



Operations Management in Farmer Producer Organizations: A Case Study of Bagma Agri-Producer Company Ltd., Tripura

Biswajit Debnath^{1,*}, Chandan Debnath²

¹Subject Matter Specialist (Fisheries), ICAR- Krishi Vigyan Kendra, South Tripura

(ICAR Research Complex for NEH Region), P.O.: Manpathar, B.C. Manu, South Tripura – 799144

²Senior Scientist (Fisheries Resource Management), ICAR Research Complex for NEH Region, Umiam, Meghalaya – 793 103

*Corresponding Author: debnath_biswajit@rediffmail.com

Received: 18 Apr 2024; Received in revised form: 23 May 2024; Accepted: 08 Jun 2024; Available online: 21 Jun 2024

©2024 The Author(s). Published by Infogain Publication. This is an open access article under the CC BY license

(<https://creativecommons.org/licenses/by/4.0/>).

Abstract— This study elucidated the efficacy and challenges of Farmer Producer Organizations (FPOs) in India, focusing on the Bagma Agri-Producer's Company Ltd. (BAPC Ltd.) in Tripura. Through a rigorous analysis of primary data collected from 32 randomly selected members out of 250 registered participants, the research delineated the multifaceted operations and organizational dynamics of BAPC Ltd. The study employed Ordinal Logistic Regression to elucidate the correlation between socio-economic variables and member satisfaction, revealing a statistically significant positive relationship ($p \leq 0.10$) for most factors, excluding gender and non-farm income. A comprehensive SWOT analysis underscored BAPC Ltd.'s strategic advantages, including its multi-product approach and robust institutional linkages, while also highlighting areas for amelioration such as limited value-addition infrastructure. The organization's involvement in eight diverse projects, ranging from dairy to apiculture, exemplified its adaptability to the region's mixed farming landscape. However, the research also uncovered potential threats to long-term sustainability, including competition from nascent FPOs and persistent intermediary influence in supply chains. This nuanced examination of BAPC Ltd. provided invaluable insights into the potential of FPOs as catalysts for agricultural transformation, while simultaneously emphasizing the imperative for sustained support and strategic interventions to optimize their impact on smallholder agriculture in India.



Keywords— Farmers Producer's Organization (FPO), Ordinal Linear Regression, Smallholder Agriculture, Rural Development, Agribusiness Management

I. INTRODUCTION

Northeast India, a predominantly agrarian region, is renowned for its diverse cultural heritage and rich biodiversity. Endowed with abundant natural resources, including fertile land, water bodies, dense forests, high rainfall (ranging from 1500 mm to 12000 mm), and a mega-diverse flora and fauna, the region possesses unique and unparalleled features (Deka et al., 2020; Debnath, 2022). However, despite these ample natural and human resources, the Northeast region of India lags behind many other states in terms of development.

Tripura, like other states in the Northeast, has an agriculture-based economy, with approximately 42% of its population dependent on agriculture and allied activities (DoE & S, 2018). Rice is the major crop cultivated in the state, and the climate is suitable for a variety of horticultural and plantation crops, including pineapple, jackfruit, tea, rubber, and bamboo. A section of the indigenous population practices the traditional slash-and-burn (*jhum*) method of cultivation. One of the main obstacles in the agriculture sector of the state is the shortage of cultivable land, as two-thirds of the total

geographical area is hilly, and only about 27% of the land is cultivable, compared to the national average of 43%.

The better performance of the agriculture sector has a direct and multiplier effect across the economy. Interestingly, about 96% of agriculturists in Tripura are marginal and small farmers, with very few large landholders specializing in specific crops. A common pattern observed in the state is the same farmer dealing with multiple crops, vegetables, livestock, fish, and other agricultural activities. However, studies have shown that farmers face significant challenges in adopting modern practices. For instance, Debnath et al. (2017) found that lack of financial support, low-cost feed, and quality fish seed were the main barriers to the adoption of recommended fish farming technologies in fishery sector in South Tripura.

Tripura's industrial backwardness can be attributed to its geographical isolation and poor road and railway connectivity with the mainland of India. Low availability of infrastructure has made the process of economic development and decentralization extremely difficult in the state. The adoption of best practices and innovation in agriculture, animal husbandry, fisheries, horticulture, as well as small and micro-level entrepreneurial units, including information technology, can boost employment opportunities and improve productivity, thereby reducing rural poverty to a large extent in the state.

Producer companies can play a crucial role in helping smallholder farmers participate in emerging high-value markets, such as the export market and the unfolding modern retail sector in India. Theory and experience suggest that Producer Organizations (POs) offer a means by which the constraints faced by smallholder farmers can be reduced, thereby enhancing their participation in agricultural markets (Stockbridge et al., 2003). POs have played a significant role in agricultural and rural development, and in recent years, their strengthening has gained increasing donor attention owing to their importance in promoting the commercialization of smallholder agriculture in response to structural adjustment policies, economic liberalization, and globalization.

By setting the target of doubling farmers' income by 2022, the Indian government signaled a significant policy shift, shifting focus from food production to farmers' welfare. Toward this goal, several schemes are in place, with the promotion of farmer producer organizations (FPOs) being a prominent one, particularly important due to the small and fragmenting landholdings in the country (85 percent of farms are less than 2 hectares, and 67

percent are less than 1-hectare holdings (GOI 2015)). Small farm size is associated with limited marketable surplus and lower access to inputs like seeds, fertilizers, credit, information, and extension services. Small and marginal farmers also have poor access to public goods, such as public irrigation and government subsidies. Poor transportation and communication networks restrict farmers from accessing remunerative markets and result in opportunities for rent-seeking by local traders. The lack of adequate local markets and the costlier transport for small quantities force farmers to sell to local traders at low prices (Hegde 2010). Without large volumes, small farmers face low bargaining power in input procurement and output sale (Kirsten and Sartorius 2002). With the formation of FPOs, the role of middlemen is significantly reduced (Fafchamps and Hill 2005). Hence, farmer organizations can create opportunities for small and marginal farmers to participate more effectively in markets (Stockbridge et al., 2003).

The Indian government, with economic liberalization, not only aims to initiate new organizational forms in agricultural production and marketing to integrate large firms but also encourages groups of small-scale primary producers to connect with corporate buyers. With the amendment of the Companies Act 1956 in 2002, the Indian government introduced the concept of 'producer companies,' which constitute an attempt to establish basic business principles within farming communities, bring industry and agriculture closer together, and boost rural development (Kumar, 2008). Farmer producer companies can be seen as hybrids between private companies and cooperative societies. The producer-company concept aims to combine the efficiency of a company with the 'spirit' of traditional cooperatives. These companies aim to integrate smallholders into modern supply networks, minimizing transaction and coordination costs while benefiting from economies of scale (Lanting, 2005). They are run and owned by farmers, financially facilitated by the government or donor agencies, and managed by professionals.

Against this backdrop, this research paper aims to explore the innovative ideas of value-chain governance and collective-action organizational structure of a producer company in Tripura. Through a case study of a specific producer company, Bagma Agri-Producer's Company Ltd. (BAPC Ltd.), which produces and markets multiple agricultural products, the paper discusses the potential benefits for rural communities and the re-empowering effect of this form of farmer organization. The general intention is to analyze the potential of the producer-company model as a bottom-up approach for smallholder participation in emerging markets of Tripura.

II. DATA AND METHODOLOGY

The study was based on primary data and information collected from the Bagma Agri Producer Company Ltd. (BAPC Ltd.) of Tripura State. The author conducted personal discussions with members using a semi-structured interview schedule to gather information about the Farmer Producer Organization (FPO). Additionally, relevant findings from research articles were incorporated as secondary data to complement the analysis. The study utilized cross-sectional information for this case study.

Tabulation and percentage analysis were carried out to highlight the salient features of the data. Tabulation is a systematic way of presenting numerical data in an easily understandable format, providing clear expression and facilitating convenient comparison of related numerical data. The percentage form was used while discussing the study parameters to make the document more reader-friendly.

In the later section of the analysis, Ordinal Logistic Regression (OLR) was employed to assess the level of satisfaction of being a member of the selected FPO against various socioeconomic parameters. Ordinal regression is a member of the regression analysis family, used as a predictive analysis to describe data and explain the relationship between one dependent variable and two or more independent variables. In ordinal regression analysis, the dependent variable is ordinal (statistically, it is 'polytomous' ordinal), and the independent variables are ordinal or continuous-level (ratio or interval).

Linear regression estimates a line to express how a change in the independent variables affects the dependent variables. The independent variables are added linearly as a weighted sum. In this study, the dependent variable was measured on a 5-point Likert scale (1 = 'very poor satisfaction', 2 = 'poor satisfaction', 3 = 'Average satisfaction', 4 = 'high satisfaction', and 5 = 'very high satisfaction').

The independent or explanatory variables considered in the study were:

1. Gender (male or female)
2. Experience in farming (number of years of involvement)
3. Family size
4. Education (number of classes passed)
5. Monthly income from farming activities (in Indian Rupees)
6. Monthly income from non-farming activities (in Indian Rupees)

7. Number of training sessions attended

The analysis aimed to explore the innovative ideas of value-chain governance and collective-action organizational structure of the BAPC Ltd., a producer company in Tripura. Through this case study, the potential benefits for rural communities and the re-empowering effect of this form of farmer organization were discussed.

By examining the level of satisfaction of FPO members against various socioeconomic factors, the study sought to understand the factors influencing the success and potential of the producer-company model as a bottom-up approach for smallholder participation in emerging markets of Tripura.

III. RESULTS AND DISCUSSION

The analysis and discussion section of this paper is organized into three distinct parts. The first section provides a descriptive analysis regarding the background and genesis of the selected Farmer Producer Organization (FPO), Bagma Agri-Producer's Company Ltd. (BAPC Ltd.). The second section offers a critical SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of the current state of affairs at BAPC Ltd. The third section attempts to explain the level of satisfaction of members in their participation in BAPC Ltd. against a few selected socio-economic variables as explanatory factors. In the final section, we conclude that producer companies are a promising new model of smallholder organization, but one that requires continued support and further critical analysis to formulate strategic options as per the requirements.

Background and present status of BAPC Ltd.

The Farmer Producer Organization, BAPC Ltd., was initially established under the registration of the Cooperative's Act. However, due to administrative difficulties, the organization shifted its registration to the Companies Act. The Board of Directors and the main implementing body of BAPC Ltd. were involved in activities through a formal farmer's club, namely, Gram Bikash Farmer's Club. Later, the same group of farmers took the initiative to form an FPO under the Companies Act, considering the scope of benefits for a large number of village farmers.

Through years of existence, professionalism, commitment towards the farming community, efficient leadership, and robust networking with other reputed organizations, Bagma Agri-Producer Company has emerged as the leading producer organization in the entire State of Tripura. It started as a vibrant farmer's club supported by NABARD, KVK, and ICAR, later taking the

form of a Trust before attaining its current status as a recognized producer organization.

BAPC Ltd. is deeply associated with organizations like NABARD, ICAR, KVKs, and various line Departments of the State Government, including Agriculture, Horticulture, Fisheries, and Animal Resource Development Departments. BAPC Ltd. is rapidly emerging as a credible name in the landscape of Farmer Producer Organizations (FPOs) in Tripura, and much of the credit behind the current growth and development of the organization goes to all the organizations actively supporting its activities targeted towards the welfare of the farming community.

BAPC Ltd. is presently working on eight projects and is in the process of initiating three more projects. BAPC Ltd. has focused on dairy as their core or central activity for supply value chain development, with credit linkage facilities supported by NABARD. Apiculture, the development of Rural Marts, the formation of Joint Liability Groups for marginal farmers, and Seed Production programs (especially for paddy) are among the multi-product-based activities undertaken by BAPC Ltd. Recently, a credit-linked fish farming project was also initialized to diversify the activities of BAPC Ltd. for a large section of farmers.

There are 10 Board of Directors (BoDs) in the company. Two of the BoDs are graduates by qualification, while all the Directors have years of practical experience in agriculture and are considered progressive and innovative farmers in the farming community. Under the able leadership of these BoDs, the day-to-day operational activities are spearheaded by a young and qualified CEO who holds a Post Graduate degree in Rural Development from Tripura University. The CEO is supported by three other permanent staff members.

Currently, the key activities are focused on the supply of inputs like feed, seed, fertilizers, etc., Seed production with the support of technical organizations, Apiculture, Dairy sector activities (supply value chain), assistance for KCC issuing, Rural Marts, Aggregation and collectivization of farmers' produce and marketing, training and capacity building of members, exposure visits, and financial inclusion. Table 1 provides a generalized view of the different types of services offered by BAPC Ltd. against the generalized profile of FPO services available in the literature. It shows a potential scope for development by BAPC Ltd. in different directions.

SWOT Analysis of BAPC Ltd.

I. Strengths:

- a. The management or Director's Committee of the FPO is well-known among the farmers' group.
- b. It is a multi-product-based FPO, highly relevant for a state like Tripura, where mixed farming category farmers outnumber specialized farmers.
- c. Regular contact and support from NABARD.
- d. Running a few important projects.
- e. A good and efficient team of staff is involved in management.
- f. The FPO has its own retail outlet at Matabari, a religiously important spot in Tripura.
- g. Location advantage of being located near the district headquarters and connectivity through the national highway and railway.

- h. Some members and Directors are already involved in entrepreneurship in their personal capacities.

II. Weaknesses

- a. Members are not highly experienced in FPO management and do not have a focused sustainable plan of work to date.
- b. Less exposure to many technological advances in farming systems.
- c. The FPO is not single-product-based.
- d. Lack of entrepreneurship development attitude among farmers.
- e. Lacking efficient resource personnel for project preparation or planning.
- f. They do not have infrastructure related to value addition, food processing, or storage.
- g. Lacking good infrastructure facilities required to run an office.
- h. The location of participating Gram Panchayats is widespread.

These challenges are not unique to BAPC Ltd. A study by Debnath et al. (2017) on fish farming in South Tripura found that the main barriers to adopting recommended practices were lack of financial support, unavailability of low-cost feed, and lack of quality fish seed. Their findings align with the weaknesses identified in BAPC Ltd., particularly the lack of exposure to technological advances and the need for infrastructure development.

III. Opportunities

- a. Importance towards FPOs as declared by the government.

b. The FPO is comparatively new, with plenty of opportunities for expanding its activities.

c. Farmers are interested and show a positive response towards FPO activities.

d. Vertical integration of the marketing channel.

e. Scope for diversification of crops and related supply-value chain activities.

f. Scope for improving family members' income through economies of scale.

g. Farm mechanization is yet to be adopted.

h. Packaging and value addition for different produce are yet to be explored.

i. Institutional support.

IV: Threats

a. Long-term sustainability.

b. Competition from other recently initiated FPOs.

c. Administrative control.

d. Short-term monetary greed by avoiding the FPO channel by a few members.

e. The involvement of middlemen in the supply value chain is still very active at the village level.

Satisfaction of being a registered member

Altogether, there are 250 registered members under the selected FPO, and as the FPO deals with multiple agricultural commodities, the registered members also have their involvement in farming various agricultural commodities. Table 2 presents the percentage of FPO members who expressed their primary interest in agricultural activities as received through a primary survey of 32 randomly selected members of BAPC Ltd.

The level of satisfaction of being a member of BAPC Ltd. was analyzed using a 5-point Likert scale through Ordinal Linear Regression (OLR), and the results are presented in Table 3.

The model fitting information with a -2 log-likelihood chi-square value of 54.97 was observed at less than a 1% level of significance, and the Goodness of fit using the Pearson chi-squared test also explained a better fit of the model to the data. It was 86.75 (sig. = 0.984), suggesting a good model fit.

Table 3 shows the regression coefficients and significance tests for each of the independent variables in the model. The regression coefficients can be literally interpreted as the predicted change in the log odds of being at a higher level of satisfaction in the form of the dependent variable. Looking at the mathematical sign as it

appears in Table 3, we can conclude that all the variables except monthly income from non-farming activities had a positive sign, indicating a positive predictive increase in log odds of higher levels of satisfaction for membership in the FPO. This indicated that higher values of socio-economic variables, except non-farm income, were more likely to indicate higher levels of satisfaction in becoming a member of the FPO. However, for non-farm income, it was the opposite, which might be due to the fact that farmers with higher non-farming income were more likely to have a lower level of satisfaction in being a member of the FPO. But it was not significant.

While observing other independent variables, except gender and income from non-farming income, none showed a significant influence on the level of satisfaction of being a member of BAPC Ltd. The coefficients of other variables were positive and significant at a 10% significance level, indicating a positive influence on the level of satisfaction of being a member.

In summary, the analysis provided insights into the background, present status, strengths, weaknesses, opportunities, and threats of the Bagma Agri-Producer's Company Ltd. (BAPC Ltd.), a prominent Farmer Producer Organization in Tripura. It also examined the level of satisfaction among members of the FPO, considering various socio-economic factors. The findings suggest that producer companies like BAPC Ltd. are a promising new model for smallholder organization in agriculture, particularly in regions like Tripura where mixed farming is prevalent.

The study reveals that BAPC Ltd. has made significant strides since its inception, evolving from a farmer's club to a well-established producer company. Its strong associations with organizations like NABARD, ICAR, KVKs, and various state government departments have contributed to its growth and credibility. The company's focus on multiple agricultural activities, including dairy, apiculture, seed production, and fisheries, demonstrates its adaptability to the diverse needs of farmers in the region.

The SWOT analysis provides valuable insights into the current state of BAPC Ltd. The company's strengths lie in its multi-product approach, strong management team, and strategic location. These factors position it well to serve the needs of mixed farming communities in Tripura. However, the analysis also highlights several weaknesses, such as limited experience in FPO management, lack of value-addition infrastructure, and the need for more focused long-term planning. These areas require attention for the company's continued growth and success.

The opportunities identified for BAPC Ltd. are significant. With the government's increasing focus on FPOs, there is potential for expansion, diversification, and vertical integration of marketing channels. The scope for introducing farm mechanization and exploring value addition processes presents avenues for enhancing farmer incomes and overall productivity. However, the company must also be mindful of the threats it faces, including long-term sustainability challenges, competition from other FPOs, and the persistent influence of middlemen in the supply chain.

The analysis of member satisfaction provides interesting insights into the factors influencing farmers' perceptions of the FPO. The positive correlation between most socio-economic variables and satisfaction levels suggests that BAPC Ltd. is generally meeting the needs of its diverse membership. However, the negative (though not significant) relationship between non-farm income and satisfaction levels indicates a potential area for further investigation. It may be worthwhile for the company to explore strategies to better engage and serve members with higher non-farm incomes, ensuring that the FPO remains relevant and beneficial to all its members regardless of their income sources.

The study's findings have several implications for policy and practice. First, they underscore the importance of continued support for FPOs like BAPC Ltd., both from

government agencies and other institutional partners. This support should not only be financial but also include capacity building, technology transfer, and market linkage assistance.

Second, the multi-product approach of BAPC Ltd. appears to be well-suited to the agricultural landscape of Tripura. This model could be considered for replication in other regions with similar mixed farming systems. However, care should be taken to address the challenges associated with managing diverse product lines, such as the need for specialized knowledge and infrastructure for each product category.

Third, the identified weaknesses and threats suggest areas for targeted interventions. For instance, there is a clear need for enhancing the entrepreneurial skills of FPO members, improving infrastructure for value addition and storage, and developing more robust long-term strategic plans. Additionally, measures to counter the influence of middlemen and to ensure the long-term sustainability of the FPO should be prioritized.

Fourth, the satisfaction analysis highlights the importance of considering socio-economic factors in FPO management. Strategies should be developed to enhance the benefits of FPO membership for all farmers, regardless of their farm size, education level, or non-farm income. This might involve tailoring services and interventions to meet the specific needs of different member segments.

Table 1. Services provided by farmers' organizations

Services details (source: Hellin et al, 2009; Markelova et al, 2009; Narrod et al, 2009; Rondot and Collion, 2007)		Pilot survey summary
Services	Activities	Level of adoption by BPAC Ltd.
Organizational services	Organizing farmers, catalyzing collective action, building (strategic) capacities, establishing internal monitoring systems	Fully adopted
Production services	Input supply, facilitation of (collective) production activities	Partially adopted
Marketing services	Transport and storage, output marketing, processing, market information and analysis, branding, certification	Not adopted (partially adopted for dairy sector)
Financial services	Savings, loans, and other forms of credit, financial management	Ongoing
Technology services	Education, extension, research	Not adopted
Education services	Business skills	Not adopted
Welfare services	Health, production health, safety nets	Not adopted
Management of resources	Water, pasture, fisheries, forests, soil conservation etc.	Partially adopted

Table 2: Interest towards different agricultural activities as primary activity of interest among the members of FPO (n=32)

Agricultural Activities	Percentage of farmers showed primary interest
Crop production	25
Vegetables	9.4
Seed production	15.6
Animal rearing	18.8
Apiculture	6.3
Fisheries	18.8
Other agricultural activities	6.3

Table 3: Ordinal Linear regression estimates for level of satisfaction of being member of BAPC Ltd., Tripura, in 2020 (n=32)

Dependent Variables		Independent variables				
Level of satisfaction of being member	Marginal percentage	Variable	Measurement	Estimates	+/-	Sig.
Very poor satisfaction	12.5 %	Gender	Male or Female	.026	+	0.981
Poor satisfaction	21.9 %	experience in farming	Number of years of involvement	.278	+	0.020
Average satisfaction	18.8 %	family size	in nos.	.500	+	0.052
High satisfaction	21.9 %	Education	Number of class passed	.336	+	0.077
Very high satisfaction	25 %	Income from farming activities	Rs. per month	.001	+	0.009
Test of parallel lines		income from non-farming activities	Rs. per month	.000	+	0.122
Chi-square = 14.130	Sig. = 0.864	number of training attended	in nos.	.557	+	0.068

Pseudo R-Square (Nagelkerke) = 0.857

IV. CONCLUSION

In conclusion, while BAPC Ltd. and similar producer companies show promise as a model for smallholder organization, they require continued support and critical analysis to reach their full potential. Future research could delve deeper into the factors influencing member satisfaction, explore the long-term economic impacts of FPO membership on farmer incomes, and investigate best practices for managing multi-product FPOs in diverse agricultural settings.

The case of BAPC Ltd. demonstrates that FPOs can play a crucial role in empowering smallholder farmers, improving market access, and promoting agricultural development in regions like Tripura. However, realizing

this potential requires a concerted effort from all stakeholders - the FPO management, member farmers, government agencies, and supporting institutions. By addressing the challenges identified in this study and building on the strengths and opportunities, BAPC Ltd. and similar FPOs can contribute significantly to the transformation of smallholder agriculture in India.

REFERENCES

- [1] Debnath, B., Singh, R. and Debnath, C. 2017. Analysis of reasons behind partial adoption of recommended practices at scientific fish farming in South Tripura: farmers' perception. Journal of Community Mobilization and Sustainable Development 12(2): 304-305

- [2] Debnath, C. 2022. The prospects and potentials of Fisheries in Northeast India: strengths, weaknesses, opportunities and threats. *Just Agriculture* (a multidisciplinary e- newsletter) 2(11): 1-23.
- [3] Deka, B. C., Singha, A. K., Parisa D., and Amrutha P. (2020) Prospects of Northeast Agriculture in post COVID 19 scenario, ICAR- Agricultural Technology Application Research Institute, Umiam, pp 1-215
- [4] DoE & S (2018). Economic Review of Tripura 2017 – 18. Directorate of Economics & Statistics, Planning (Statistics) Department, Government of Tripura, Agartala p 1-382
- [5] Fafchamps, M., & Hill, R. V. (2005). Selling at the farmgate or traveling to market. *American journal of agricultural economics*, 87(3), 717-734.
- [6] GOI (Government of India). 2015. "Agriculture Census 2010–2011 (Phase II)." Agriculture Census Division, Department of Agriculture & Cooperation, Ministry of Agriculture, New Delhi.
- [7] Hegde, N. G. (2010). Development of value chain for sustainable agriculture. *Financing Agriculture*, 42(7), 26-28
- [8] Hellin J, Lundy M, Meijer M, 2009, "Farmer organization, collective action and market access in Meso-America" *Food Policy* 34 16 ^ 22
- [9] Kirsten, J., & Sartorius, K. (2002). Linking agribusiness and small-scale farmers in developing countries: is there a new role for contract farming? *Development Southern Africa*, 19(4), 503-529.
- [10] Kumar S G, 2008, "Producer companies: facilitating producers to do business in a better way"
- [11] Lanting H, 2005, "Building a farmer-owned company and linking it to international fashion houses under fair-trade arrangements", paper presented at the International Conference on Engaging Communities, 14 ^ 17 August, Brisbane, Queensland,
- [12] Markelova H, Meinzen-Dick R, Hellin J, Dohrn S, 2009, "Collective action for smallholder market access" *Food Policy* 34 1^7
- [13] Narrod C, Roy D, Okello J, Avendan-o B, Rich K, Thorat A, 2009, "Public ^ private partnerships and collective action in high value fruit and vegetable supply chains" *Food Policy* 34 8 ^ 15
- [14] Rondot P, Collion M-H, 2007 Investing in Rural Producer Organizations (RPOS) for Sustainable Agricultural Development. RPOs Limitation and World Bank Comparative Advantage (The World Bank, Washington, DC)
- [15] Stockbridge, M., Dorward, A., & Kydd, J. (2003). Farmer organizations for market access: a briefing paper. Wye Campus, Kent, England: Imperial College, London.