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Agro-Entrepreneurship: A Future of Farming

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Agriculture plays vital in India's economy. India has the 2nd largest arable land resources in the world and with 20 Agri climatic regions, arable land resources are essential for food security and sustainable agricultural development. Share of agriculture employment in total employment 60 % Gross value added (GVA) by agriculture and allied sectors 3.9 percent in 2021- 2022 and growing population, rising urban and rural have been added to the growth and demand for agriculture products. As per the Union Budget of India 2022-23 allocation of approximately INR 1.24 lakh cr. was made to the Ministry of Agriculture. The Government of India has allowed 100 percent through automatic routes in agriculture, planting material, and animal husbandry, and continuous efforts are being made to give this sector and its workers as much as needed to boost. Food and grocery is the largest segment in the Indian retail sector, having an opportunity worth \$570 Bn and accounting for 66 % of the country's total retail spend. The Indian food processing industry accounts for 32% of the country's total food market, one of the largest industries in India, and is ranked fifth in terms of production, consumption, export, and expected growth. The food processing sector has been growing at an average annual growth rate of around 11.18 % as per the annual survey of industries (ASI). The food processing sector is one of the largest in the world and its output is expected to reach \$535 bn by 2025-26. The government of India aims to boost growth in the processing sector by leveraging reforms such as 100% Foreign Direct Investment (FDI) in the marketing of food products and various incentives at central and state government levels along with a strong focus on supply chain infrastructure. Additionally, there has been an FDI inflow of \$65.81 Mn in agriculture services and 16.81% Mn in agriculture machinery during the financial year 2021-22. India is the largest producer of mango, banana, papaya, coconut, spices, pulses, milk, tea, cashew, and jute. It is the second largest producer of rice, wheat, sugarcane, cotton, and groundnuts. Agri-Techs Worldwide has attracted investment worth over USD 26 Bn in 2020. Downstream Agri-Tech has received approximately 60% of the investments. India is next to the US and China in terms of the amount of Agri-Tech funding it attracts. Agri-Techs in India have received cumulative investment worth over USD 1.5 Billion in the last ten year, exhibiting a 14 times growth starting from USD 45 million in 2011.

There are approximately more than 700 Agri-Tech startups in India that are providing customized solutions and products to transform the agriculture value chain into a more profitable and remunerative one. Investments worth USD 1 billion were recorded between 2010-2020, out of which approximately USD 600 million came in between 2019-20 every Ninth Agri-Tech start-up in the world, is from India. The market size of the agri-tech start-up in India is valued at USD 204 million.

Opportunity for Agro Entrepreneurship

The Agriculture sector's efficiency in the supply chain controls farming resources such as finance, seeds chemicals, etc., and improper access to the distribution network. Additionally, the level of wastage of Agri produce is very high and is estimated at over 15 billion annually due to the dilapidated supply chain network. Demand-driven cold chain, warehouse monitoring solutions, and market linkage can resolve the existing bottlenecks resulting in streamlining and processes along with a significant increase in farmers' income. While agriculture is fragmented and small; nationally more than 70 % are less than 1 ha. Due to the growth of population and breakdown of the joint family system, a continuous subdivision of agricultural land into smaller and smaller plots has occurred, so the advantage of large-scale farming cannot be derived and cost per unit is high and output is low.

The food processing industry is one of the largest industries in India and ranks fifth in terms of production, consumption, and exports. The demand for food and processed commodities is increasing due to the growing population and rising per capita income. There are projected that demand for food grains would increase from 192 Mn in 2000 to 345 Mn tonnes in 2030. Hence, in the next 20 years, the population of food grains needs to be increased at the rate of 5.5 Mn annually. The demand for high-value commodities such as horticulture, dairy, livestock, and fish is increasing faster than that for food grains. Demand is expected to increase by more than 100% from 2000 to 2030. India is among the 15 leading exporters of agricultural produce in the world, with total agricultural exports from India at a CAGR of 19% over FY-18 to reach 38.21 Bn in FY-18. India has made a strong name for itself in the global startup community. It ranks among the top five countries in the world in terms of no. of startups founded.

Start-up India Recognition

The Start-up India Action Plan was launched on 16th January 2016 to support entrepreneurs, build a robust Start-up ecosystem, and transform India into a country of job creators instead of job seekers. The Department for Promotion of Industry and Internal Trade (DPIIT) acts as the nodal Department for coordinating the efforts of all central government departments and state governments in carrying this plan forward. The definition of start-ups was modified vide notification G.S.R. 127 (E) dated 19th February 2020 issued by DPI. An entity is now considered as a Start-up up to ten years from the date of its incorporation/ registration, with an annual turnover not exceeding INR100 Cr for any of the financial years since incorporation/ registration. As on December 2, 2021, 59,593 Start-ups have been recognized as Start-ups by DPIIT, spread across 633 districts in India, across all 36 states and Union Territories.

For providing fund support for Start-ups, the Government has created a; Fund of Funds for Start-ups at the Small Industries Development Bank of India (SIDBI) with a corpus of INR 10,000. The FFS shall contribute to the corpus of Alternate Investment Funds for investing in equity and equity-linked instruments of various Start-ups. The FFS is managed by SIDBI for which operational guidelines have been issued. As on 27th October 2021, SIDBI has committed INR 5,894 Cr to 75 AIFs. A total of INR 7,381 Cr has been injected to boost 517 Start-ups. As of 1st December 2021, 11,837 Start-ups had been on-boarded on GeM, with 1, 00,982 orders from public entities totalling more than INR 4,795 Cr.

Agriculture grand challenge

A unique opportunity for Agri-tech start-ups with a commercially viable solution to solve innovative challenges in the sector. Ministry of agriculture in partnership with start-ups in India launched the agriculture grand challenge in December 2017 wherein 12 pre-identified problem statements were noted for seeking a solution for the start-ups. The challenges are assaying and grading, farm to fork, last mile dissemination, soil testing, sorting & and

grading, substitute for pesticides, testing adulteration, yield estimation, custom hiring center, and price forecast. The objective is to support the technology base by funding the best fundamental concepts while helping talented and creative innovations to pursue promising avenues at the frontier of technology. It will provide start-ups with access to priority infrastructure and make agriculture an attractive sector for the country's best brains.

Start-ups India seed fund scheme

Department for Promotion of Industry and Internal Trade (DPIIT) and Internal Trade (DPIIT) has created Start-up India Seed Fund Scheme (SISFS) with an outlay of INR 945 Cr. to provide financial assistance to start-ups for Proof of Concept, prototype development, product trials, market-entry, and commercialization. This would enable early-stage start-ups to graduate to a level where they will be able to raise investments from angel investors or venture capitalists or seek loans from commercial banks or financial institutions. The scheme will support an estimated 3,600 entrepreneurs through 300 incubators in the next 4 years.

National Start-up Awards

The national start-up's award was announced in 2019 to recognize and reward outstanding start-ups that are building innovative products, solutions, or scrabble enterprises with a high potential for employment generation wealth creation, and demonstrating measurable social impact. DPI is supporting finalists across 9 tracks viz. Investor Connect, Mentorship, Corporate Connect, Government Connect, International Market Access, Regulatory support, Benefits under Start-ups India initiative, Start-up India showcase, and start-ups Doordarshan program. A cash prize of 5 lakh each was awarded to each winner Start-up and a cash prize of INR15lakh each was awarded to the winner incubator and accelerator. The second edition saw 2,236 applications across 30 States and Union Territories and 59 ecosystem enablers.

Central Schemes: RKVY-RAFTAR

The Union Government accords very high priority to the agriculture sector. To contribute directly and indirectly to enhancing the income of farmers by providing opportunities to them and to provide employment to youth, a start-up is being encouraged. A component, the Innovation and Agri-entrepreneurship development program has been launched under Rashtriya Krishi Vikas Yojana. RKVY was launched in 2007, to promote innovation and Agri-preneurship through financial support and nurturing and incubation ecosystem. These start-ups are in various categories such as agri- processing, artificial intelligence, digital agriculture, farm mechanization, waste to wealth, and fisheries. States have been provided flexibility and autonomy in the selection, planning, approval, and execution of the project under the scheme as per their need, priorities and agro-climatic requirements. To ensure the preparations of agriculture plans for the district and the states based on agro-climatic conditions, availability of technology and natural resources and for maximizing returns to the farmers in agriculture and allied sectors. The center has funded about 800 start-ups with an amount of 118.65 Cr under the Innovation and Agri-Entrepreneurship Development Programme. The move is part of a government push to modernize agriculture and allied sectors to increase yield, quality, efficiency and profitability. The entrepreneurial facilitation center has made the recommendation to rationalize and merge the scheme into three categories viz; Rashtriya Krishi Vikas Yojna the cafeteria scheme, krisonnati yojna and standalone scheme during 2022-2023 to 2025-26.

Agri Clinic Agri-Business Center (AC&ABC)

The Ministry of Agriculture Farmers Welfare, Government of India in association with NABARD has launched a unique program to take better methods of farming to farmers across the country. The program aims to tap the expertise available in the large pool of agriculture graduate farming. Irrespective of the fact whether a fresh graduate or currently

employed, one can set up own Agri- business center and offer extension services to farmers. The government is providing start-up training to graduates in agriculture like horticulture, sericulture, veterinary sciences, forestry, dairy, poultry farming and fisheries. The scheme is open to candidates of the age group 18 to 60 years.

Dairy Entrepreneurship Development Scheme (DEDS)

National Bank for Agriculture and Rural Development (NABARD), as the nodal agency for the scheme, Financing Banks are all CBs, RRBs, Cooperative Banks, and Land Development Banks. The scheme is being implemented throughout the country without any restriction for Operation Flood areas. Eligibility Farmers, Self Help Groups, Non- Government Organizations, Cooperative societies, Companies etc. are eligible under the scheme. An individual will be eligible to avail assistance for all components under the scheme but only once for each component. More than one member of a family can be assisted under the scheme provided they set up separate units with separate infrastructure at different locations. The distance between the boundaries of two such farms should be at least 500m. DEDS may be implemented in cluster mode covering dairy farmers in SHGs. Cooperatives and Producer Companies along with facilities of processing, value addition and marketing. Entrepreneur contribution (Margin)-10% of the outlay (Minimum) back-ended capital subsidy 25% of the outlay for the general category and 33.33% for SC/ST farmers subject to the component-wise ceiling which will be adjusted against the last few installments of repayment of bank loan lock-in period 3 years. Effective Bank Loan - Balance portion, minimum of 40% of the outlay.

Dairy Processing and Infrastructure Fund

Dairy Processing and Infrastructure Development Fund (DIDF) DIDF is a fund constituted under NABARD in 2017, wherein milk unions, multi-state milk cooperatives, state dairy federations, milk-producing enterprises, and NDDDB subsidiaries project's eligibility criteria can avail of a loan. The loan component consists of 80% with the borrower paying the remaining 20% payment. Interest is charged at 6.5 % p.a. and loan tenure is decided based on the amount of money borrowed. The loan repayment is guaranteed by the respective state government, and in case of borrower default, the state government steps in to contribute the defaulted portion.

National Livestock Mission (NLM) - Entrepreneurship Development & Employment Generation (EDEG)

The National Livestock Mission (NLM) commenced in 2014-15. The Mission is designed to cover all the activities required to ensure quantitative and qualitative improvement in livestock production systems and capacity building of all stakeholders. The Mission will cover the improvement of livestock productivity and support projects and initiatives required. This Mission is formulated with the objective of sustainable development of the livestock sector, focusing on improved availability of quality feed and fodder. NLM is implemented in all States including Sikkim. NABARD is the subsidy channelizing agency under Entrepreneurship Development & Employment Generation (EDEG) Farmers, Individuals Entrepreneurs, NGOs, Companies, and Cooperatives, groups of an organized and unorganized sector which include Self-Help Groups (SHGs) and Joint Liability Groups (JLGs).

State schemes

Agriculture Entrepreneurship Promotion Scheme: The Odisha Government has launched an Agriculture Entrepreneurship Promotion Scheme to assist agriculture entrepreneurs across the rural areas in the state. The scheme was initiated by the State Chief Minister during the 'Make in Odisha Conclave 2018. The idea of the scheme is to grow the rural economy and

generate self-employment and jobs in the rural areas of the State. This system will be implemented three years from the date of its announcement. All rural entrepreneurs will be trained under the scheme, and 1000 trained entrepreneurs will be receiving the benefits of the programme.

Features of AEPS Scheme

- It is a scheme to revive the agricultural economy by promoting Agricultural Entrepreneurship in Odisha. Every agricultural entrepreneur will be working with 150 farmers on three farms and providing solutions to small and marginal farmers.
- The State Government has allocated a sum of Rs.18 Cr. for the implementation of the scheme. The scheme offers quality inputs and technology-based agricultural services to the farmers.
- The scheme ensures that small and medium farmers earn at least 2-6 lakh per year. The scheme is implemented under the chairmanship of the Agricultural Promotion and Investment Corporation of Odisha (APICOL). The scheme sets up monitoring systems that enable to design, planning and to implement the project.
- Odisha's Organic Farming Policy has been announced to develop organic farming. The scheme was declared during the Agri-Business Management session at the Make in Odisha Conclave 2018. Agriculture and Farmers' Empowerment Department and NABARD have signed a for doorsteps.
- In addition to this, an additional MoU has been signed with the Indian Institute of Millets Research and also with National Seed Corporation for seed production in the State.

Maha Agri-tech scheme: Maharashtra government launched the Maha Agri-tech scheme on 14th January 2019 for digitally tracking agriculture management which will enable efficient tracking of all the information related to farming ranging from seed sowing to cropping harvesting. The schemes will check the sowing to crop harvesting, sowing area, change in weather, and various diseases on crops and also provide information to the farmers regarding the same using the latest satellite and drone technologies. The k- tech center Excellence, a collaborative effort between Karnataka innovation and technology society (KITS), Department of IT-BT and S&T, department of agriculture, Government of Karnataka and C-MAP supported by DBT, Government of India, promote innovation by attracting various technologies for finding answers to the prevailing and looming problems in Agriculture.

Features of Maha Agri-tech Scheme

- ❖ Mapping the farming land is a key component that plays vital in measuring the overall agriculture development.
- ❖ A lot of technological advancement is necessary for carrying out this project successfully.
- ❖ The agriculture development will make use of satellite imagery and local area surveillance with drones to keep track of farming practices.
- ❖ The use of satellites and drones will make monitoring agricultural practices easy.
- ❖ Apart from the above-mentioned advantages, the online availability of services will pave the path for transparency.

Conclusion

Entrepreneurship can transform the face of Agri-business in India there is a great scope for entrepreneurship in agriculture and this potentiality can tap only by effective management of Agri elements, an individual with bearing capacity and a quest for the latest knowledge in the agriculture sector. The agriculture sector has a large potential to contribute to the national income while at the same time providing employment and income to the large and vulnerable section of society.

References

1. <https://www.startupindia.gov.in/content/sih/en/agriculture-grand-challenge.html>.

2. <https://www.indiafilings.com/learn/scheme-for-innovation-and-agri-entrepreneurship-development/#:~:text=The%20Rashtriya%20Krishi%20Vikas%20Yojana,providing%20f%20ntrepreneurs.>
3. <https://www.startupindia.gov.in/content/sih/en/agriculture-grand-challenge.html>.
4. <https://pib.gov.in/PressReleasePage.aspx?PRID=17765762>.https://www.startupindia.gov.in/content/sih/en/reources/startup_india_notes/industry_insights/the_growth_of_agritech_startups_in_india.html.
5. <https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.manage.gov.in/publications/discussion%2520papers/MANAGE-Discussion%2520Paper-10.pdf&ved=2ahUKEwier-S55NT5AhWx9DgGHcV8DjQQFnoECC4QAQ&usg=AOvVaw3Y-F97acopoFo2lmE-Bk9J>
6. https://www.google.com/url?sa=t&source=web&rct=j&url=https://cropbag.in/maha-agritech-government-scheme/&ved=2ahUKEwiBv6Tq5dT5AhV68zgGHSsIDNcQFnoECACQAQ&usg=AOvVaw0KdU_wPd5BUiMr11EytY4Q
7. https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.indiafilings.com/learn/agriculture-entrepreneurship-promotion-scheme/&ved=2ahUKEwihi_bT5tT5AhWiwzGHTVrACwQFnoECC8QAQ&usg=AOvVaw1fOw7_MssRCIWUG_mMIUmn..