

e-ISSN: 2319-8753 | p-ISSN: 2347-6710

EDIA

International Journal of Innovative Research in SCIENCE | ENGINEERING | TECHNOLOGY

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 12, Issue 8, August 2023

INTERNATIONAL STANDARD SERIAL NUMBER INDIA

Impact Factor: 8.423

9940 572 462

6381 907 438

 \bigcirc





|e-ISSN: 2319-8753, p-ISSN: 2320-6710| www.ijirset.com | Impact Factor: 8.423| A Monthly Peer Reviewed & Referred Journal |

Volume 12, Issue 8, August 2023

DOI:10.15680/IJIRSET.2023.1208011

Role of National Commodities and Derivative Exchange Limited (NCDEX), eNAM in Creating new Marketing Avenues for Farmers Producers Organizations (FPO)

Nalin Rai

Ph. D Scholar, Department of Economics, Jain University, Bangalore, India

"If you don't invest in risk management, it doesn't matter what business you're in, it's a risky business."- Gary Cohn

ABSTRACT: Evolution of the concept of Farmers Collectives or the Farmers Producers Organizations (FPO) is with the objective to create an echo system to facilitate Small and Marginal Farmers (SMF), or Small Holding Farmers (SHF) graduate to new marketing channels to marketing of their produce. With the advent of FPOs, the felt need was to create a formal institutional structure, powered by cutting edge technology to provide fair marketing platform for SHFs and mitigate risk. Advent of National Commodities & Derivative Exchange Limited (NCDEX) has facilitated in realizing that objective. Besides, the advent of the platform of e National Agriculture Market (eNAM), has also facilitated in creating better marketing of the commodities in a transparent manner for FPOs in general, more so Women Farmers under the category of SMF.

KEYWORDS: eNAM, FPO, NCDEX, ReMS, SMF, SHF

I. INTRODUCTION

Agriculture is a business that is fraught with risks at every stage. However, the biggest risk that the farmer (small and marginal) faces in his production cycle, is in product marketing where (better) price realization of the commodity breaks him rather than makes him. Advent of collectives has provided a panacea to mitigate these risks by starting to associate with the futures markets. The collectives has the potential to help farmers make educated planting / sowing decisions and decrease market risk. As a practice, sowing decision of majority of the farmers is guided by price realization of the previous year rather than from harvest prices in the current year. For policymakers, this prevalent practice is considered black box and a root cause of inflation. Association with the futures market has the potential to change this paradigm.

After the announcement of the National Policy of Promotion of Farmer Producer Organizations (FPO) in 2013, which underlined the importance of collectivization, NCDEX through its initiative created platform for the collectives and provided a new mechanism of marketing without an intermediary as an addendum. It has facilitated SMFs to have better access to investments and technology and cutting down associated risks. The importance of FPOs trading on the NCDEX platform lies in the fact that they can procure commodities, aggregate them and ensure that the size and quality concerns associated with future trade are adhered to. By associating with forward trading, farmers can bring about change in cropping practices by planning sowing on the basis of future prices. Association with forward trading, also exposes farmers to scientific assaying and has the potential of enhanced returns of the produce.

II. RELATED WORK

Ashok et al., (2017) pointed out that marketing of agricultural produce is one of the biggest obstacles for the farmers. Majority construct of the farmers in India belong to the category of SMF and owing to information asymmetry from sowing to harvesting, the price realization is not to the desired levels and the cycle continues for years on end. Farmers continue to be on the lookout for information, which is timely, adequate and accurate, and analyzed properly so that the farmers get package of practices- from growing to selling at the farm gate. The paper has highlighted about the initiatives undertaken for the farmers through NCDEX, which has revolutionized commodity trading in the country and has benefitted 39000 farmers so



e-ISSN: 2319-8753, p-ISSN: 2320-6710 www.ijirset.com | Impact Factor: 8.423 A Monthly Peer Reviewed & Referred Journal |

|| Volume 12, Issue 8, August 2023 ||

| DOI:10.15680/IJIRSET.2023.1208011 |

far through the platform of FPOs. Through case studies of two FPOs, this paper has highlighted how NCDEX is taking farmers to the next level of trading with future markets.

Aggarwal., et all (2017) traced the evolution of electronic trading as it has happened in Karnataka and the role NCDEX had in facilitating in evolution of the Rashtriya e-Market Services Private Limited (ReMS) set up in 2014 as a joint venture between the Government of Karnataka (GoK) and the National Commodity & Derivatives Exchange (NCDEX) e-Markets Limited. The paper traces the evolution of e-trading and how the Karnataka model came to be adopted at the national level as an electronic trading platform for commodities trading in the country. The paper has underlined in the detail the felt need for reformulating the architecture under which agriculture marketing has been working to make it sensitive to the dynamics of relationship existing between farmer-agent-trader, the fundamental characteristic that defines agricultural output transactions in India.

Reddy et. ,al (2019) has pointed out that the introduction of eNAM has enhanced price realization for the farmers and after introduction of e-auction more markets have associated with eNAM. Other benefits of eNAM include timely online payment of sale proceeds to the farmer's bank account and reduced chances of collusion among traders. Though, owing to lack of quick assaying facilities, participation matrix of traders is not expanding. It has advocated for participation of FPOs Formation of farmers groups, and also to encourage more commission agents and traders to use eNAM and also link more number of warehouses and rural periodical markets so that the scale, scope and efficiency of market operations is further amplified.

Bishnoi et al (2020) through the case study of Jai Sardar FPO documented how the members of FPO became aware about **option trading**. For the farmers becoming conversant with the options trading has the potential to reduce their dependency on MSP (minimum support price) for marketing of their produce. The paper has further highlighted how through the series of awareness programmes that NCDEX conducted helped the farmers become aware of need for assessment of the commodities through various accepted international parameters. One of the most common quality determinants is the moisture content in the commodity, which becomes a major price determinant factor. Farmers were trained to use the moisture meters and they are getting better price realization, an aspect that could not have been possible before aggregating as an FPO and associating with the NCDEX.

Bandhavya et. al (2022) undertook a detailed study of eNAM in Andhra Pradesh in 2019-20 involving 100 respondents, of which 30 were farmers, 30 traders, 5 FPOs, 25 commission agents, and 10 e-NAM officials from the market. The study pointed out the success of programmes like eNAM hinges on bottoms up approach to help farmers adopt it. There is also need for continuous awareness programme in association with FPOs to train the farmers.

Raju et. al (April 2022), undertook a SWOT study of farmers from six blocks in Guntur district of Andhra Pradesh. The study pointed out that farmers were aware about different aspects of trading through eNAM like gate entry, quality assaying and e-bidding. Zeal to increase association with eNAM was significantly influenced by factors such as education, extension contact, market orientation, income orientation, mass media exposure, risk orientation and social participation. The study pointed out that continuous hand-holding is required on various aspects of e-NAM in order to enhance its utilization effectively and efficiently.

Rai (2023) underlined how Ram Rahim Pragati Producers Company Limited (RRPPCL), an all-Woman FPO and having tribal women as members is India's first FPO to be enlisted on NCDEX and paved the way for other Women FPOs to associate with NCDEX.

IV. PROPOSED WORK AND METHODOLOGY

The objective of this research topic is to find out how NCDEX and eNAM have facilitated in providing a veritable platform to the FPOs and has trained SMFs about the technical aspects related to commodity marketing, which helps in better price realizations.

The data is collected from secondary sources, specifically from the monthly journal of NCDEX which documents in detail the integration of FPOs with its platform, as also case studies of eNAM.

V. DISCUSSION & CONCLUSION

History of commodity exchange markets around the world: Commodity markets have been in existence from the ancient times and it is guided by two key edifices- price discovery and price transparency. The first evidence of existence of commodities markets is from the City of Athens from 04 Century B.C. where it is alluded that with the objective of efficient supply and price manipulation, the city was monitoring its inventory of grains in an efficient



e-ISSN: 2319-8753, p-ISSN: 2320-6710 www.ijirset.com | Impact Factor: 8.423 A Monthly Peer Reviewed & Referred Journal |

Volume 12, Issue 8, August 2023

| DOI:10.15680/IJIRSET.2023.1208011 |

manner. Same evidences have been found from around 1200 B.C. from China. Earlier markets in South Asia, Arabian countries and in Egypt had evidences of exchange of commodity trading.

How is NCDEX Helping the SMFs

Since 2014, when the first FPO –RRFPCL (an all Women FPO from MP) started trading, so far 515 FPOs have registered on the platform of NCDEX, while 174 are trading, and this association covers 16 states, trading in 20 commodities and 10,74,456 farmers are associated with trading. (Source: NCDEX Monthly Update- June 2023) From the table it is apparent that between 5 years from 2016-17 to 2021-22 the volume trade on NCDEX through FPOs has increased by around ten times.

Year	No. of FPOs trading	No. of farmers trading
2016-17	64	122085
2017-18	136	209263
2018-19	224	256952
2019-20	260	526451
2020-21	323	884546
2021-22	405	1009471
2022-23	484	1057482

Table -2: Growth of FPOs trading over the years

(Source: NCDEX Monthly FPO update- June 2023)

It is clear from the above table that the no. of FPOs trading on NCDEX platform has increased by more than 7 times.

Steps initiated by Govt., of Karnataka to integrate FPOs with NCDEX.

To infuse reforms in the agricultural marketing system, Government of Karnataka (GoK) entered into a tie-up with NCDEX and floated ReMSL (Rashtriya eMarket Services Pvt. Limited) with equal share between NCDEX and GoK. Further diversification to this platform was obtained when NABARD (National Bank for Agriculture and Rural Development) joined hands in 2021 to create a window for FPOs to trade through it. Six commodities are traded through this platform presently.

With SEBI joining hands by creating "Option in goods" that provides opportunity to the farmers to lock in their selling price at the time of sowing of the crops itself thereby initiating the process of protection of the right of the farmers to participate in the trading in case there is a rally in the price of the said commodity. On account of advance awareness by the farmers and the members of the FPO about the premium to be paid, FPOs now have the leverage to factor the value of premium as a part of their cost of cultivation. This awareness about premium to be paid for trading through NCDEX could facilitate in selection of the crop at the time of sowing depending upon the dynamics of the market. It is a self-insurance initiative on the part of NCDEX, a cost for locking price of their produce before sowing.

Launched in April 2016, presently 1000 mandis in 22 States and Union territories are integrated with eNAM. 173 lakh farmers, 2100 FPOs, traders and around 1 lakh commission agents are utilizing the services of eNAM.

As state governments with policy interventions are allowing trading of agricultural commodities through eNAM there has been a sharp increase of 290% inter-mandi trade amounting to Rs.336 crore. Presently the With more states allowing trading of agricultural commodities using digital wholesale agri-marketing platform, eNAM, turnover of the digital platform, launched in April 2016 has increased by 32% to Rs.74,656 crore in 2022-23 as compared to 2020-21. During the current fiscal the platform expects to cross Rs. 1 lakh crore.

Further handholding to the FPOs has been provided by NCDEX through price dissemination via free SMS services, conducting awareness-cum-training programmes in different parts of the country as also by leveraging digital media platform like "Mandi.com". These outreach programmes by NCDEX have encouraged members of FPO to adopt



|e-ISSN: 2319-8753, p-ISSN: 2320-6710| www.ijirset.com | Impact Factor: 8.423| A Monthly Peer Reviewed & Referred Journal |

|| Volume 12, Issue 8, August 2023 ||

| DOI:10.15680/IJIRSET.2023.1208011 |

NCDEX platform, which they view as being transparent and fair alternate platform that facilitates in mitigation of risks associated with farming.

CASE STUDIES: Success stories of Women FPOs trading on NCDEX and benefits of trading on eNAM

One of the endearing part of the advent of the platform of NCDEX has been that it has provided an opportunity for women farmers to formally link with forward trading and gain recognition for their efforts in agriculture over the ages. To bring the women farmers to the mainstream the promoting agencies have played a big role.

Srijan is one such agency working with women farmers in one of the most interior districts of Rajasthan-Bundi where women SHGs eventually federated into a FPC- Samriddhi Mahila Crop Production Company Limited, set up in 2011, comprising of 2310 women SHG members. After 2015 draught, the condition of the women farmers was bad. Hand held by the promoting agency, members of FPO led by Savitri Gaur got an exposure in forward trading. They adopted future trading as it mitigated volatility of commodity price. A pilot trade of 10 MT of Soybean was done in September 2016 for November 2016 contract. Thereafter, they hedged 40 MT of mustard for April contract. These two pilot trades helped them understand trade cycle and requirement of aligning the quality of their produce to the Exchange contract specifications. This confidence has brought awareness about quality and assaying, updating on commodity price through phone, association with NCDEX has transformed the lives of FPO members economically.

Aranyak Farmers Producers Company Limited is another FPO which grew out of SHGs, registered itself in 2014, promoted by JEEVIKA in Backward district of Purnea in Bihar, was helped by Technoserve- a global non-profit which provided hand-holding to set up a maize value chain in Purnea-Katihar zone. Technoserve also associated them through NCDEX, the association helping them to connect with exchange-accredited warehouse and sell it directly either to traders or institutional buyers through the future platform, helping 800 members realize 20% higher returns for their produce. Incidentally, maize is still the only commodity being traded through NCDEX from Bihar. Kiran Devi, who is the president of the FPC, now travels to different states to impart knowledge about advantages of future trading.

eNAM Success stories:

Adoni, located in Kurnool district, is second largest marketing yard in Andhra Pradesh. It deals in Cotton, Castor Seed, Groundnut, Sunflower and Tur. It has implemented eNAM in 2017. It stood first in the country to receive 1 crore bids for 11.34 lakh lots on 20.01.23. Adoni as a matter of practice promotes competitive bids with 9 bids per lot and has achieved more than 30 bids per lot in the state and in the country, underlining the importance of eNAM. Besides, through the batch size of bidding it is facilitating in promotion of quality and the importance assaying for the farmers.

Jharkhand's initiative to promote eNAM is also worthy of mention. It is one of the few states that encouraged interstate trade with Uttar Pradesh, West Bengal, Odisha, Maharashtra and Jammu & Kashmir. Traders belonging to different districts of Jharkhand through this eNAM trade acquired 3291 Quintal of apple from J&K to emerge as the highest trader of apple in the country. Small Farmers Agriculture Commission (SFAC), has provided vital hand-holding to facilitate this trading. eNAM is revolutionising the traditional markets and yards by providing digital weighing scale, and has entered into tie-up with start-ups (AGNEXT) for rapid testing of moisture content of commodity to help farmers get a better price.

VI. CONCLUSION

Women farmers have shown the way forward to associate with forward trading and they need to be encouraged all over the country to associate with NCDEX, through documentation of the case studies and sharing of the experience of successful Women FPOs.

- To avoid disruption in future markets, it is required that both FPOs and NCDEX should focus initially on nonsensitive commodities from food security point of view. It will help in grounding of the futures market.
- Continuous knowledge dissemination and handholding is required for the farmers through the FPO mode to help them be abreast of changes happening the future markets
- China model of linking small holding farmers through state support to futures thereby customising products and reducing price distortions can be adopted in India as well. (Chinese agriculture is dominated by small holding farmers).
- Forward and options, both instruments, need to be encouraged.



|e-ISSN: 2319-8753, p-ISSN: 2320-6710| www.ijirset.com | Impact Factor: 8.423| A Monthly Peer Reviewed & Referred Journal |

|| Volume 12, Issue 8, August 2023 ||

DOI:10.15680/IJIRSET.2023.1208011

REFERENCES

- Abhishek, Saxena, R., Kumari, R. (2020). Farmers' Producer Organization (FPO) of Kaushalya Foundation: Enabling Social Inclusion of Women Through Technology. In: Poonamallee, L., Scillitoe, J., Joy, S. (eds) Socio-Tech Innovation. Palgrave Macmillan, Cham. <u>https://doi.org/10.1007/978-3-030-39554-4_11</u>
- 2. Aggarawal Nidhi, Jain Sargam, Narayanan Sudha: The Long Road to Transformation of Agricultural Markets in India Lessons from Karnataka; Economic & Political Weekly, October 14, 2017 vol Lii no 41
- 3. Agrawal, D. K. (2022). An Empirical Study On Socioeconomic Factors Affecting Producer's Participation In Commodity Markets In India. *Journal of Positive School Psychology*, 2896-2906.
- 4. Ashok, M. V., & Pandey, H. (2017). Agricultural marketing-how farmers face the challenge. *Indian Journal of Agricultural Marketing*, *31*(3s), 49-60.
- 5. Bandhavya Mallela, Singh A.K., and Lal Sudhanand Prasad; Indian Journal of Extension Education, Oct., 2022
- 6. Bishnoi, R., & Kumari, S. (2020). Challenges Faced by FPOs & Strategies to Overcome: A Review. *International Journal of Advances in Agricultural Science and Technology (IJAAST)*, 7(6), 25-33.
- 7. Chatterjee, T., Raghunathan, R., & Gulati, A. (2019). Linking farmers to futures market in India.
- 8. <u>e-NAM gathers pace (msn.com)</u>
- 9. file:///C:/Users/Nalin%20Rai/Downloads/JPSP+-+2022+-+276.pdf
- 10. Gopal Naik, G. Raghuram, Jothsna Rajan, Manu Bansal, Gopi S. Gopikuttan, Prateek Tawri and Ritwik Singh: Agricultural Warehousing in India: Trends, Constraints, and Policies, January 2022
- 11. http://idc.icrisat.org/idc/wp-content/uploads/2017/10/IDC-Report-5-AJ.pdf
- 12. http://oar.icrisat.org/9870/1/Research%20Report%20IDC%20-%2016%20-%20Rythu%20Kosam%20Project.pdf
- 13. http://www.agritech.tnau.ac.in/farm_association/pdf/Agribusiness_final_web.pdf
- 14. https://agriculturepost.com/agritech/agnext-joins-hand-with-govt-for-integration-of-agritech-services-with-e-nam-platform/
- 15. https://arflab.co.in/price-management-in-agri-commodity-derivatives-market-an-indian-outlook/
- 16. https://commodity.com/soft-agricultural/
- 17. https://dea.gov.in/sites/default/files/ReportCommodityDerivativeMarkets042018.pdf
- 18. <u>https://documents1.worldbank.org/curated/en/298391515516507115/122290272_20180012014525/additional/122_548-WP-P090764-PUBLIC-India-BRLP-Booklet-p.pdf</u>
- 19. https://icrier.org/pdf/Working Paper 383.pdf
- 20. https://link.springer.com/chapter/10.1007/978-3-030-14409-8_8#Tab3
- 21. https://naarm.org.in/wp-content/uploads/2022/04/FPO-Policy-Paper.pdf
- 22. <u>https://ncdex.com/downloads/fpo/casestudy/Kheti%20Ke%20Sikandar%20-</u> %20Success%20Stories%20of%20FPO%20eng.pdf
- 23. https://ncdex.com/downloads/fpo/casestudy/Note%20on%20Risk%20management%20for%20FPOs_English.pdf
- 24. https://ncdex.com/downloads/fpo/reports/NCDEX%20Group,%20Connecting%20Farmers%20to%20Market,%20 Feb%202022.pdf
- 25. <u>https://ncdex.com/fpo/fpooverview#:~:text=Further%2C%20NCDEX%20has%20been%20handholding,on%20DD</u> %20Kisan%2C%20among%20others.
- 26. <u>https://smartagripost.com/ncdex-future-plan-to-benefit-small-and-medium-farmers/#:~:text=Ans%3A%20For%20the%20last%20two%20years%20we%20at,appropriate%20manner%2C%2 0they%20cannot%20get%20the%20right%20price.</u>
- 27. https://web.iima.ac.in/assets/snippets/workingpaperpdf/10539809132015-01-05.pdf
- 28. <u>https://www.financialexpress.com/life/technology-food-producer-oganisations-farmers-reap-bumper-gains-2530157/</u>
- 29. <u>https://www.indianjournals.com/ijor.aspx?target=ijor:ijam&volume=31&issue=3s&article=015</u>
- 30. <u>https://www.microsave.net/wp-content/uploads/2020/09/200828-Samunnati-and-MicroSave-Consulting-Report-on-Enhancing-Market-Access-for-FPOs.pdf</u>
- 31. https://www.nabard.org/Hindi/auth/writereaddata/tender/2709220400understanding-of-fpos-business-ecosystemand-strategies-to-tap-potential.pdf
- 32. https://www.newindianexpress.com/states/tamil-nadu/2023/apr/24/tamil-nadu-e-nam-successful-in-providing-better-prices-to-tomato-farmers-2568662.html
- 33. <u>https://www.nuvamawealth.com/investology/commodity-trading-25c402/what-is-ncdex--meaning-benefits-and-account-opening-20f761</u>
- 34. <u>https://www.researchgate.net/publication/361559521 FPOs in India Creating Enabling Ecosystem for their Sustainability Policy Paper from ICAR-NAARM</u>



e-ISSN: 2319-8753, p-ISSN: 2320-6710 www.ijirset.com | Impact Factor: 8.423 | A Monthly Peer Reviewed & Referred Journal |

|| Volume 12, Issue 8, August 2023 ||

| DOI:10.15680/IJIRSET.2023.1208011 |

- 35. <u>https://www.thehindubusinessline.com/news/fpos-turn-to-ncdex-for-price-protection-for-farmers/article33439362.ece</u>
- 36. https://enam.gov.in/web/blog
- 37. Inter-mandi eNAM trade up 290% in Q1 | The Financial Express
- 38. https://www.nafpo.in/wp-content/uploads/2021/12/Kheti-Ke-Sikandar-Success-Stories-of-FPO-eng.pdf
- 39. Kumar, S. FARMER PRODUCER ORGANISATIONS FOR TRANSFORMING AGRICULTURAL MARKETING.
- 40. Kumar, S., Singh, R., Thombare, P. B., & Kale, P. A. Farmer Producer Organizations: Schemes and Initiatives in India.
- 41. Mahabub Basha, S., & Kethan, M. (2022). Participation in Commodity Markets in India. Journal of Positive School Psychology http://journalppw. com, 6(5), 2896-2906.-LR
- 42. Manjusha Kadam, Dr. (2018). Strategies for Sustaining the FPOs: Case Illustrations. SSRN Electronic Journal. 10.2139/ssrn.3332531.
- 43. Prasad, C. Shambu , Kanitkar Ajit, Dutta Deborah ; Farming Futures, Reimagining Producers Organisations in India, 2023
- 44. Raju Shanmukh M, Devy Rama M, Gopal Sathya P.V. Knowledge of Farmers on Functioning of eNAM, Indian Journal of Extension Education (April-June) 2022
- 45. Ranjit Kumar, Sanjiv Kumar, R.S. Pundir, V. Surjit, and Ch. Srinivasa Rao. (2022). FPOs in India: Creating Enabling Ecosystem for their Sustainability. ICAR-National Academy of Agricultural Research Management, Hyderabad, India. pp22.
- 46. N. Rai, "Agricultural Development and Digitization An Exploratory Study of Adoption of Technology from a Farmers Producers Organization Perspective", *IJRAMT*, vol. 4, no. 4, pp. 222–229, May 2023.
- 47. Reddy Amarender A, Lnu Mehjebeen, Electronic National Agricultural Markets, Impacts, Problems and Way forward, IIM Kozhikode Society & Management Review, January 2019
- 48. Sara Boettiger and Sunil Sanghvi: How digital innovation is transforming Agriculture: Lessons from India, McKinsey; May 22, 2019
- 49. Saxena, A. Are Farmer Producer Companies agents of equitable development? Insights from a stakeholder theory perspective.
- 50. Tripathy, K. K., & Deshpande, D. V. Linking Small Holder Farmer Collectives to Market: A Case Study of Maha-FPC.-LR





Impact Factor: 8.423





INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY





www.ijirset.com