

# The Economics Of Canal Re-excavation

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**PERHAPS** no other Governmental measure in recent time has produced more stir, discussions and debate among all sections of our people than the re-excavation of country-wide derelict canals to develop a dry-season irrigation system with a view to doubling the food production. People from all walks of life including women have been participating voluntarily in the re-excavation. The President himself has been taking active part in various re-excavation projects. The canal digging project has earned both praise as well as criticism from various quarters. But the general tendency in these evaluations have been to make biased and quick comments without examining the details of the project. In order to understand the true economic implications of the canal re-excavation project it is necessary that we carefully discuss the costs and benefits of the project.

Bangladesh is a country of rains, rivers and canals. Water is abundant during the rainy season. But during the dry season, and at the period of droughts our agricultural production depends heavily on these rivers and canals for the supply of irrigation water. The concern for conserving water for dry season and particularly the unprecedented drought that battered our agriculture last year, initiated the Government to launch this nation-wide canal digging and re-excavation programme. The aim of this project is to re-excavate at least a canal in each sub-division of our country through voluntary participation of our masses. The basic objectives of the canal re-excavation may be described as follows: First, preference would be given to those canals which can be supplied with water from big rivers. Secondly projects of excavation and re-excavation would be taken in those canals which can be supplied with waters through link canals from the rivers. Thirdly, this project would be taken where the Government could ensure adequate number of Deep and Shallow Tubewells.

The major benefits of canal excavation and re-excavation

may be described as follows, water being a very important input in the agricultural production function, canal re-excavation would ease this input constraint but supplying water for irrigation during the dry season and hence increase production of crops. New lands could be brought under cultivation of foodgrains. Increased agricultural output would help industrial expansion through supply of both cash-crops and food-grains to the industry and hence accelerate economic growth of our country.

Increased output of foodgrains would contain their price rise and thereby industrial wage, which will ultimately help curb the inflationary pressure. Added output of foodgrains and other crops would also contribute to the improvement of our balance of payments position by increasing our export of agricultural products and reducing the import of foodgrains in particular. Without going into the income distribution considerations of the canal re-excavation programme, it can be said that this move would be a pareto-optimal one provided canal re-excavation helps to increase total agricultural produce. (An economic move is said to be a pareto-optimal one, if it makes at least one person better off without making anybody worse off in an absolute term). Canal digging is unlikely to make anybody worse off in the absolute term even if the relative gap between the rich farmers and the poor and landless farmers widens as has been apprehended by some. The benefits of a canal digging may be seen from the example given below: the re-excavation of 14 mile long Buri-Teesta river projects of Ulipur police station under Rangpur district needs 30,000 labourers and 3.4 crore feet of earth-work. This project is expected to bring in 80 thousand maunds of additional foodgrains annually, remove waterlogging problem of 40 thousand acres of land and bring more land under irrigation facilities during the dry season.

From the viewpoint of social motivation active participation of our President,

Ministers, MPs, senior government officials, and local leaders has a definite beneficial demonstration effect on the mental attitudes of the rural masses. The rural people are very likely to be encouraged and motivated when they find the national as well as local leaders working shoulder to shoulder with them. Such a venture may also help narrow the communication gap between the Government authority and the rural masses. Moreover for Government officials, it is a very good opportunity to understand the problems of our rural areas by mixing closely with the people at the grass-root level.

Now, as far as the costs of canal digging is concerned it is reported that the participation by the people has been almost totally on voluntary basis except an insignificant portion of wage labourers. An example may suffice: In Kashedaha project under Marikgonj Subdivision inaugurated by the President, two-and-a-half mile reexcavation was completed where only 100 maunds of wheat and Tk. 30,000 were spent.

The participants in the canal digging programme includes: Ministers, senior government officials, teachers and students of schools and colleges in the areas concerned, women and various sections of village people including chairmen and members of local governments. Canal digging is a very encouraging pragmatic step to mobilize the rural masses and to utilize their time which would otherwise have been spent in idle leisure. To be more clear, if the labour of the people could be put to the canal re-excavation when their opportunity cost of employment is zero, it is definitely an economically fruitful measure. But to divert the rural people engaged in productive employment to the canal re-excavation would however impose a cost on the society in the form of lost productive efforts.

In order to make the canal re-excavation project more effective a few suggestions might be made. Well-designed nationwide canal digging programmes should be clearly chalked out and feasibility re-

ports should be carefully prepared and studied by experts before implementing a project. Second, care must be taken for the maintenance of the re-excavated canals. While digging the canals proper slopes of the excavated canals and those of the embankments must be strictly maintained, otherwise, during the rainy season, there is a possibility that the re-excavated canals would get derelict with the very earth of the excavated canal. This risk is greater in sandy areas. Moreover the linking of re-excavated canals with rivers also runs the risk of being silted up with the sands from the river. An example of such a case is the Kiriinasha canal running from Char Atra to Angaria under Palong police station of Madaripur sub-division re-excavation of which was carried out by IWTA during 1984-85. But this canal became derelict in a very short period of time because of the silt from the river Padma to which it was connected. Hence, in order to prevent the inflow of silt from the mother river to the connected canal regular dredging of the rivers may be needed. Third, efforts must be there to motivate the rural people themselves to design and implement the programmes of canal re-excavation at their own initiative under the local leadership in line with the true spirit of self-reliance movement.

Finally, along with increasing irrigation facilities measures should be taken to prevent the relative gap between the well-to-do farmers and the poor and landless farmers from widening. Some form of taxes may be imposed on the use of irrigation water from the re-excavated canals for the rich farmers and the receipts may be re-distributed among the landless and unemployed farmers with a view to creating new employment opportunities for them. However, a cautious and judicious study should be made to assess the benefits of the canal re-excavation in monetary form before determining the nature of the above proposed taxation.

(The views are those of the author.)