Workshop on Academia-Industry-Government Linkage for quality Agricultural Education
November 27-28, 2019, SVPUAT, Meerut
Session Reports

Technical Session 1

Theme: Existing Linkage Mechanism of Agricultural Universities with Industries and State Government : Universities Perspective
Chairperson: Dr. Ashwani Goyal, Former Joint Director, Higher Education, U.P.
Co Chairperson: Dr. A.P. Garg, Vice Chancellor, Shobhit University, Meerut

Presentation 1
Dr Bsavaprabhu Jirli, BHU, Varanasi

➢ Collaboration of BHU:

International:
• CYMMIT: for Zero-Tillage, Biofortification
• ICRISAT
• BISA
• IFPRI
• Cornell University

National:
○ Private Sector:
• Bayer Crop sciences
• ITC
• Syngenta
• Pioneer
• VNR Seeds
• Lovely Professional University

○ Public Sector:
• IARI
• IIPR
• CPRI
• IISR

Presentation 2

Dr Sunil Nahatkar, JNKVV, Jabalpur

➢ Linkages with

○ Government institutions: 12
○ MOUs: industries: 17
○ National Institutes: 6

➢ A one day Industry-Academia Interface is organized on June 26, 2019:

○ Recommendations: (for B.Sc. Agri students)
  ▪ Training on Input marketing need to be given
  ▪ Use of equipments
  ▪ Basics of FSSAI
  ▪ Short courses of 15-20 days duration to be imparted by Industry
Fellowships & Incentives – to students – need to be given by Corporate and Semi Govt. sector.
Mapping of Agri-industry demand for human resources
The University-Industry linkages of US, Japan, China and Germany need to be studied

**Presentation 3**

Dr Ajay Paliwal, UUHF, Uttarakhand

- Students undergo Industrial trainings: 15 days
- Government departments train forestry students
- Requested more Collaboration from Industry & Universities for linkages

**Presentation 4**

Dr Atul Saxena, DUVASU, Mathura

- MOU:
  - IVRI
  - CIIRG
  - NDRI
  - NRC Meat
  - AIF Development Research Foundation
  - Brooks Hospital for Animals
  - Ayurvet India
  - Consultancy to Daurala Sugarmills, Meerut for best utilization of byproducts
  - University Industry Linkage:

**Presentation 5**

Dr Fiaz Ahmed, BAU, Sabour, Bihar

- MOUs:
  - International: 6
  - Industries: 20
  - Entrepreneurship development through Incubation Centers
MOU with industry- Technology Validation

**Presentation 6**

Dr Jonathan A Lal, SHUATS, UP

- MOU:
  - National: 48
  - International: 28
- Outcomes of MOUs:
  - PhD degree
  - Microbe & Laboratory services (Thee Netherlands)
  - Nanotechnology lab established
  - Grant from American Chemical Society
Consultancy executed – 18
Startup Ecosystem – IIIT, Allahabad

**Presentation 7**
Dr Sanjiv Kumar, Banda Agricultural University

- **MOUs:**
  - Private Sector:
    - YARA Fertilizers
    - Godrej
    - Dayal Group
    - Geolite
  - International: ICRISAT, IRRI
  - National: 12 ICAR institutes
- Interface meet of University – industry: to be held: January, 2020

**Presentation 8**
Dr Anil Sirohi, SVPUAT, Meerut

- **MOU:**
  - International: IRRI, CYMMIT
  - National: NIPGR, IARI etc.
- Linkages with private companies for contract services for testing products
- Industries should come for research collaboration
- MOU with Cornell University in the past: major thrust on Soft skills, problem solving, critical thinking
- Linkages with private companies for contract services for testing products
- Industries should come for research collaboration

**Concluding Remarks by Chairperson**

- 5th Deans committee syllabus need to be reoriented
- FSSAI food testing training is essential for students: need to be included in the curriculum
- Soft skills and Publication skills should be improved among students

**Technical Session 2**

**Theme:** Existing Linkage mechanism of Agricultural Universities with Industries and state govt. Industry and State Govt. Perspectives

**Chairman:** Dr. Mridula Billore, Dean Faculty of Agriculture, Rajmata vijaya Raje Scindia Krishi Vishwavidyalya, Gwalior.
**Co Chairman:** Mr. Jasbir Singh National Sales Head, Sriram Fertilizers.
**Rappourters:** Dr. Archana Arya, Associate Professor Basic Science
Dr. Shivani Sahu Assistant Professor Veterinary Science.
There were participants from state govt. and only 2 deliberations were there from Govt. Sector, first from Mr. Vinod yadav, state fisheries department, uttarakhund and second from Mr. G.D.Joshi, Joint Director Animal Husbandry Uttrakhand. There was no representation from state Agriculture and Horticulture Departments.

**Presentation 1:** Mr. Vinod Yadav state fisheries department, Uttarakhand

- Uttarakhand Fisheries Directorate is doing much work to promote Fisheries, but there was no linkage with academia or industry.

**Presentation 2:**

Dr. G.D.Joshi presented at length the highly applandable works being done by the board which is an autonomous body. The board as such does not have industry linkage as such but they present a business model for agrientrepreneurship.

- He suggested that marketing should be added to science and Agriculture degree programs.
- There were some presentations from the industry, First was by Mr. Anand Pratap Shahi – Bayer Crop Sciences. He talked about Better life farming Alliance in which they have Alliances with Bank & insurance people, Nutrition companies, seed industry and Marketing partners.
- He talked about the Agri. Entrepreneurs Model.
- They are in process of getting MoU with NDUAT& BHU
- He emphasized on close linkages between Industry, Academia & Govt. Deptt.

**Presentation 3:** Mr. Jitendra Singh from Dayal Fertilizers

- He told about having multi location trials at Akaola Agriculture University.
- They have Linkages with KVKS and working on Commercialization of products in biocontrol.

**Presentation 4:** Mr. S.P.Singh, AGM Mawana Sugars

- His group is working on : Soil Health, water Conservation, varietal improvement, crop productivity & mechanization.
- Under Drip Irrigation project - —f"k flapkbZ fodkl ;kstuk 500 ha area under Drip irrigation they are having linkage with state govt. as this Scheme is launched with help of state govt.
- Under Soil Health Improvement program they have collaboration with IFFCO and Kribhco.
- The Bio Compost is supplied free of cost to farmers, after organic matter tested by govt. agency
- Linkage with university is on cards
- MoUs with IISSR and Sugar cane breeding Station Karnal.

**Presentation 5:**

Mr. Jasvir Singh, National Sales Head Shriram Fertilizers and Chemicals

- Gave suggestions to strengthen the whole setup to improve linkages
Paid internship programs/ industrial trainings/ factory visits/ alumni meet and fund support from the industry.

Educational institute should focus on industry ready institutes.

Chairman’s comments: All the deliberations indicates lack of linkages and rapport between industry academia and government sector. Linkages should involve all stake holders

Government department of agriculture, horticulture and veterinary should take the lead.

UG and PG courses should be industry oriented

Industry should be involved in RAWE, internship, industry training and PG/ Ph.D Research.

Industry people can be invited as guest faculty.

Focus should be on higher education and not only farmers.

**Technical Session -3**

**Brain storming session on improving the quality and relevance of Agriculture Education**

**Chairman:** Dr. Krishan Kumar,
**Co-Chairman:** Dr. Jirli
**Rapporteur:** Dr. Kuldeep Kumar Tyagi
**Conducted by:** Dr. Surya Rathod

The session was initiated with card game, in which cards of three different colours were given to three stake holders i.e. Academia, Industry & Government respectively.

They were asked to provide their expectations from other two stake holders pertaining to improvement of quality and relevance of Agriculture Education. Thereafter, they were asked to provide what expertise they have and their willingness to help. Accordingly after collecting the cards, responses were discussed in general to deduce various takeaway points from Expectations, Area of expertise available and willingness to help by different stakeholders:

1. Industry want cutting edge technology with scalability and innovative solutions for current issues, Academia is willing to provide Methods / processes, approaches and various models useful for end consumer and industry.
2. Government is expecting good trained quality human resource from academia and their policy making inputs. Academia has in offer help for developing international linkages.
3. Academia expectations from industry were commercialization of innovations, need based infrastructure, collaborative research. Industry was willing to help in problem based research, training of students and establishment of international linkages through their resources.
4. Government expects from industry that they share their services for social benefit, pay full tax and come forward with more and more corporate social responsibility funds.
5. Academia wanted from government that there should be less red tapism, they should be open to innovative ideas, should provide adequate infrastructure and should select good leaders in academic institutions.

6. Industry expects less interference from government and requisite infrastructure and land for their expansion.

*The session ended with thank note from Dr. Surya Rathod*

**Technical Session IV**

**Brainstorming session way forward to maintain linkages**

**Chairperson:** Dr. A. P. Garg,
Vice Chancellor Shobhit University, Meerut

**Co-Chairperson:** Dr. Mridula Bihore, Dean, Faculty of Agriculture Rajmata Vijayaraje Scindia
Krishi Vishwa Vidyalaya Gwalior, MP

**Rappourters:** Dr. Archana Arya, Associate Professor Basic Science
Dr. Shivani Sahu, Assistant Professor Veterinary Science.

Four mixed groups were formed having Participants each from Industry, Academia and Government Sector.

**Group Leader 1- Dr. Krishan Kumar Highlighted on following Points**

- Industry People should be included in Teaching
- Faculty & Students Visiting Program with the Industry should be introduced
- Customized sponsored training by the industries which depends upon the types of program student ready program or industrial attachment program.
- Corporate should be approached do sponsor chair of the respective industry.
- MoU should be standardized and executed properly.
- Nomination of industry member board of studies
- Inclusion of industry members in student advisory committee for research

**Group 2 Leader- Dr. B. Jirli, BHU, Varanasi**

- There is lack of exclusive MoU for educational purpose
- Engagement of part-time faculty from the industry
- Participation of industry in design curricula at ICAR level
- Corruption is the de motivating factor for the industry which should be looked upon.
- Using corporate social fund of the industry for developing functional MoUs
- Identification of students during the education period to enhance the skills accordingly.
- Documentation of success stories of agricultural graduates and post graduates so that it motivates other students as well.

**Group 3 Leader- Dr. Jonathan A. Lal, SHUATS, Prayagraj, UP**

- The industry looks for certain qualities while hiring students like sales and marketing, communication skills, organizing skills and computer skills.
- Guest lectures should include industrial people.
- Syllabus should be updated.
Classification of students as per intrusts
Selection of students at early stage and grooming them.
Training to the students for industry requirement.

Group 4 Leader- Dr. GD Joshi, Joint Director, Animal Husbandry, Uttrakhand.

- Lack of industrial funds to government organization.
- Departmental Officers and industry people should be called for guest lectures.
- Upgrading students to latest technology by industry exposure.
- Close linkage of local industry with local government institutions.
- ICAR course curriculum should have inputs from government departments.
- The EL program of ICAR should be in PPP mode.
- More need based policies.

Take Home Points Prepared by Dr. Surya Rathore, Course Director & Co-PI, NAHEP, NAARM

India is a country with the largest system of Agricultural Education having 62 State Agricultural Universities, 5 Deemed to be Universities, 3 Central Agricultural Universities and 4 Central Universities with Agriculture Faculty and there are number of Private universities & Institutes offering BSc, MSc producing around 75,000 students every year. There is a thick line between the number of students passing out and availability of jobs.

ISSUES

- Facilities for quality education & research lacking in most of the AUs
- Agriculture universities are conducting research but there is no compulsion on technology commercialisation which is need of the hour in this era of IPR.
- There is no say of industry & Govt. in curriculum development in universities
- Quality & need based demand driven research is lacking in our SAUs.
- Lack of MOUs for education purposes

Solutions/Way Forward

- Industry people can be called as guest faculty for teaching
- Corporate world should be approached to offer chairs. Example: IFFCO chair, NABARD chair etc.
- MOUs should not be in shelves but be there in true sense & functional by means of CSR funds
- Nomination of industry members in board of Studies of Universities
- Industries should sponsor corpus money for thesis & One of them should be member of Advisory committee as per university norms
- Participation of Industry representative in BSMA of ICAR for increasing employability of students.
- As per 5th Dean’s committee of ICAR, Universities have the leverage to involve 30% of the content in the syllabus which can be done through intervention of industries and government who are the ultimate job providers for our Agri-graduates.
- Demarcate students’ strength during graduation & that particular strength should be strengthened and accordingly he/she should be guided to join that type of job, this can be
done through establishment of Career Development Centres which would give single window solutions for jobs and entrepreneurship development.

- Success stories of Agri-graduates should be shared with our budding agricultural graduates
- Enhancement of soft skills & computations skills among UG students which normally lacks in agricultural graduates who are coming from vernacular medium.
- Introduction of Vocational Courses ranging from 1-6 Months which can be done along with degree in the evenings for enhancement of practical knowledge among students.
- Some of the practical sessions of the university students can be conducted in the industries/ Govt. Institutes which are leaders in that particular domain
- Cutting edge technologies models processes of academia can be used by the industries
- Training of students in industries summer trainings/ Internship
वर्तमान समय के अनुरूप शिक्षा एवं शोध जरूरी
शिक्षण संस्थान - उद्योग एवं सरकारी योजनाओं से कृषि उच्च शिक्षा को मिलती नई दिशा
लघु व सीमांत किसानों की बढ़ाई जाए आय

मोदीपुरा। सरदार वल्लभ भाई पटेल कृषि एवं प्रौद्योगिकी विश्वविद्यालय में नेशनल एप्रीकल्चर रिसर्च मैनेजमेंट (नाम) हैदराबाद द्वारा कार्यशाला आयोजित की गई। इसमें लघु एवं सीमांत किसानों की आय बढ़ाने की बात कही गई। नॉर्म के संस्कृतिक निदेशक डॉ. एके सोम ने भी जानकारी दी।

अध्यक्षता विश्वविद्यालय के कुलपति डॉ. आरके मित्तल ने की। मुख्य अधिकारी चौर्य चरण सिंह विश्वविद्यालय के कुलपति प्रो. एनसिए के संस्थापक ने राजी बन रहे। उन्होंने बताया कि वर्तमान समय के अनुरूप शिक्षा एवं शोध की आवश्यकता है। जिससे कि इंडस्ट्री एवं किसानों को शिक्षा, शोध, सरकार की योजनाओं का फायदा मिल सके। डॉ. आरके मित्तल ने बताया कि विश्वविद्यालय द्वारा लघु एवं सीमांत किसानों की आय बढ़ाने के लिए डिप्लोमा एवं स्नातकोत्तर कोर्स भी प्रारंभ किए जा सकते हैं। डॉ. रामेश्वर सिंह, कुलपति, बिहार पशु चिकित्सा विज्ञान विभ, डॉ. एपी गर्ग, कुलपति शौभित विभ, अभय कुमार, डॉ. एके सोम, डॉ. सूर्य राठौर ने भी विचार रखे। चार प्रदेशों से शैक्षणिक संस्थाओं, इंडस्ट्री, भारत तथा राज्य सरकारों के कृषि व इससे संबंधित विभिन्न विभागों के 60 से अधिक उच्च अधिकारियों ने कार्यशाला में प्रतिभाग किया। कुलसचिव डॉ. बीआर सिंह, डॉ. सूर्य राठौर, प्रो. शमरेश, डॉ. एलके गंगवार, डॉ. दीपक सिसीदिया, डॉ. यूमी शाही, डॉ. आरएस सेंगर, रितुल सिंह आदि मौजूद रहे।