

ABSTRACT

The DND is a leading irrigation project executed by BWDB (erstwhile EPWDB) during 1962-68 to reduce the food deficit and to fulfill the national objectives of attaining self-reliance in food grain production. The project area covers 56.79 km² that disperse from south of Dhaka and north of Narayanganj. This project was cordoned by flood control embankment in order to keep the area beyond the reach of natural hazard like seasonal flood. The major components of this project were road- cum- embankment, khal, irrigation canal, drainage canal, intake canal, water control structure and a pump station. After the completion of this project the area under it become flood free that initiated development pressures both from Dhaka and Narayanganj cities. Due to this unavoidable fact the area increasingly turned towards rapid unplanned urbanization and on the other hand the existing pump drainage systems proves inadequate to drain out rainwater in the rainy season and excess wastewater from home and industry. In the last few years, owing to heave rainfall the water logging has become a major disaster within the project area. Besides, waste sewerage in conjunction with rainwater aggravated the whole atmosphere of the project. The present study is taken to find out the reasons for drainage congestion and suggest remedial measures to mitigate the flood impact of that area.

Household survey had been conducted for primary data collection. Focus Group Discussions (FGD) were arranged in different locations with various types of people in order to collect views, comments and suggestions on causes and possible measures to get rid of the problem. Concern officials of BWDB, District Administrations, Road & Highway Department, Agricultural Department, LGED and Upazila Administration were consulted and experts recommendations has been considered for causes and remedies to solve the problem.

The study revealed that some of the major causes of water logging are; heavy rain fall within short span of time, obstruction of drainage water by rapid expansion of scattered settlements and industries, encroachments and silting up of khals and canals, absence of Master Plan for land use, construction of unplanned roads without adequate water crossing point, accumulation of polythene in the drainage systems, illegal and unplanned fish Garth, boundary walls, lack of public awareness and education etc. However the main two causes of water logging in unplanned and rapid urbanization and unplanned road construction.

Water logging problem in DND creates serious negative impacts on social and personal life. Respondents who are living on the low lying areas reported that their homes and latrines has gone down under filthy water resulting in serious health hazards and various water borne diseases. Many crops fields have also gone under water that causes damage to agriculture production. Fisheries have lost all of their production as water overflowed due to water logging. Damage of roads, loss of business, less industrial production and loss of employment happened. Change of occupation and transfer of land and other property occurred. Many people had lost their homestead temporarily and displaced there by. Deficiency of food, shelter, pure water and essentials has decreased the living standard of the area. In sum water logging water logging disrupts the normal life and activities of people.

In order to get rid of water logging problem, a comprehensive and appropriate plan should be taken by coordinating all concerned govt. departments, public representatives and above all local communities. The study reveals that re-excavation of khals and canals, eviction of unauthorized encroachment on the bank of khals, canals, and cleaning up of drainage systems, removal of unwanted obstructions on water paths, creation of water retention ponds and most importantly setting up of two/three additional pump house at different suitable locations are short time measures to minimize the adverse impact of water logging. Effective land use planning including land zoning, and planned land transformation will help to mitigate water logging sufficiently. Creation of public awareness is essential in this respect. To keep the DND project healthier and habitable water logging needs to be solved without any delay.