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TECHNOLOGY AND INPUT MANAGEMENT FOR AGRICULTURAL MARKETING IN RAJASTHAN

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Abstract: The intent of this study was to gain a more comprehensive understanding of agriculture technology and input management in Rajasthan. High-tech farming, agro-tools and input faced decline prospect in Rajasthan agriculture. The techno-input management of agriculture by government acquired more time for positive response. But now, about 2/3 of agro-population believes that flow and availability of agriculture techno-input has becomes greater access and profitable. More effective tools and there management by government is mentioned in paper. Pandemic circulation in state has changed the direction of agriculture from nature based to technology based. Regardless of perceiving noticeable improvement, usual in get access to agriculture supplies and technology, over 60% small and marginal farmer's cannot get access to agriculture inputs was presently inadequate to successfully promote productive agriculture practices.

Index Terms **-** Pandemic, Government policies, techno-input, agriculture marketing.

I. INTRODUCTION

With the beginning of 21st century, agriculture in India is audacious to move digital, particularly to use distinctive fits of Artificial Intelligence (AI) for horticulture, animal husbandry, soli and crop management. For expanding human population and to make farming greater profitable especially to "Double the farmer's income" digital and input suitability is required. Rajasthan is a land of superb spirit, a spirit not only of warriors but also of farmer's who do hard work with his willpower to create wealthy agriculture land. Today, Rajasthan is a main manufacturer of many food and cash crops and contributes 50% to country wide seed spices production. But the state's distinctive geographic features—a severe climate, large expanses of unproductive land, and a lack of sufficient water resources—are proving to be a challenge for the agriculture industry.

II. OBJECTIVES

- To made available technological intelligence to all farm holder.
- Dissemination of government management system for input censorship.
- To know challenging situation of high-tech farming in Rajasthan.
- To know about the progress towards smart agriculture farming.

III. RESEARCH METHODOLOGY

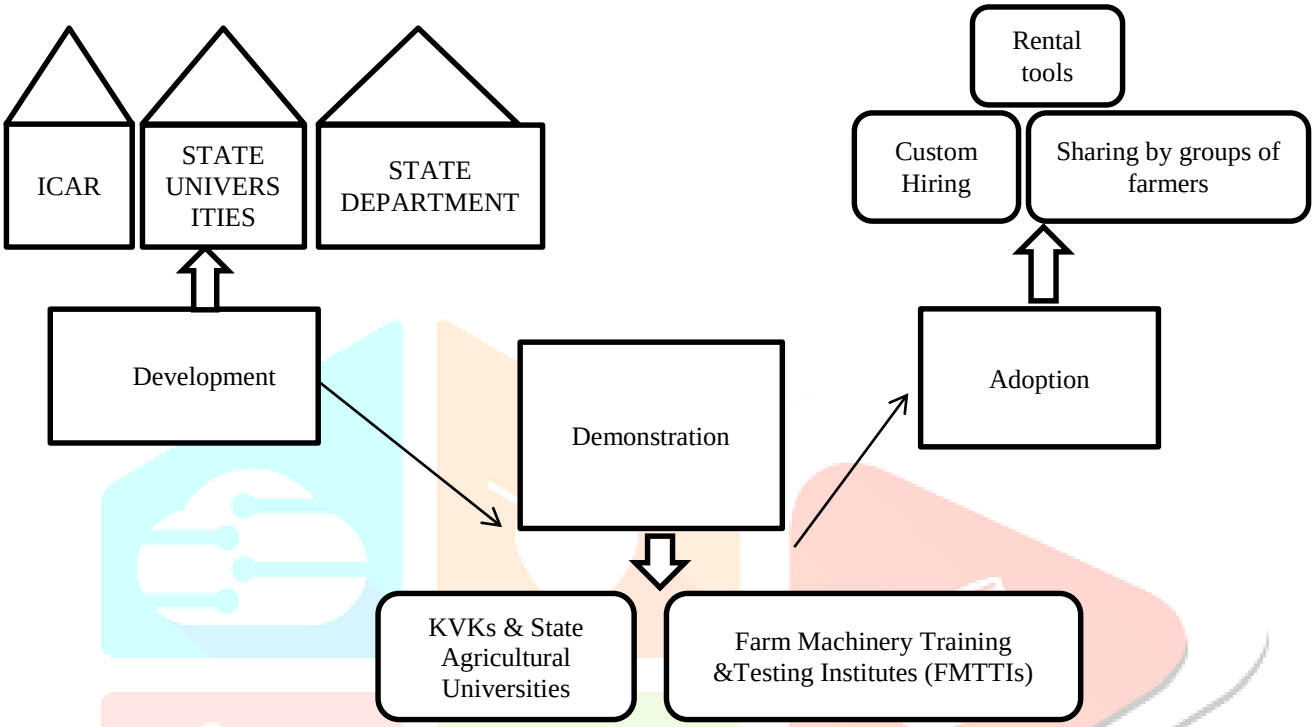
The present study evaluates the technology and input management for agriculture in Rajasthan.
This is a descriptive research paper. The information required to prepare this principally collects from reports, journals, books, magazines, and internet. All these required mentioned data are secondary.

IV. DIGITAL FARMING AND INPUT MANAGEMENT

Digital farming specifically refers to agriculture operations concerning the latest technologies. The tools often being mentioned includes the use of aerial and satellite sensors and computing resources to monitor and analyze changes in climate parameters, condition of soli, plants and other vegetation's in respect of their production parameters and health. Management for digital is required to be availability of digital equipment for every section of agro-population. For input management includes water, agro-chemicals, etc., supply-chain management, infrastructure availability, marketing, etc. to make near-real-time assessment of the conditions and to offer well- timed help. It is capital intensive agriculture, considering the fact that huge capital outlay is required in the direction of buy of specialized equipment, maintenance of assets, training of labor etc.

Implementation of digital farming and modern agriculture input increase production by 3-10 times. It is mainly relates to commercial farming system aimed at catering to the need of both domestic as well as exports markets. Farm management and tracking are made possible by the appliances of these technology solutions. Farmers acquire a real-time virtual examination of farms inputs enables them to make informed decisions, avoiding the need to overuse pesticides and fertilizers and reducing water use. The success of digital agriculture in India will, however, will be influenced by a number of factors, including the availability of affordable technology, the simplicity of operations and system maintenance, and supportive government programs and policies.

V. PROCESSING STRUCTURE TECHNOLOGY AND INPUT MANAGEMENT IN AGRICULTURE MARKETING



VI. CURRENT STATUS OF TECHNICAL AND INPUT MANAGEMENT OF AGRICULTURE MARKETING IN RAJASTHAN

The current value of India's agriculture sector is $370 billion, which present agriculture a major income growing sector as well as a healer of poverty and unemployment. Rajasthan is largest state having 342 lakh ha. land on which only 5.5% population of the county is living. Rajasthan struggles with an extremely arid to a dry environment with little rain in most of the state, in addition to having large sandy areas of desolate deserts. Additionally, this affects the sand quality and shortens the shelf life of farm produce. Agriculture is an essential area of the state's economic system and accounts for 25% of GSDP and approximately 60% of populace is engaged in agriculture and allied activities. With 10 agro-climate zone, Rajasthan is producing extensive sort of agro-products right from desert fruit jujube (ber) to aromatic rice. It is biggest manufacture of rapeseed & mustard, cereals and pearl millet and contributes a vast proportion of gram and soybeans to the national population.

In past couples of year, the Rajasthan state government has brought a bunch of virtual projects and schemes to reinforce agriculture and farmer's status. A few of these projects are the Department of Agriculture's dedicated website and events such as the Global Rajasthan Agro-tech meet, other website like Mkissan, farmer.gov.in, Solar Power Pump Project (Component 'B') - PM Kusum (2019-20), Fertigation, Foliar Fertilization And Automation (2019-20), Seminar/ Workshop, IPM/INM, National Horticulture Mission-Organic Farming (2005-06), AGMARKNET, National agriculture market (e-NAM), India Innovation, Entrepreneurship and Agro-Industry Fund, National Mission on Agricultural Extension and Technology, Weather-based Crop Insurance Scheme and Soil Health Cards.. The state is now looking at technological options to increase agriculture productivity by creating better circumstances as part of a recently announced plan. As a result during 2020-21, approximately 16.33 lakh ha. region is mentioned to be under horticultural vegetation towards gross cropped vicinity of 260 lakh ha.. This vegetation 1.89 lakh ha. under vegetable, 9.62 lakh ha. among spices crops, 0.037 lakh under flower and 4.09 lakh ha. are under medicinal and fragrant crops which involve approximately 8.03% of gross cropped vicinity. As far as production of these crops is concerned, it is 9.07 lakh MT in fruits, 21.86, 11.80, 0.083& 2.43 lakh MT in vegetables, spices, flowers and medicinal and fragrant vegetation respectively.

VII. IMPORTANCE OF TECHNOLOGY AND INPUT MANAGEMENT OF AGRICULTURAL MARKETING IN RAJASTHAN

More technological advancements in agriculture appeared as time went on. The invention of the tractor, followed by advancements in irrigation, air seeding, and new tilling and harvesting tools, all led to improved yields and improved the quality of the food and fibers that was grown. With time, conventional rain-dependent system with low-yield, low price and short-period vegetation gradually gave way to irrigated cropping, particularly after canal construction commenced to guarantee deliver of water to the crop plants, and the implementation of green revolution commenced to bring in a bunch of recent technologies. The changing economic scenario in Rajasthan and want for suitable agriculture technology and farm input management strategies to address food and nutritional security, poverty reduction, diverse market place demands, export prospects, and environmental concerns are placing new demands on the generational dissemination system. Future agricultural boom is projected to result in major part from improvements in the productivity of various farming structures with local specialization and sustainable management of natural resources, primarily land and water. Farming diversification may increasingly depend on efficient links between the production structure, marketing, agro-processing, and other value-added industries. The current focus has been placed on "transfer of technology primarily based totally on bundle deal of practices of optimizing crop manufacturing" needs to be grew to become to areas of future manifestations include market expansion, agricultural diversification, micro irrigation value addition, the fusion of several disciplines, genetic engineering and bio-generation, and more, with agricultural advertising and processing seeing the most significant competition.

VIII. CHALLENGES OF TECHNOLOGY AND INPUT MANAGEMENT OF AGRICULTURAL MARKETING IN RAJASTHAN

Farming with high tech is difficult. A classical structural barrier prevents modernization in Rajasthan. According to the state economic survey for 2017–18, marginal and small land holdings account for 40.12% and 21.90%, respectively, of all land ownership in the state. Small local-level studies across the state show that many marginal and small farmers are finding digital farming difficult. The fragmented landholdings across the state increase the cost of input handling. As the major factor is techno-input are capital intensive, require huge capital which marginal farmers find difficult to get. Sand reactivation and mobilization is another most important challenge, bobbing up primarily from immoderate use of tractors and uprooting of the naturally happening bushes and shrubs over huge regions are actually the primary derivers of sand mobilization and dirt emission at local levels. In some of the ground-water-irrigated regions, particularly with inside the east, dried up aquifers is compelling farmers to both shift to rain-fed kharif cropping, or to desert cropping altogether, making the unfastened sandy soil greater prone to wind erosion.

IX. CONCLUSION

Agriculture marketing in Rajasthan is surely at the crossroads now. The state wants to modernize farming which is difficult but it is moving faster after pandemic circulation. The positive growth of agriculture against other sector influences farmer to go digital and improve farming methods. There are both supports and critics of the new approach of techno-input management that intends to divert a sizable proportion of medium farmers away from traditional, water-intensive crops like wheat. The purpose is to encourage the development of vegetables and citrus fruits that conserve water. "Greenhouse cucumber manufacturing offers an average 50 ton of cucumber is about rupees 20 per kg. So that's rupees 10 lakh in total revenue. If overall expenses are rupees 3-4 lakh, which means saving of around rupees 6 lakh". Ultimately, the fulfillment of technology and input management depends largely on how well and how quickly the understanding needs to guide the development of farmers. Technology provides new solution using a system approach for today's agriculture issues such as the need to stability productiveness with environmental concerns. It consists of describing and modeling variants in soils and plant species, and integrating agriculture inputs to satisfy the requirement. The aim of technology and input management is to increase economic returns as well as reducing the energy inputs and environmental impacts of agriculture.

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