

Public private partnerships in agriculture: Prospects and challenges for Haryana

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Abstract

Agriculture in Haryana is not sustainable due to underinvestment in the development of agricultural markets, deteriorating productivity of rural land, and mismanagement of agricultural output. The funds from public sector especially for the research in agricultural development, are very low and there are no initiatives provided to the private players to come ahead in rural areas for agricultural business. However, the ways can be find out for combining public and private sector particularly in agricultural sector. The research paper reviews the prospects and challenges for Haryana Economy to adopt Public Private Partnership (PPPs) in agriculture. The findings state that the Government can provide a favorable environment in the form of institutions, infrastructure, land approvals, and other facilities to the private players to have research on agricultural development and investments in agricultural business. The private sector is also capable to bring considerable investment, can also deploy more manpower for the promotion of agricultural business. The paper through light upon various benefits may occur by using PPPs and the challenges may be faced by the Government in using PPP route. The study recommends the initiatives may be taken by Haryana Government for the promotion of agricultural business particularly to remove regional disparities in the state.

Keywords: public private partnerships (PPPs), agriculture business, Haryana economy, rural development, SMEs in agriculture

Introduction

Haryana is one among the three best performing states in India ^[1]. Haryana is primarily agricultural state where more than 65% population depends upon Agriculture. The census of 2011 states that Haryana is self-sufficient in food production and it has significantly contributed in Green Revolution in 1970s. The state's irrigation infrastructure supports farmers and the source of water being used is groundwater by using tube wells or from surface through canals ^[2]. In Haryana, there are two agro climatic zones, first from July to September and Second from December to February ^[3]. The economic growth of India depends upon Agricultural development and it is the development of agriculture which reduces the economic and regional disparities of country. In case, the agricultural output becomes more, the food prices automatically go down i.e. direct positive impact on reducing poverty and improving employment opportunities. It is known that agriculture contributes in food security and economic development of a state. The shrinking size of agricultural holdings in the hands of farmers due to industrialization is a prime concern for Government. There is need to identify the crops with good prospects of production and profitability in the hands of farmers, so that the farmers can easily be encouraged for focusing upon such crops.

Structure of the study

This paper is organized as follows. In this first section, basic introduction of Haryana with reference to agricultural status is given. Section 2 gives a brief background about the research problem including relevance of using PPPs in agricultural

sector, what are the modes of using PPPs, and what are the objectives of this study. Section 3 examines the prospects of using PPPs in each area of agricultural sector. It covers the potential benefits of using PPPs. Section 4 points out the problems and challenges for Haryana Government for implementing PPPs and how to cope up with such challenges. It also covers the lessons from the experience of other states, countries around the world for using PPPs in agriculture.

Background

Agriculture has transformed after new industrial policy and the policies of globalization and liberalization. The policies have been focusing agriculture as a sector which can bring entire change in the economy of nation and states. Definitely, it has potential to improve living standard and income of a large population (having agriculture as a main source of their income). Joshi (2015) ^[10] explained that the post WTO period has been showing that domestic prices of several commodities have turned higher than international prices. As the cost of agriculture has increased due to various factors like dependence of agricultural output upon weather (excessive monsoon or deficit rainfall), farmers' access to credit, quality of seeds being used, methods of agriculture and irrigation etc. The recent trend of food inflation around the world, is the result of imbalances generated from the demand and supply position of foods. Government is taking steps by framing various policies in the interest of farmers so that their financial position improved and they continue their agricultural business even after huge losses. Joshi (2015) ^[10] concluded that it is very difficult for India to face global agricultural competitiveness

¹ The information is retrieved from retrieved <http://haryanahighway.com/Haryana/economy.htm> on 6th September, 2015.

² This information is retrieved from retrieved from <http://haryanahighway.com/Haryana/agriculture.htm>.

³ This information is retrieved from <http://agriharyana.nic.in/>, the website of Haryana Agriculture Department on dated 6th September, 2015.

due to high cost of production and slow growth rate of agricultural productivity, weak marketing mechanism and increase in input intensity. It is required to take effective steps to protect and strengthen the agricultural sector.

When an investor analyses various sectors of an economy like agriculture, healthcare, technology, pharmaceuticals, metals etc; what he finds that the other sectors are more lucrative for investment purposes than agriculture. Further, the farmers are also not much aware about possible options for raising capital and they are getting credit on high interest rates. From soil preparation to storage and transportation, the agriculture can be considered as a multiple operations enterprise. The supporting operations like seeds, fertilizers, irrigation, agricultural tools, machineries etc., are in the hands of private players including big chemical producers. There is requirement of capital to be invested in each operation related to agriculture. The farmers doing agriculture on large scale normally face challenges to access the capital and the small and medium level farmers cannot think much upon large investments. Due to perishable nature of agricultural output, proper storage and transportation again requires investments as lack of proper cold storage facilities and refrigerated transportation results in spoilage of the products. Multiple intermediaries between farmers and the consumers are due to lack of funds in the hands of farmers. The use of PPP mode is also not so easy, there are challenges need to be identified in using PPP mode for agricultural development. There are various initiatives may be taken to reform the agricultural sector and one of them is using Public Private Partnership (PPP) mode wherever performance is required to be improved with the help of private players. Keeping in view, the agricultural context of Haryana state what prospects are being offered by PPPs and what challenges are likely to be faced by the Government while using and implementing PPPs. This study is focusing upon these two questions and tries to throw light upon the prospects and challenges of using PPPs in Agriculture.

Review of Literature

Chand (2005) ^[3] pointed out that the declining growth rate of agricultural sector is the biggest challenge in Indian agriculture, followed by non-sustainable use of natural resources including overexploitation of water, degradation of land etc. He also gives emphasis on the need of clear policy on agriculture and participation by private sector in output markets and seed market. Without drastic reforms, it would not be possible to revive output growth on sustainable basis.

International Market Assessment Private Limited (2009) ^[9] analyzed key challenges for agriculture sector in India. It is found that the performance of agricultural sector depends upon six key drivers i.e. Technology (farming and crop technology), Government policy (availability of credit, crop specific programmes etc.), Cropping pattern, Environmental factors (water availability, soil degradation, climate change etc.), Market forces (pricing, transparency etc.), Global factors (supply-demand, trade norms and restrictions etc.). The study pointed out that despite 30 years of government efforts, India's yields for most crops are still below global averages, and far below the highest standards. The yields can be raised by 40% by using better seeds. Balanced fertilizer usage is equally a critical factor. Accessibility to credit can raise the profitability upto 50%, however the credit provision is improving with micro-finance initiatives. In Haryana, the Minimum Support

Price of Rice doesn't even cover cost of production. Cervantes-Godoy and Dewbre (2010) ^[2] worked upon economic importance of agriculture in poverty reduction and found that there are various countries who achieved the goal of reducing poverty but the countries differ greatly amongst themselves in their systems of governance and economic management. However, if growth comes to agriculture there are more chances to reduce the poverty.

Dwivedy (2011) ^[5] discusses various challenges of Indian Agriculture Sector like illiteracy, poor socio-economic conditions, lack of technical knowledge and awareness, small land holdings, modernization leading to barren land and disasters leading to rural poverty, weather-dependent farming systems, low per capita income, underdeveloped physical infrastructures and inefficient bureaucratic procedures associated with the comparatively high cost of agricultural production.

Choudhury (2014) ^[4] explained that the traditional Indian agriculture is now being transformed into business gradually and lack of adequate funding facilities is a significant challenge. He identified various crucial challenges in agricultural growth i.e. policy hurdles, difficult access to money, limited investors, and access to risk capital.

Wilda (2014) ^[12] after analysis various factors reach at a conclusion that environmental factors determine the status of PPPs in any area. It is required to frame a strategy for successful outcomes from PPPs in agriculture. Bala (2015) ^[1] studies the comparative agricultural growth in Punjab and Haryana in four periods i.e. 1970-71 to 1979-80, 1980-81 to 1989-90, 1990-91 to 1999-2000 and 2000-01 to 2011-12. The trends in growth are evaluated through Compound Growth Rates (CGRs) and the comparison after applying t-test pointed out that there is no significant difference could be surfaced between Punjab and Haryana. It is concluded that agriculture forms the backbone of Haryana and it is must to give greater emphasis on agricultural development for economic development of the state.

From the above review of literature, it is clear that there has not been any study conducted to point-out the prospects and challenges may be faced by any government while implementing PPPs in Agriculture. The agriculture sector in itself, has not been seen as business before last one decade. The sector is transforming lives of farmers due to raising demand of food-grains and problem of food security around the world. This study definitely matters at this juncture, as it will provide information and outcomes to Haryana Government to take right initiatives in promoting PPPs in agriculture.

Objectives of the study

The main objective of this research is to describe the prospects of Public Private Partnership (PPP) in agriculture and to find out the likely challenges may be faced by Haryana Government while using PPPs in agricultural sector of the state. The research also explores the initiatives which may be taken by Government for using PPPs in Agriculture.

Research Methodology

The study was conducted by Faculty of Financial Management, Haryana Institute of Public Administration independently. The study combined the review of the existing literature particularly wherever the PPPs are being used in agricultural sector. In order to find out prospects and challenges especially

for Haryana, both the experts on PPPs and agricultural sector are consulted. After collecting secondary data from books, newspapers, journals, and internet; primary data is also gathered with the help of interviews with the consultants. A questionnaire is structured as per the requirements of the study; consisting both close-ended and open-ended questions. 100 experts including 50 PPP Experts and 50 Agriculture Experts; selected by using judgemental sampling method and the questionnaire is sent to them. Thereafter, after taking the convenient time, the questionnaires are filled by discussing the questions thoroughly. The fact-finding enquiries are also done with the respondents.

Prospects of using PPPs in agriculture

The private sector can be involved for infusing innovative methods of agriculture like using hybrid seed technologies, higher investments in improving agricultural infrastructure including canals, watersheds, dams etc. The PPP mode can be adopted after feasibility studies in each identified area of agricultural development. The private sector’s consultancy services can be hired for having beneficial outcomes in agricultural sector. In such cases, the government can play a proactive role as coordinator, facilitator, and also as a regulator.

1. **Ability to break the vicious cycle of Farmers:** Due to lack of technical knowledge the farmers are still using traditional methods of farming which lead to low productivity, low quality and low income. They are bound to work through middlemen whenever required to access market for inputs, services and outputs. The PPP mode can change the whole scenario by using innovative models involving stable relationships to mitigate risks, generating economies of scale, and increasing efficiencies in agricultural processes.
2. **Bridging the gap of Financial Assistance:** Agribusiness requires finance to generate jobs and wealth. The PPP mode may easily provide the affordable finance. At present, the finance is expensive and every farmer cannot easily access the financial support as the actual and perceived risks are high in agriculture. The use of PPPs in agriculture will reduce the risks and costs, and there will be more flow of finance towards this sector.
3. **More use of Technology to reduce costs and achieve scale:** The use of technology can make the processes smarter. The farmers can easily be approached by bankers via mobile banking; only after boosting the use of mobile banking in rural areas. The PPPs in agriculture can make it happen. Loans, Savings, and Insurance services can easily be enhanced which are now not only unaffordable but also seems impractical.
4. **Inviting SMEs in Agricultural Sector:** The Small and Medium Entrepreneurs (SMEs) have potential to transform the agricultural sector. The role of SMEs cannot be ignored. The SMEs can be invited with PPP mode to come ahead and take over the agricultural processes and get benefited from Government. Agricultural operations can be made investment-friendly, only after making them profitable. Loan guarantees can be afforded by Government to encourage more flow of credit in agricultural sector.
5. **Finance Solution on the basis of Farmers ‘Agricultural Projects:** Grow Africa Secretariat (2014) [6] explained that in early January 2014; their working group started activities

at a meeting in Dar-es-Salaam, with participants including representatives from ABSA Barclays, AGCO, AgDevCo, Care, Equity Bank, IDC, IFAD, Opportunity International, Save the Children, Syngenta and WFP. It worked to work on projects where finance solutions are required to unlock specific value chains or overcome systemic constraints. Similarly Haryana Government may also invite private players, NGOs, and Social Entrepreneurs to look systematically how to develop new and improved finance instruments that support inclusive agribusiness models.

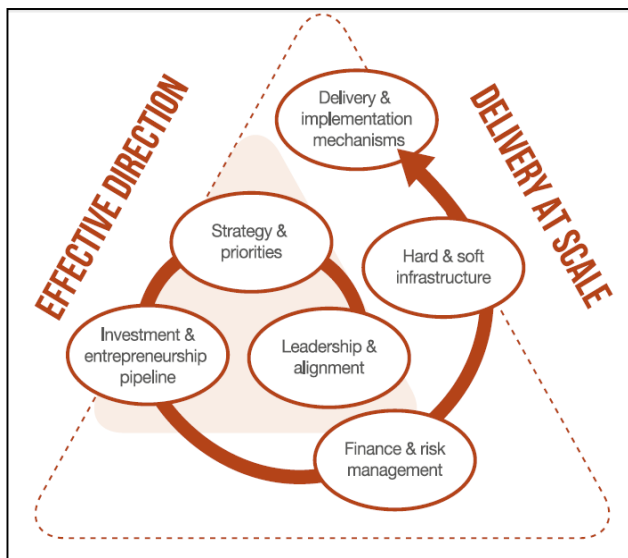
6. **Innovative Methods of Cropping:** As there is heavy shortage in food production, it is must to implement innovative methods. It is required to train farmers or aware them or make them able to use innovative ways of farming which will give good results with scanty water and innovative ways to conserve soil and water. The PPPs may result in developing detailed soil analysis to identify key nutrient levels and deficiencies so that the fertilizers can be developed accordingly to improve soil nutrition.
7. **Improved performance in each step of Agriculture:** The cycle of agricultural business can be drawn as under. In each step, PPPs can be made for improving the performance i.e. (i) Crop Planning (ii) Purchase of Agricultural Inputs, (iii) Plantation and Irrigation, (iv) Agricultural Growth and Harvesting, (v) Storage and Transportation of Agricultural Output, and (vi) Marketing and Selling of Agricultural Output.



Challenges in implementing PPPs in agriculture

1. **Difficulty in creating conducive environment by improving policies:** India is now-a-days, thinking to work upon ease to do business. Every state is working towards it; similarly, the agricultural reforms should be brought. The seeds of proper quality should be provided at subsidized prices. The land policy should be changed particularly to widen the shrinking land holdings for agriculture in the hands of farmers. Trade policy can also be improved particularly after keeping in mind the pitty financial position of farmers.

- 2. Regulatory Framework for Agricultural Market:** Government should change its role as regulator in order to make the agricultural sector more open and competitive. The agricultural output should be sold directly to the companies if farmers are getting higher rates. The Multi-National Companies (MNCs) should also recognize the progress and come forward as a competitor to acquire agricultural output.
- 3. Women empowerment for Agricultural Business:** The Government should recognize the huge potential for women entrepreneurs, by imparting right knowledge, providing agricultural tools at subsidized rates, ensuring availability of proper quality seeds and fertilizers, and giving them preference to encourage for agricultural business. The Grow Africa Secretariat (2014) ^[6] provided the following framework for transformation in agricultural sector:



The report considered three main themes for agricultural transformation i.e. (i) Inclusive business models in Agricultural sector, (ii) Reducing the risks and costs of providing finance, (iii) Providing farmers a marketplace to connect with better partners to unlock the opportunities.

- 4. Commercializing Production with collaborating Farmers, Companies, Government, NGOs, and Donors:** The Government requires moving ahead after framing a strategy to work with farmers and SMEs for widening economic and business opportunities. But as the risks and costs of agriculture is high, who should come ahead to bear the risk. The private sector players should be encouraged and enabled to share the risks associated with agriculture. What can government do that is to provide adequate infrastructure for agriculture in rural and urban areas. Without affordable access to power and water, decent roads, the agriculture sector seems more risky. Grow Africa Secretariat (2014) ^[6] found that in Kenya, Netafim is bringing drip irrigation to smallholders through an innovative financing model with USAID and local banks.
- 5. Deeper collaboration by Government in unlocking agri-sector:** The private players require constructive action-oriented relationships with public sector to identify constraints and work in partnership to overcome them

(Grow Africa Secretariat 2014) ^[6]. The Government should come forward with such constructive action-oriented partnerships via PPP mode to have deeper collaboration so that the investment opportunities can be improved.

- 6. Reducing Cost of Transportation:** Government should take steps to reduce the cost of transportation. There is need to introduce rigorous measures to end corruption in check posts and reduce taxes on transport firms to reduce cost of movement.
- 7. Financing Agriculture and Access to Credit:** The farmers depend upon their income from sources other than agriculture, for financing agricultural activities. They prefer to take credit from cooperative banks to get benefit of lower interest on agricultural loans. Farmers also rely on their relatives and money lenders in open market. The share of commercial banks' loans to agriculture has been very low compared to manufacturing, trade, and other services sectors, hampering expansion and technology adoption. Even the micro-finance institutions have remained fail to reach poorer rural areas or the farmers whose livelihoods are characterized by highly seasonal investments, risks, and returns (Salami, *et al.* 2010) ^[11].

Conclusion

The increased investment in agriculture sector can generate growth which will deliver benefits to small farmers and at the same time the state will be benefited from large agricultural output. As a large population of Haryana earns livings from agriculture; the involvement of private players via PPP mode can improve the financial position of not only the farmers but also the state in India. There are seven great benefits may be considered as prospects of PPPs i.e. (i) Ability to break the vicious cycle of Farmers, (ii) Bridging the gap of Financial Assistance, (iii) More use of Technology to reduce costs and achieve scale, (iv) Inviting SMEs in Agricultural Sector, (v) Finance Solution on the basis of Farmers' Agricultural Projects, (vi) Innovative Methods of Cropping, and (vii) Improved performance in each step of Agriculture. However, the Government may face various challenges in implementing PPPs in agriculture like (i) Difficulty in creating conducive environment by improving policies, (ii) Regulatory Framework for Agricultural Market, (iii) Women empowerment for Agricultural Business, (iv) Commercializing Production with collaborating Farmers, Companies, Government, NGOs, and Donors, (v) Deeper collaboration by Government in unlocking agri-sector, (vi) Reducing Cost of Transportation, and (vii) Financing Agriculture and Access to Credit.

Scope for further research

The study also suggests undertaking further research on PPP models as per their applicability in different processes of agriculture. There are areas in each agricultural process where PPPs can be negotiated to indirectly support the whole mechanism. The agricultural sector is still transforming and there are initiatives other than PPPs, the initiatives should be explored by new research practices. This study opens many doors for research in agricultural sector. How to evaluate the climate situation and type of soil as far as applicability of any particular fertilizer is concerned, is also an area of research where no work is done earlier.

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