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ORIENTING INDIA'S RURAL YOUTH TOWARDS AGRICULTURE THROUGH MULTIPURPOSE AGRICULTURAL INTERPRETATION-CUM-TECHNICAL SUPPORT CENTRES

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Abstract: The paper highlights the need to reorient the youth towards precision agriculture, climate smart agriculture etc. available for changing the farming environment for a sustainable and better quality of life .To solve many of the genuine demands of the farmers especially, issues such as climate change, natural calamities, overuse of pesticides, better management of weather and soil data etc., creation of Multipurpose Agricultural Interpretation cum Technical Support Centre like KVK by systematic coordination between Central and state machinery is essential. It intends to trigger a debate on how and why we should attract the rural youth towards smart agriculture mostly based on information available on the internet and the author's essentially interpretive observations based on field work(especially through Focussed Group Discussion) and consistent exposure in villages of coastal districts of Odisha in the last 15 years. Thus it can usher a new era on modern hi-tech agriculture after the Green Revolution.

Keywords: Interpretation Centre, Krishi Vigyan Kendra, Information Technology, Cultural Environment, Hi-Tech Farmer

INTRODUCTION

After independence, India introduced community development blocks in selected areas to explore the feasibility of all round development of rural India and to expand the developmental activities across the nation slowly and steadily. Today, agriculture is a big challenge for various reasons. India with highest number of youths can create a human resource hub for the entire world. With proper training they could be hi-tech farmers as we are in an era of IT revolution. As they are the assets of our nation, we need to sensitize them on various issues. India with highest number of youths in the world has both advantages and disadvantages. If proper orientation is given to them, they would become our assets otherwise they are a burden to the nation. The new generation i.e. the youth in the rural areas are not inclined towards agricultural activities and thus a peculiar situation has come up in rural India, with agriculture and farming operations being managed by the elderly and women. This scenario poses a major challenge to Indian agriculture.

The youth tend to migrate to urban areas as casual labourers, factory workers or work in the infrastructure industry. In the past migrations were happening only during the lean seasons. The peculiarity of the contemporary situation is that the youth prefer to migrate for year-long job as they choose to stay away from agricultural activities. The youths appear to be getting socially isolated from the

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practice of farming. It is a big challenge in the future. Added to that is the question of continuity of age-old traditional wisdom of farmers to cultivate proper food grains in suitable niches. No governmental programme can make the youth to be motivated towards agricultural practices unless they are groomed up to take up such activities wholeheartedly. So, the role of culture in shaping the youth towards agricultural practices is to be acknowledged in creating suitable political, technology friendly environment, are of utmost priority (Bardhan 1989). This is so, as these factors have a direct or indirect influence in orienting individual's personality. In this regard, the present paper makes an attempt to explore the possibility of reviving the agricultural sector, suggesting the imperatives for bringing appropriate changes in the policy to address the emerging challenges while incorporating the modern technology and agricultural innovations and thereby attracting the youth towards agriculture.

The basic changes that can be implemented in generating greater involvement with agriculture the following changes are imperative.

Policy changes at Block level

Today India has 28 states (GOI 2019) consisting of 718 districts*"ibid"* and 5564 Sub District *mandal*/tehsils/blocks (Census of India 2011). We have an agricultural officer in almost every block. But today they are working mostly in administrative exercises. These agricultural extension officers work on the directives of state machinery and are mostly involved in implementing plans and programs. There is no uniform structured cadre of agricultural scientists across states in India. Seemingly, each state planned their developmental activities based on their political priorities and the availability of resources in their hand. In the state of Odisha beyond agricultural extension officer at the block level there is no one to look at agricultural problems from research perspective. The state has some issue- based research organizations which explore the problems related to the mandate of the institutions. The state of West Bengal has a Research Officer at least at the district level. The central government on its part has several research institutions and *Krishi Vigyan Kendra (*KVK*)* spread across the nation. Now these institutions try to do empirical research and show their new findings for field trials to the farmers and state officials. It is then left to the state machinery to carry out such findings through their plans and programs. But to make people centric agricultural development, understanding the need of the people especially at the grass root level is essential when there is climate change taking place all around us. Other social issues like less income from agriculture sector or the feeling of low status in practicing traditional agriculture in the rural milieu is diverting the rural youths for urban migration. We need to look at the issue at the micro level. For that we have to focus our attention towards motivating the youths to explore the new technologies available to them for better harvest. Currently, the effort of NITI Aayog and IBM to explore in pilot project, the Precision Agriculture using

Artificial Intelligence is indicative of government effort to mobilize IT driven agriculture for a better tomorrow (PIB2018). Therefore, policy changes at Block Level have to be made for incorporating different experimentation in the field of agriculture while taking advantage of new technology available around us with the aid of Information Technology.

Cultural environment in India related to agricultural activities

India has a rich legacy of celebrating agricultural traditions through their age-old fairs and festivals in different parts of the country. For instance, *Makar Sankranti/ Pongal/Uttarayan/Lohri/Poush Parban/Bhogali Bihu* etc are harvest festivals in different regions of India. Sometimes, different events of agriculture are also celebrated to foster "we feelings" among members of communities, like the *Akshaya Tritiya*. In a state like Odisha after ceremonial rituals farmers start broadcasting rice seeds in the paddy field as it is an auspicious occasion to start the cultivation activities. Interestingly, Gujarat government has also started most of their agricultural administrative exercise from *Akshaya Tritiya* (Nene 2012). Government of Odisha also takes certain initiatives to make the farmers aware about the need to continue these age-old traditions. The significance of such activities can make us to learn from our age-old cultural practices that we practiced with our environment linked cultural events for time immemorial. The emphasis upon such cultural practices is to highlight the cultural continuity of agricultural tradition in India and to explore the possibility of understanding such activities in a scientific way to prove the importance of such practices among the new generation tuned to scientific reasoning.Epstein (1962) narrates how with more earning women from farming communities are confined to their houses in Mandya district in Karnataka. Among the farming communities, women and children also played a crucial role in agricultural activities.

Prevailing social conditions in rural India

In India, vast segment of rural labor force is engaged in agriculture of whom, a significant proportion belongs to landless laborers or marginal farmer's category. But with populist welfare measures like providing rice through public distribution system for BPL cardholders or distributing free rice in some states has created a peculiar social situation. The state of Tamil Nadu known for its innovative populist welfare measures now faces the wrath of Madras High Court wherein the court observes that free rice has made people of Tamil Nadu lazy. It further states "consequently, people began to expect everything for free from government. As a result, they have become lazy, and migrant workers were being brought for menial works"(PTI 2018). With food security via institutional mechanism the landless laborers or share croppers have been empowered and thus take up agricultural activities by demanding either higher daily wage or a higher stake in their favour

in share cropping pattern. The age-old social network is under challenge. The land holders in the rural area resist the changing tariff as the return from agriculture is miniscule. To overcome this, adapting to mechanization of agriculture is done by those who do not work in farms by themselves. In states like Odisha, where a good chunk of population migrates to Gujarat, Tamil Nadu, Andhra Pradesh etc. migrant labour force from neighboring West Bengal offer their services to the small and large farmers on contract basis. Villagers feel happy due to less hassle of persuading their co-villagers for such work. Jatav and Chakraborty (2019), with their research in Telangana narrates that non-farm base of rural economy is so poor that it cannot generate enough income for rural household. Thus, in rural scenario it creates fewer opportunities for landless people. Many a time such victims migrate to urban areas or to other states in search of better opportunity.

Changing socio-economic and political scenario as well as the climatic conditions across states in India plays an important role in dissuading the youth from agricultural activities. So improper planning will adversely have its impact, no matter what the policies are. Many national political parties in India have a close nexus with business communities or traders dealing with agricultural products or its byproducts. So the price fluctuations and even lower farm gate prices of agricultural products is mostly linked to this nexus. In the recent past the sudden price rise of pulses has compelled the government to import it as the government wanted to snub those involved in hoarding agricultural products. Also government has signed an MOU with Mozambique for production and supply of pulses (PIB 2019).Similarly India is importing oil worth of Rs.60,000 crores to meet the nation's demand. Even wheat which India imports without custom duty is surplus in India. Academicians have expressed their opinion about nation's food security and the architect of Green Revolution Professor M.S. Swaminathan has stated sometime ago that import of food grains is nothing less than importing unemployment (Singh and Jitendra 2018). The import trend for fruits and vegetables are also passing through similar situation. The quality of food being consumed by the people in India today is not known to many. The only concern of government is to keep the inflation low. We are not giving importance to our own food security and thereby promoting slow disaster. Until we create an appropriate social environment no sensible atmosphere is possible.

With advanced communication the rural areas are also benefited. These benefits can be better translated into action if we plan to sensitize them on issues that can improve their socio-economic condition, health, literacy and agricultural practices etc, both at macro and micro levels. It is the electronic and digital communication technology which has a strong influence in the mindset of rural youth especially after the television boom of 80s and the subsequent smart phone revolution in the recent past. The contents of the programs that are telecast and issues that are promoted in the digital platforms are more urban oriented and hence, the youth are inclined towards urban life. Though many developmental initiatives have

been implemented by the government through Panchayati Raj system, it is not alluring the youth. So the first preferred choice of youth in rural India in the contemporary society after having formal education (at least till High School) is to migrate towards urban area. Most of the youths feel that they should strive to get a job at the nearby urban locale or even beyond. Since the scope to get a better opportunity is very rare or minuscule in rural areas, they are compelled to migrate to urban areas to undertake jobs in the informal sectors and if they are lucky they may get some jobs in some formal sectors but then the quest to have an urban life is vibrant among the youth and thus they get attracted towards it without giving much importance to the quality of life in the urban space. Thus, they are creating a vacuum in the rural areas towards next generation agricultural activities or any other entrepreneurial activities. Due to the out migration of rural youth, there is a challenge to social equilibrium at the village level. Those who have followed the traditional agricultural practices are now facing multiple problems. Incidentally, over the past few years following the restructuring of the Planning Commission into NITI Aayog in 2015, there have been some efforts by the national government to actualize the important goal of cooperative federalism (NITI Aayog 2017) but then the basic question of development remains a challenge to the policy makers and planners alike. Therefore, in what follows, we suggest few steps that may be initiated to attract the rural youths towards agriculture in India.

(a) Attaching higher social status to the youth in the field of agriculture: It is generally observed that the youth are abstaining away from their agricultural activities in many parts of India especially in the poorer states. There are many reasons behind this. Of course, less income from agriculture along with achieving higher educational level by the youth are definitely a major reason for dissociation from agricultural activities. New innovative methods should be explored to help youth towards exploring the new avenues in agriculture. From every revenue village at least one educated youth can be chosen as volunteer who may be given a name like farmer's friend and he can be trained or given exposure at KVK or the Interpretation Centre on various issues. Since new machinery or gadgets are being introduced volunteers can be trained on plumbing or drip irrigation or any other issues which may be in demand in the field of modern agriculture for proper agricultural activities. These people can be referred with a catchy title like farmers engineer. Youth doing something innovatively could get publicity through the mass media. Electronics and print media can be used to popularize different activities involving youth in the agricultural sectors.

(b) Awards for farmers: Government of India has been giving several awards to farmers to motivate the farmers in the field of agriculture. Some of these popular awards are Pandit Deen Dayal Upadhaya Antyodaya Krishi Puraskar, Haldhar Organic Farmer Award, N.G.Ranga Farmer Award for Diversified Agriculture,

Jagjivan Ram Innovative Farmer Award etc. (ICAR 2019). A good number of the farmers are not aware of these awards due to high rate of illiteracy and ignorance. And then these awards are extremely less in number, spread over twenty climatic zones and with various kinds of fruits, vegetables, cereals, pulses etc. Specific awards may be given in each of such niche for different fruits and vegetables on the basis of appropriate criteria. Sometime it could be the quantum of production or the unique cultivation practice or even organic farming etc. We should at least have a separate research centre to document such activities and promote necessary awards to the farmers. Role of experienced social scientists is essential for success of such programs. Institutionalization of popular awards at district, tehsil levels will motivate farmers towards agriculture.

(c) Publicity in the media: In this context a model adopted by Kerala government is noteworthy. Some years back there was a shortage of personnel involved in plucking of coconut and to treat the plant. As these personnel were reluctant to pluck the coconut, different methods were explored in Kerala. A slogan as Coconut Doctor was proposed. This innovative method was proposed to enhance their social status. This was probably coined for giving them a better social status instead of their traditional name. They were to treat the plant for which some training was given. Similarly, way back in early eighties it was one of the former Directors of IIT Chennai (Prof. P.V. Indiresan) in an interview highlighted the need for promoting or propagating about the technocrats. He was of the opinion that though mass media normally promotes sports and film personalities he emphasized the need to enhance the interest of youths towards scientific research activities. So the youths are to be encouraged to take up innovative agricultural practices. This can be promoted through mass media which can give greater motivation to them to take up agricultural activities . In the internet era we also come across various activities undertaken by students from IIT Delhi (for example a Patna based online platform *DeHaat* is serving the farmers in Bihar, Uttar Pradesh, Odisha and has become a role model) (Kashyap 2019). These instances highlights the immense opportunities in popularization and marketing of agricultural products among the traditional farming community especially amongst the younger generation so that whoever may be interested can adopt this.

(d) Inculcating agricultural practices in school curriculum: Food and Agricultural Organization (FAO 2014) of the United Nations in its report on Youth and Agriculture identifies six major challenges of which the most important challenge identified is insufficient access to knowledge information and education related to agriculture. It feels that women's access to education is important and to incorporate agricultural skills in rural education especially in developing countries should be prioritized. Since primary education has become compulsory and parents are aspiring to educate their children, formal education has become an important component in shaping the world view of every child. So there is a need

to inculcate different issues of agriculture for motivating the children in social science syllabus. Though the contemporary syllabus covers issues such as fairs and festivals closer to agricultural cycles, yet there is scope to explore new areas for such narratives. Issues related to soil health, water conservation, bio-diversity, fertilizer use, pest management, organic farming etc. can be included in the syllabus. School children in the urban area can be taught on cultivation at terraces, need for avenue plantation, importance of organic farming etc. Children in rural areas may be exposed to the need of kitchen garden, salient features of traditional farming etc. Also both urban and rural school children should do some field activities in their school or in the neighborhood of the school so that they can understand the importance of growing plants. School children from urban based schools can go on a picnic to a rural area to see the agricultural practices. Trained volunteers at the village level can expose the children on different issues of agriculture, pisciculture, horticulture etc. They can also visit KVK, Government farmhouses to have a practical knowledge. To motivate and inspire children on agricultural practices, biographical anthropology of those personalities who have influenced the agricultural sector in different ways can be included in the school syllabus. Various technocrats from premium institutions like IIT have chosen agriculture as a means of selecting their profession and have proved that even with limited land one can earn sufficiently if one can use the facilities offered by government while incorporating new technology available in the market. This can transform the quality of life in rural India.

(e) Role of government in uplifting farmer's social status: In the traditional social milieu of India, kings played a crucial role in promoting a community`s social status by different means. After independence such responsibilities automatically lies with the government as the feudatory system has been abolished. In the post independent era the status of the farmer was high and government wanted to boost the morale of the farmers. The former Prime Minister of India Late Shri Lal Bahadur Shastri floated the slogan "*Jai Jawan Jai Kisan"* emphasizing upon the two founding pillars for sustenance of India›s democracy. But with increasing literacy level, rising industrialization and urbanization, unconsciously people started considering agriculture as a last resort for survival in the recent past. Of course, other factors like erratic climatic condition, fluctuating price of agricultural produce and very meager return from farming played a major role in dissuading the younger generation from agricultural practices. And thus, they tried to switch over from agricultural practices to new opportunities in urban setting. An integrated approach of bringing school children to the doorstep of farmers especially nearer to urban area can reduce the pseudo feeling of farmers that their job is inferior. Sometime populist programmes for farmers despite its limitations have enhanced the social status of farmers as both land lords and share croppers have been identified as beneficiaries under developmental programme. For instance, in the KALIA (*Krushak* Assistance

for Livelihood and Income Augmentation) scheme implemented by the Government of Odisha, an effort was initiated towards welfare of farmers. It is projected to help about 92% of the farmers in the State. This program of Government of Odisha prompted most of the land owners to claim themselves as farmers though many conditions were laid down by government machinery. Similar program has been launched by Government of India for the nation and a nominal amount is given as incentives. But what is significant is that it has created a hope for the farmers and the rural folk are happy that government is identifying their problem and thus a positive atmosphere towards farming has developed. There should be serious evaluation of such programs at the grass root level to overcome any hindrances in implementing such programs. Addressing more such innovative programs covering different problem in different parts of India should be prioritized.

INTERPRETATION CENTRE AS A MODEL FOR REBUILDING AGRICULTURAL REVOLUTION

The idea of Interpretation Centre is not new to Indian context. But then it's effective functioning and catering to the needs of farmers is yet to be realized at a larger scale. Government of India's initiative to enhance the number of *Krishi Vignan Kendra* (KVK) in different regions is a welcome step. KVK "Farms Science Centre" has a history of nearly five decades. In 1974 the first KVK was opened at Pondicherry. Today we have 645 KVK in the country spread over 725 districts. Unfortunately, India with 6,40,867 villages (Chandramouli 2011), i.e. with an average of 896 villages are under the coverage of each KVK leading to less effective sensitization. All KVKs are under the jurisdiction of the 11 Agricultural Technology Institutes (ATI). The responsibility entrusted to each of the KVK includes on farm testing (testing of new technologies developed by ICAR institutes at the local level before being transferred to farmers), front line demonstration, capacity building, multi-sector support, advisory services etc. But on examination it can be observed clearly that it is a bureaucratic structure. Different participatory module with involvement of rural youths and agricultural students can be experimented to yield better results. Though such efforts are on paper it is not effectively planned or implemented.

The effort of the government in launching *Vikaspedia* (2019) as online information guide in the month of February 2014 is a milestone in Indian information history. The website was implemented by C-DAC, Hyderabad and is run by Department of Electronics and Information Technology under Ministry of Communication and Information Technology. These information's covers issues such as health, agriculture, education, social welfare and energy and e-governance in different languages is very interesting and challenging. The need to cater 896 villages on an average by a single KVK is a big challenge. Such centers should be at

each block level wherever the block's economy is agriculture based. Researcher now feel that "Farm level estimations of soil health and fertilizer application rates must be paired with information on the recommended use of quantity by crop type"(Veluguri et al 2019) should be captured. But then in the government structure there is no one to convey these ideas to farmer or collect data from grass root level. The need for a dialogue of what is good for a farmer from farmer's point of view needs a platform for a dialogue and guidance. Further the issue of opening interpretation center gains momentum with the government's effort to bring precision agriculture on a pilot basis across 10 aspirational districts in the first phase. This programme is a collaborative initiation of NITI Aayog and IBM using Artificial Intelligence. Similarly, the Ministry of Agriculture and farmer's welfare are going to deploy IBM's precision agriculture. In this attempt, 3 districts have been selected initially which include Nanded district in Maharashtra, Bhopal in Madhya Pradesh and Rajkot district in Gujarat. It may be noted that IBM has developed an advanced Price Forecasting System for the Karnataka Agriculture Price Commission (KAPC). It was first of its kind in India and covered 3 major tomato growing districts which are Kolar, Chikkaballapur and Belgavi.

Tata Coffee is also seeking help of these hi-tech consultancies to get accurate weather forecast, soil moisture and soil temperature information to amplify the agriculture process (Kurian 2019). Now these efforts of government and other agencies are extremely important issues to elevate the farm structure in a big way. So involving the youth of rural areas into this advanced level of farming would be a meaningful exercise as they can accept the new technology faster and continue their age-old profession of agriculture if they wishes so. Further it would give them job opportunity when such opportunity crops up. With effective interpretation centre coming up at district level followed by its opening at block level we can do better management of agriculture. Though farm land in many blocks may be difficult to own, efforts can be made to find large land holder farmers. At block level the work can be taken up on plan module. On examination of success or failure of such programme after 5 years of functioning, next 5 year's project can be implemented. Since the budget for such activity will be a burden for state government matching grants can be given by central government. Now each centre can be asked to create minimal meteorological database for their jurisdiction. Also, the cropping pattern of the region can be documented. The idea of giving Soil Health Card to each farmer in some states can be made mandatory for all categories of land holders throughout the nation. This can be reflected in a database against their *Patta*/land record. Proper documentation of land record with their Soil Health Card result can be uploaded in a special website so that agricultural scientist, bureaucrats and policy makers can utilize the information. Thus, better farmer friendly policy can be developed. To make the programme more people centric youths from the villages can be chosen as volunteers. Also, senior farmers may be identified from the covered villages. Based

on the interest of the identified youth, different responsibilities can be entrusted to them especially in IT related activities or on introduction of new technology in farming sector. They can be trained on generating/ gathering weather information so that they can update the villagers on the issue. For example, today the technology to know the weather condition such as rain or frost can be predicted at an early date, so that this knowledge can be catered to the villagers through the younger generation volunteers by using faster communication medium like WhatsApp. ,Twitter, Instagram etc.

Government can make certain amendments in the educational curriculum of B.Sc. agricultural students. It should be made mandatory for every agriculture student to have a semester spent in such KVK or interpretation centre. With good infrastructure coming up in the campus of KVK both students and farmers can have direct interaction and learn from each other's experience. With new technocrats and technology coming to the agricultural sector intervention in every ecological niche is essential. The recent trend in introducing solar pumps for agricultural purposes or the agritech-app to make farmers more sensitized on different issues or the utilization of e-kiosks being introduced by Ministry of Electronics & Information Technology or the Government of India's zero budget natural farming (Jebaraj 2019) etc. are the new initiatives which have to reach at grass root level. It is to be noted that the Kerala team which won the international award for creative organic farming (because the quarter century old organic farming association was a democratic structure with transparent fund collection and its use) can inspire others (Jayarajan 2019). Also, this association disseminates their ability through organic farming courses. Therefore, these interpretation centres should motivate the farmers on various issues taking place in different nook and corners of India. The narratives of how a Bhuj man transforms 40 acres of barren sands into orchards for exotic fruits and dates (Aranha 2019) or the effort of a Rajasthan woman growing pomegranates and apples on barren land of Sikar district (Katoch 2019) or the efforts of ex-investment banker experimenting to earn lakhs of rupees through export of residue free fruits (Raja 2019) etc. can stimulate the mindset of even an illiterate farmer. So creating a platform to understand the changes happening in the field of agriculture or discussion on an important agricultural issue or guidance on specific agricultural issue can be better addressed in an organized Interpretation centre in a techno-friendly market linked politically non motivated eco-friendly cultural environment.

CONCLUDING OBSERVATIONS

Singh and Kaur (2019) opines that "The three actors- namely the state, the market and the society work together for a nation's economic and social progress despite their conflict and competition and diversity of their orientation----". So, for successful performance of agriculture though the state and the market have a crucial

role yet the responsibility to motivate the qualified youngsters lies with the state and the society. In a free economy where money plays a crucial role, implementation of agricultural programs has to be holistic. In a diverse country like ours certain climatic or ecological zones have certain specific features and thus an integrated approach can be taken up at the grass root level for successful implementation of any program. The effort of the government in creating *KrishiVigyan Kendra* in almost every district is praiseworthy. Both Central and State government needs to encourage and enhance such centre. The real utility of such centre can only take place when three major players namely the Central government machinery, State government machinery and the farmers go hand in hand. Without this we cannot meet the expected result. And what is important is its audit by social scientist to decipher its functioning. These centre's should adapt people centric approach in collaboration with trained scientific fraternity. For instance, we recommend that the KVKs may be encouraged to establish an organic link with the local areas (Panchayats/ villages) through the Krishi Bhawans and in each area, selected youth representatives (male, female or both) should be the custodians of the local agricultural management activities.

When government machinery fails to do it, interested civil society organizations can assume the responsibility either single handedly or in collaboration with the state agencies/ KVKs or Krishi Bhawans. It is also important that the political leaders and the local administrators need to know the hardship of agricultural activities and thus enact policies that can help the farmer, with a proactive approach towards skilling or empowering the rural youth (especially, women) in activities related to agriculture, agro-processing, value added farm business operations, etc. It may be noted that policies should not be populist and welfare oriented but need based. Therefore, the public expenditure on agriculture has to be taken with care and caution. Investment on socio economic development of rural sector lies with the state. Agriculture in India is under state list from the time of British Raj. This was done by Britisher's as they felt that agriculture, health and education can be better handled by elected representatives. And in the new constitution of independent India agriculture continued to be in the state list. So, each state is supposed to handle all the issues related to agriculture. In a diverse ecological environment of India different regions have different problems related to agriculture: some related to setting the farm prices right, or some related to designing responsive policies and institutions, or some related to creating dynamic institutional environments or some related to managing (adapting or mitigating) the vagaries of climate change. For instance, while some regions experience too much rain other regions continue to be drought-prone for years together. Exploitation by money lenders, fluctuating price of fertilizers, pesticides are added to the agony of the farmers. Further the shift from traditional crop to cash crop has aggravated the social problems in rural India. So multiple challenges are to be encountered in different regions.

Government aided planning and programme implementation would be a major

player in this attempt. But then many government plans and programme's are not achieving the expected results. Political will crisscrossing party line can amend the constitution and bring agriculture in the fold of concurrent list so that many a plans and programmes can be worked by both Central and State agencies together in most effective way. This is notwithstanding the fact that currently many rural development interventions and agriculture development programmes are being implemented in India as convergence schemes where both the state/ local governments implement the programmes sponsored by the national government. Further, the Government of India initiated through a Statement of Intent between NITI Aayog and IBM to develop a crop yield prediction model using Artificial Intelligence and then implementing for 10 aspirational districts in the states of Assam, Bihar, Jharkhand, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh only speak of the level technology which are going to be incorporated through the scheme in the rural area. In the project incorporating the available climate-aware cognitive farming technique, identifying the system of crop monitoring, early warning on pest/disease outbreak based on advanced AI innovations are going to be introduced. Also, the scheme will deploy weather advisory, rich satellite and enhanced weather forecast information along with IT and mobile applications. This is being done to develop better crop yield. Now the question is for whom these programmes are meant for when they get implemented ? , Are they targeted to be implemented by the elderly farmers? Or the women farmers? Or the youth, who are least interested in farming operations? Ironically, many of these new schemes being proposed/ implemented by the national and state governments in convergence, tend to carry the tags of being 'climate smart', technology savvy, digital technology-friendly, etc. The farmers who are middle aged or above, may not be able to adapt to the hi-tech data or use their services. It is only the youth who could be able to accept and carry out the intervention in agricultural practices. And to carry out these activities establishing the interpretation centre at the block level is essential.

Earlier, agriculture was culture driven but now government machinery makes its plans and programmes as technology driven, say Internet of Technologies (IoT) or Artificial Intelligence (AI) practices. Therefore, to make farming more sustainable a vibrant interpretation centre at every block level is essential not because farmers are struggling against many threats, but will improve their socio-economic environment and creating a technology driven cultural network of farmers (through WhatsApp, Facebook, YouTube etc.). To make the agrarian transformation a smooth process of transition rather than abrupt or disruptive one, it is very important that the rural youth should be the frontrunners who should also be the torchbearers of the legacy of the age-old agrarian tradition so as to make farming operations as a dynamic and sustainable activity while maintaining a judicious balance between food, energy, water and nutritional securities.

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