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Technology for better returns from agriculture attracts youth

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Agriculture growth in India is not only stagnating but also declining! Out of the three pillars of Indian economy – Agriculture, Industry and Services – agriculture growth is likely to be slowest at 2.1 percent (as per the Economic Survey 2018). What is a significant worrying factor is that the percentage of agricultural workers in total work force would drop to about 26 per cent by 2050 from 58 per cent in the beginning of this century. Obviously for these data points necessitate quick action by the stakeholders to arrest the drop in numbers. The most obvious trend because of declining workforce that we have witnessed in recent past is the phenomenon of mechanization in the agriculture sector. As a result India Economic Survey points out that Indian tractor industry have emerged as the largest in the world and account for about one-third of total global tractor production. But is that a solution? Especially, when we are looking for avenues for job creation for the youth?

The answer lies in exploiting the strengths India has. Historically India has been an agrarian society, but lately technology has become our strength. If these two aspects of the society can be merged then probably we can kill two birds with one stone – push agriculture growth higher and create employment opportunities. This is truer as we know that agriculture sector can be an engine of growth and economic diversification in growing market like India. It presents opportunities, which, if tapped, can create sustainable solutions to the hunger and unemployment challenges. The sector faces myriad of challenges and its productivity is dependent on the ability of farmers to adapt and be resilient to the challenges. The biggest hope for making agriculture productive is the adoption of technology that can help us innovate new ways to make farming sustainable and mitigate the challenges. Technology can drive virtuous cycle of growth and job creation in agriculture sector and ancillary industries by boosting demand for services like food processing, agri-warehousing, agri-financing etc. This in turn will support agriculture and boost consumption leading to capacity creation/utilization. This cycle will spur local job creation, more disposable income in the hands of people to further sustain the consumption cycle leading to increasing income for farmers. Age plays a big role in technology adoption. The

young generation is quick in adapting to technology to modernize farming. Despite this, we are short of having the equivalent number of young farmers within the agricultural space to drive technology uptake. Take for instance the data from the Union Agriculture Ministry that says youth in rural India is moving away from agriculture sector. As a result the average age of farmers/agri-wage workers is now 52 years. What is more alarming is that only 3.5 percent in the profession of agriculture/farming is in the age group of 20-30 years. With high aspirations, young generation is often turned off by constraints such as low farming income, low access to credit and capital to invest in the required machinery, information asymmetry, poorly organised and inaccessible markets, high transaction costs and lack of agricultural insurance to cover them in times of bad weather or crop failure. This calls for reviving youth interest in agriculture by promoting usage of technologies that has the potential to mitigate key constraints that often beset the sector. Mobile phone usage can play a vital role in the enhancement of farmers business towards agriculture. It is proving to be easy, fast and convenient way for farmers to communicate and get prompt answers of their respective problems and access information on agricultural market situation. This device has given new direction and approach to farmers to communicate directly and share about recent advances with each other thereby saving their time and energy, and ultimately improving their income. It can keep them aware of weather forecast for agriculture input application like fertilizer and pesticides, which might be affected by unforeseen disasters.

Market intelligence is another aspect that industry can work on and use smart/mobile phone for boosting the youth's interest in the sector. Market intelligence will help planning for cash crops or high remuneration crops. The promise of better returns will automatically attract the youth with high aspirations. Another aspect is the usage of mobile phones by financial institutions. Mobile technology can be used to track farming activities and then combined with existing agricultural data to develop credit profile of farmers, which can be used by financial institutions for credit assessment and funding. Through mobile phone based money transfer facility farmers can have traceable financial transactions which can be used to access micro-finance and insurance services. Currently, farmers in India have access to finance through The Kisan credit cards and the Pradhan Mantri Fasal Bima Yojana (PMFBY). Electronic trading portals like NAM are a good initiative by government to relay information and services. It not only provides critical decisions making matrix such as weather and soil but also creates a unified market through online trading platform and promotes uniformity, streamlining of procedures across the integrated markets, and promotes real time price discovery, based on actual demand and supply. These technological interventions promote transparency and hence become more rewarding for the farming community. Similarly, agricultural e-commerce platforms can be used to provide information services and match supply with demand of products by use of network in the production and operation of agriculture. These have potential to break the limit of region and time, speed up information transmission, and help to lower transaction cost, reduce inventory, and increase business opportunities. The sector is also witnessing the rise in demand for technology graduates to embrace the integration of Real-Time technology with GPS & Geo Tagging for its role in the successful operation of warehouses.

Digitization and technologies such as satellite imagery, mobile telephony, and handheld devices like tablets are increasingly being used in conjunction to each other in the collection of data and information which are then analyzed and used to improve logistics as well as storage management. Young generation is the driver of social change through their role in developing and promoting technology solutions. The agriculture that attracts the youth therefore must be profitable, competitive, and dynamic. It should be able to re-engage the young population directly and indirectly through technology development and entrepreneurship. This will not only democratize access to agricultural information, training, inputs, and technologies among those who have traditionally been locked out of these benefits thereby ensuring food security but also provide gainful employment and livelihood to the majority of the population. (Author is the Group CEO, Sohan Lal Commodity Management Pvt. Ltd)