

**Press Briefing**  
on  
**Challenges Facing Post-flood Crop Sector**  
*Policy Perspectives from a Field Visit*

*Briefing Note*

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**Post-Flood Agriculture: Observations from Field Visits,  
and Implications for Rehabilitation Programme**

by

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## **Post-Flood Agriculture: Observations from Field Visits, and Implications for Rehabilitation Programme**

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Bangladesh has experienced yet another severe flood this year. The flood affected 262 upazilas from 39 districts, most of them twice. The second flood receded when there was no further possibility of recovering the loss through replanting of aman paddy. So, the effect of the flood on food production for the affected households would be substantial. According to the Department of Agriculture, the Flood has damaged 360 thousand ha of rice land completely, and 180 thousand ha partially. Assuming an average paddy yield of 3.0 t/ha, the total loss of rice production would be about 0.85 million tons.

To assess the nature and extent of loss, on-going agricultural activities, and support needed by farmers for agricultural rehabilitation, we made an extensive field visit and consultations with farmers during 4-6 October 2007. The areas visited are Tangail, Sirajganj, Dhunot (Bogra), Gaibandha, Rangpur, Kurigram, and Lalmonirhat. Besides observing the landscape and crop conditions on our route, we had a meeting with a group of 20 to 30 farmers in each of the sites. The meeting was organized by local officers of BRAC. We thank all the farmers and BRAC officials for their help in supporting the field trip. The main observations and insights are as follows.

Farmers reported that they had experienced a different kind of flood in 2007 than in 2004 and 1998. This year flood has occurred two times and thwarted their efforts of recovery. The first flood has damaged their standing crops, seedlings, and nursery, fish, poultry birds and some cattle. Immediately after the first flood, farmers tried to offset their loss by transplanting seedlings of Aman rice wherever feasible, and to cultivate vegetables in some limited areas. However, the second flood submerged the young seedlings for more than a week, which could not survive. Besides the financial constraints, it was too late in the season to recover the loss again through replanting.

We observed en route that in the medium to deep flooded areas, the field was either empty or saturated with water. Only in the high lands, there were plants in the field. Only few farmers were still trying to transplant Aman rice even though most of them believed that the yield

would be extremely low. They were planting on the hope that the plants could be used to feed the cattle, as fodder was also scarce.

Farmers reported that instead of keeping the remaining land fallow before the next planting of boro rice or hybrid maize, they could grow mustard and rapeseed, vegetables, chillies and potatoes. Their plan was to intensify the crop production by producing more profitable crops, using improved varieties, increased input use, and better crop management. However in the Tangail and Sirajgonj there was still water in the field, making it impossible to grow any non-rice crop. In these areas farmers have no choice but to wait till the boro season. In these places, unemployment of the landless workers was a serious problem. Some people were found fishing in the flood plains which provided them some income. In Dhunot and Lalmonirhat area, the water had fully receded and the land preparation was going on a full swing.

The impression we got from the field trip is that the problem of flooding is highly localized. The areas affected are mostly located within a few kilometers away on both sides of rivers and canals. The destruction in Sirajgonj, Gaibanda and Kurigram was severe partly due to the breaching of the flood embankments. Since majority of the land in these areas are deep flooded, many areas are kept fallow during the aman season or sown with the traditional low-yielding deep water aman crop. Single cropped boro rice is the main cropping pattern on such land. So, although the flood afflicted misery on the life of the households and there was substantial loss of income for individual households who went for the transplanted aman crop, the effect on national rice production would be proportionately lower than the area affected.

The condition of the aman crop in the non-flooded areas appeared to be good except in some fields where leaves were yellow, a sign of nutrient deficiency that might affect yield. Since the rainfall pattern has been favorable so far, the yield of aman should be above average this year in the non-flooded areas. The additional production from the non-affected land might compensate to some extent the loss of production in the flood affected regions.

In all of the sites farmers expressed concern regarding the availability of inputs to realize their production plans. The demand for seeds will increase this year because many households who left their homes lost the rice seed they used to keep for planting. The allocation of land to maize will grow substantially this year because of the very high profits they earned last year from the production of hybrid maize, and the continued increase in the price of maize. There is an incentive to grow more boro rice because of the favorable price of paddy. But there is little scope for expansion of boro area, as almost all suitable land had already been brought under cultivation last year. In order to increase production they will

allocate more land to hybrid rice which has a 20 percent yield advantage over BRRI Dhan 29, the most popular boro variety. Many, who lost seeds kept at home, would also like to try hybrid rice this year. Therefore the demand for seed for both hybrid rice and maize would increase substantially. The demand for potato seed is also expected to increase. The seeds for mustard and vegetables are available in the market, but the concern is with the availability of the seeds for hybrid maize, rice and potato. Government and private seed agencies need to take note of this situation.

Farmers' reported that phosphate and potash fertilizers are available in the market, but they face acute shortage of urea fertilizer. Procuring urea is a big hassle these days, as they had to get certificate from representatives of local governments and local agricultural officials. They often fail to get adequate amount of urea even after spending a number of days to run after the officials. Non-availability of adequate amount of urea is having a negative effect on yield. En route we observed many aman fields with light green color of leaf rather than dark green color, which is a sign of malnutrition of plants.

The farmers prefer the free market system of distribution of fertilizers that prevailed earlier than the present system of distribution through government machinery. They would like the urea to be freely available in the market even if they have to pay higher prices for it. Indeed, many reported that they had to buy fertilizer at 10 to 12 Taka per kg in the black market than the government fixed price of Taka six per kg. They reported that the amount of fertilizer they are getting under the present system is about 50 to 70 percent of the requirement.

Irrigation is another major challenge for farmers growing crops in the dry season. Farmers with diesel operated pumps expressed concern about the rising cost of irrigation. Majority of the farmers purchase water from pump owners. Three modes of payment of water charge are currently in place. These are crop sharing arrangement, fixed charge on per acre basis, and machine rental system where the farmers directly supply diesel. The fixed water charge has increased to Taka 2000 to Tk 2400 per bigha for boro paddy, from Taka 1200 to 1500 a few years ago. The water charge is paid in installments and must be paid fully by the time of flowering of the plant. In case of crop sharing arrangement, currently one-fourth of the produce is paid to the shallow tubewell owner, and the crop is shared in the field at the time of the harvest. In the meeting in Tangail, one irrigation pump owner mentioned that she wanted to increase her share for irrigation to 37 percent in the coming Boro season since the cost of diesel had increased. Therefore, high cost of diesel may also create problem in the coming Boro season. Farmers having electricity operated irrigation facilities demanded uninterrupted electricity supply for crop production.

Farmers reported that they currently face severe fund crisis in order to purchase the necessary inputs and machine rental for land preparation. Farmers reported their cash requirement for cultivation as Tk 4500 per acre for mustard, Tk 45,000 for potato, Tk 7,500 for maize, and Taka 6,000 to 12,000 for boro depending on the mode of payment of the irrigation charge. Therefore, commercial banks and NGOs should provide them loan for crop cultivation. They also mentioned that if BRAC provided loan on a weekly installment basis, as is the prevailing practice, they would not be able to take and repay such loans. They prefer seasonal crop loan this year which may be recovered in one or two installments after the harvest of crops.

The flood had a huge toll on the farmers' livelihoods and overall national economy. To offset the flood loss in the upcoming Boro season, farmers have their own plans and they deserve support from the government, banks, micro-finance institutions, and public and private agencies dealing with input delivery. We do believe that the government, private sector business enterprises and NGOs would be able to support farmers in their endeavor to stand on their feet and at the same time enable the nation to sustain food security. We hope that with integrated effort of all stakeholders Bangladesh will successfully be able to face the challenges posed by Flood 2007.

### **Implications for Policy**

Observations on post-flood agricultural activities and consultation with farmers in the flood-affected areas in the Northwest provided us insights on the nature and extent of damage by flood. We also had an assessment of farmers' coping and production strategy in the next season and constraints to realizing their plans. Based on the above observations and insights we would like to offer the following comments on the post-flood agricultural rehabilitation programmes and policies.

*Crop Rehabilitation Programme:* The government has planned to provide inputs free of cost to the marginal farmers for the ongoing aman and the next boro season. The Department of Agriculture (DAE) has already prepared a rehabilitation plan to distribute seeds and fertilizers free of cost to the flood affected regions. The plan targets to cover 37,300 ha for boro rice, 16,000 ha for wheat, 8,800 ha for maize, 7000 ha for pulses, 9000 ha for mustard and 6500 ha for vegetables. Such an investment of public resources is justified for both stimulating agricultural production in the affected region and mitigating the sufferings of the poor farmers. We must commend this effort on the part of the government.

The issue is whether the government can really reach the affected marginal farm households and effectively implement this program. The problem of identification of the beneficiaries and reaching them with the input package is well-known. We have noted that this flood was highly localized and those who have been affected, the damage has been very severe. So, it

might be better if the government identifies the affected unions (or villages if possible) and target all farm households in those unions for the rehabilitation program. The government may distribute two bags of urea, one bag of phosphate and potash, and 10 kg of seeds of hybrid rice and hybrid maize for each household. It would be enough to cover needs of fertilizers and seeds for cultivation of two bighas of land for the two major profitable crops in the region. It will effectively cover marginal farm households as well as provide some support to households with larger size of holdings. Wheat and vegetables are marginal crops in the region, and the input needs for pulses, mustard are small. The farmers can manage themselves the cultivation of these crops. The administration of the suggested program will be relatively easier to implement than what The DAE plans to do.

*Fertilizer Distribution System:* In all the areas we visited farmers are really concerned with the availability of urea fertilizers, and are scared that the situation might worsen within the next few months when the need for this input will increase substantially. Farmers do not like the present system of fertilizer distribution through fertilizer card that needs certification from representative of local government and local level extension officials. It is not an efficient system on the ground of time loss and delay in fertilizer procurement. Also they would prefer to purchase the fertilizer in small amounts as and when needed due to cash constraint. The present system is not conducive for such purchases in installments. They would like the fertilizer to be available through the open market, as the system prevailing a few years ago.

However, for open market to be effective there must be adequate supply of fertilizer within the country that matches the demand. Any scarcity in supply will promote operation in the black market with economically better-off farmers accessing the scarce supply at a higher price at the cost of the poor farm household.

The Ministry of Agriculture claims that there is no crisis of fertilizer. According to the daily monitoring report, the current stock of urea at different district is 95 thousand metric tons, factory level stock is 216 thousand metric tons and buffer stock is 203 thousand metric tons. Thus, total stock of urea fertilizer is 515 thousand metric tons. According to our estimate based on the fertilizer use reported by farmers, the demand for fertilizer in the next boro and rabi seasons would be about 1600 thousand metric tons. Thus the government must make an arrangement to import about 700,000 tons of urea within the next three months assuming another 400,000 tons would be available from domestic production. At the current price of urea in the world market (US\$340 cif per ton), it will cost the government TK 1,600 crores for such import. The question is can the government afford it?

The market price of urea is Tk6.00 per kg which has remained at that level for a long time, while the price of paddy has almost doubled during that period. The price of phosphate and potash which is imported by the private sector has also increased almost 2.5 times. At current

world market price, the government is providing a subsidy on urea at Taka 18 per kg, three times the government fixed price. The government did not increase the price of urea due to political considerations, although it has to provide substantial subsidy which has inflated over time due to rapid increase in the urea prices in the world market and rising cost of domestic production. Also, farm level price of urea in the adjoining border areas in India is Tk 9.5 per kg. The government has resorted to administered market due to fear of smuggling of urea to India and Myanmar. It might be appropriate to raise the price of urea to the level of Indian price, say Taka 9.00 that will discourage smuggling, but will still provide substantial subsidy to farmers. With this policy change, the government can afford to import more fertilizers to ensure adequate availability in the market. If a moderate price increase is accompanied by distributing fertilizer through the open market, the farmers may not resent such a policy change.

*Supply of Seeds:* The supply of seed is in the arena of the private sector. There will be substantial additional demand for both rice and maize and potato seeds this year. There will be particularly high demand for rice and maize seeds this year because of favorable crop prices and the loss of farmer stored seeds. The government needs to provide the information to the private sector and coordinate with them so that they take timely steps to meet the additional demand through importing seeds.

*Supply of Agricultural Credit:* There is acute shortage of working capital for agriculture particularly in the flood affected areas. The government should have a coordinated initiative, particularly involving the private sector banks, along with the specialized government banks, to enhance inflow of credit to rural areas. The NGOs providing micro-credit can play an effective role in this area. But the usual practice of recovering micro-credit in weekly installments immediately after disbursement will not work for the supply of agricultural loans. There is a need devising appropriate delivery and recovery mechanism for agricultural credit operations to be effective.

*Social Safety Net Programmes:* Government machinery should be fully geared to initiate the VGF and VGD activities programmed under the ADP in the flood affected areas. It is pertinent to mention here that there is an allocation amounting Tk 1649 crore, in National Budget of FY2007-08, for VGD, VGF, Test Relief and Gratuitous Relief (GR). Post-flood rehabilitation activities need to be integrated into the regular anti-poverty programmes of the government. An independent monitoring mechanism should be put in place to ensure that the VGF and VGD beneficiaries are correctly targeted, and that those in need are not overlooked. Regular feedback from this oversight exercise will enable the government to closely calibrate this programme to mitigate distress promptly and effectively and also to avoid wastage and rent seeking in the distribution process.