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Convergence of Self-Help Groups (SHGs) and Farmers Producer Organizations (FPOs) in leveraging growth of agricultural value chain in India

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Abstract

India's GDP has crossed the trillion-dollar mark making it a member of an elite club of 12 countries with 'Trillion Dollar Economies'. Agriculture continues to exert significant influence on the country's economy as reflected in the correlation between agricultural GDP and overall GDP of the country. India is self-sufficient in production of food grains and horticultural products. While the production is high, the post-harvest losses are also high due to inadequate processing infrastructure. India could meet its growing demand for agricultural produce by indigenous production by strengthening value chains in agriculture. Value chains in agriculture comprise a set of actors who conduct a linked sequence of value-adding activities involved in bringing a product from its raw material stage to the final consumer. Currently these value chains are affected with various problems such as inadequate infrastructure, numerous intermediaries, poor logistics, minimal processing and lack of quality standards leading to significant post-harvest losses which is measured to be about US \$ 11 billion. There are some Self Help Groups (SHGs) and Farmers Producer Organizations (FPOs) which are engaged in production, processing, value addition, packaging, marketing/exporting providing them a fair share in consumer rupees. Streamlining agricultural value chains through convergence of SHGs and FPOs adds efficiency and enables all the actors right from farmers to ultimate customers to benefit from value addition activities subsequently leading to inclusive growth in the agricultural sector.

Keywords: Convergence of Self-Help Groups, Farmers Producer Organizations, agricultural sector, ultimate customers

1. Introduction

Agriculture sector has been one of the major sectors in the Indian economy. Despite reduction in its annual contribution to Gross value Added (GVA), the agricultural sector continues to be the backbone of rural populace (Kakralapudi, 2019) ^[28]. Agriculture and allied sector's contribution to the GVA of the country was about 18.30 per cent in 2022-23 (Economic Survey, 2022-23). Today, India is the largest producer of milk, second largest producer of

vegetables, rice, wheat, sugarcane, cotton, groundnut and fisheries and also largest exporter of marine and meat products in the World. The sector is growing at an average annual growth rate of three per cent during the last five years. This growth is mainly stimulated by allied enterprises such as livestock, dairying and fisheries which have contributed tremendously to the overall agricultural growth (Sahu and Tiwari, 2024) ^[47].

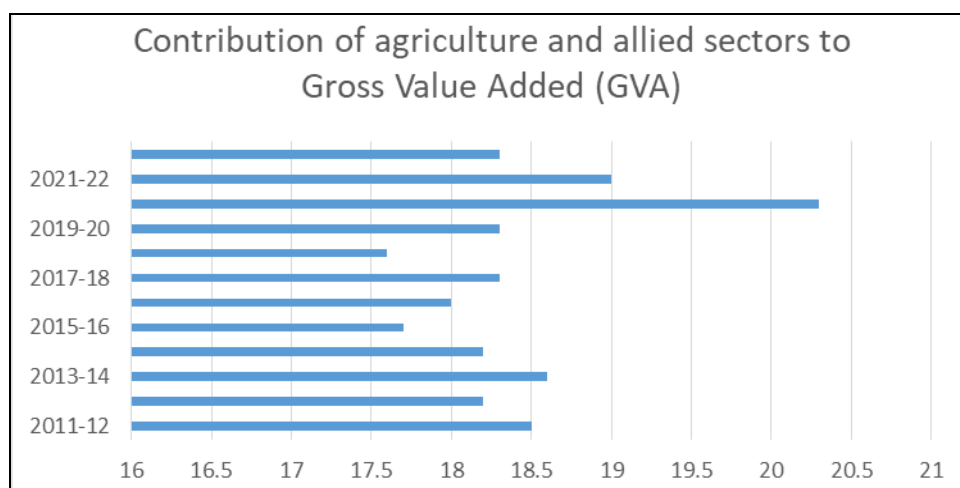


Fig 1: Contribution of agriculture and allied sectors to Gross Value Added (GVA) of the country

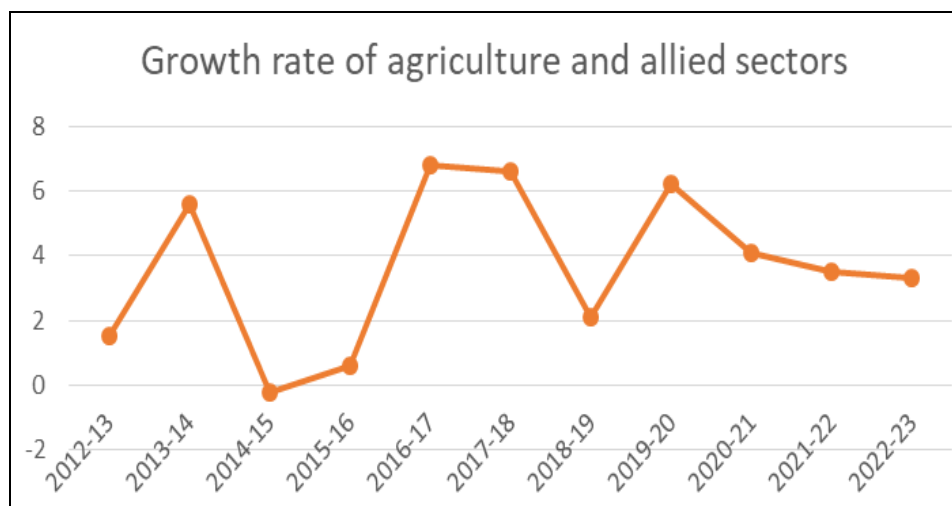


Fig 2: Growth rate of agriculture and allied sectors over the years

But, this growth comes with an imbalance across different stakeholders in agriculture (Behera, 2015; Ravallion and Datt, 2024) ^[6, 46], across the regions as well as across states (Das *et al.*, 2016; Watson and Wu, 1994; Mangain, 2019) ^[12, 55, 35]. On the other hand issues such as food insecurity due to ever-growing population, urbanization, industrialization, unsustainable farming practices, depleting resources (water and soil), global warming and climate change etc. have affected agriculture on a wide geographical area (Batungwanayo *et al.* 2023; Alvaredo 2018) ^[5, 3] and pose threat to the existence of small and marginal farmers, livestock farmers, fishermen, landless agricultural labourers including farm women, tenants, sharecroppers etc. (Bessah *et al.* 2021; Kar and Das, 2015) ^[8, 32] as these are the most vulnerable communities to the uncertainties of agricultural sector. These downtrodden communities must be uplifted above the poverty line and empowered with knowledge and skills to ensure a secure and sustainable livelihood in agriculture (Chand and Parappurathu, 2011) ^[9]. Agriculture was the only sector to absorb surplus labour due to reverse migration from urban to rural areas during the pandemic and achieve a higher growth rate when other sectors closed their operations indefinitely during COVID-19 which shows the resilience of the sector to the COVID-19 uncertainties (Mangain, 2021; Anand, 2023) ^[36, 4].

In this regard, one of the flagship initiatives of Government of India i.e., “Sabka Saath Sabka Vikas” must begin with agriculture sector promoting inclusive growth within the sector as well as across the sectors.

The scope of value chain in agriculture

A value chain refers to “the full range of activities, which are required to bring products or services from conception, through different phases of production, delivery to final consumers” (Kaplinsky and Morris 2001) ^[30]. It includes all the activities, processes and people involved in various stages of crop production and its delivery to ultimate consumers for consumption (Gulati *et al.* 2022) ^[20]. For example dairy value chain includes feed suppliers, dairy farmers, cooperatives, private dairy, wholesalers, retailers and consumers. Each stakeholder in a value chain is very important as they are interconnected and if one of the players are negatively impacted, it affects the entire value

chain. In recent days, the consumption behaviour of consumers has shifted from grain enriched calorie-based diet towards high value, nutritious and protein rich foods (Herrero *et al.* 2023; Singh *et al.* 2013) ^[24, 50]. According to Household Consumption Expenditure Survey (HCES), 2022-23 the consumption share of cereals has dropped from 10.69 per cent a decade or so ago by nearly six percentage points, while, beverages, processed foods, milk, meat and eggs have picked up. The consumers are growing health conscious which has led to diversification and value addition in agriculture (Singh, 2018) ^[51].

India, is the largest milk producer and ranks first in the World contributing about 24.64 per cent to the global milk production in the year 2021-22 (Department of Animal Husbandry and Dairying, 2021-22). Food grains (Rice, Wheat and Pulses collectively) production has increased to 329 million tonnes and Horticulture production has exceeded 350 million tonnes (Second Advance Estimates, Department of Agriculture and Farmers’ Welfare, 2021-22). Also, India is the second largest producer of eggs, meat and fish. However, this record level of production has not translated into commensurate increased monetary returns to the farmers in India. The major reason is underdevelopment of commodity value chains. Present day agricultural value chains are highly fragmented and has numerous intermediaries along the value chain resulting substantial losses in the quantity and quality of the produce and consequently reduced share in consumer rupee for farmers (Sharma and Jain, 2011) ^[49]. Due to lack of market linkage, farmers have often resorted to distress sales, burning crops and dumping produce on the roads (Pingali *et al.* 2019) ^[43]. Production and productivity oriented agricultural policies have long dominated the scenario without giving adequate weightage to the development of market linkage and efficient value chains. Integration of smallholding farmers’ produce into global market through value chain may give them stable and higher incomes, which can enhance their inclusive growth (Setboonsang and Gregorio 2017) ^[48]. It is a high time that, policy makers must direct policies and allocate resources towards developing market linkage mechanisms and create and strengthen value chain infrastructure for farmers to realize remunerative prices for their produce. It’s not only important to produce more but

also to preserve.

Successful models of convergence promoting value chain in agriculture

1. Dairy cooperatives: Dairy co-operatives brought inclusive growth in the dairy sector by linking the smallest milk farmer to the market and hence dairy value chain have been the most inclusive value chains in India. Milk farmers in cooperatives receive 75 to 80 per cent of the consumer price, which is the highest compared to other commodities' value chains. With about 18 per cent of the dairy co-operative members being women, the model is gender inclusive as well (Gulati *et al.* 2022) ^[20].
2. Contractual farming in poultry: The role of private institutions under contract farming model in poultry sector has been successful over the decades and sets an example for replication in other commodities. Under the contract, the agency provides high-genetic merit day-old chicks, arranges for vaccines, trains farmers in administering vaccinations and provides feed along with buyback arrangements of birds and, in some cases, eggs at pre-agreed prices. Production risks are substantially reduced by technology and veterinary support and also farmers are protected against price volatility resulting in win-win situation for both farmers and private agencies.
3. The Maharashtra Grape Growers Association: Mahagrapes, a union of 16 grape growers' co-operative societies in Maharashtra, played a significant role in creating market linkages, ensuring farmers' participation in price discovery and gradually expanding exports. Recently, Sahyadri a farmer produces organization based in Nashik has emerged as the leading exporter of grapes. Maharashtra Rajya Drakasha Bagayatdar Sangh-MRDBS ensures that farmers have access to technology related to production and provide the required support to make the value chain competitive and inclusive.

The inclusiveness in Dairy, poultry and grapes was achievable mainly due to existence of 'trust.' While the brands earned consumer trust, transparency in operations and processes earned farmers' trust and the models successfully integrated small farmer producers in the value chain. These models demonstrate the role of institutions in enabling successful adoption of technology, creating market linkages and delivering benefits to marginal and small farmers ultimately promoting inclusive growth.

Convergence mechanisms in leveraging agricultural value chain

In the recent past, public development departments, private research organisations and NGOs have been collaborating and partnering with each other to promote inclusive development (Pansera and Owen 2018; Heeks *et al.* 2020) ^[41, 23]. Failure of governments around the world to eradicate poverty and inequality has led to the emergence of the concept of inclusive development (Gereffi and Lee 2012; OECD 2013; Gupta *et al.* 2015) ^[18, 39, 21]. These organisations acknowledge the fact that complex development issues cannot be solved by a single entity or

actor. World Bank funded "Forum on Inclusive Development" emphasised the role of partnerships and collaborations in promoting inclusive development. (Vellema *et al.* 2020) ^[54]. As a result, today we witness number of Public-Private-Partnerships (PPPs), multi-stakeholder platforms, working towards inclusive development. (Pansera and Owen 2018; Heeks *et al.* 2020) ^[41, 23]. In this regard, inclusive growth in agriculture can be effectively achieved through convergence of activities of rural community based organisations organizations such as SHGs, NGOs, Farmer Interest Groups (FIGs), Commodity based Organisations (CBOs), (Paassen *et al.* 2022) ^[40]. These institutions already have their impact on the progress of Indian agriculture. They facilitate technology adoption, develop market linkages bringing welfare within the farming community (Pingali *et al.* 2019; Jia, 2020) ^[43].

Self Help Groups (SHGs) are small voluntary associations of women, who come together to save and mutually agree to contribute to a common fund. They provide small loans to their members from this pooled fund. Farmers' producer Organisations (FPOs) are collectives of farmers which aim to improve their bargaining power, provide access to quality inputs and services, enhance market access, reap economies of scale and facilitate remunerative prices for their produce. Convergence of SHGs and FPOs can enhance the economic prospects of small and marginal farmers as well as women in rural areas.

Successful models of convergence

1. Mahila Kisan Farmer Producer Company (MKFPCL): An all women farmer producer company in the tribal district of Rayagada in Odisha has exported 9.5 quintal of Amrapalli mangoes to London, realising 40 per cent higher price from local market that has benefitted over 1,900 farmers. The FPO is promoted by NGO "Professional Assistance for Development Action (PRADAN)". Market linkage was established by a firm "Palladium Inida" which is working with the Odisha government under 'Promotion and Stabilisation of FPO' project of the state government. Adoption of best packaging practices, access to storage infrastructure, and use of quality packaging materials enabled the FPO to establish market linkages abroad. Linking women farmers with international market, not only ensures higher price realisations but also testifies the fact that women farmers, when given right opportunities, can drive significant economic and social change. This initiative is a testament to the power of inclusivity and empowerment in driving sustainable development. The above institutional collaboration between FPO, NGO and the private firm not only boosted farmers' incomes but also enhance their market reach, both domestically and globally. For efficient agricultural value chains, it is imperative for these institutions to work alongside each other as they continue to be relevant for the development of the value chains.
2. Sri Vinayaka Mahila Stree Shakti Sangha: A women self-help group in Mattigatti village of Dharwad district in Karnataka, dedicated to the task of reviving 77 nearly forgotten varieties of Ragi. They took plot on lease basis and raised seedlings of the following ragi varieties 'gidda ragi', 'tene ragi', 'kallu ragi', 'unde ragi', 'koli

motte ragi', 'piccha kaddi ragi' and 'naku ragi' to name a few sourced from different regions. Sahaja Samruddha, an NGO, provided seeds and technical support to revive the indigenous varieties. Karnataka is the leading producer of Ragi in India as per the fourth Advance Estimate of 2021-22, according to the Ministry of Agriculture and Farmers with 11.33 lakh tonnes in 2021-22. Several SHGs across Karnataka, largely led by women have been contributing to this production. These kind of collaboration between SHGs and NGOs produces ripple effect countrywide in empowering women farmers, promoting their inclusion into the agricultural value chain thereby making them an important stakeholders in the value chain and deliver value to their produce.

Benefits of Convergence

- Enhanced financial inclusion: SHGs provide financial literacy and access to credit for their members, which is critical for investments in farming activities. FPOs can facilitate larger credit requirements for farming operations and infrastructure development by leveraging their collective strength.
- Capacity building: SHGs offer training in financial management, skill development, and entrepreneurship. FPOs provide training in modern agricultural practices, post-harvest management, and value addition techniques.
- Market access and linkages: By converging, SHGs and FPOs can create a more robust market linkage system, ensuring better prices and reduced transaction costs. Collective bargaining power helps in reaping economies of scale in bulk input purchase and bulk products sale.
- Value addition and processing: FPOs can establish processing, grading, and packaging centres which SHG members can manage and operate, thus generating additional income. This integration ensures that farmers receive a higher share in the value chain.
- Risk mitigation: Diversification through SHG activities such as handicrafts, animal husbandry reduces the dependency on agriculture alone. FPOs can introduce risk management tools like crop insurance, contract farming, forward contracts, and futures markets.
- Access to technology: FPOs can facilitate access to modern agricultural technologies and practices. SHGs can ensure that these technologies reach the grassroots level and are adopted by individual farmers.

Recommendations

- Government shall design policies that encourage convergence of SHGs and FPOs. Incentives for integrating value chains and facilitating infrastructure development (like storage, processing units) might be encouraged.
- Capacity building programs and training programs on financial literacy, market linkages, value addition, and technology adoption shall be organised regularly.
- Microfinance institutions, banks, and government schemes may be aligned to provide the necessary credit support to both SHGs and FPOs.

- Establishing direct marketing channels, such as farmer markets, e-commerce platforms, and contract farming arrangements might ensure better market access strengthening value chain infrastructure consequentially reducing post-harvest losses of agricultural produce.
- Monitoring and evaluation: Regular monitoring and evaluation of the convergence to measure their impact and make necessary structural changes. Collecting feedback to improve the effectiveness of these programs.

Conclusion

Post-independence, contribution of agriculture and allied sector have been on a slide while share for industrial (about 29 per cent) and services (about 53 per cent) are steadily rising. In view of the current issues faced by agriculture, some initiatives to ensure inclusive growth would be appropriate pricing of agricultural crops, timely access to credit, information and technology, capacity-building of farmers, farm youth and women, climate change and resilient agricultural techniques, right implementation of crop insurance policies alongside. The government must stride towards eliminating illiteracy, undernourishment, gender divide and provide access to clean energy, improved water and sanitation. Most agricultural surveys reveal that youth want to quit farming as it is not profitable but stick on due to lack of skills for any viable jobs in the market. So, rural youth must be imparted with skills to enhance their employability in the off-farm sector so that they can resort to alternate modes of livelihood at times of drought/crop failure. It is hard to bring the idea of inclusive growth in a concrete way. But it is seriously required in the wake of a major sector and its uncertain future. Plans for inclusive growth should be backed by appropriate social protection interventions, based on regional needs of different sections of the rural population. The government must engage with rural communities, self-help groups and Non-Governmental Organizations (NGOs) in implementing schemes to ensure benefit reaches all the sections of the population and inclusive growth is achieved.

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