

“Press Note”

Lal Bahadur Shastri Memorial lecture during 61st Convocation Week, ICAR-IARI, New Delhi

53rd Lal Bahadur Shastri Memorial lecture was delivered by Dr. Usha Barwale Zehr, Director and Chief Technology Officer, Mahyco Private Limited, Jalna, Maharashtra on the fourth day of the 61st Convocation week of ICAR-IARI, New Delhi. The session was chaired by Dr. Himanshu Pathak, Secretary, DARE & DG, ICAR, New Delhi. Dr. A.K. Singh, Director, ICAR-IARI welcomed the chairman as well as the dignitaries and audience. Dr. Himanshu Pathak gave a brief introduction of Dr. Usha Barwale Zehr to the august gathering. Dr. Usha Barwale Zehr delivered the talk on “Jai Jawan Jai Kisan” – the continuing contributions of smallholder farmers towards food and environmental security. She gave the example of Bt cotton with fastest ever adoption by farmers, making India the largest cotton producer in the world. Similarly, use of Molecular breeding for rapid product development, use of gene editing and numerous other technologies usage to ensure a steady pace of genetic gain while doing so in a sustainable manner. She talked about a new kind of emergency- Climate emergency. Dr. Zehr took painstaking efforts to remind how India was under severe lockdown, disrupting almost all activities, it was heartening to see how our farmers continued to work during the Covid lockdowns to ensure steady food supply. Farmers planted seeds with the onset of monsoon and the industry too made all efforts to get the inputs needed to the farmers’ doorsteps. Covid and conflict have pushed more people in poverty than we have seen in the past years reversing the declining trend. The conflict in Ukraine has once again shown that how one of the major exporters of wheat & sunflower are now under attack and has disrupted food security around many areas of the world. The most recent earthquake in Turkey and Syria further increased the vulnerable and food insecure populations and a need to look at how we do agriculture to meet these increased demands. Moreover, the climate crisis exposes our farming system to higher and disproportionate risks like decline in wheat yields due to heat-wave in Rabi 2021-22 season. Voluntary carbon markets pay farmers for carbon credits generated by the adoption of regenerative agricultural practices, which also increase the climate-resilience of the farming systems by enhancing soil fertility and conserving natural resources. Private investments in agricultural carbon projects can be a solution to improving farmer incomes. She mentioned about Carbon credit which is a digital certificate generated after rigorous monitoring and verification of the adopted regenerative practices. Linkage of agriculture to carbon markets can provide a new source of income for farmers who

implement such practices that reduce GHG emissions or sequester (retain) carbon in the soil. Currently, the price ranges from 10-50 USD per carbon credit. Thus, a farmer mitigating 4 tons of CO₂ can earn up to ₹16,000 as additional income. She highlighted the efforts of Government of India who launched Lifestyle for environment initiative “LiFE”, a unique initiative that is embarking on changing the way we live and behave in the interest of the environment and long-term sustainability in Agriculture. Other initiatives by Government such as Green credit, will incentivise better water management, use of alternative biological inputs and other sustainable practices. Agriculture, while a significant emitter of greenhouse gases, is also a solution to mitigate the same with practice changes and incentives. All evidence supports the need for considerable investment in adaptation and mitigation actions toward a “climate-smart food system” that is more resilient to climate change influences on food security. Programme ended with word of thanks by Dr. Anupama Singh, Dean & Joint Director (Education).