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SMART AGRICULTURE FOR SMART PLANET

It is the era of technology today. Every aspect of human life is dictated by technology. From health to education, from banking to governance and from shopping to communication we bask in the benefits of technology. This digital easiness is evident in agriculture too. Not yet pervasive, the digital technologies are slowly making their presence felt in different aspects of agriculture. They are making our agriculture smarter and better.

The connotation of smart agriculture is currently limited to application of digital technologies. Precision agriculture, artificial intelligence, Internet of Things, remote sensing, drones, block chain, big data the list is unending. So are the benefits arising out of their application. The precision with which the inputs are applied translates to reduction in cost of production for the farmers and efficient use of resources. The resultant increase in quantity and quality is arrived by maximum use of resources and minimising the impact on environment. Simplification of agricultural operations through drones, optimising the monitoring of farms through IoT and improving the traceability of the supply chain through block chain are making headways in Indian agriculture. Touted as the next revolution, India is on the path of integrating technology into its agriculture system.

But India's adaptation of the technology may not be in similar stead as that of the rest of the world. Our form of agriculture is different from others. Most of our producers are small. With their limited investment capacity, it will be challenging for our farmers to integrate digital technologies into their farming system. So it becomes essential that we focus on cost effective systems.

Fortunately, there are many agro-based start-ups specializing in this area that have entered into the Indian agriculture scene. Agri-based tech-driven start-ups have been very promising and their assistance to farmers can help revolutionize Indian farms. A recent report indicates that the Indian agritech ecosystem has the potential to attract investments of over \$10 billion over the next ten years.

The government is also taking various smart agriculture initiatives. Union Budget 2022 focuses on smart and modern agricultural practices. The government is also providing financial support to Agri-tech startups and promoting the adoption of AI to revolutionise agricultural and farming trends. New federal guidelines for a scheme called Kisan Drone have provisioned substantial subsidies for farmers and organisations alike for unmanned aerial vehicles. The government is putting into practice the Digital Agriculture Mission (DAM) and funding is provided to state through National e-Governance Plan in Agriculture (NeGPA) programme.

We have already achieved our goal in terms of food sufficiency, but for a price. Now we must strive for an efficient production system - a smarter way which entails more production and less loss.

