Convocation Address

37th Convocation of MPKV, Rahuri

Padma Bhushan Dr. R. S. Paroda

Chairman

Trust for Advancement of Agricultural Sciences (TAAS)
Former Director General, Indian Council of Agricultural Research (ICAR)
and Secretary, Department of Agricultural Research
and Education (DARE), Govt. of India

Monday, 29th January, 2024

MAHATMA PHULE KRISHI VIDYAPEETH
(Agricultural University)
Rahuri - 413 722, Dist. Ahmednagar, Maharashtra (India)

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His Excellency, the Governor of Maharashtra and Chancellor, Mahatma Phule Krishi Vidyapeeth, Rahuri, Sri Ramesh Bais ji, Sri Dhananjay Munde, Minister of Agriculture and Pro-Chancellor of MPKV Rahuri, Sri Radhakrishna Vikhe Patil, Minister of Revenue, Animal Husbandry and Dairy Development, Government of Maharashtra, Dr. P. G. Patil, Vice Chancellor, Members of the Executive and Academic Council, dignitaries being conferred with the honorary degrees of Doctor of Science, former Vice-Chancellors, Special Invitees and Guests, Faculty Members, Parents and dear graduating students, the Representatives of Press and Media, ladies and gentlemen.

Let me first congratulate all who have received degrees and awards. It signifies a memorable event in your life. You have worked hard to gain new knowledge which shall stand in good stead for the success in your life. Surely, this is also a day of great happiness for all proud parents who eagerly waited for this day.

I am pleased to be here today to participate in this 37th Convocation of the Mahatma Phule Krishi Vidyapeeth, Rahuri. My warm greetings to everyone present here today.

I also take this opportunity to congratulate Dr. P. G. Patil and all faculty members of this well-known

university and place our appreciation on record for your tireless efforts in training these graduates who will play important role in the growth and development of our agriculture.

Hon'ble Chancellor,

1. The Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri, having mandate to serve the ten districts of Western Maharashtra, set-up on the land grant system in truly rural setting, has served the farmers of this region admirably. The university achievements, as highlighted by the Vice-Chancellor, are indeed praise worthy. It is admirable that by now more than one lakh 30 thousand graduates have received their degrees.

2. The University also has established linkages with many international and national institutions. It is successfully implementing Student READY program for skill development and rural exposure. Good number of students have also achieved success in national level NET, GATE and ARS examinations and more than 100 have received senior research fellowship.

3. I am pleased to know that MPKV is the third Agricultural University in the country to have received recognition from the All-India Council for Technical Education, for its B.Tech. (Agril. Engg.)

4. It is also heartening to know that the project on Climate Smart Agriculture and Water Management funded under NAHEP has been ranked first amongst all the CAAST projects in the country. It has provided opportunity to a large number of

faculty members and students to visit abroad and study in reputed institutions.

5. This University is well known for having developed high yielding varieties of sugarcane, pomegranate, chickpea, rabi sorghum, onion, rice and pearl millet. I would like to congratulate Dr. Patil and all the scientists for their concerted efforts.

6. Now, let me emphasize on the main issues affecting in general the performance of SAUs: (i) proliferation of universities, particularly private agricultural colleges/universities established without adequate planning, required infrastructure, teachers and meagre allocation of resources; (ii) *de novo* opening of single-faculty and bifurcation/trifurcation of existing multi-faculty into single-faculty universities like veterinary, fishery, and horticulture which defies the well-accepted principle of integrated education; (iii) interference in administration compromises the autonomy of institutions; (iv) the governance systems not taking advantage of modern governance tools and social audit; (v) in SAUs today most of the funding goes in salaries, leaving very little funds for operational expenses; (vi) disintegration of teaching, research, and extension functions affecting adversely the output; (vii) non-alignment of education system with evolving needs, technological advancements, and changing societal demands; (viii) lack of robust review and assessment system that rewards merit; (ix) lack of a student-based teacher evaluation system; and (x) serious gaps in proper assessment of faculty performance based on targets, outputs, and outcomes. All these need to be addressed

urgently. In addition,some recent cases in SAUs pertaining to dispute regarding teaching, research and extension responsibilities, have resulted in greater confusion about service conditions. Also, the ICAR Model Act is not being followed both in principle and practice.

Towards Secure and Sustainable Agriculture

7. As we are aware, the world population is likely to reach 9.8 billion by 2050 requiring an estimated 70 per cent more food considering the present dietary pattern. With current population of 1.43 billion, India has become most populous country taking over China. Presently, India with only 2.41 per cent area supports around 18 per cent of the world's population. The main challenges before us are: to alleviate poverty and hunger, reduce the impact of climate change, sustain water and land resources, ensure profitability and socio-economic equity. Therefore, the future thrust shall have to be around producing more from our static arable land of 154 mha. Fortunately, beginning with Green Revolution (GR) in mid-sixties, India's food production has increased more than six-fold (330.5 million tonnes) in 2022-23. In order to meet the increasing demand of food for additional 15-16 million people each year, despite availability of more diversified food such as fruits, vegetables, milk, meat, poultry, fish etc., India shall need to continue producing around extra 5.0 MT of foodgrains per annum.

8. Having achieved household food security, our major concern is of nutritional security. We currently

have the largest number of undernourished people (224.3 million). Around 50 per cent of children under five are deficient in vitamin A, 70 per cent are anemic, and only 71 per cent of households consume adequately iodized salt. World-wide, around 842 million people suffer from protein-energy malnutrition (under nutrition) and 2 million from hidden hunger. Therefore, we need to work hard to feed especially the people below poverty line (around 15 %) with nutrient-dense foods such as millets and other local foods, besides use of biofortified crop varieties.

9. To achieve important goals of SDGs like no poverty and zero hunger by 2030 is currently the major challenge. For achieving a sustained growth rate of 8 per cent at national level, requires a minimum of 4 per cent agricultural growth. Hence, it would require a dynamic approach based on well-planned strategy with better coordination and convergence. The action plan on doubling farmers' income has to be around four pillars: (i) development initiative including infrastructure, (ii) technology, (iii) policy, and (iv) institutional mechanisms. The Government of India's initiatives like *Pradhan Mantri Krishi Sinchayee Yojana* (PMKSY); *Paramparagat Krishi Vikas Yojana* (PKVY); *Pradhan Mantri Fasal Bima Yojana* (PMFBY), etc.; adoption of transformative technologies like GM crops, sensor-based applications, etc.; creation of competitive markets, and establishment of more FPOs and SHGs are steps in the right direction.

10. Time is ripe for transforming Indian agriculture and our food systems to be more productive, secure (resilient) and sustainable, around both production and post-production. To achieve this, we need more resources accompanied by bold policy decisions. It seems lately there is some complacency on account of bumper harvest and available buffer stocks. Obviously, more investments are critical for scaling new innovations to accelerate agricultural growth above 4 per cent. It is now time to have a paradigm shift from agricultural research for development to agricultural research and innovation for development to accelerate our agricultural growth. Business-as-usual would not help. Our future strategy must aim to make 'Farmer First' by doubling his income through increased production, diversification in farming systems, cost reduction on inputs, scaling new innovations, availability of credit at low interest rate, value-addition and by linking them to markets. Insurance of horticultural crops, livestock and fishery also be given high priority to avoid risk.

11. The diversification strategy be towards shifting from low value to high value crops (HVCs), water thirsty to water saving crops, mono-cropping to multiple/mixed cropping and farming (crop-livestock-fish-apiculture etc,)and agriculture production to processing,value-addition and product development. Diversification towards more remunerative crops such as vegetables, fruits, condiments and spices will help in reducing rural poverty. The millets (miracle grains) are more

tolerant to pests and diseases and are 3-5 times nutritionally superior in proteins, minerals and vitamin content compared to rice and wheat. Hence, they need to be promoted on a wider scale. Recently held UN Food Systems Summit has also laid greater emphasis on renewed thrust on R & D around local food systems that are good for nutrition, health and immunity. The UN year on millets last year created worldwide attention and there are opportunities to harness economic gains by increasing their production, value addition and marketing.

12. This is the age of digital technologies. The digital technologies are being used in almost all the sectors of development including banking, aviation and transport, retail, marketing, business and industries, home appliances, education, entertainment. The use of digital technologies made our life not only comfortable and easy but we are able to enhance the efficiency, productivity and profitability; resilience, protect environment, reduce labor requirements, and optimize resource use on sustainable basis. Agriculture sector is no exception to this and I would like to state here that the Mahatma Phule Krishi Vidyapeeth is the pioneering University in India to initiate the research and education programs for application of digital technologies in agriculture. The efforts of the Centre for Advanced Agricultural Science and Technology on Climate Smart Agriculture and Water Management being implemented under flagship program of the Indian Council of Agricultural Research i.e. National Agricultural

Higher Education Project for developing the domain of digital agriculture technologies is very well acknowledged and appreciated at the National and International Levels. The university through this CAAST project started research, education and capacity development programs in all the domains of the digital technologies i.e. sensors, internet of things, hyper- spectral imaging, artificial intelligence, unmanned aerial vehicles i.e. drones, robotics and geo-informatics. The scientists of the University developed the tools for the application of drones for spraying, fully autonomous IoT enabled systems for irrigation and livestock management, spraying robo and many more. I am sure that with this knowledge base, MPKV shall expand its horizon further and make the farming attractive thereby attracting rural youth towards farming with the aid of gadgets that otherwise are used by urban population.

MPKV marked the end of 2023 by organizing the mega event, International Conclave on "Futuristic Farming" on 20-21, December, 2023 that consisted of the six international conferences namely on drones, robotics, IoT, AI, Hydro-ponics, aero-ponics and vertical farming. I am also happy to note that all these six conferences were live-casted simultaneously. All these technologies are futuristic and hence the future farms will be the autonomous farms wherein various tasks and operations will be conducted with a significant degree of automation, reducing the need for direct human involvement; and Mahatma Phule Krishi

Vidyapeeth is in a position to develop the technologies for the future farms and enable the farmers to reap the benefits of the digital technologies for the agriculture.

Dear Graduating Youth

13. Future of India's Agriculture is in your hands. You shall have to reshape it. Agricultural practices will have to be made efficient. Feeding our ever-growing population and ensuring food and nutritional security for all would remain a daunting task, especially due to adverse effects of climate change. Hence, India needs to transform from traditional system (labor-intensive) to a modern agri- business systems (capital and technology intensive). For this, exciting opportunities do exist provided we harness science for new gains like precision agriculture, biotechnology, sensor technology, bioinformatics, climate-smart agriculture, robotics, drones, big data management, artificial intelligence (AI), regenerative agriculture etc. Adoption of good agronomic practices (GAP) will help reduce cropped area, decrease water demand, and improve both nutrient use efficiency and productivity.

14. Under such a scenario, the involvement of youth in agriculture is a real challenge since they are energetic, innovative, and more receptive to new ideas/adoption of advanced technologies rather than traditional agriculture. In addition, they do have the courage to take the risks, so critical for any new enterprise. Moreover, the present-day agriculture requires intelligence and hard work,

besides the strong will and commitment. Hence, the future strategy should motivate the youth to become job providers and agents of change rather than to remain job seekers. This can be achieved only when required knowledge and education, technical skills, sustained encouragement and the enabling policy environment are provided. In addition, the required policies, incentives and rewards need to be put in place to attract young talents to undertake innovative farming that is not only profitable and sustainable but also respectable. Thus, the new strategy should be to reorient present-day agriculture from crop based to farming systems' based with emphasis on 'plough-to-plate' approach which is more relevant, efficient, demand-driven, productive, competitive and profitable. It must also ensure food, nutrition and environmental security for all, being important to achieve SDGs. Hence, there is an urgent need to develop a clear Road Map for motivating and attracting youth in agriculture (MAYA). I, being an ardent supporter of MAYA would urge MPKV to lay greater emphasis on vocational training for skill development. Under New Education Policy (NEP-2020), there is requirement for universities to go for informal training through short diploma/ certificate courses for skill development, which needs action on priority.

15. The small holder farmers are a stressed community whose income is not enough to meet their daily needs. Farmers need a one-stop solution for their problems, similar to a multi-specialty hospital. Youth can surely fulfill this vision. We need an enabling environment for our youth to

embrace agriculture through empowerment of knowledge in areas such as secondary agriculture, speciality agriculture, integrated pest management (IPM), integrated nutrient management (INM), nano-technology; peri-urban, precision farming, protected cultivation vertical farming, urban farming etc.

16. 'Agri-clinics' need to be established at block levels. The qualified agriculture graduates could join hands to run these 'agri-clinics' while seeking support from government and financial institutions. State governments also need to ensure that agriculture graduates are given licenses for sale of inputs, machinery and tools, on par with those of pharmacy. It will help in supply of quality inputs, effective technology transfer, self-employment through entrepreneurship as well as for increased production and income of farmers. A win-win for all.

17. Remember, you are among those few who got an opportunity to study at this prestigious university. Now you are capable to use your knowledge to create wealth. It is also expected of you to work for the welfare of society, to reduce disparity and to empower the disadvantaged. Remember what Dr APJ Abdul Kalam had said: ***"Always think high and have a dream but then work hard and have perseverance to achieve your Goal".***

18. It is well recognized that Indians excel wherever they go. What we need is an enabling environment. Narayan Murthy – an Indian billionaire - founder of

Infosys is one such bright example. In fact, today many Indians are CEOs of leading global organizations: Google - Sunder Pichai; Microsoft - Satya Nadella; Albertsons Cos Inc - Vivek Sankaran; IBM - Arvind Krishna; Deloitte - Punit Renjen; Former CEO Master Card and presently President, World Bank -Ajay Banga etc. Hence, SAUs have a major role to play in imparting right knowledge for better work culture.

19. Dear graduates, please do remember that hard work and perseverance are the keys to success. I once again congratulate all those who have received degrees, medals and awards today. While leaving the portals of this university, you must take pride in being an alumni of MPKV. I wish you all the success in your life.

At the end, I congratulate honorable Chancellor, Vice Chancellor, the Executive and the Academic Council for the success of this Convocation.

Jai Hind