

Agricultural reforms in India

Best opportunity to Go Global from Local

Ritasree Sarma and Jitendra Kumar¹

Farm Innovation Centre (RKVY supported), Bangalore Bioinnovation Centre, Bengaluru 560 100, Karnataka

Agriculture and allied sectors have remained important segments of the Indian economy. Although its contribution has declined with the advent of industrialization, its potential towards the National economy cannot be ignored. It stands as sole bright spot in the recent pandemic and can be taken as a golden opportunity for sustainable growth and development of India. The recent government schemes during pandemic, act as an amplifier to the 'vocal for local' programme. Further, reforms in the policies, infrastructure, entrepreneurial ecosystem, skill manpower, technology and export will help India to reach from local to global.

Keywords: Agri Infrastructure, Entrepreneurship, Global, Local, PM-KISAN

THE agriculture sector plays a significant role in the sustainable growth and development of a country. It is the mainstay and backbone of Indian economy as it is responsible for providing employment to two-third of the working populations. It is direct and indirect linkages with other economic sectors and plays a major role as foreign exchange earner.

Indian agriculture sector: Problems and prospects

Although agriculture has a significant contribution for providing food security and eradicate poverty in developing nation like India, its share towards National economy has declined with the advent of industrialization. The annual average growth rate in agriculture and its allied sectors has remained static with 2.8% in the last 6 years i.e. 2014-15 to 2018-19 while its contribution to GDP has steadily declined from 42.77% in 1967 to 14.6% in 2018. One of the obvious reason behind this downfall is rural-urban migration. As of 1990-91, more than half of the workforce were employed in the agriculture sector, however,

with the rapid migration of rural population to urban cities, the percentage decline to only 42.38% of the workforce in 2019. Along with these, other challenges including lack of innovation or technological intervention, landless or land fragmentation, topography, input, market knowledge and other risk factors result in undergrowth of this sector.

Despite the falling contribution to the National economy, the agriculture sector cannot be ignored as food is the necessity for survival and it can never go out of business. Unfortunately, this sector was not taken seriously or at least not considered primarily as a business and investment opportunity in the recent past. However, the ongoing pandemic has pressured the farm economy. It stands as a sole bright spot to an overall sagging economy with the projected growth rate of 3% in the year 2020-21. Further, this farm growth is expected to contribute at least 0.5% or a little more to India's overall GDP, helping to escape a potential recession of the economy.

As agriculture takes the centre stage, it can be taken as a golden

opportunity in this crisis. From the Green revolution to the White revolution, from food sufficiency to the World's top 10 agri exporter, India's agriculture has a lot of potentials. The only need is to think to rethink the strength, plan to replan the policies, structure to restructure the infrastructure, innovate to reinnovate the technologies, model to remodel the investment and skill to reskill the manpower.

RECENT GOVERNMENT POLICIES

Income

There is no doubt that government has initiated many reforms in this sector. The Pradhan Mantri Kisan Samman Nidhi (PM KISAN) is a great relief to small and marginal farmers as this scheme provides an income support of ₹ 6,000 per year in 3 equal instruments. However, according to the draft estimates by the Institute of Economic Growth, the weighted cost of cultivation (using area under the crops as weights) is more than 3 times the current assistance of ₹ 6,000 per year. Further, there is no

provision for landless labourers who accounts 14.43 crore of agriculture workforce indicating that the scheme needs a serious relook.

Infrastructure

The recent agricultural infrastructure funds worth ₹ 1 lakh crores for aggregators, cooperative societies and farm entrepreneurs for setting up of community farming assets, storage structures and post-harvest management infrastructure is focus on cluster based approach for farmers including entrepreneurs, a properly build roadmap for all including entrepreneurs is the need of the hour. Further, as a part of 'vocal for local with global outreach' a scheme worth ₹ 10,000 crore fund was announced for the Micro Food Enterprises (MFE). The branding, modernising, ramping up of the capacity and marketing are part of the scheme. Although these are the major reforms but statistics shows that as high as 70-80% of the startups/FPO's succumb to the market distortions during the first 2 years of their existence. This may be due to the problem with developing business proposal, lack of technical support on developing their product, lack of infrastructure facilities, lack of funding, lack of legal support, attracting investors and lack of general training and skill development of the members. This indicates that to make local to global into reality, some substantive questions of great importance has to understand: Who are the players? What is their capacity? Why they fail? and How to keep them successful?

Entrepreneurial activity

As a part of rural bio-entrepreneurship, Department of Biotechnology initiative for setting up Rural Bioresource Complex in aspirational district of India, in biotechnology innovation/technology is appreciable. As biotic and abiotic stress is a major issue in agricultural field, implementation of biotechnological innovation in rural areas will definitely answer a major challenge. However, as rural ecosystem is unique, introduction of

other relevant technologies including as elementary as food processing, postharvest management or as sophisticated as digital technology in rural areas through other schemes will further help not only in generating employment but also in developing the overall social-economic fabric of the community.

Skilling programme

To be vocal for local, upskilling and reskilling should be a part of the rural bio entrepreneurial scheme. There is existence of programme including Agriculture Skill Council of India (ASCI), which works towards capacity building by bridging gaps, and upgrading skills of farmers, wageworkers, self-employed and extension workers engaged in organized/unorganized segments of agriculture and allied sectors, the only need is to open the umbrella wide to cover other informal workers including migrant labourers.

Initiative for migrant labourer

As per 2011 census, India has 139 million of migrants and most of them are involved in informal sectors like construction, brick-kilns, stone quarries and mines, rickshaw pulling, security services, etc. As unskilled, they are paid very less wages and does not provide any social security but for livelihood security, more and more rural population is migrating to urban cities.

However, as it is observed, the ongoing pandemic brings a tough time to them and as an economic or emotional factor, there is a high probability that very small percentage of reverse migration may happen. It indicates that there is an excess supply of labourers in rural areas and it throwing up mega challenges for the gainful employment of these workers. Although, along with Garib Kalyan Rojgar Abhiyaan, Government has initiated Covid-19 agriculture track with a mission to help migrants and agriculturist by providing scientific innovation from nationwide laboratories, educational institute together with their incubated start-ups, still there is a need of creating a

proper entrepreneurial ecosystem in rural areas which not only help to understand local need and potential but also develop an entrepreneurial culture among the rural youths.

STRATEGIC INPUTS

Agri-Innovation Centre

As a major domain of the entrepreneurial ecosystem, agri incubation centre in rural areas can play a significant role. Statistics data shows that India ranks third in terms of incubation centre and among them 19% are from agri sector. Although primarily these centres are based in large and metro cities, extending them to rural areas will not only motivate young minds towards self-sustainable through agriprenurship but also help to understand the requirement of technologies according to the agri-climatic pattern, sustainability and adaptation at the village level. Further, by providing infrastructure, equipment, investment, legal, portfolio support, branding, certification, mentoring and advisory support, these centres can play a key role in achieving the goal of vocal for local, local to global.

Innovation and Technology

As innovation and technology is a part of global outreach along with traditional methods or practices, Large scale smart technological intervention viz. weather prediction to input management, farm operation to logistics, supply chain management to market linkage via GIS, block chain, data analytics, Artificial Intelligence, remote sensing, satellite technology, and various Internet of Thing (IoT) devices should be encouraged. According to a report by NASSCOM, agri tech sector has raised nearly US\$248 Million until June 2019, which indicates the growth potential of this sector. Recently, with digital access, the sector empower rural India through direct supply and smoother distribution. Further, it also creates a faster access to traceability, which is beneficial while exporting to the overseas market.

Export Potential

Indian agriculture has many potentials to be a global export superpower. Although the pandemic has caused 27.7% decrease in the export of major agri produce of India, there are unseen opportunities not only because India is the second global producer but also as many Countries impose restrictions on Chinese goods.

The recent European Union's decision to ease rules for import of fruits and vegetables from India in encouraging. Further, recent APEDA

reports states that, many countries like Iran, Russia, Afghanistan, Egypt, Philippines and Indonesia have placed fresh orders for import of commodities like Indian black tea, fruits and vegetables, rice, wheat, etc. Although the recent reforms in the APMC Act and amendment in Essential commodity act is helpful in easing the export process, still there is need of robust infrastructural support and other reforms including single-window clearance, which would be helpful for global outreach.

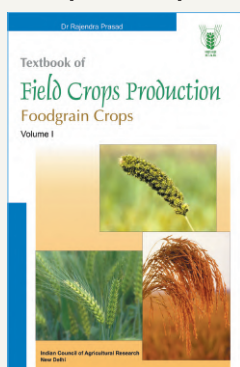
SUMMARY

Going forward, we need an integrated approach to understand the centrality of rural agrarian economy and long-term strategy to bridge the gap between policy planning and implementation, input objectives and project output, which not only empower the local economy but also help India to reach from local to global and beyond.

¹Managing Director, Bangalore Bioinnovation Centre, Electronic City, Phase-1 Bangalore 560 100. Corresponding author's e-mail: director@bioinnovationcentre.com

Textbook of Field Crops Production – Foodgrain Crops

(Volume I)



The first edition of Textbook of Field Crops Production was published in 2002 and there has been a heavy demand for the book. This book is now being brought out in two volumes. The chapters cover emerging trends in crop production such as System of Rice Intensification (SRI), export quality assurance in the production technology of commodities like Basmati rice, organic farming, resource conservation technologies, herbicide management etc. Good agronomic practices must judiciously inter-mix the applications of soil and plant sciences to produce food, feed, fuel, fibre, and of late nutraceuticals while ensuring sustainability of the system in as much possible environment and eco-friendly manner. The advent of hydroponics, precision farming, bio-sensors, fertigation, landscaping, application of ICT, GPS and GIS tools, micro-irrigation etc. is in the horizon. The textbook covers both the fundamentals of the subject and at the same time inspire and prepare both teachers and students for the emerging frontiers.

TECHNICAL SPECIFICATIONS

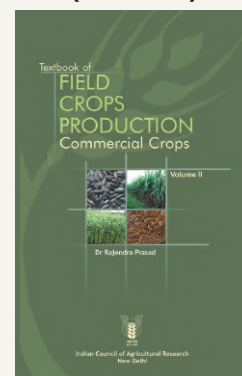
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Textbook of Field Crops Production – Commercial Crops

Availability of high-yielding varieties/hybrids and increased irrigated facilities have resulted in the development of production-intensive cropping systems in several parts of India, and this has catalyzed further agronomic research based on the cropping-system approach. Many changes have also taken place in the crop-production technologies. And this necessitated the revision of the earlier publication brought out in 2002. The revised textbook is in two volumes: First is covering Foodgrains and second is on Commercial Crops.

The discipline of Agronomy has no longer remained mere field trials without application of discoveries emanating from the related disciplines of Genetics, Soil Science and Agricultural Chemistry, Plant Biochemistry, etc. The future Agronomy Landscape will face challenges of climate change, transboundary issues, TRIPS and other trade-related barriers, biotic and abiotic stresses, consequences of biotechnology and genetic engineering and increased market demands in terms of quality assurance, customized food crops, global competition, ecosystem services on land and social equities etc. The Agronomy must measure up to these futuristic challenges with well-defined metrics and methodologies for performance. The advent of hydroponics, precision farming, bio-sensors, fertigation, landscaping, application of ICT, GPS and GIS tools and micro-irrigation is in the horizon. This revised edition in two volumes covers fundamentals of the subject and at the same time will inspire and prepare teachers and students for the emerging frontiers.

(Volume II)



TECHNICAL SPECIFICATIONS

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Directorate of Knowledge Management in Agriculture
Krishi Anusandhan Bhavan-I, Pusa, New Delhi 110 012
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