



WORLD FOOD SECURITY CHALLENGES AND FUTURE OF INDIA

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ABSTRACT

A realizable 'Right to food' is integral to a dignified humane existence guaranteed under the Right to life enshrined under Article 21 of the Constitution of India. Towards this end, we have the National Food Security Act 2013, with the goal of providing food grains at subsidized prices to the majority of our people. The enactment of right to food legislation is a watershed moment indicative of the State ideology that views food security as a matter of right and not a dole. Contemporary times are harsh for humankind where the pandemic is far from over and mankind finds itself in the midst of a war that has implications for all of us. Food crisis is looming large over the world and this has the potential of escalating into the worst humanitarian crisis the world has witnessed post world war two. India being the world's second largest agriculture producer and with one of the highest fertile land in the world, has capacity to feed the entire human populace. But, that requires strategic planning and qualitative as well as quantitative reforms in the agrarian sector.

I. INTRODUCTION

The world is developing on the ill-defined parameters of development and we may have to pay a hefty price for this in the coming years. The world could not get over of Covid crisis and then suddenly entered another manmade disaster in the form of Ukraine crisis. This is going to create a serious threat to global food security. Our faulty development model has shaken the fundamentals of environment which is reflecting in the form of several natural disasters liking rising floods, famines and lowering productivity of soil.

According to António Guterres, Secretary-General of the United Nations- "When war is waged, people go hungry. sixty per cent of the world's undernourished people live in areas affected by conflict. In 2021, most of the 140 million people suffering acute hunger lived in just 10 countries: Afghanistan, Democratic Republic of the Congo, Ethiopia, Haiti, Nigeria, Pakistan, South Sudan, Sudan, Syria and Yemen. When this Council debates conflict, you debate hunger, and when you fail to reach consensus, hungry people pay a high price¹."

He further said that- "Shortages of grain and fertiliser caused by the war, warming temperatures and pandemic-driven supply problems threaten to tip tens of millions of people

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¹'Lack of Grain Exports Driving Global Hunger to Famine Levels, as War in Ukraine Continues, Speakers Warn Security Council' available at: <https://www.un.org/press/en/2022/sc14894.doc.htm>

over the edge into food insecurity, as financial markets saw share prices fall heavily again on fears of inflation and a worldwide recession”.²

Ukraine crisis has added heavy fuel in this disastrous global situation. Ukraine is known as the world’s bread basket for its 10% contribution in global wheat export.³ This Russia – Ukraine war may affect supply of food heavily to the entire world. In this article we will discuss the challenges of food security before the world.

II. FOOD SECURITY

Food security has a very broad meaning. It includes not only access to food for all but also includes sufficient and nutritious food.

According to the definition given by United Nation’s Committee on the World Food Security- Food security means- all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life⁴.

In order to guarantee food security, it is also necessary that producers of food must be able to earn decent living wages⁵. There is a close nexus between Food security and food supply. Without ensuring food supply food security cannot be ensured. Production of food, its processing, distribution and then consumption are the four components of food system⁶.

Here the meaning of availability of food is ensuring smooth and timely availability of safe and nutritious food. Similarly access to food includes capacity to barter goods for food. Other social mechanism and government schemes are also considered as part of access to food. Food security also demands effect utilization of food through proper storage for the purpose of protection from spoilage and diseases. Ill management of food may hit the goal of global food security. Stability is the another component food security. It ensures stable availability and accessibility of food rather than a passing phase susceptible to uncertainties.

²Ukraine war has stoked global food crisis that could last years’ *available at*: <https://www.theguardian.com/world/2022/may/19/ukraine-war-has-stoked-global-food-crisis-that-could-last-years-says-un>.

³Ukraine Says May Grain Exports Down More Than 60% Compared To 2021 In Latest Alarming Sign Of International Food Crisis’ *available at*: <https://www.forbes.com/sites/dereksaul/2022/05/19/ukraine-says-may-grain-exports-down-more-than-60-compared-to-2021-in-latest-alarming-sign-of-international-food-crisis/?sh=5089c48a2cc6>.

⁴Food Security’ *available at*: <https://www.ifpri.org/topic/food-security#:~:text=Food%20security%2C%20as%20defined%20by,an%20active%20and%20healthy%20life>.

⁵What is Food Security?’ *Available at*: <https://www.resilience.org/stories/2015-01-09/what-is-food-security/>

⁶Food Systems: Environments, Production, Distribution, and Household Utilization of Food’ *available at*: <https://www.e-education.psu.edu/geog3/node/1032>

There are three more components which deals with challenges of food security and they are Production, Distribution and Exchange. Here the meaning of production is what types of food we are producing and storing locally. Distribution deals with the physical movement of food stuff and meaning of exchange is how much food could is available via the different exchange mechanisms or through purchase.

Mere availability is not sufficient to deal with food security but the food should also be available at affordable prices. Food production cost should also be affordable to attract people towards food production. Recently we have seen the example of Sri Lanka where the people were not able to purchase food due to high inflation and thus sky rocketing prices.

Food security also includes allocation of food in a particular household as per need like based upon their age, gender, requirement etc. Food according to the social, religious and cultural norms of a particular community should also be available like vegan diets for those who prefer it. In ensuring the food security metabolism and health condition of the consumer and nutritional value of the consumed food is equally important.

The opposite of food security is food insecurity which may sustain for short term, mid- term and long term. It happens when monetary or other considerations compel a change in qualitative or quantitative eating habits. Broadly it can be categorized into three parts-

- i. Chronic food insecurity- when food insecurity sustains for long term and in persistent condition then it is called as Chronic Food Insecurity. It happens when a population finds it unable to meet its minimum food consumption requirements for a long time like six months, a year or longer.
- ii. Transitory food insecurity- It is a short term or temporary food crisis. It happens in case of sudden drop of food producing ability or in accessing sufficient food for a healthy nutritional status. For eg. after flood, draught or conflict.
- iii. Seasonal food insecurity- It reoccurs predictably following the pattern of seasonal cycle.

Though there is no single tool to measure food insecurity but The Food Agricultural Organization has created a Food Insecurity Experience Scale. This scale seeks answers to the following eight queries

“During the last 12 months, was there a time when, because of lack of money or other resources:

- i. You were worried you would not have enough food to eat?
- ii. You were unable to eat healthy and nutritious food?

- iii. You ate only a few kinds of foods?
- iv. You had to skip a meal?
- v. You ate less than you thought you should?
- vi. Your household ran out of food?
- vii. You were hungry but did not eat?
- viii. You went without eating for a whole day?”⁷

Food Security & Sustainable Food Systems

The meaning of sustainable food system is the consistent assurance of food supply for the current as well as for the future generations. For example, if today food requirements of 7 billion people should be fulfilled then tomorrow if the population rises up to 10 billion then that should also be fulfilled. Thus, a sustainable food system ensures that there is no scarcity of nutritious food for the current and future generations. Agriculture has sufficient capacity to involve a great proportion of population in agriculture work which may result into mitigating or reducing significant amount of global emission.

As per a recent research of University of Minnesota and Oxford University a plant-based diet is more environment friendly. Findings of this research revealed some shocking data which proves that “red meat was 35 times more damaging to the environment than a bowl of vegetables. The study also suggests that only those foods which are healthier for human beings are healthier for environment. It also takes 100 times the amount of land as consuming vegetables”⁸. Thus agriculture has immense potential to be an important part of mitigation by reducing Green House gases.

Thus to ensure food security we need a healthy and sustainable food system which includes inter-alia “environmental health, economic vitality, human health and social equity”⁹.

Environmental Health – It is the most important part of sustainable food security which ensures that land, air and water should not be compromised for the food production and procurement. It should be saved to save the future of coming generations.

Economic Vitality – Those who are involved into food production must definitely earn a decent earning. This will encourage the producer to remain in food production.

⁷ <https://www.fao.org/in-action/voices-of-the-hungry/fies/en/>

⁸ ‘Study Finds Environmental Impact of Meat Versus Vegetables is Staggering’ available at: <https://www.onegreenplanet.org/environment/study-environmental-impact-meat-vs-veggies-staggering/>

⁹ ‘Sustainable food systems, Concept and framework’ available at: <https://www.fao.org/3/ca2079en/CA2079EN.pdf>

Human Health & Social Equity – It must be ensured that people have access to healthy food at reasonable prices and without compromising on their human dignity.

III. FUTURE OF FOOD SECURITY

As per an estimation by 2050 two billion more people will be added in world's population with a new rising demand of food security. The demand of food is predicted to rise by 56% over and above the demand of 2010. There will be a lots of pressure to increase food demand globally. It will put a considerable pressure on the fragile environment of earth.

Though United Nation has kept eradication of hunger, achievement of food security and nutritional augmentations as one of its most important sustainable development goal for 2030 but the reality is that since 2014 number of hungry people has been steadily rising. So achieving the goal seems quite difficult. As of now 768 million people are living in hunger. Ukraine crisis, Covid-19 and extreme weather creates more urgency for a positive infrastructure which nourishes and feeds everyone.

Realizing the urgency of food security, world leaders explored the connected threats to the regional and country food systems, which are already under pressure to navigate complex transition and highlighted the key areas that deserved attention during the Opening Plenary for the 'Bold Actions for Food' event, as follows:

“•Global outlook for 2022; Rising food insecurity and market volatility

- Enabling countries to take on integrated transitions across food, nature and health
- Unlocking policy, innovation and finance levers to scale solutions.”¹⁰

The World Economic Forum also had to discuss the climate crisis¹¹. Five key areas of discussion were holistic objective approach for food security, short term and long term goals to ensure inclusive sustainable food security, humanitarian assistance to the countries suffering from food insecurity and to ensure supply chain model to curb the pressure.

World food crisis is predictably the worst humanitarian crisis in the coming years after world war two. On the parameters of economic indications there are 40 nations which are suffering from political unrest like Sri Lanka, Peru, Indonesia, Afghanistan, Pakistan etc. The problem will be related not only with rising food prices but price and availability of fertilizer as well, resulting in lack of production.

¹⁰Food Systems 2022: Outlook' available at: <https://www.weforum.org/agenda/2022/02/food-systems-2022-outlook/>

¹¹ <https://www.weforum.org/>

Erratic environmental behavior like drought or flood will lead to chronic hunger of 810 million people. 43 Countries will face extreme trouble due to famine destabilization and mass migration. Africa would be one of the most badly hit continent. World need to think seriously to solve the problem of arriving food crisis. Agriculture sector needs a bigger attention and much bigger investment.¹²

Presently Europe countries are facing record inflation. According to U S Secretary of State Antony Blinken and UN chief Antonio Guterres the crisis of food may extend for decades if it is allowed to go unchecked. To find emergency food assistance to meet global humanitarian crisis US has pledged an additional \$215 million, while World Bank has pitched in with an additional \$ 12 billion funding to control the effect of global food crisis.¹³

According to India developing creative solution of the problem is the need of hour. Dealing with the issue of hoarding and equality during distribution of humanitarian assistance was also cautioned. According to India open market must not lead to promote discrimination. We should remember that Indian Prime Minister Mr.Narendra Modi promised to fulfill the need of wheat for the entire world but subsequently banned wheat export in the face of falling production due to heat waves. According to the United Nations in 2021 severe food crisis affected 246 million people while pre pandemic food insecurity affected 135 million populations. This crisis was further pushed higher by climate change.

Thus food security is a big global challenge not just because food scarcity but also for affecting different aspects of economy and society. Rising population growth is the key component. As per an estimation, “Sub-Saharan Africa is expected to double its population from one to two billion by 2050. Populations in the developing world are also becoming increasingly urbanized, with 2.5 billion additional urban residents projected in Africa and Asia. Global population growth projections by 2100 is over 10 billion. Food of my choice is also a challenge. As people become more affluent they start eating food that is richer in processed foods, meat and dairy. But to produce more meat means growing more grain. Climate change is another challenge. Currently, 40% of the world’s landmass is arid, and rising temperatures will turn yet more of it into desert. At current rates, the amount of food we’re growing today will feed only half of the population by 2050. Water crisis is creating a serious threat to human existence. Even, as of now 28% of agriculture lies in water-stressed regions. The number of people facing water shortages could double by 2050.Farming has become a risky affair and now due to several uncertainties, fewer people are choosing

¹² <https://www.un.org/press/en/2022/sc14894.doc.htm>

¹³ *ibid*

farming as an occupation. Meanwhile, global food prices are rising, arable land continues to be lost to urban sprawl and soil is being degraded by over-farming.”¹⁴

IV. INDIA & FOOD SECURITY

India, which is the second largest populated country with over 1.3 billion populations has registered an exponential rise in its GDP and per capita consumption during the past twenty years. Our food grain production has nearly doubled. However, in spite of such a tremendous growth in terms of industry, economy and agriculture still a large number of population is struggling for access to food.

According to FAO estimates in ‘The State of Food Security and Nutrition in the World, 2020 report’, “189.2 million people means 14% population is undernourished in India. Also, 51.4% of women in reproductive age between 15 to 49 years are anaemic. Further according to the report 34.7% of the children aged under five in India are stunted (too short for their age), while 20% suffer from wasting, meaning their weight is too low for their height. The Global Hunger Index 2020 ranks India at 101 out of 116 countries on the basis of three leading indicators -- prevalence of wasting and stunting in children under 5 years, under 5 child mortality rate, and the proportion of undernourished in the population.”¹⁵

“With a five-fold increase in food grain production from 50 million tonnes in 1950-51 to about 250 million tonnes in 2014-15, India has moved away from dependence on food and become a net food exporter.¹⁶ In 2016, the government launched a number of programs such as the National Food Security Mission, Rashtriya Krishi Vikas Yojana (RKVY), the Integrated Schemes on Oilseeds, Pulses, Palm oil and Maize (ISOPOM), Pradhan Mantri Fasal Bima Yojana and the e-marketplace to double farmers’ incomes by 2022. These seek to remove bottlenecks for greater agricultural productivity, especially in rain-fed areas. Additionally, there is a massive irrigation and soil and water harvesting programme to increase the country’s gross irrigated area from 90 million hectares to 103 million hectares by 2017.”¹⁷

¹⁴ <https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html>

¹⁵ ‘Hunger in India’ available at:

<https://www.indiafoodbanking.org/hunger#:~:text=State%20of%20Hunger%20in%20India,to%2049%20years%20are%20anaemic.>

¹⁶ ‘Every grain saved is a grain produced’ available at: <https://www.tribuneindia.com/news/features/every-grain-saved-is-a-grain-produced-322970>

¹⁷ ‘Nutrition And Food Security’ available at: <https://in.one.un.org/un-priority-areas-in-india/nutrition-and-food-security/>

Access to food is a legal right and towards this end we have the National Food Security Act (NFSA), 2013; and the State, has been trying to check the nutritional deficiency among our children by providing mid-day meals at schools. We have *anganwadi* workers who are entrusted with the responsibility of procuring rations and subsidized grains for the needy such as the poor who lie below the poverty line, pregnant women and lactating mothers¹⁸.

India has immense potential of growth in the field of agriculture and the reason is its unique geographical and climatic conditions. Fundamentally India is an agriculture country and the agriculture sector is currently valued at US\$ 370 billion. Thus this sector is one of the major sectors in the Indian economy. According to the Economic Survey 2020-21, GDP contribution by the agriculture sector is likely to be 19.9% in 2020-21, increasing from 17.8% recorded in 2019-20¹⁹.

India is the world's second largest agriculture producer. It is the largest producer of milk, jute, and pulses. It is also the world second-largest producer of rice, wheat, sugarcane, fruit, vegetables, cotton, and groundnuts. India remains the world's largest exporter of refined sugar and milled rice. Strong exports of rice, cotton, soybeans, and meat helped India move up to 9th place among global agricultural exporters in 2019²⁰.

India has one of the highest fertile land in the world and it has capacity to feed the entire population of the world but to make it true India will have to work hard for improving quality, quantity and to monetize the entire sector. A short term, mid-term and long-term strategy can be of great help. First and most important is to improve quantity of the product along with Quality and for this purpose following should be the focused area-

1. *Implementation of land reforms*-To achieve the goal of fulfilling future food requirement land reforms are very much important. Dealing with the problem of small landholding to using machines like tractors. These machines make the field easy and improves productivity. Abolition of middlemen, land ceiling are also the part of land reforms to improve productivity²¹.
2. *Interplant*-Interplanting is a practice of growing different crops together at the same time. It is also known as intercropping. It is one of the best way to maximize

¹⁸Government's effort to fight Malnutrition' available at: <https://motherchildnutrition.org/resources/pdf/mcn-the-governments-efforts-to-fight-malnutrition.pdf>

¹⁹'Digital Agriculture - The Future of Indian Agriculture' available at: <https://www.ibef.org/blogs/digital-agriculture-the-future-of-indian-agriculture>

²⁰'4 Countries That Produce the Most Food' available at: <https://www.investopedia.com/articles/investing/100615/4-countries-produce-most-food.asp#citation-40>

²¹'Land Reforms in India' available at: <https://byjus.com/free-ias-prep/land-reforms-india-upsc/>

the productivity and utilizing space. But the appropriate combination of crops is very much important to get better results²².

3. *Plant more densely*- It is the simplest way to improve the productivity of farms. Many times unnecessarily farmers keep their vegetables excessively away. It wastes so much of area. Planting densely increases effective utilization of space²³.
4. *Plant many crops*-The next method of improving productivity is to plant many crops. Mixed cropping or co-cultivation, which involves planting two or more plants simultaneously which save space and provide environmental benefit, including protecting soil nutrient. Different crops may get mature at different point of time.²⁴.
5. *Raised beds*-Raised bed farming means building crops bed above the existing soil level. One of the major advantage of raised bed is Improvised soil drainage, which allows soil to get dry and warm faster during the spring. It also provides better soil conditions for vegetable crops which need well drained soil²⁵.
6. *Smart water Management*-Water is an essentiality for crops. Rising water crisis is creating a threat for the agriculture sector as well. So now water management is the dire need of hour. The meaning of water management is the best utilization of water for agriculture purposes without wasting it. By using the sprinkler irrigation system, we can increase the output by up to 50%²⁶.
7. *Heat Tolerant Varieties*-Due to global warming the temperature on earth is constantly rising. Plant varieties which are heat tolerant can maintain their yield at high temperature too. Heat tolerant varieties may increase the crop yield by up to 23%²⁷.
8. *Use Nitrogen*-Nitrogen is one of the most essential component for better plant growth as most of the plants will not exist without it. Annually around 100 million tonnes of nitrogen are applied to crops in the form of fertilizer, which enhances the

²²Interplanting and Intercropping Definition and Tips' available at: <https://www.thespruce.com/what-is-interplanting-and-intercropping-2539764>

²³ Top 10 Methods to Improve Farming Productivity, available at: <https://www.tractorjunction.com/blog/top-10-methods-to-improve-farming-productivity/>

²⁴Mixed Cropping: The Co-Cultivation of Two or More Crops' available at: <https://www.thoughtco.com/mixed-cropping-history-171201>.

²⁵ 'Raised Bed Farming Techniques' available at: <https://www.kenncomfg.com/blog/raised-bed-farming-techniques#:~:text=Raised%20bed%20farming%20refers%20to,or%20have%20an%20irregular%20shape>.

²⁶Top 10 Methods to Improve Farming Productivity' available at: <https://www.tractorjunction.com/blog/top-10-methods-to-improve-farming-productivity/>

²⁷Temperature extremes: Effect on plant growth and development' available at: <https://www.sciencedirect.com/science/article/pii/S2212094715300116>

production upto 22% to help them grow stronger and better. So effective use of nitrogen can give better results in plant productivity²⁸.

9. *Improved seeds*- Seeds are the mother of yield. They are the best to enhance the productivity. Improved seeds mean seeds which could ensure good crop yield in less favorable climate and areas. In such areas with the help of such seeds we can secure higher yield of crop²⁹.

10. *Plant protection*- As per an estimation 5% of crops are destroyed by diseases, pests and insects. Government should try to make farmers aware about the ill effect of all and to teach them about pesticide and insecticides. Only through appropriate plant protection we can create better yield to fulfill the rising demand of food items³⁰.

In the coming decades as per estimated predictions India is going to be the largest populated country. The size and demand of the population will increase but not the size of the land. It is going to put extra pressure over available resources to fulfill the requirement of rising population. In new era of new challenges agriculture sector will have to contribute significantly in employment generation and in economic empowerment of this nation.

India needs to re-look its strategy, for producing more with less water and less land, for which the below mentioned points must be considered-

Soil Health Enhancement

If soil loses its productivity, then it directly affects the direct yield of the crop. Soil improving practices play an extremely constructive role to improve soil ecosystem. Soil health enhancement includes soaking up of soil nitrates, increasing soil organisms and improving crop health. It also includes reduction of erosion, soil compaction and plant parasite nematodes³¹.

Increasing supply of water for irrigation

Water is life. It is a natural resource and not a private property. Falling level of portable water and rising scarcity of the same is going to create a big challenge for the agriculture sector as

²⁸‘Three ways we can better use nitrogen in farming’ available at: <https://www.unep.org/news-and-stories/story/three-ways-we-can-better-use-nitrogen-farming#:~:text=Without%20nitrogen%2C%20most%20of%20the,them%20grow%20stronger%20and%20bette>

²⁹‘Feed The Future Improved Seeds For Better Agriculture’ (Semear), available at: <https://www.usaid.gov/mozambique/fact-sheets/feed-future-improved-seeds-better-agriculture-semear>

³⁰Importance of Crop Protection, available at: <https://www.longdom.org/open-access/importance-of-crop-protection-78142.html>

³¹‘Enhancing Biota and Improving Soil Health’, available at: <https://www.sare.org/publications/manage-insects-on-your-farm/putting-it-all-together/enhancing-biota-and-improving-soil-health/>

well. Though the government is working in this direction but each of us should work for renovating wells and ponds and should use the practice of sprinkler and drip irrigation, should receive priority attention.

There should be launch of awareness campaigns to encourage recycling and sustainable use of water.

Credit and Insurance

Credit is a very important part of agriculture as farmer needs money to meet their basic capital requirements which is otherwise not easily available to them. It helps them in securing seeds, equipment, fertilizers etc.³²In India credit reform is immensely required to enhance small farm productivity. Transactions and risk both is needed to be improve efficiently.

We need to improve our debt recovery and settlement process between the financial institutions and farmers. Agriculture is becoming more and more uncertain and thus increasing distress among farmers. It is highly required to restructure farmer's loan, reducing the interest rates on loans taken for sowing crops and protecting loss of the farmers due to natural disasters³³.

It is imminent for the central and state government to provide an agricultural risk fund to mitigate losses of farmers when natural disasters recur³⁴.

Technology

Technology is the new boon in agriculture sector improve the performance of new varieties. Technology enhances per hectare yield and income both. Technology is helpful in post harvesting circumstances too.

In the era of fifth generation technology the agriculture industry also transformed radically. New advanced machineries have improved the scale of production. Also yield have improved owing to the improved quality of Seed and fertilizers and access to irrigation facilities³⁵.

Market

Marketing of the product is one of the most important strategy to improve economic viability of farming. Market reform should begin from production, planning and investment in

³² 'Agricultural Credit' available at: <https://www.investopedia.com/terms/a/agricultural-credit.asp>

³³ <https://www.rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=512>

³⁴ 'Government considering to set up an agriculture credit risk fund' available at: <https://economictimes.indiatimes.com/news/economy/agriculture/government-considering-to-set-up-an-agriculture-credit-risk-fund/articleshow/15793872.cms>

³⁵ 'Agriculturesconnectedfuturehowtechnologycanyieldnewgrowth' available at: <https://www.mckinsey.com/industries/agriculture/our-insights/agricultures-connected-future-how-technology-can-yield-new-growth>

agriculture market. There must be an effective link of production-planning and marketing, so that the entire cultivation- consumption- commerce chain gets due attention³⁶.

Strategize our farming

India should also adopt different agriculture strategies for different climatic ones. “In the North-Western High Productivity Region, the strategy should be to promote diversification of agriculture, agro processing industry and exports. In Eastern Region the major thrust should be on flood control, improvement of irrigation facilities and adequate credit and extension facilities. In Peninsular India the emphasis should be on promotion of an appropriate farming system, which economises on water use and generated higher value from land. In Ecologically Fragile Regions Including Himalaya and Desert Areas the trust should be on the development of agricultural system, which does not damage the fragile ecological balance in the region, but help in conserving and strengthening the sustainability of natural resources”³⁷.

V. CONCLUSIONS

Thus, after the detailed analysis it can be concluded that in the coming years entire world is going to face different challenges for human existence like water and food. But even in this grim situation India has immense capabilities for doing excellent in food production. China and India alone account for close to 30 percent of the global total³⁸. Contrary to popular perception, India’s agriculture sector is a great. India ranks second in the world in the agricultural sector. Agricultural structure of India in 21st Century is much diversified and stronger. During the last fourteen years, agriculture has recorded a 350 percent rise over the growth recorded in the last three decades.

To evolve as a global leader in agriculture sector that India need to develop a more structured model for agri-economy. India’s agriculture sector has ability to generate a good number of employability for Indian youths. Foreseeing the opportunity in food sector India is now intended more in investing in technology. Better quality seeds and use of neem coated urea is more rampant. Work on land reform, water management and food distribution is still going on by the government.

³⁶ National Commission for Farmers *available at* <https://agricoop.nic.in/sites/default/files/NCF3%20%281%29.pdf>

³⁷ ‘Six Main Strategies to Improve the Agriculture Productivity in India’ *available at* : <https://www.yourarticlelibrary.com/agriculture/six-main-strategies-to-improve-the-agriculture-productivity-in-india/40230>

³⁸ ‘India: An agricultural powerhouse of the world’ *available at*: https://www.business-standard.com/article/b2b-connect/india-an-agricultural-powerhouse-of-the-world-116051800253_1.html

Now India is able to market its product globally. Farmers are also becoming tech savvy and are aware about the latest advancement in agriculture sector and also about latest scheme of the government. “Proactive promotion of Indian agri products will further increase India’s farm exports. It will bring price and income stability and will contribute to its rural prosperity. Finally, fast-track clearance of investment, production proposals including innovative technologies for agri inputs will considerably help, too. The ‘Make in India’ initiative is a stage with great potential to recognise and champion Indian farmers, and provide the country with opportunities for a brighter future”,³⁹.

Maintaining cash flow for farmers is another matter of concern for the Government. Several schemes and programs have been launched by the government to improve access to credit for farmers through a number of channels, including: interest rate subsidies; debt relief; collateral-free loans; improving administration; and mandating banks to increase the flow of credit to rural customers. Micro-financing is also playing a significant role in providing loan to the farmers.⁴⁰

Indian government very recently introduced three farm laws which were withdrawn subsequently. The government should discuss with the stake holders and should try to bring new laws to increase inflow of money and huge investment in the agriculture sector especially in enhancing the storage capacity. Food processing and packaging industry also have a golden future in India. India can tame its potential and channelize its resources in the field of agriculture more appropriately to play a vital role in ensuring food security for not only India, but the entire world.

³⁹*ibid*

⁴⁰ Adam Cagliarini and Anthony Rush, ‘Economic Development and Agriculture in India’ available at <https://www.rba.gov.au/publications/bulletin/2011/jun/3.html>