. Thinking of the student numbers, faculty number and easy lateral flow system where ever needed, management, autonomy lot of issues will be solved in this way.

Delegates stopped discussions after agreeing it is not a one short discourse that will complete this process. Loud thinking and sharing vague ideas have great value but we need more time and discussions for agreeing on a blue print of the future of agriculture universities of India.

Session II: ENVISIONING FUTURE PATHWAYS

The delegates devoted a session to thinking about different strategic initiatives, policies, investment options that are required to remove stress factors in agricultural education system and re-energize it. Every university has its own set of issues/problems and the scale of each one of these issues also varies from university to university. It is the sum total impact of the stress factors on **the Indian agricultural education ecosystem** that should be cause of concern to the nation. It has far reaching impact on the quality of human resources produced, mismatch between demand and supply of human resources and services to farming communities and stake holder line agencies in the Governments.

Envisioning external environment that may engineer the stress factors of future agricultural education ecosystems, now, gives us opportunity for developing both, redressal mechanisms as well as adaptive strategies. The scale of seriousness with which this aspect should be dealt with to develop a knowledge system, the better it is for us to devise individual institution/ university specific approaches of growth and sustainability. There was a view point expressed that we need critical strategic thinkers amongst us who are skilled and knowledgeable in envisioning desired adaptation strategies and innovations. It was felt that a casual approach to devising ways will do more harm than benefitting us. Therefore, IAUA should hold a series of dialogues on this aspect, including inviting experts to give valuable inputs.

Some delegates dwelt on history of evolution of the agricultural education system and IAUA, for emphasizing the point that. The 50 years long documented history of past experiences should also be studied to learn lessons from it, especially to understand specificities of our agricultural education ecosystem. These can provide important clues to future development imperatives, which can be ignored at a cost.

Fifty years ago when the seeds of the system were sown, agriculture was main source of livelihood of 90% Indians. Father of nation and national leadership had envisioned a hunger free India as the main goal. Once this goal was achieved, we are confronted with a different scenario of challenges, an economically secure Indian farmer, a sustainable farm economy that meets the criteria of green economy of the nation, a farm economy that is agribusiness oriented — all kinds of such new terminologies, perspectives, thought processes are the new challenge areas of agricultural education system.

During the past several decades, we have made tremendous progress in most sub sectors of agriculture, namely food grains production, fruits, vegetables, milk production, fisheries, etc. In these success stories, there is a role played by every university, as much as each one these can contribute in their own areas / agro climatic regions.

That means if these institutions have been successful in the past to fulfil the objectives, when these were clear and clearly supported, they can do so in future also, provided they are supported in course correction for change in academic perspectives, building institutional capacities in new challenging areas. Institutions will need to be transformed to enable them to adapt and become capable of serving the new needs.

Delegates forewarned about thinking of faster expansion of agricultural education. They cautioned that we should learn from the failures of Engineering colleges — where the demand is reducing and colleges are closing down.

More observations and suggestions put forward by the delegates include;

- ICAR coordinated all India admission system to admit better quality students
- Research programs in universities be designed to include 50% farmers problems and 50% patentable quality basic research and technological research.
- Need to ask for regulating private agriculture education for maintain quality of education and research
- Faculty in agriculture universities are constrained by their limitation of knowledge, access to cutting edge science and technology, opportunities to improve their knowledge and skills. It is a serious matter. It is a resource and we cannot throw away, or keep idle, as it costs to pay salaries. Therefore, the better way is to devise strategies to improve their skills and knowledge.
- Many universities have devised their selection process in ways that favour mediocrity. Devise strategies to discourage such practices.
- **X factor is working against the Vice Chancellors.**
- Pressure from political system and bureaucracy constrains Vice Chancellors from envisioning future growth and it reduces the role to almost daily management system, or term period management strategy. It does not help create the right environment for thinking about how to improve SAUs.
- States oriented restricted admission regulations are not in line with the future aspirations of making university global. Provisions should be made for nationwide open admissions, and for international students.
- Integration of SAUs and ICAR institutes for teaching and research will be a futuristic step. In this context, it will be a desirable approach to allow SAUs admit foreign students directly. The control mechanism put in place by ICAR has not been a successful step. Some 200-300 foreign student accepted by ICAR and distributed as 1 to 5 students per university does not look promising. Compared to this, private universities are admitting foreign students in 50s and 100s. A few private universities have 400 and more foreign students and aspire to have more.
- Universities may need to devise strategies for marketing their research. It is time tested method for improving finances and ranking.

- **Making of a World Class University** and raising standards of agriculture education, requires an entirely different thought process. The platform we are using can at best explain the factors that are necessitating the change. It is therefore, necessary that appropriate processes be followed for discussion on devising a strategy about making a world class agriculture university. “We are not thinking big and loud” was the view shared by a delegate but agreed by many. We must accept the fact that in the present lethargic academic environment, the new generation of students may not be feeling inspired. Something new has to emerge, what is that we ourselves are not sure about and continue to carry the responsibility of involving in deeper and wider thinking on it.

We must acknowledge the uphill task we have at hand. The Indian Institute of Science (IIS) has a citation figure of its research papers equivalent to whole of SAU-ICAR system that is why it gets money and credibility. It indicates the huge task at hand for transforming our lethargic and sick agriculture education system. It may also be worthwhile to look at the option of creating a single world class institution, as indicated earlier in the text, rather than making all institutions world class. The latter thought appears casual and without any depth of thinking. The fundamental rule for building a world class university is autonomy and a minimum size and scale of students, all these aspects in which we score so poor, so any strategy we think have to necessarily be designed to manage these weaknesses.

- We only think of bringing small changes in our existing system and collaborating much more among ourselves only, a question was raised is it that are we obsessed with ourselves.
- The way universities are assessed for ranking is deficient in the criteria which would account for our social services to farmers. It is heavily loaded in favour of those who are strong in research.
- New teachers for generation Z are needed. Future focus should be on quality and not on number of students.
- At a time when we are taking about making world class universities, we are faced with a situation of shrinking university land resources and financial grants, and obsolete land grant pattern of farm universities.
- What a paradox if universities want Govt funding the autonomy goes and if you want autonomy the financial security goes. It indicates the need for

generating your own financial resources for self sufficiency.

- High court of Gujarat has given a ruling in favour of restoring autonomy of farm universities and honestly implementing it, but that is out of consideration of social value of universities. Other consideration are going to outweigh implementation of this idea, so let us accept challenges that come with change.

Chair person Dr Pathak said that lot has been deliberated by delegates about envisioning the strategic steps needed to transform our weak and sick universities, into world class institutions. *Very rightly said by someone* here that platform of discussion on such issues requires that we expand the debate to include experts and more experienced experts on this issue. It is clear to us that why we are weak and facing threat of students going to private agriculture colleges and universities. But it should also be clear to us that it is a case of our poor institutional capacities to accommodate the demand. ICAR limit of 120 students in a class needs to be abandoned. We must make use of technology "U tube" for preparing and sharing lectures.

Chairman wound up the session with the remarks that he appreciated the tone and level of deliberations and was very much satisfied with the outcomes. He directed that proceedings of this meeting be prepared soon after and shared not with only with delegates but with all stakeholders within SAU-ICAR ecosystem.

SESSION-WISE RECOMMENDATIONS

Session -1 Self appraisal of SAUs-ICAR Agriculture Education Ecosystem – Assessment of strengths, weaknesses, opportunities and threats faced by the system

- Contemporary challenges of Agriculture Universities are visible in the following four areas and changes are therefore, required in all of these: Governance, Quality assurance, Infrastructure needs and Quality of teaching faculty and students.
- There is a need to extend our wings to digital education, including artificial intelligence in the curricula, and adding new subject areas. Opportunities exist for innovations in communication skills, collaboration with stronger institutions and foreign institutions and starting joint degree programs within the country and with foreign institutions.
- There is a dire need to engage faculty in applied and fundamental research reaching beyond the confinements of laboratories into the field.
- There is the need to establish strong forward and backward linkages of the universities with the farming community through the extension activities.
- In order to ensure quality in every aspect of higher education, continuous evaluation of teaching, research and extension activities carried by the universities is essential and can be conducted by bodies like NAAC to ensure strict evaluation of institutions.
- It is high time that **intake capacity be enhanced** five times or more to accommodate the surging demand in the country.

Session-2: Envisioning making of world class farm universities in India

Sub theme-1: Envisioning SAUs-ICAR ecosystem as a world class university

Sub theme-2: Entry of private institutions in agriculture education new challenges

Sub theme-3: Strategic thinking on managing change that is impacting farm universities

- It may be worthwhile creating a single world class institution, rather making all institutions world class.

- Quality education needs to be ensured with inculcation of skills and entrepreneurship through motivations and incentives.
- Efficiency of the whole system needs to be enhanced through e-governance and systematic reorganization.
- Private universities scattered around the country need to reconsider the needs of the society in the changing context in a fashion that includes a larger agenda of agricultural knowledge and innovation in development of newer farm applicable technology and market-oriented mind set of their students and scientists.
- Future farm universities must have ability to support a much larger number of students beyond their immediate communities and even countries.
- Institution-level committee including external experts need to be established to monitor and evaluate performance of teaching, research, and extension activities. The institutes should also monitor student learning skills and employment outcomes of its recent graduates. Linkages with industry and farm community need to be strengthened.
- Future farm universities must have leverage to advances in Information and Communications Technologies (ICTs) in their education and learning system, especially for lowering overall costs and improving quality of learning experience both on and off campuses.
- An International Review Committee comprising of educators, researchers, and social scientists drawn from India and outside needs to be appointed in order to put Indian agriculture education at par with the world class universities.
- The Ministry of Agriculture and Farmers Welfare and the ICAR in coordination with State authorities should take leadership role in improving overall governance of the SAUs by ensuring adherence to the provisions of the Model Act.

Session 3: Plenary Session

- Agriculture universities should be provided with full autonomy in their functioning for attaining academic excellence.
- There is need to diversify university administrative structure to meet the aspirations of the students and other stakeholders from various

backgrounds.

- Faculty in agriculture universities are constrained by their limitation of knowledge access on cutting edge science and technology, and should be given opportunities to improve their knowledge and skills.
- Continuous evaluation of teaching, research and extension activities carried out by the universities is essentially and should be carried out by agencies such as NAAC.
- Full autonomy and authority to SAUs need to be granted for making crucial management, academic, admissions, appointments and promotion decisions.
- The area of responsibilities of the university should be evolved keeping in mind the needs of the State and students aspirations and appoint teachers with specialization in subject's taught by them.
- We should not hesitate in taking help from alumni to shape the future. For that, there should be conceptual and perceptual change in skill development of all component of university, be it student, teacher, administrator or supporting staff. Quality research with academic background support and worthy extension provisions including functional help of KVKs and KGKs, entire paradigm of scientific development of agricultural science can be raised.
- There is lack of political and social commitment by communities and societies that are in the vicinity of agriculture universities to provide the necessary investment, support, leadership and policies in the transformation of these institutions to take up new roles in transforming agricultural knowledge systems that benefit their own development and pursue academic excellence.

ANNEXURE-1

8th IAUA Workshop Programme

**SHARING EXPERIENCES AND STRATEGIES ABOUT CHANGING
 PARADIGM OF AGRICULTURE UNIVERSITY GOVERNANCE SYSTEMS**

May 9-10, 2019

Day	Event	Activity
May 8/ Wednesday 7:00 PM	Welcome dinner in Tarai Bhawan lawns	Welcome Dinner Party by the host Vice Chancellor
May 9/ Thursday/ 9:30 am – 1.00 pm	Session -1 Self appraisal of SAUs-ICAR Agriculture Education Ecosystem Assessing the strengths, weaknesses Opportunities and threats faced by the system	SESSION I (9.30-10 am) Chairman :Dr. A.R. Pathak, Vice-Chancellor, Junagarh Agriculture University, Junagarh Moderator of the Session- Dr. N.S Rathore, DDG Education, ICAR, New Delhi Open house discussions
May 9/ Thursday/ 2:00 -5.00 pm	Session-2 :Envisioning Future Pathways Sub theme-1 Envisioning SAUs-ICAR ecosystem as a world class university Sub theme-2 Entry of private institutions in agriculture education new challenges Sub theme-3 Strategic thinking on managing change that is impacting farm universities	SESSION V (2.00-2.30 pm) Chairman: Dr A.R. Pathak, President IAUA Moderator of the Session Dr. Gaya Prasad Vice-Chancellor, SVBP University of Ag. & Tech. Meerut Open house discussion

Day	Event	Activity
May 10/ Friday/ 9.30 am – 11:30 am	Plenary Session Sum up Follow up needs and IAUA	Chairman : Dr. A.R. Pathak, IAUA President
11.30 am – 2.00.pm	Visit of Institute of Biotechnology (GBPUAT), Patwadangar, and nearby areas	Co-Chairman : Dr. Tej Partap, Vice- Chancellor, GBPUAT, Pantnagar

List of Participants

Sl. No. Name & Designation

1. Dr. N.S. Rathore, DDG (Education), ICAR, New Delhi
2. Dr. A.R. Pathak, Vice-Chancellor, JAU, Junagadh
3. Dr. N.C. Patel, Vice-Chancellor, Anand Agricultural University, Gujarat
4. Dr. S.K. Patil, Vice-Chancellor, Indira Gandhi Krishi Vishwvidyalaya, Raipur
5. Dr. TejPartap, Vice-Chancellor, GBPUAT, Pantnagar
6. Dr. A.S. Dhawan, Vice-Chancellor, Vasantao Naik Marathwada Krishi Vidyapeeth, Parbhani
7. Dr. V.M. Bhale, Vice-Chancellor, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola
8. Prof. S. Felix, Vice-Chancellor, Tamil Nadu Dr. J. Jayalalithaa Fisheries University, Nagapattinam, Tamil Nadu
9. Dr. N.H. Kelawala, Vice-Chancellor, Kamdhenu University, Gandhinagar, Gujarat
10. Dr. C. Balachandran, Vice-Chancellor (Acting), Tamil Nadu Veterinary & Animal Sciences University, Chennai
11. Prof. Purnendu Biswas, Vice-Chancellor, West Bengal Univ. of Animal & Fishery Sciences, Kolkata
12. Dr. S.D. Sawant, Vice-Chancellor, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli (Maharashtra)
13. Dr. R.C. Srivastava, Vice-Chancellor, Dr. Rajendra Prasad Central Agril. Univ. Pusa, Bihar
14. Prof. P.D. Juyal, Vice-Chancellor, Nanaji Deshmukh Veterinary Science University, Jabalpur, M.P.
15. Dr. Gaya Prasad, Vice-Chancellor, Sardar Vallabhbhai Patel University of Ag. & Tech., Meerut, U.P.
16. Dr. P. Kaushal, Vice-Chancellor, BAU, Ranchi

17. Dr. D.D. Patra, Vice-Chancellor, Bidhan Chandra Krishi Vishwavidyalaya, West Bengal
18. Dr.K.P. Viswanatha, Vice-Chancellor, MPKV, Rahuri, Maharashtra
19. Prof. K.P. Singh, Vice-Chancellor, CCS, Haryana Agril. University, Hissar
20. Dr. H.C. Sharma, Vice-Chancellor, Dr. Y.S. Parmar University, H.P.
21. Prof. Ashok Kr. Sarial, Vice-Chancellor, CSK HPKV, Palampur, H.P.
22. Dr. G.K. Singh, Vice-Chancellor, U.P. Pt. DeenDayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go Anusandhan Sansthan, Mathura (U.P.)
23. Dr. Poonam Singh, Dean, College of Agriculture, CSAUA&T, Kanpur, (U.P.)
24. Dr. Ved Ratan, Dean, College of Home Science, CSAUA&T, Kanpur, (U.P.)
25. Dr. R.K. Singh, Director, IVRI, Izatnagar, Bareilly (U.P.)
26. Dr. R.P. Singh, Executive Secretary, IAUA, N.A.S.C., D.P.S. Marg, Pusa Campus, New Delhi

PARTICIPANTS FROM PANTNAGAR

27. Dr.J.Kumar, Dean, College of Agriculture
28. Dr.Ajit Nain, Prof. & Head, Deptt. of Agrometeorology,
29. Dr. A.K. Upadhyay, Prof. & Head, College of Fisheries
30. Dr. Ashutosh Singh, Prof & Head, College of Agribusiness Management
31. Dr. I.J. Singh, Dean, College of Fisheries,
32. Dr. Deepa Vinay, Prof & Head, College of Home Science,
33. Dr. Rita Singh Raghuvanshi, Dean, College of Home Science,
34. Dr. Shivendra Kashyap, Prof. & Head, Agril. Communication,
35. Dr. Alka Goel, Prof & Head, Clothing & Textiles, College of Home Science
36. Dr. A.K. Shukla, Dean, College of Basic Sciences & Humanities,
37. Dr. D.V. Singh, Prof. & Head, College of Veterinary & Animal Science,
38. Dr. S.N. Tiwari, Director Experiment Station,

39. Dr. P.C. Srivastava, Prof. & Head, Soil Science, College of Agriculture.
 40. Dr. Y.P.S. Dabas, Dean, College of Veterinary & Animal Science,
 41. Dr. S.D. Samantaray, Prof. & Head, Computer Science, College of Technology,
 42. Dr. T.K. Bhattacharya, Prof. & Head, Farm Machinery & Power Engg., College of Technology
 43. Dr. N.S. Murty, Dean, Post Graduate Studies,
 44. Dr. Ranjan Srivastava, Prof. & Head, Horticulture, College of Agriculture,
 45. Dr. Devendra Kumar, Dean, College of Agribusiness Management
 46. Dr. A.K. Upadhyay, Professor & Head, Public Health, College of Veterinary and Animal Science.
 47. Dr. J.P. Pandey, Dean, College of Technology
-

**Committees for successful organization and conduct of 8th IAUA
workshop on**

May 9-10, 2019 at GBPUA&T, Pantnagar

1. Local Organizing Committee

- a). Dr. Tej Partap, Vice-Chancellor - Chairman
- b). Dr. A.P. Sharma, Registrar
- c). Dr. Rita S. Raghuvanshi, Dean, College of Home Science
- d). Dr. Y.P.S. Dabas, Dean, College of Veterinary & Animal Sciences
- e). Dr. A.K. Shukla, Dean, College of Basic Sciences & Humanities
- f). Dr. J.P. Pandey, Dean, College of Technology
- g). Dr. I.J. Singh, Dean, College of Fisheries
- h). Dr. Devendra Kumar, Dean, College of Agri-Business Management
- i). Dr. N.S. Murty, Dean, Post Graduate Studies
- j). Dr. S.K. Bansal, Director Communication
- k). Dr. R.S. Jadon, Dean, Student Welfare
- l). Er. S.K. Goel, Director Works & Plants
- m). Mr. Karmendra Singh, Director Administration & Monitoring
- n). Comptroller
- o). Dr. J. Kumar, Dean, College of Agriculture- Organizing Secretary

2. Logistics & Management Committee

- Dr. Ranjan Srivastava –Prof. & Head, Deptt. of Horticulture - Chairman
- Dr. Manoj Raghav – Prof. & Head, Deptt. of Vegetable Science

- Dr. Shivendra Kashyap- Prof. & Head, Deptt. of Agricultural Communication
- Dr. Ajit Nain, Prof. & Head, Deptt. of Agrometeorology
- Dr. Satish Sharma, Assoc. Prof., Deptt. of Food Science & Technology
- Dr. Satish Chand, JRO, Deptt. of Horticulture
- Dr. Mohan Singh, Asstt. Director, R&L

3. Reception - Departure and Boarding - Lodging Committee:

- a) Dr. Salil Tewari, Professor, Genetics & Plant Breeding/Jt. Director – Chairman
- b) Dr. V.K. Shah, Professor, Deptt. of Agronomy/ Jt. Director
- c) Dr. A.K. Singh, Professor, Deptt. of Horticulture/ Jt. Director
- d) Er. Manish Tewari, Transport Officer/Dr. P.C. Gope, OIC Transport
- e) Dr. Satish Chand, JRO, Deptt. of Horticulture
- f) Dr. Mohan Singh, Asstt. Director, R&L

4. Session Arrangement Committee

- a). Dr. Ajit Nain, Prof. & Head, Deptt. of Agrometeorology - Chairman
- b). Dr. Santosh Kumar, Professor, Deptt. of Horticulture & Jt. Director
- c). Dr. Omveer Singh, Professor, Deptt. of Horticulture
- d). Dr. B.D. Bhuj, Professor, Deptt. of Horticulture
- e). Dr. Satish Chand, JRO, Deptt. of Horticulture

5. Committee for Session arrangement at Patwadangar

- a). Dr. A.K. Shukla, Dean, College of Basic Sciences & Humanities – Chairman
- b). Er. S.K. Goel, Director Works & Plants – Co-Chairman
- b). Dr. R.K. Sharma, Prof. Deptt. of Agronomy

- c). Dr. Jitendra Kwatara, Prof. Deptt. of Agronomy
- d). Dr. Vijay Dohre, OIC, Krishi Vigyan Kendra, Jeolikote
- e). Dr. Mukesh Pandey, Professor, College of Agri-Business Management

6. Finance Committee

- a). Dr. J. Kumar, Dean, College of Agriculture - Chairman
- b). Dr. Ranjan Srivastava, Prof. & Head, Deptt. of Horticulture
- c). Dr. J.C. Badola, Dy. Comptroller
- d). Sri. Satish Chandra, Accounts Officer, College of Agriculture

