AGRICULTURE UNIVERSITY, KOTA

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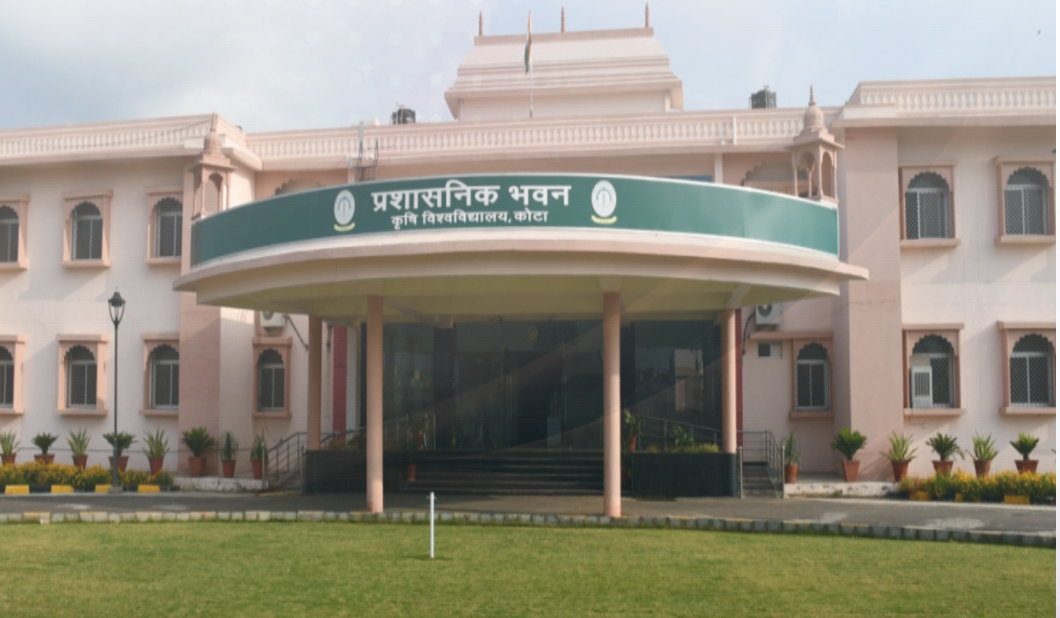

CONVOCATION ADDRESS

Padma Bhushan Dr. R.S. Paroda

Founder Chairman, TAAS and Former Secretary
DARE & Director General, ICAR, New Delhi

FOURTH CONVOCATION

November 28th, 2020

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His Excellency, the Governor of Rajasthan and Chancellor of Agriculture University, Kota Hon'ble Kalraj Mishra ji, Prof. D. C. Joshi, Vice- Chancellor, Agriculture University, Kota, Members of the Board of Management & Academic Council, distinguished guests, faculty members, officials and staff members of the university, representatives of press and media, ladies and gentlemen!

I am pleased to be amongst this august gathering on the occasion of the 4th convocation of this young and fast growing state agriculture university. I am also grateful to the university authorities for the invitation to deliver this convocation address.

At the very outset, let me congratulate the students who have successfully completed their studies and have received their degrees and awards today. I also compliment the faculty members who have imparted high quality education to make you capable of addressing the challenges in your life ahead. Today marks an important day in your life as you have received your degrees and awards of your hard work and dedication. No doubt, it is a moment of pride for each one of you as much as it is for your parents and teachers. At the same time, do remember that you may face several uncertainties and challenges in your life, but then the education received here will enable you to overcome those successfully. This University's jurisdiction covers around 10 per cent of the geographical area of the state. The Hadoti region covers almost 20 per cent of the net sown area of Rajasthan and it produces more than 60 % of soybean, coriander, garlic with almost all the mandarin of the state. This obviously signifies the importance of the University, which now stands at 23rd ICAR All India rank and 1st among the Agricultural Universities of Rajasthan. As stated by the worthy Vice Chancellor, this university, established in 2013, has grown from a small research station established in 1964 in Kota. In a short span of seven years, the university has made tremendous progress and is now known as an institution of excellence in higher agriculture education serving a real good cause for south-eastern Rajasthan. My congratulations to Dr D.C. Joshi, the entire faculty and the staff of the university for achieving this success. I also congratulate them for their commendable efforts in holding this convocation even when the entire country is facing the challenge of COVID-19 pandemic. This speaks of the real dedication of the entire faculty towards educating youth.

Importance of Agriculture

Agriculture is probably the most complex commercial venture today which depends on variable and mostly uncertain inputs like- soil, water, weather, pests & diseases and above all markets. To reach 110 million farm families in India, spread over more than six lakh villages, is an up-hill task. Also the diversity of agroecological situations adds to this challenge further. Farmers' needs are much more diverse today and they need good knowledge for scientifically diverse agriculture and their capacity building to make a better living. In India, agriculture and allied activities still remain a major source of livelihood with 48.9 per cent share in the national workforce. Nevertheless, the growth of the agriculture sector has been fluctuating from 0.2 per cent in 2014-15 to 6.3 per cent in 2016-17. It then declined to 2.8 per cent in 2019-20. The RBI estimate showed that agriculture in 2019-20 recorded a real Gross Value Added (GVA) growth of 4.0 per cent. This accounted for 15.2 per cent of the overall economic growth for the agriculture sector, which is a new record. It surpassed the industrial sector contribution to economic growth that was only 4.7 per cent in 2019-20.Despite of the unprecedented situation of COVID pandemic, our country has witnessed a positive growth of 3.4 per cent in the agriculture sector when many other sectors showed lower or negative growth. This can be attributed to increase in agriculture produce owing to good monsoon rains, targeted government spending, government policies, contribution of agriculture scientists and the hard work of our farmers for which they deserve high appreciation.

Agriculture in Rajasthan

Rajasthan is the largest state of our country having a total geographical area of 342.65 lakh ha of which 26.75 lakh ha is under forest, 42.62 lakh ha not available for cultivation and 63.19 lakh ha is other uncultivable land (excluding fallow land). The total cultivable area is around 22 million ha. The average rainfall of the state is only 575 mm out of which about 532 mm precipitation occurs in the rainy season i.e. June to September. The average rainfall of eastern Rajasthan is about 704 mm, whereas in western Rajasthan it is about 310 mm only. The rivers of Rajasthan are non-perennial except Chambal of Hadoti region (south-eastern Rajasthan) and Mahi of Vagad region (southern Rajasthan). Though agriculture in Rajasthan is primarily rainfed covering the country's 13.27 per cent of available land, it contributes about 7 per cent of the national food grain production, 10 per cent of wheat and 13 per cent of pulses. Today, Rajasthan is surplus in the production of oilseeds contributing nearly 20 per cent of national oilseed

production. It is a matter of pride that the state enjoys 1st position in the country in production of rapeseed and mustard, coriander, cumin, fenugreek, guar and moth bean. In pulse production, Rajasthan has the distinction of being among the top two states of the country. Rajasthan has major share in production of crops like bajra (40%), moth bean (85%), rapeseed and mustard (51%), coriander (66%) and fenugreek (87%). Coriander cultivation is mainly concentrated in three districts Kota, Baran and Jhalawar, which are in the jurisdiction of this university. The state also has wide agrobiodiversity and possesses some unique medicinal and aromatic plants as well as seed spices and legumes. Desert trees and shrubs like khejdi, rohida, phog, ker, ber etc. are indigenous to Rajasthan. The state also has the distinction of having unique crops like moth, guar, jeera, isabgol, mehndi etc. In view of the high importance of agrobiodiversity, greater thrust needs to be given on research and development of these crops, for which this university can play an important role. The south eastern region is well endowed compared to the rest of Rajasthan. It is a major soybean producing region and has good scope for promoting horticulture, especially oranges, guava, mangoes, papaya and vegetables. The jurisdiction of the university also has greater scope for agroforesry and aquaculture thus requiring priority attention for both research and development. Hence, Agriculture University, Kota has much greater opportunity for their further promotion in the region. Also there is a need to capitalize on the available potential of agriculture in Rajasthan with focus on improving the production, productivity and profitability for the farmers. In this context, revitalization of agrarian economy of Rajasthan is urgently warranted since the sector has great potential to create employment in rural areas with relatively lower investments as compared to other sectors. With the technological interventions and incentives by the government , there can be a significant increase in agricultural production in south-eastern Rajasthan through technical backstopping of the agriculture university, Kota.

Achieving Food Self Sufficiency

As you are aware, through the Green Revolution, India could get legitimate pride in becoming self-sufficient in food grains, from a status of "begging bowl". Today, India is the 4th largest exporter of agricultural products at the global level. In fact, Green Revolution was in itself an innovation led initiative around the use of high yielding dwarf wheat and rice varieties that responded favourably to higher inputs leading to quantum jump in productivity. The main cradles of success had been: i) political will at the highest level, ii) good institutions and highly capable human resource, iii) production and availability locally of critical inputs (seeds, water,

fertilizer, power etc.), iv) enlightened and hard working farmers, and above all, v) partnership at the global level with institutions like CIMMYT and IRRI.

Since the mid-sixties, tremendous progress has been made on the agricultural front, witnessing Green, White and Blue Revolutions which significantly altered Indian agricultural production and agrarian economy since independence. Between 1951 and 2020, the food grains production has increased almost 6 fold, from 51 to 296 million tons; horticultural production has swelled to 315.4 million tons (second largest in the world); milk production enhanced by 10 fold, from 17 to 187 million tons (highest in the world), and fish production jumped 15 fold from 0.75 to 12.6 million tons (second largest in the world). These unprecedented production gains had helped in halving the percentages of hungry, under-nourished and poor people in the country, as was envisaged under the Millennium Development Goals (MDGs).

Concern for Nutritional Security

Globally, poverty and hunger are still the twin challenges before human civilization despite specific temporal and spatial efforts. Though extreme poverty has been reduced by more than half since 1992, yet at the global level more than 800 million people live on less than USD 1, a day and roughly, half of the world's population lives below USD 2.50, a day. Besides, 1 in 9 people is undernourished. Poor nutrition results in nearly half (45%) of the deaths among children under the age of five years nearly 3.0 million children per year. Unfortunately, every 3.5 seconds, a child dies due to poverty.

As per IFPRI report (2019) on global hunger index (GHI), India ranked 100th out of 130 countries, which is indeed a matter of great concern. Till date the child and maternal malnutrition continues to be the biggest health hazard in India, especially in Bihar. Protein deficiency is of major concern. According to the National Family Health Survey of 2015-16, nearly half of the children below the age of 5 years are stunted, almost one fifth (20.80%) die at young age and nearly half of the children (43.90 %) are underweight. In Bihar, around 48 per cent of the children are stunted, 21 per cent die at young age and 44 per cent are underweight. Hence, there lies the great responsibility before us to ensure both economic and ecological access to food and nutritional security, particularly for those living below the poverty line.

We need to think beyond enhancing food production and to shift our goal from enhancing production to enhancing people's access to the quality food.

Agriculture Needs a Change

In order to effectively meet the emerging challenges faced by agriculture, there is an urgent need for change management to meet the sustainable development goals (SDGs). Change is a sign of growth. However, change is must but change is difficult. Having accomplished an impressive progress on all fronts, India is faced with numerous challenges to meet SDGs successfully by 2030. No organization that shows resistance to change can grow. Change also requires commitment of not only the leaders, but the entire organization and the system. Often the process of 'change of mindset' meets with stiff internal resistance. Yet the dynamic institutions have gradually grown through needed periodic reforms in order to meet the new challenges. In fact, change management is needed at different levels i.e. organization, institution, research, policy, and technology dissemination. Fortunately, the Indian National Agricultural Research System (NARS), comprising ICAR and the SAUs, has emerged to be a strong organization through timely policy and structural reforms. Still the system needs change to meet the emerging challenges, which demands self-introspection. Change for the better must always be welcome despite all resistance. Some of the desired changes, requiring paradigm shift in selected areas are listed below:

- Moving from NARI to NARS, through involvement of all stakeholders such as Farmers, Private Sector and NGOs. There is a definite need to embrace the Private Sector more proactively, including stronger public-private partnership.
- Reorientation of agricultural research to address the needs of small farmers and make research more farmer's participatory.
- Moving from crop and commodity to farming systems-research to include horticulture, livestock, agroforestry, fishery, etc.
- Shifting emphasis from research publications to that on innovations for impact to let the outcomes reach the end users through translational research.
- Knowledge dissemination by adopting a 'bottom up' approach rather than 'top down' as in the past to serve the entire farming community rather than individual farmers as in the past.
- Shifting towards a culture of corporatization with provision of needed incentives for IPRs - including the provision of registration, patents, trade mark, GI, licensing .
- Reorienting educational system embracing new science and from formal to informal education for skill development - through greater emphasis on vocational training.

Need to Make 'Farmer First'

Today, farmers need new knowledge to improve their farming practices. Thus, there is a need to employ innovative ways for effective dissemination of knowledge and to lay greater emphasis on outscaling innovations for needed impact on the livelihood of smallholder farmers. An effective approach could be to revitalize the government's extension machinery which is currently at the lowest level of functionality. The other option is to create a cadre of technology agents, involving youth, including women, to provide advisory services, including supply of inputs at the farmers' door step. Henceforth, 'Farmer First' approach has to be the goal to bridge income divide between farmers and non-farmers and to equally benefit both producers and consumers. Current initiatives of the Government to double farmer's income by 2022 is indeed an ambitious goal in the right direction but would demand a clear strategy with a defined 'Mission Mode' action plan to move forward. In this context, instituting a 'Mission on Farmer First' is fully justified to be implemented by the Rajasthan Farmers Commission.

Role of Youths and Women

The ageing population of farmers and declining interest among rural youth to take up agriculture as a profession are challenges for agricultural sustainability. Out of the 50 % population engaged in agriculture, hardly 5% of youth are interested in agriculture as a profession for their livelihood. Hence, a major challenge today is how to retain youth in agriculture. The declining interest of rural-youth is directly related to existing poor physical amenities, socioeconomic conditions and lack of enabling environment. Economic factors such as low paid employment, inadequate credit facilities, low profit margins, and lack of insurance against crop failure are also discouraging factors. Moreover, youth is not keen to continue with traditional agricultural practices. They are more keen to adopt innovative agriculture, including secondary and specialty agriculture related options which can give better returns.

Earlier, seeds, pesticides, fertilizers and farm machineries were the only potential sectors to employ agricultural graduates/rural youths. Lately, new opportunities are emerging in IT linked agricultural extension, seed technology, biotechnology, food processing, cold storage, packaging, supply chain management, insurance and farm credit. Private sector and non-governmental organizations (NGOs) are also engaging rural youths. In this context, we now need greater thrust on vocational training of youth (including females) for relevant skill acquisition and greater confidence building to serve as 'Technology Agents' as well as efficient knowledge/service providers on a custom hire basis. It is high time that all efforts are made at all levels to engage youth in multifarious activities around 'Plough- to-Plate' so as to make farming attractive as well as lucrative profession.

Also there is a new option to empower youth (men and women) through vocational training and by building a cadre of 'Technology Agents' to provide much needed technical backstopping as well as custom hire service to the smallholder farmers. In the suggested transformation process, the Agriculture Technology Agents will need to become "Job- Creators" and not "Job-Seekers" and provide best advisory services on charge basis as well as quality inputs on farmers' door steps. Another important action that can change the game is to promote the establishment of 'Agri-Clinics', where technology agents are able to join hands in providing a single window system of advisory and input related services to farmers.

Moving Forward

The sustainable development goals (SDGs) of no poverty, zero hunger, climate resilience, besides doubling farmer's income will all need priority attention. Accordingly, the strategy to double the farmer income would demand sustainable intensification, diversification, improved resource use efficiency and resilience in farming that is economically rewarding. In this regard, a three pronged strategy needs to be pursued seriously: i) improving productivity and production efficiency, ii) agricultural diversification - including secondary and specialty agriculture, and iii) policy support and linking farmers to market.

As already stated , there is considerable scope for promoting diversified, secondary and specialty agriculture in Rajasthan. Also, greater focus will now be needed on public-private partnership and post-production management and value addition. Equally important will be the use of new science, educational reorientation and scaling of innovations. In view of emerging new challenges, change towards new and efficient agricultural practices will be warranted. This calls for emphasis on translational research and innovative agriculture. To ensure this, I urge to the Government of Rajasthan to double the investment on AR 4D for all five State Agriculture Universities since it would ensure future food, nutrition and environmental security for all in the state.

Finally

Dear students, the aim of education is to have knowledge, not of facts, but of values. I urge you to inculcate scientific ethics, human values and ability to work hard for a successful career in agricultural research, education and extension. From today you will be graduates, masters and doctors of philosophy in science. I urge you not to think of this certificate just as a ticket for a good life, think of it as your ticket to change the world. Don't stop the process of learning, which is a lifelong process. Always remember that observation, self-reflection and self-correction are keys to success and sky's the limit.

Always endeavour to be the best. India needs gold class graduates. Necessary qualities of a good citizen are sincerity, integrity and compassion to humanity. My advice to young graduates is that be prepared always to change your mind set. You must go for 'Out of Box' thinking and aspire to be 'Job Creators' rather than 'Job Seekers'. Instead of looking for white collar jobs in the Government sector, you must think of becoming young entrepreneur to scale new innovation and make it a success. Ample options are there in the horizon like protected cultivation, micro-irrigation, fertigation, biofertilizers, biopesticides, small farm mechanization, post-harvest processing and value addition, herbal medicines, ICT for advisory services, insurance sector, credit, banking, marketing etc. Hence, make right move forward and grab the best available opportunities.

Today marks an important day and a significant milestone in your lives. By your hard work and dedication, you have successfully earned your degrees and awards in your respective fields, for which I wholeheartly congratulate you. It is a moment of pride for you as much as it is for your teachers and parents. You can rejoice that your mission for higher learning began on this campus. But, remember that it is not the end. It is rather the first step to make you feel confident to address many uncertainties and challenges that are ahead in your life. Be confident to deal with successes and failures as new opportunities come in your journey ahead.

While addressing youth in the Indian Science Congress in New Delhi, which I happened to preside over, the former President of India, Dr Abdul Kalam had stated that youth must have dreams but then they must work hard to realize their dreams. In this context, let me conclude stating that you must make sincere efforts and use the knowledge and skills you have acquired on this campus to achieve success. I wish you a very bright career ahead and a very satisfying professional life. Remember, most successful people in the world did experience rejection at least once in their life. So, never get disheartened. The second President of India, Dr S. Radhakrishnan had stated "The end-product of education should be a free creative man who can battle against historical circumstances and adversities of nature like we are facing currently from Covid-19 pandemic". Hence, remember that we shall have to face many such unexpected challenges as we move forward but no doubt perseverance will ultimately pay. Just keep on striving for the best. In the end, the success will be yours. Let the Almighty be with you in your journey for success while serving society with a human face.

Thank you!

JAI HIND