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Opportunities and Challenges in Rice Seeds Trade Between India and Bangladesh

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Rice, a major staple crop for India and Bangladesh is important not only for ensuring food security, but also the livelihood security of large number of small and marginal farmers engaged in rice cultivation. Decisive component of the rice cultivation is the quality of seeds utilised having directly impacting the production and productivity of crop. One of the biggest challenges in providing quality rice seeds in both the countries is the existing market inefficiencies in meeting the demands.

Trade being recognised as a tool for enhancing the domestic market capacities to meet the demands of domestic consumers as well as enlarging the platform for producers, therefore, this paper will focus on understanding the potential benefits which rice seeds trade between India and Bangladesh can bring in order to address challenges of availability and accessibility of quality rice seeds by increasing the supply in both the countries.

Introduction

Rice, being a major staple crop in South Asia carries its importance in ensuring food security of the region, including in India and Bangladesh. Both the countries have agriculture-based economies where more than 50 percent of the active working population is engaged in agricultural activities. As per UN data, agriculture contributed 17.1 and 18.3 percent, in 2011, in the gross domestic product (GDP) of India and Bangladesh, respectively. It is to be noted that the large number of farmers engaged in the rice cultivation are small and marginal with average land holding of 1.4 ha in India and 0.5 ha in Bangladesh and have limited economic resources which restrict their capacities to utilise costly inputs, including quality rice seeds, to increase their crop productivity.¹

The quest of increasing the rice productivity, led towards engaging large resources for instance; rice cultivation has largest area coverage in terms of agriculture land in Bangladesh. In spite of this, rice production is

insufficient and it has to rely on imports. Bangladesh not only import rice for its domestic consumption but also rice seeds, primarily Chinese Hybrid rice seeds varieties, with estimated import market size of US\$7.7million in 2010-11, the rice seeds imports has fluctuated but has grown more than three times during 2005-2011, as per International Trade Map (ITC) database.² Such huge demand for rice seeds imports in Bangladesh is indicative of the shortcomings in domestic system to meet the requisite demand.

On the other hand, India is a major rice exporting country with an exhibited exports capacity of US\$17.3million tonnes in 2011, as per ITC Trade Map. Rice cultivation in India is widely distributed among the regions thus; the demand for quality rice seeds is wide-spread which is met either through the market mechanisms or public distribution channels. With developed rice seeds production channels, the problem of rice seeds availability is not as severe in India, as the accessibility and

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affordability of the quality seeds by the marginal farmers which is further promulgated by the infrastructure gaps in the rice seeds and distributions channels in distant and remote areas of rice production.

Demand-supply gap of quality rice seeds is being faced by both the countries. Where Bangladesh suffers from limited availability of quality seeds, limited accessibility is India's major concern. Limited market capacity to serve the resource poor farmers is further encouraging the low seed replacement rate as well other channels of seeds exchange among the farmers, which is beyond the scope of quality regulations thus leading towards low productivity and subsequent returns.

Scenarios in India and Bangladesh

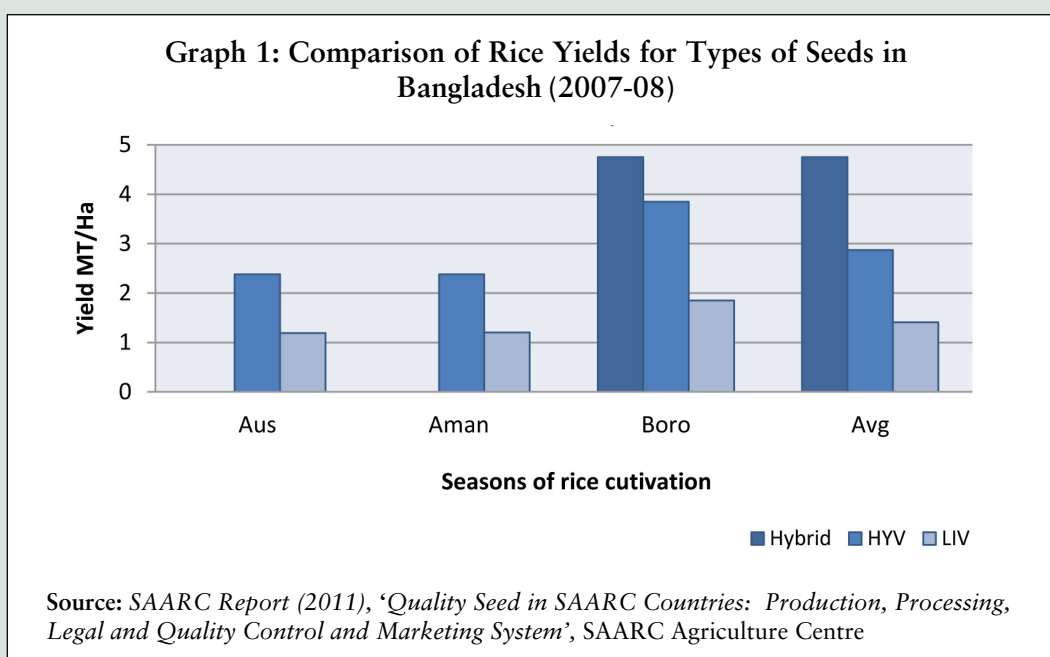
Currently, the rice seeds market developing in India and Bangladesh are focused on the hybrid varieties which are not only costly but also requires more fertilisers and chemicals in its production, which further adds to the total cost of production. Whereas, as compared to Hybrid, HYV rice seeds are available at one-tenth of the price of hybrid seeds and they also requires lower quantity of chemical use, such as fertilisers.³

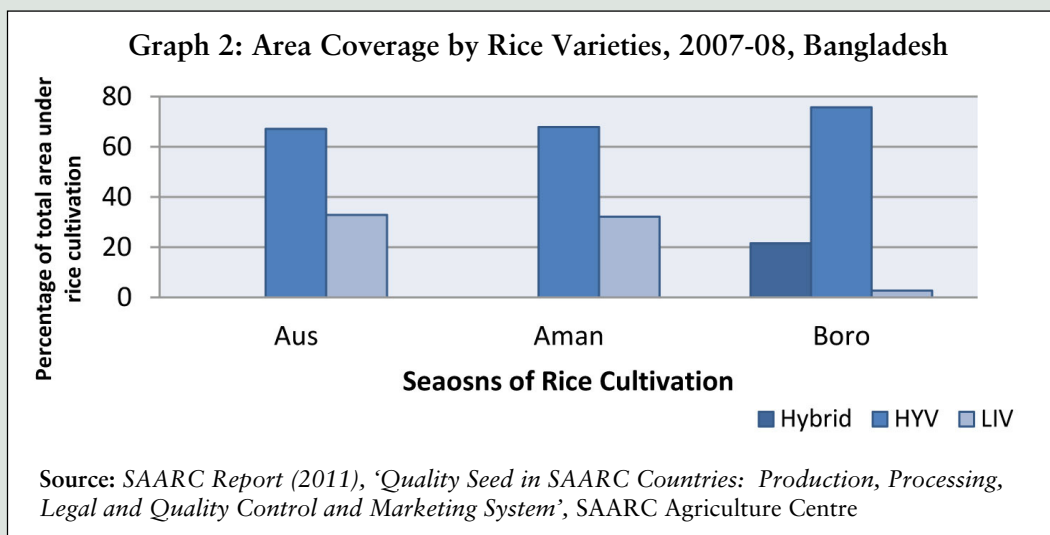
Adding on, hybrid rice seeds are mainly utilised in Boro season as against HYV which is used in all seasons, such as Aus (April-July), Amon (April-December) and Boro (December-

May). The average yield produced by the hybrid rice seeds is 4.75 metric tonnes/hectares as compared to the HYV which results in the yield of 2.87 metric tonnes/hectares for the year 2007-08 in Bangladesh.⁴ However, when one talks about the average yield for hybrid seeds, it is average of one season (Boro); in contrast to average yield of HYV rice seeds, which is the average of all the three rice cropping seasons.

Interestingly, the equation changes significantly, when one compares the yield of hybrid and HYV for the Boro season alone. In such a scenario, the hybrid and HYV seeds produce yields of 4.75 metric tonnes/hectares and 3.85 metric tonnes/hectares respectively which is comparable (Graph 1). It is noteworthy that the area coverage of the HYV rice seeds for the year 2007-08 is highest in all seasons (Graph 2). The overall situation emerging from existing rice yields and productivity reflects a better scope for expansion in area under cultivation of HYV rice seeds.

However, in spite of restricted adaptability market is focusing on hybrid varieties of rice seeds in both the countries. This can be attributed to high returns that hybrid commands in the market, thus incentivising private sector for further investments. On the other hand, due to similar reasons HYV rice seeds and the local varieties are generally out of market arena, leaving public sector to meet the demand for HYV rice seeds.





Increasingly, in both the countries, public sector is encouraging private investors to also invest in the HYV rice seeds market. Also local small seed entrepreneurs are being trained to carry out the quality seed development and the seeds developed by them are procured by public agencies for further distribution.

These recent developments in the rice seeds production channels is heartening for both the countries as, the small seed sector development, is not only channelling the quality rice seeds among the local farmers in low cost but also increasing the seeds replacement rate.

Potential Benefits from Trade

Bilateral cooperation of rice seeds trade between India and Bangladesh has potential to attain the twin objectives of availability and affordability of quality rice seeds. One specific benefit that can be derived from mutual rice seeds trade liberalisation is the benefit of diversification of rice seeds varieties as opposed to mono variety trade. Many of the local and modern HYV rice seeds have the potential to be utilised in both the countries (subjected to scientific certification), due to the similarity of the agro-climatic conditions across the borders.

Liberalisation of rice seeds trade, will not only further the market opportunities for small seed entrepreneurs but also will go a long way in meeting the quality rice seeds demands from both the sides of the border. Adding to it the integration and cooperation in rice seeds at public, private and institutional level will help two countries enlarging the platform of resource utilisation and mobilisation via enhancing the arena of agriculture market access for both the countries.

Challenges and Opportunities

Tariff barriers has effectively been removed from the agriculture trade between India and Bangladesh but the challenge in rice seeds trade still persist due to the existence of non-tariff barriers, such as: a) Quarantine regulations, b) Standard Certificates, and c) Limited number of entry ports. Inadequate infrastructure facilities at the ports are major constraints hampering the cross border trade between the two countries.

In addition, subsidies provided by the public sector for the rice seeds are discouraging private investment to flow into the system, leaving public sector (with its limited capacity) to meet the demands of the rice seeds in the economy.

The gap between the rice seeds requirement and the existing limited reach of the formal market of the quality rice seeds is being filled by informal rice seeds market both, within and across the border. The informal market is the unorganised channel of rice seeds exchange among the farmers and small seed producers. It not only involves the barter but also the loan system, which is utilised by the resource poor farmers in accessing the seeds for their requirement. Further, it is to be noted that under the shadow of unorganised system of rice seeds trade there are increasing instances of illegal flow of rice seeds across the border. One of the biggest challenges posed by this system of seed exchange is that it is outside the scope of formal rules and regulations hence consumers of this market cannot avail to their right of protection against the low quality and fraud.

However, an instance of illegal or informal flow of rice seeds across borders not only validates the acceptability and adaptability of the Indian rice seeds in Bangladesh and vice-versa,

but also validates the existence of the demand for the same.

There are many recent developments in the Indo-Bangladesh trade policies which are not only heartening but also can lead towards a better bilateral co-operation between the two countries, including in the area of rice seeds trade. Indo-Bangladesh Joint working group on trade committee meeting held in June 2013 was an important step forward towards the bilateral cooperation between the two countries, not only in terms of real steps towards increasing the trade but also towards sending across the political sentiment favoured for bilateral cooperation in trade.⁵

Adding to it, the recent Indian government programme of Bringing Green revolution to the eastern India is focused on increasing the productivity of the eastern rice cultivating regions, by introducing better seeds as other productivity enhancing technologies. With increased pace of investments in infrastructure to support and stimulate economic activity in the eastern region of India, as a result of this look east policy, this region can effectively become a gateway to trade and economic activity with neighbouring countries such as Bangladesh.

Concluding Remarks

Formalisation of cross-border rice seeds trade has a huge potential for opening up the opportunity of bilateral cooperation in agriculture between India and Bangladesh. This underlines existence of a huge untapped potential benefit that both India and Bangladesh can gain from their collective efforts. It will not only help governments to attain their objective of ensuing food security to the nation but also develop agriculture sector which is contributor to the GDP as well the biggest source of employment generation in the country.

Increasing awareness and biasness of urban consumers from developed and developing countries, towards organic food as opposed to the food developed from the use of the heavy chemicals. This shift will benefit the small and marginal farmers utilising the HYV rice seeds as opposed to the Hybrid rice varieties, in returns from the export of the food. Developing the system of natural farming and drawing the policies which strengthen the systematic development and utilisation of the modern HYV rice seeds is not only a sustainable but also beneficial for the farmers as well as for the country as a whole.

Endnotes

1. Thapa G. (2009) 'Smallholder Farming in Transforming Economies of Asia and the Pacific: Challenges and Opportunities', Discussion Paper prepared for the side event organised during 33rd Session of IFADs Governing Council, February 18, 2009. www.ifad.org/events/gc/33/roundtables/pl/pi_bg_e.pdf
2. The rice seeds imports in Bangladesh are focused on Hybrid rice seeds varieties for two main reasons: 1. the limited land resources to further engage in the rice production; 2. the belief that hybrid varieties are the key to the higher productivity. It is to be noted that, all the rice seeds import and export market size, as shown in this paper, mostly pertains to hybrid varieties of rice seeds. In case of HYV rice seeds there are very limited or negligible trade in the world rice seeds market. However, the market size is still indicative of the demand-supply gap of the quality rice seeds.
3. For detailed information on the Hybrid rice seeds as compared to HYV and traditional rice seeds. Report can be found at : http://www.genecampaign.org/reports/impact_on_farm_economics-jharkhand.pdf
4. SAARC Report (2011), 'Quality Seed in SAARC Countries - Production, Processing, Legal and Quality Control and Marketing System', SAARC Agriculture Centre, ISBN: 978-984-33-1853-4, Momin Offset Press. www.saarcagri.org/images/abook_file/wp_2011_01.pdf
5. Summary record of India-Bangladesh meeting of the joint working group on trade held on June 13-14, 2013 is available at: http://commerce.nic.in/trade/Joint_Statement_India_Bangladesh_13_14_June_2013.pdf

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