

TERMS OF REFERENCE #3

For the research proposal to be funded under NFPCSP Phase II

Effectiveness of Bangladesh's rice procurement system and possible alternatives

1. Background and Rationale

Domestic rice procurement serves the dual purposes of building rice stocks for for the Public Foodgrain Distribution System (PFDS) and of providing income support to farmers. To fulfill the latter objective, the Government provides a support price higher than the cost of production in order to ensure that farmers do not produce at a loss. Indeed, as described in the National Food Policy (2006), small producers need adequate incentives to produce, as their economic status often compels them to sell immediately after harvest when prices are low. Higher prices, however, are in conflict with the objective of keeping prices low enough so that the low-income consumers can afford to buy food. This conflict can be avoided through higher government subsidies, but these have budgetary implications for the country and can reduce investment in public goods essential for long-term growth.

Besides having an impact on the government budget, procurement prices that are too far above market prices; in turn, this can favor rent seeking opportunities and lead to increased costs for the government. Dorosh and Shahabuddin (2002)¹ give the example of the four years preceding their study, out of which, three witnessed excessively high procurement prices for the boro season, resulting in elevated costs for the Government and windfall profits for those fortunate enough to sell at the procurement centers. Since the bulk of rice that is procured is bought from millers or other traders,² any rents would disproportionately benefit millers and traders (there are reports of procurement centers refusing to buy from farmers and colluding with the millers and middle men³).

The timing of the announcement of the procurement price is also an important decision. Announcement of the price in advance of planting would allow the government some influence over the area planted, it could encourage investment by farmers and greater use of inputs, and it could improve prices when farmers engage in distress sales before harvest. But advance announcement of a price of course may make it more difficult to defend the price at the time of actual procurement.

¹ Dorosh, P. and Q. Shahabuddin (2002) Rice stabilization in Bangladesh: an analysis of policy options *MSSD Discussion Paper* No. 46, IFPRI

² In the last 10 years, it is estimated that farmers sold less than 6.5% of the paddy totally procured by the Government (A.M.M. Shawkat Ali (2010) Strengthening the Government's Institutional Capacity for Improving Food Security *Final Consultancy Report to ADB and the Ministry of Food and Disaster Management*).

³ Shahabuddin, Q., M. Asaduzzaman, E. Clay and S. Jones (2009) Price Support, Domestic Procurement Programme and Public Stock Management, *BIDS Policy Brief* No. 0902

During the past 15 years, domestic procurement has only represented 4% of the total production, although it varies substantially from year to year.⁴ A key question is to what extent fluctuations in domestic procurement help to stabilize the market, for instance through higher procurement when harvests are good and lower procurement when harvests are bad.⁵

The National Food Policy Plan of Action (2008-2015) recognizes the importance of enhancing the effectiveness of the public procurement system and providing effective support to producer prices, while ensuring stable prices for the consumers.

In light of the issues raised above, this study proposes to assess the effectiveness of the procurement system in terms of impact on the farmers, with particular emphasis on small and marginal farmers, and to suggest alternative instruments to achieve the objective of sustaining farmers' income and rice production in a cost-effective manner. For example, open tendering may have the potential to reduce the cost of procurement and increase its reliability (Dorosh and Shahabuddin).⁶ A system of price insurance with caps on the quantity of land that benefits from the program, as is currently being practiced in Thailand, is another possibility.

2. Objectives:

The objectives of the research are:

- a. To examine to what extent the current procurement system supports rice prices and farmers' income, thus providing production incentives (with emphasis on marginal and small farmers);
- b. To examine to what extent the current procurement system allows the government to procure adequate supplies for its distribution needs;
- c. To identify actionable options for enhancing the effectiveness of the procurement system considering their relative costs and benefits, and possible alternative methods for supporting farm income, other than a procurement system.

3. Scope of the study

More specifically, the study will address the following issues:

⁴ M. Hossain and U.K Deb (2010) 'Volatility in rice prices and policy responses in Bangladesh' in *The Rice Crisis* edited by D. Dawe

⁵ CP Timmer (1996). "Does BULOG stabilize rice prices in Indonesia? Should it try?" *Bulletin of Indonesian Economic Studies* 32(2): 45-74.

⁶ Dorosh, P. and Q. Shahabuddin (2002) *Rice stabilization in Bangladesh: an analysis of policy options* MSSD Discussion Paper NO. 46, IFPRI

- Domestic procurement and rice price stabilization: present a literature review of domestic procurement and rice price stabilization interventions in Bangladesh and in the region.
- Stocking behavior of farmers: provide quantitative estimates, using the 2010 HIES, and disaggregated by large, medium and small producers, of farmers' stocking behavior (quantity and proportion of production stored) in aman and boro seasons.
- Domestic procurement from farmers, millers and traders: by analyzing existing time series data, estimate the proportion of grain that is procured from farmers, millers and traders.
- Domestic production and Government procurement: analyze the time-series relationship (with a focus on the last 5 years) between production deviations from trend (as a proxy for good and bad harvests) and government procurement, to examine the extent to which government procurement increases when harvests are good and thus supports farm prices when they most need support (the trend should be flexible enough, e.g. a third order polynomial, in order to capture changing rates of production growth over time). In addition, investigate the time-series relationship between production deviations from trend (as a proxy for good and bad harvests) and government distribution through market operations, to examine the extent to which government distribution increased when harvests were poor and thus contribute to stabilize retail prices.
- Procurement price and market price: analyze historical data (with a focus on the last 5 years) on the timing of the announcement of the procurement price and its relationship with the prevailing market prices at the time of announcement. Using this analysis, provide recommendations as to the possibility for improving the timing of announcements. In addition, analyze historical data to estimate a relationship, if any, between government stock levels and price levels.
- Effectiveness and constraints of the procurement system: conduct a survey of at least 500 rice farmers, using stratified (by farm size) random sampling in the most important procurement areas, to ask for their overall assessment of the procurement system and to better understand the difficulties farmers face in selling to procurement centers. Separate surveys of 100 millers and 100 paddy traders, again using random sampling, should also be conducted to obtain their overall views on the effectiveness of the procurement system.
- Alternative procurement system and farmers' income support options: by drawing from other country experiences, examine the feasibility of alternative procurement systems that would enhance the benefits to rice farmers or give comparable benefits to rice farmers but at a lower cost to the exchequer. In addition, examine the feasibility of methods to support farmers' incomes other than procurement.

The study will deliver:

- A draft inception report within 3 weeks from the date of signing of the contract. The inception report will detail the research programme, the literature and data requirements, methodology and expected outputs.
- A final inception report within 2 months from the date of signing of the contract. The NFPCSP will provide feedback to the draft inception report within 3 weeks of its submission. The research institution will then have 2 additional weeks to finalize and submit the final inception report.
- A detailed methodological note (draft), within 3 months from the date of signing of the contract, which incorporates tools (e.g. survey questionnaires), approaches (e.g. sampling and areas selection) and a detailed work plan for the fieldwork. The draft note will be circulated and a final version will be submitted within 2 weeks of receiving NFPCSP feedback'
- An interim report, within 5 months from the date of signing of the contract, presenting interim findings. The interim report should include the full literature review and data sources, preliminary findings, annotated table of contents for the final report and revised research program. In addition, the interim report will include a preliminary survey of the literature and existing secondary data on the issue and a preliminary list of alternative methods of supporting farmers' income to be considered.
- A draft final report, within 10 months from the date of signing of the contract. The draft final report (length between 25,000 and 30,000 words -excluding an executive summary not exceeding 2,500 words, and annexes) should be based on the data analysis and program and literature review and should include:
 - Description of the purpose, relevance and background of the study and methodology used.
 - Literature review of secondary sources
 - Data analysis and statistical tools used
 - Descriptive statistics
 - Analysis of time-series data as described in the scope of the study
 - Analysis of HIES data on farm stocking behavior
 - Analysis of farmer, paddy trader and miller survey data
 - Description of additional qualitative work if any
 - Evidence on the relationship between procurement, prices and stocking behaviour.

- As possible, concrete suggestions for enhancing the effectiveness of the procurement system and possible alternative methods for supporting farm income, other than a procurement system.
- A final report, 12 months from the date of signing of the contract. The final report will incorporate the feedbacks and adjustments required by the NFPCSP

4. Duration and funding available

- Maximum duration: 12 months
- Maximum funding available: US\$50,000