



Live and livelihoods in wetland waterlogging: Study from southwest Bangladesh

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ABSTRACT

Waterlogging is a major hazard that often underestimated even by scientists and policymakers because of its slow onset effects on environment and society. However, it habitually brings miserable sufferings for the communities living around low-lying wetlands, generally called 'Beel' in Bangladesh and primarily depending on the natural resources of those wetlands for their livelihoods. The study examines the causes of prolonged waterlogging in Bhutiar Beel situated in Khulna district of southwest Bangladesh and how this hazardous event impacts on the livelihoods of the communities living around the wetland. The study has followed a mixed approach through using both quantitative and qualitative methods for collecting empirical data with questionnaire survey, in-depth interviews, and focus group discussion. Besides, satellite images from Landsat MSS, Landsat TM and Landsat ETM of different years have also been analysed to identify how the territory and area of Bhutiar Beel has been shrunk over the last couple of decades. Apart from increasing fish production, the study explores that crop production has drastically been decreased and the cropping pattern has been changed due to the localized wetland based livelihoods. The present study, however, recommends community based action plans such as disaster risk management and wetland based natural resource management may assist policymakers to formulate appropriate policies for sustainable livelihoods in wetlands.

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Introduction

Bangladesh is well-known as one of the most vulnerable countries to natural hazards across the globe. Water sector of the country would likely be affected significantly due to anticipated changes (Ahmed, 1998; 2005). Most of the adverse effects of climate change are in the form of extreme

weather events, while water related hazards such as floods and waterlogging are likely to be exacerbated (Asaduzzaman, 1997; Choudhury, 2005; Huq, 1996; Mohammad, 2016).

Waterlogging is the recent concern at the backdrop of climate change that becomes worsens in the southwest Bangladesh (Awal,