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Issues and Challenges of Agricultural Development in India

Dr. Anil Kumar Yadav

Associate Professor- Economics, B.S.R. Govt. Arts College, Alwar, Rajasthan, India

ABSTRACT: Despite the rapid expansion of the corporate sector and industries, our country is still agrarian. About half of the country's population depends either completely or to a large extent on agriculture in one form or the other for their livelihood. These diverse activities are either in the form of growing agricultural crops, horticulture, animal husbandry, or in the form of allied occupations such as pisciculture. With low levels of infrastructure and human development, and an environment full of inequalities and uncertainties, rural India looks at changes in the world of tomorrow, sometimes with hope and sometimes with concern. In any case, expansion of income opportunities in the agriculture sector is the biggest and most powerful means of reducing poverty. Not only this, there is a lot of potential for income from the non-agriculture sector in rural areas as a large part of it is linked to agricultural activities. These include many post-harvest operations and many maintenance activities for farm equipment. In this way: The expansion of economic activities related to agriculture becomes a cycle of linking with income from non-agricultural activities in rural areas. Highlighting all these in this article, I have tried to underline the major challenges of India's agriculture and rural development.

KEYWORDS: Climate Change, Economic Development, Agricultural, Challenges, Rural Development, Five-Year Plans, Women Farmers.

I.INTRODUCTION

Mahatma Gandhi said that the path to complete Swaraj of India goes through Gram Swaraj. Addressing students eager to serve rural India, he once said that “the reality is that the villagers have no hope. They suspect every stranger that his hand will reach their throat and whoever comes, comes only to exploit them.”¹ There has been a separation between the intellectuals and the workers, due to which farming has become like a lumpen. An activist should go to the villages with love and hope, thinking that their men and women agricultural laborers are not employed for the whole year. Their trust can be won only by working there throughout the year and working by pooling manpower and intelligence. That's why it is necessary to bring intellect and labor together for the sustainable development of the rural and agricultural sector in India.²

Article:

Over the years, rural income has increased and poverty in villages has decreased. But the income gap between urban and rural people has widened. The reason is that the expansion of agriculture has been slow as compared to other sectors and employment opportunities in the non-agriculture sector have not increased enough to reduce the population's dependence on agriculture. The productivity gains of the Green Revolution had come to a halt by the end of the Eighth Plan. The result was that the per capita food grain production declined thereafter. Agriculture expanded into horticulture, animal husbandry and non-food crops, but the GDP of agriculture itself grew by an average of only 1.9 percent from 1997–1998 to 2004–2005. The rate of growth of income from agriculture further declined because the terms of trade were unfavorable to agriculture during this period. All this was indicative of insufficient demand and lack of purchasing power of the villagers. The ray of hope began to fade as agricultural debt increased in comparison to agricultural income. Its culmination was seen in the increase in the number of farmers' suicides.³

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Agrarian distress in the country, especially in rain-fed areas, was confirmed by the assessment of the condition of farmers by the National Sample Survey in 2003 and the mid-term assessment of the Tenth Plan in 2004. The National Development Council formed a sub-committee in 2005 to look into the situation in agriculture and the Eleventh Plan was formulated based on inputs from the National Commission for Farmers and the Planning Commission.⁴ The National Development Council convened a special meeting for the first time in 2007 to consider the agriculture sector alone. It deliberated on the Eleventh Plan strategy for the sector and passed a resolution on the subject. What emerged from the deliberations was that apart from pressure on natural resources and lack of rural infrastructure, weak technology, delayed availability of money for credit and laxity in extension and marketing services were evident.⁵ In the Eleventh Plan, an attempt has been made to remove the shortcomings in the pace of agricultural development which were seen in the Ninth Plan. This phase of decline continued during the Tenth Plan as well. But in later years, there was a remarkable improvement in it. The production of food grains reached a peak of 241.6 million tonnes in 2010-11. Along with wheat, records have also been set in the production of pulses, oilseeds and cotton. In the last quarter of 2010-11, total agricultural production registered an impressive growth rate of 7.5 per cent. The result was that this year's GDP increased by 6.6 percent. Along with this, the growth rate of agriculture became 3.2 percent in the five-year plan. All this was possible when shortly before this, drought, unseasonal rains, severe floods and adverse weather like frost had to be faced. During the Tenth Plan, the growth rate of agriculture came down to 2.2 per cent.⁶ The Government of India has passed the National Food Security Bill in the Parliament, which aims to make food a legal right for all. During the last decade, the right attitude has been adopted in the matter of vital human needs. For example, currently there are rights to education, employment, information and land (for scheduled tribes and other traditional forest dwellers). When there is a legal entitlement, then the right to food is the most important law in Indian democracy.⁴

The important thing is that in the 12th Five Year Plan period, we have to learn how to provide these services in relation to the many needs of human life like drinking water, sanitation, hygiene and cleanliness of the environment. If we do not learn this, then the infamy of our country will remain as it was. For this, both the issues of good governance and eligibility have to be worked together.⁵

II.MAJOR ISSUES

A disturbing aspect of the rural economy is the rising indebtedness of farm households, according to data from the National Sample Survey Organisation, in May 2005. 48.6 percent of farm households in the country were in debt and most of them were in the clutches of moneylenders. Majority of the borrower households (82%) reside in Andhra Pradesh. The second number is from Tamil Nadu, where 74.5 percent farmer families are said to be indebted. The percentage of loanee farmers is also 65.4 in the irrigated land state of Punjab. In Maharashtra, where farmers' suicides are often reported due to debt, 54.8 percent of farmers are in debt and Vidarbha region has the highest number of them. The success of farmers largely depends on the monsoon and the market. The result of climate change is coming in the form of warming of the earth. In such a situation, it is necessary that we develop a climate-resilient agriculture system. The help of Panchayati Raj Institution can be taken in this work. For this, community managers can be trained to respond to climate change threats, who can help local communities when needed.³ The dangers of climate change can manifest themselves in the form of a rise in temperature or sea level. A large number of people live by the sea in places other than the Kerala coast. We should be ready to rehabilitate them if the need arises. These would be called climate refugees, because these are the people who have to leave their homes and settle on the mainland.²

Price volatility plays an important role in increasing household food insecurity. It is unfortunate that food inflation has remained high for a long time. That's why we have to make a national mission to control food inflation. The mission may have the following components –

It is also very important to understand the relationship between public policies and value addition. For example, 80 percent of the cost of a liter of milk is in the form of animal feed and fodder. Unfortunately, the land available for pasture is dwindling and farmers are unable to pay enough attention to fodder production. Apart from this, nutrients

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like soyabean are being exported. On the other hand, it has become difficult to provide adequate nutritious food to about 10 lakh cattle. There is a need to review the export of animal feed, especially nutritional supplements.¹

Identification of drivers of food inflation – eg expenditure on vegetables, pulses, milk, eggs, meat etc. A casual attitude will not help in this matter. That is why we need to look at the components of price rise separately. At the same time, it is also necessary that we identify those commodities for which there is an imbalance between supply and demand, due to which the prices increase in a particular season. Such profiling will make it easier to identify and control inflationary trends. Controlling rising prices are important components of the National Horticulture Mission, National Food Security Mission, National Agriculture Development Scheme and 60,000 Pulses Villages programme.

There is a need to set up a national network of storage facilities to handle food grains and perishable commodities. In 1979, A program was started to build godowns in rural areas. These godowns were designed in such a way that farmers in large have to their dismay that technology is not being given enough attention in India to harvest the crop. As a result of this, the basic facilities which are used for production and post-harvest work are not being developed, due to which both the quantity and quality of cereals, fruits and vegetables are suffering. No attention is being paid to standards for food safety. The number of existing Krishi Vigyan Kendras should be increased so that farmers can be trained in various areas of food processing, value addition and agribusiness. Only after doing this, Krishi Vigyan Kendras can be converted into Krishi Udyog Vigyan Kendras.²

III. ROAD MAP FOR AGRICULTURAL PROGRESS

Technology is the major driver of change. We have already looked at this in the context of gene shortening of wheat and rice. We have also seen the benefits of mobile telephony in the context of small-scale farming and fisheries. We are now entering an era of uncertainty and weather extremes. We have to bridge the gap between scientific information and information useful to farmers.³ Till now the farmers have been facing many challenges and the information they get. That's not enough. Now the environment of rural technology has changed and many private businessmen have also come in this field. Seed, pesticide and fertilizer companies also provide advice and information to farmers. Sometimes even the moneylenders, who supply them with other essentials, act as extension specialists. That's why nowadays chemicals are being used unscientific and excessive, which increases the cost and harms the environment.⁴

Due to government policies like free supply of electricity, there is excessive exploitation of ground water due to which the ground water level is going down in Punjab and other areas. Thanks to technology, the main Green Revolution in the 60s was successful. The technology is yet to be developed to meet the needs of the specific rural environment. At present scientists are engaged in developing specific technology for a particular area. Farmers will also have to be involved in the research work to develop sustainable and location specific technology. This is not happening now. M / s. Scientists from the Swaminathan Research Foundation are working closely with tribals in the Koraput region of Odisha.⁵

In Kelpeta in Kerala too, he worked with tribal women and men to develop improved varieties of rice that can adapt to changing climates and can be used locally. By doing joint research in this way, best varieties of paddy like Kalinga Kala Jeera could be prepared. The real benefits of technology development for agro-industries are yet to come. In 1992, I proposed to form the Small Farmers Agribusiness Association. Through this, the power of small-scale producers was to be used in the economy. The then Prime Minister himself, Narasimha Rao and Dr. Manmohan Singh (then Finance Minister) appreciated it.⁶

The fact is that in 1992, Dr. Manmohan Singh had also announced the formation of such an association so that the benefits of agro-industries could reach the small farmers. Such unions exist even now, but no resources are reaching the poor farmers through them. Wherever subsidies are given by the government on a large scale, companies are able to sell their products there. In this context, the example of drip irrigation can be given. The benefits of extension services in agriculture should come to the fore in such a way that people see and behave in the same way and in this way new

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technology can be spread. Farmers should learn from farmers, there should be organized efforts for this. This work can be done by setting up agricultural schools.⁶

The benefits of mobile phones are becoming visible in the fields of weather and marketing. Due to these, small farmers also get necessary information. Similarly, fishermen going to sea in Tamil Nadu also get information while still at sea. Such technology is also being promoted in Andhra Pradesh, Odisha and West Bengal.

During the last three and a half decades, special success has been achieved in the milk production sector. Due to which we have become the largest milk producing country in the world. Simultaneously, our efforts are on to introduce GM technology in wheat and rice, cotton. However, we have not been successful in driving public policy and post-harvest technology investments, and have failed to create infrastructure, particularly in the areas of grain storage and handling of perishable commodities. Apart from this, the availability of credit and special facilities in rural areas has also decreased, which is now being improved.⁵

One thing is urgently needed in the human resource development sector of the Indian Council of Agricultural Research. That is, to fill the vacancies of a large number of scientists running out there. There is a need to create a special North East cadre in agricultural research development. The National Agricultural Research Academy at Hyderabad should be developed on the lines of an apex training institute, as has been done for the National Defense Academy, New Delhi. This will improve the management of agricultural universities and agricultural research institutes. The Agricultural Research Academy of Hyderabad should not be left as a mere degree awarding university.⁴

The challenges in the next decade will be largely in the areas of environmental science, economics and technology. From the point of view of the environment, we have to prepare to deal with bad changes. In economics, we should be prepared to face distortions in the cost-risk-reward structure of agriculture as the younger generation of villages are not willing to stay back and engage in farming business. More than 50 percent of our population is under the age of 35. Therefore, keeping the youth engaged in farming can be the biggest challenge. We all can solve this problem when we make farming a rational, motivating and economically profitable business. For this, we have to technologically upgrade the production and post-harvest operations.³

Climate change has triggered uncertainty in the international grain market. This is the reason why if grains have to be imported, we will not be able to make access to grains a legal right for all. Indigenous food production should be the basis of our food security. This is necessary because agriculture cannot be understood as a grain producing machine. This is the security system for the livelihood of more than 60 percent people of the country. This is the reason that if agriculture goes awry, there is no chance of any recovery in the economy. Many sources of income should be available to small farmers.²

For this, it is necessary that research programs should be run in the rural economy, in which employment should be included in agriculture and non-agriculture work at the same time. The victory of our farmers is small, so it will not be enough for them to depend on only one source of income. This is also because about 60 percent of our agricultural land is irrigated by rain. Similarly, in the coastal areas, we need to run a coastal system research program, under which we will need to pay attention to both the land and the sea of the coastal areas. We have to start a movement of sea water irrigated farming in coastal areas and develop varieties that can tolerate salt water. In coastal areas, such farms can be developed on environmental and economic grounds, which will protect the livelihood of the local residents and at the same time improve the environment of the coastal areas.¹

IV. CHALLENGES FOR EMPOWERMENT OF WOMEN FARMERS

Women make up 50 percent of the Indian farming population and 60 percent of child labor working in the fields are women. The contribution of women in agriculture is increasing, due to which the migration of male population towards cities is decreasing and attention is being given to the needs of women farmers. Keeping in mind their health and

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development in the future, it is necessary to pay attention to their food security in areas where climate change is taking place. Mahila Kisan Sashaktikaran Yojana was launched during 2010-11 which should be expanded so that women farmers can be given public attention and their needs of land, water, technology, credit facilities, insurance and marketing can be met. It would be useful in the 12th Plan to set up a Central Agricultural Company for women farmers, which would focus on proper training, capacity building and marketing facilities for women farmers, old age pension etc. During the Sixth Five Year Plan (1980-85), we started the first chapter of women's development. Now the time has come when we have to pay attention to the needs of women farmers because farming is the biggest occupation in which women of our country.¹

Today there are many opportunities before us through which we can make farms a major source of economic development through proper technologies, services and public policies. The successful Green Revolution in the 1960s was a combination of scientific ingenuity, political will and the enthusiasm of farmers. It is unfortunate that today most of the farmers are ready to give up their business if they get some alternative livelihood. Similarly, the children of farmers do not aspire to work in the fields. Now the time has come when we can make farming more meaningful by adopting Gandhi's advice of mobilizing technology and manpower in rural areas.⁶

V.CONCLUSION AND SUGGESTIONS

Mahatma Gandhi had emphasized on pooling of intellect and labor so that the villages could be re-developed. For example, we can extract maximum benefit from the 'Mahatma Gandhi National Rural Employment Guarantee Act-MGNREGA' by reorganizing and combining it and making it the largest social assistance program in the world. Efforts will have to be made in this direction in this way. The concept of labor should be expanded, so that in the context of women, agriculture, kindergartens and mid-day meals in schools can be included in it. Various programs related to laborers should be coordinated and along with this, a technical assistance association should be established in each district so that intelligence and labor can be brought together. Labor should be respected and workers should be helped, so that people feel proud to receive awards like Paryavaran Mitra, as well as recognize the good work done by Mahatma Gandhi NREGA teams and through them watershed development, rainwater harvesting, Soil-carbon banks can be created through conservation and plant fertilizers.⁵

A program of more than 100 days of employment should be started, under which water bodies should be converted into bio-industrial water bodies, so that micro enterprises would get opportunities to run and they should be helped by giving small loans. In this way, agricultural and non-agricultural labor opportunities should be coordinated. This will help skilled and unskilled workers. If the Mahatma Gandhi National Rural Employment Guarantee Act program is organized and implemented effectively, the MGNREGA program can indeed become a powerful tool for mobilizing labor and intelligence. And this program can write a new chapter in the development of the rural and agriculture sector.⁶

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