

Water, Water Pollution and Cultural Desolation

Shahid Mallick

Senior Lecturer (Anthropology)
Department of Sociology and Social Work, Gono University, Savar-Dhaka, Bangladesh

Abstract: Civilization and livelihoods activities are uniquely related with river/water. Traditional livelihoods and occupational displacement have a relationship with river/water pollution. The main focus of this paper is on culture, traditional occupations, industrialization, environmental degradation and socio-cultural and economic change of a riverbank village in Bangladesh. Interesting to notice the contrast of two natural elements, one is human and another one is water. Worldwide populations grow and affluence increase and demand for food and water is on the rise, but the amount of water, nevertheless increases compare to what it was in hundred years back. Further, human being are on the race who can pollute how much of river/water, again climate variability and change in climate are exuberated the problem further, i.e. making it difficult to provide water, where and when it is needed. Bangladesh is a riverine country and country's 5% populations are still depends on river and nature base livelihoods. River Bangshi is a source of nature base employment and traditional occupational groups in Ghugudia village and many other villages around the river Bangshi. The purpose of this study was to investigate water/river pollution and its impact on traditional occupational groups and other general livelihoods activities in and around a river course. The primary data were collected from a village named Ghugudia almost in a year and six month duration, data collected in various stages and the use of different methods and tools. In this study mix method, that is qualitative and quantitative tools and techniques were applied, descriptive survey, individual and in-depth interview and focus group discussions (FGD) were done with a different section of people i.e. fisherman, farmer, Goala/milkman, barber, small businessman. Individual interview was conducted with industry owners and representatives of their organization, political leaders and civil society groups.

Keywords: River, Pollution, Culture, Occupations, Industry, Environment, Bangladesh.

I. INTRODUCTION

Historically origin of society and rivers/water course are deeply connected and continuously created and recreated a particular arena for policy-making and development plan in the river valleys and its impacted, as well, the culture, history of each and every community (Tvedt, 2010). In order to understand the development need and progress of a particular region, i.e. Bangshi riverside has to be focused on local perspectives first hence national/global. And there has to be mutual understanding and cooperation among all stakeholders to the rational utilization of this precious natural resource. In an conventional development paradigm usually neglecting the networks and characteristics of a particular river such as Bangshi and many others how its influences the peoples culture, values and practices. The development plan has to be formulated on the basis of local ecological and environmental perspective. But there seems to have the denial of considering the relationship between the water/river and human beings and consequences of the pollution of the river and social and economic development. The good understanding of human impacts on river basins requires integral consideration of the entire environmental impact chain and the river continuum from source to estuary (Nienbuis & Leuven, 1998b).

The river Bangshi being polluted mainly from concentrated chemical and other industrial waste from the export processing zone (EPZ) and many other local industries discharged their untreated waste and drained into the river and other local water body. The socio-cultural and environmental degradation began at the village Ghugudia during early 19190s. As of today there are 224 industries along with a large export processing zone (EPZ), exclusively meant for export oriented industrial product (the ceramics, medicines, drugs, leather, dyeing, garments and other heavy and light industries are at Savar and mostly located in riverbank or drained into the river) and 195 brick fields are their (Mallick, 2013). Change of occupation is any ones' voluntary choice, however, people at Ghughudia and many other riverside villages mainly the traditional occupations, one were to some extent induce to leave their forefather's occupations. There also have signs of mistrust among and within the larger community which gradually eroding the social fabric and individual's integrity and dignity of their professions and long term and non healable wound in a society.

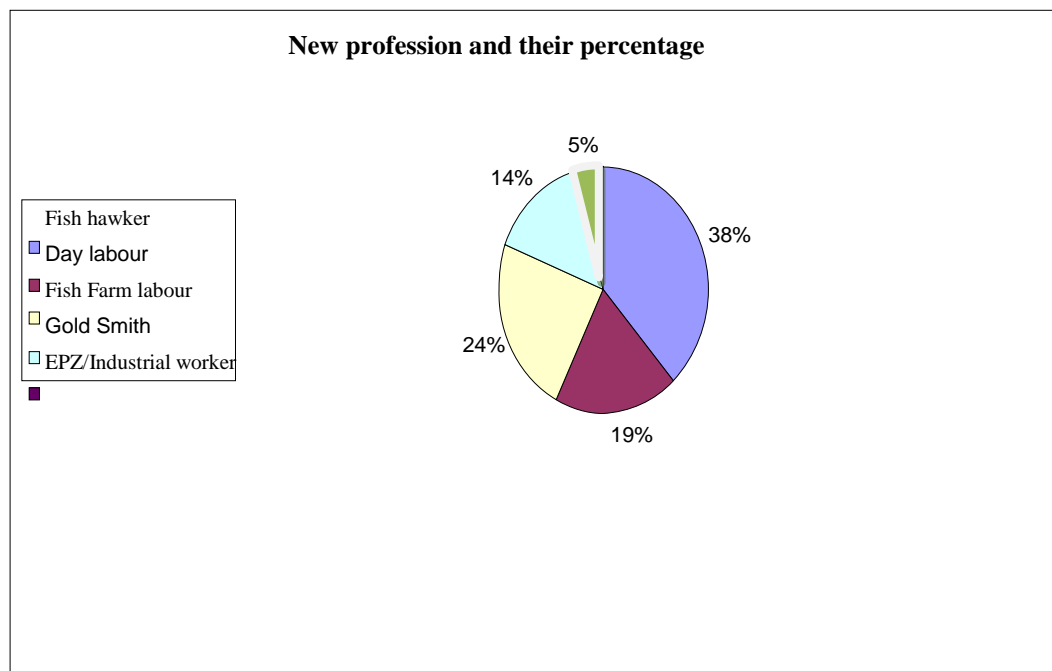
II. TRADITIONAL OCCUPATIONS AND REEMPLOYMENT

Even in a conventional employment system employee has the relationship with the employer, but in traditional occupations, this is more related with nature and self employment. And these are sinuous to an ecological niche. In a conventional reemployment system, wage and skill factors are important to displaced workers to seek a new job in their previous occupation (Lippman and McCall.1976) again for displaced and of course for the traditional displaced workers to be employed in the similar or related earlier professions like a privilege to them compare to switch into alternative and different employment.

In conventional occupations and reengagement system, individual entering to an new occupations, workers can earn higher wages by accumulating occupation-specific human capital on the job, and these, usually encourages workers searching for a new job to remain in the same occupation, since these skills may not be valued in alternative occupations (Lippmann and McCall, 1976), like as fishing community in Ghughudia village. Again reemployment of displaced does have unique relation with education and training, but for the questions of displaced traditional occupational groups, the case might have different as its related with particular tradition and culture they practice. And there is so little or no data or research on reemployment of traditional occupations displaced people either home or aboard. Even though displaced occupations treat as important human capital in the society, but their, earning loses seems to much higher compare with the earlier one (Russell Ormiston, 2014), and usually displaced workers are less likely to switch their earlier occupation unless its comprise his/her prestige and dignity.

New industrial innovation is no doubt create some new and additional employment in the society such as Dhaka export processing (DEPZ) created as many as 75,769 employment through its 97 enterprises in the DEPZ area (Government of Bangladesh [GoB], 2009). However, there is no evidence or data on how many occupations and nature based employment it has distorted? There are so many women workers there and countable 80% workers at EPZ are women and from the Ghugudia village 400 women work in the factory, but only 20 women from fishing (minority community) family are working in the factory and they are being disliked by the neighbour and they them self feel disgraced too. As indigenous and traditional family values and social practice do not accept this as natural and what they call 'lost of their Jat/clan/tradition and culture'.

In the course of river Bangahsi earlier, there were 60,000 traditional fishing, family who was exclusively dependent on the river and now its reduces by 10% and the in the village Ghugudia at present there are 200 fishing, family among them only 10 families are still traditionally fish in the river and other open water body and rest of them are become jobless or force to quit their forefather's traditional occupations. In an account base ninety percent of fishing people in Ghughudia village become jobless and force displaced from their occupations and merge with other professions, i.e. day labour, fish hawkers, industry labour and other professions. The traditional fishing, nevertheless simply a jobs to the traditional fishing community rather it is culture, which they practice from time immemorial, and its said that whole scenarios has been changed and been start distorted since from the industrial introduction in the area. A thematic diagram of occupational displacement and newly adopted professions shown bellow



Source: Mallick, 2013

Figure 1: Occupational change

The above figure shows that very insignificant 5% are join as EPZ/industry workers, 19% are day labor and 14% merge with goldsmith which is also a traditional occupation. However, large 62% are still remain with fish related activities either as a fish hawker or fish farm labour clearly signify the occupational satisfaction and ethnocentrism even in the time distortion of culture.

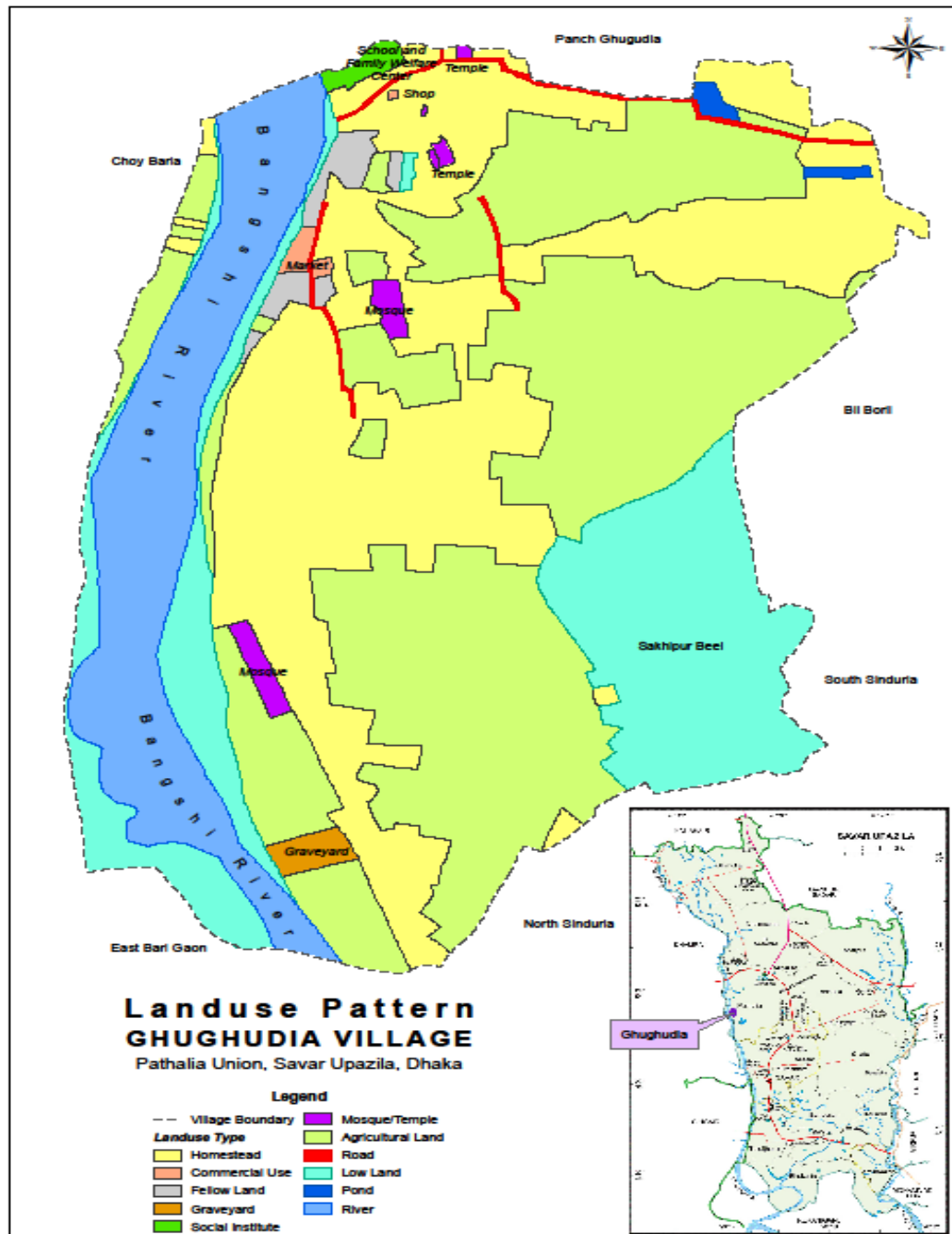
III. POPULATION, WATER QUALITY AND WATER DEMAND

Increased life expectancy and sophistication of life style and livelihoods claim to be have link per capita water use and total water demand in a community. Further, demand for water is, to some extend an ever growing phenomena as population grows and livelihoods activities changed over time such as in Bangladesh population size such as in 1990s, it was around 10 cores in the year 2000 it was around 13 cores and in the year 2014 its rise in around 16 cores, has clear indications of a rise in total water demand in the country and projected population in 2025 expected to reach 21core, hence the water demand as well. Contrarily the total amount of fresh is static and what it was in back in 1990s. In terms of water use, per person per day water use is around 40 liters. In general, population in the country increases as its increase other parts of the country and the world as well. The population increase at Ghughudia village is so high compared with national trend such as on an everyday basis, there are around 5000 people living in this village and among them 3800 are Muslim and 1200 Hindus (Mallick.2013). However, according to statistical survey of Bangladesh (BBS 2001, 2008) it was only 1863 and a male female ratio is 100/96, average household size is 4 (four).

Village, Ghughudia exemplifies the nationwide water security in the country, river pollution and livelihoods dependency at local level. Water and river polluted by various point and nonpoint sources (industrial waste, household garbage, biological) it also has other impacts that leads to traditional occupational loss. Over time the quality of water in the river and other local resources has been deteriorating, and demand for domestic water uses are increasing as well. Such as during 1980s, there were 2-3 tube wells in the village and people usually use river water for their everyday purpose and all other domestic use and tube wells, water use for drinking purpose only, whereas as at present 90% household at Ghughudia have their own tube wells and rest 10% share tube well with others. Consequently, ground water levels are dropping every year at Ghughudia and other surrounding village. At one side high population growth increases demand for more water vise-versa man made disaster, i.e. anthropogenic cause of water/river pollution creates, water havoc and put more stressed on traditional occupational livelihoods.

IV. THE RIVER BANGSHI

The 238 k.m. long Bangshi river is one of the important tributaries of the Brahmaputra-Jamuna river system in Bangladesh and begins from the point of Madu Pure, Tangile near Jamal Pur district, Bangladesh. The Bangshi crosses through Maymensingh and at Kaliakur in the Gazipur district, enters into the Dhaka district, flowing between Dhamrai and Savar upzila. The Bangshi enters into the Dhaleshwari River down at Savar upzila, the river Bangshi is the main source of nature-based employment for traditional occupational groups in Ghughudia and many other villages around the river. It was the source of protein for many riverside poor families.



Source: Mallcik, 2013

Figure 2: The River Bangshi and Water Source of Ghughudia

In the course of time, during early 19190s a special economic zone (EPZ) exclusively meant for attract foreign industry, was set up beside the river Bangshi with the hopes of new additional employment in the area. There are so many foreign industries were set up in EPZ area EPZ does not bring any net economic benefits for the country, but created some employment at local level targeting unused naturally skilled human resources (mostly women) and local nature base employment and agriculture was seriously undermined.

V. CONCLUSION

Total demand for water in the community is increasing every day as so many new faces are added and increase the number, doesn't matter either its rural or urban community. While the fresh water is key to sustainable development and nature base livelihoods River Bangshi, an important source of fresh water for domestic, agriculture and livelihoods, means to fishing people of Ghughudia and many more other villages around the river Bangshi. However the degradation of Bangshi river water quality has significant links with industrialization i.e. setup of the EPZ and other local and international industries, is a clear reflection of unplanned industrial, and other structural development in the area and thus overgrowing pressure on the rivers. The continued degradation of the river environment led to erosion of cultural heritage and livelihoods along the river course, such as traditional fishing communities, Bede/river gypsi, potters. The waterways and public lands alongside the Bangshi river course and many other rivers have been encroached by the people. Therefore, serious ecological consequences have resulted from continuing abuses of the river Bangshi.

Right to occupation is subject to cultural belief and customs local circumstances and institutional power and abuse of rights to occupations may take the form of economic, social, or physical exclusions through attitudinal or physical barriers or through control of access to necessary knowledge, skills, resources, or venues where occupations take place (WFOT, 2006) the river Bangshi is home of large traditional fishing flock and many others but their rights are being denied due to pollution of river and inefficiency of relevant agencies either its governments or local private organizations. Finally, rivers are not semi natural its truly natural and our attitude to river need to be rethought and acknowledged the traditional occupations from the natural point of view.

REFERENCES

- [1] Terje Tvedt et.al The River Nile in the, Post-Colonial Age Conflict and cooperation among the Nile Basin Countries, I.B.Tauris & Co. Ltd 6 Salem Road, London W2 4BU 175 Fifth Avenue, New York NY 10010 2010. p 1-11, 93-124, 237-246
- [2] Shahid Mallick, Industrialization Water Pollutions and Social Change: A Case of Basin Village in Bangladesh, International Journal of Scientific & Engineering Research 4 (5): 2013, p 759-774, www.ijser.org/ResearchPaperPublishing_May2013_Page3.aspx
- [3] Charles, J. Vörösmarty et al. Global Water Resources: Vulnerability from Climate Change and Population Growth. DOI: 10.1126/science.289.5477.284 2000
- [4] P.H. Nienhuis, Water and values: ecological research as the basis for water management and nature management, R.S.E.W. Leuven, A.M.J. Ragas, A.J.M. Smits & G. van der Velde (eds), Living Rivers: Trends and Challenges in Science and Management, Hydrobiologia: Springer, P.O. Box 17, 3300 AA Dordrecht, The Netherlands, 2006 p 261-275
- [5] Forslund, A. et al, Securing Water for Ecosystems and Human Well-being: The Importance of Environmental Flows. Swedish Water House Report 24. SIWI, 2009
- [6] Shahid Mallick, River Culture and Livelihoods: Water Pollution and Social Change Around the River Bangshi, Bangladesh, ISBN-10: 3656366993, ISBN-13: 978-3656366997, GRIN Verlag, Germany, 20013
- [7] Deborah Bossio et al, Reversing Land and Water Degradation: Trends and 'Bright Spot' Opportunities, SIWI/CA Seminar, Stockholm, Sweden, 2004
- [8] Ms Anna Forslund et al, Securing Water for Ecosystem and Human Well-being: The Importance Environmental Flows, Swedish Water House (SWH) ISBN: 978-91-975872-4-2, 2009.

- [9] Piet F.M. Verdonschot, Data composition and taxonomic resolution in macroinvertebrate stream typology, in M.T. Furse, D. Hering, K. Brabec, A. Buffagni, L. Sandin & P.F.M. Verdonschot (eds), *The Ecological Status of European Rivers: Evaluation and Intercalibration of Assessment Methods*, The Springer, P.O. Box 17, 3300 AA Dordrecht, The Netherlands, 2006 p 59-74
- [10] Norman E. Peters and Michel Meybeck, *Water Quality Degradation Effects on Freshwater Availability: Impacts of Human Activities*, International Water Resources Association Water International, 25(2): 185–193 , 2000
- [11] World Bank, *Sustaining Water for All in A Changing Climate*, The World Bank, World bank Group Implementation Progress report of the Water Resources Sector Strategy, 1818 H Street NW, Washington DC 20433. 2010, 3-8
- [12] Russell Ormiston, *Worker Displacement and Occupations Specific Human Capital*, *Work and Occupations*, 41(3350-384), Sage Journals. DOI: 10.1177/0730888413515250, 2014 wox.sagepub.com
- [13] World Federation of Occupational Therapists (WFOT). *Human Rights Position Pape*, 2006.
- [14] Lippman, S. A. And McCall, J. J. *The Economics of Job Search: A survey*. *Economic Inquiry* 14(155–189) doi: 10.1111/j.1465-7295.1976.tb00386, 1976