"Land Use Policy Implications of Mangrove Afforestation in Accreted *Char-lands* of Bangladesh Coastal Areas: A Case Study from *Hatiya* Island of *Noakhali* District"

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Planted mangrove forest in Hatiya island



Background: Forest coverage of Bangladesh





Background: Settlement and afforestation in the accreted lands



Mangrove afforestation started in 1965-66 by Bangladesh forest department (BFD, 2011)

Prioritized in the National Forest Policy, 1994 Mangrove Plantation 196,000 hectare Resettlement started in 1985 under Rehabilitation Program of the Government (Matin, 1986)

Prioritized in the National Land Use Policy, 2001 (GOB, 2001)

Resettled Victims 28,000 (2001-2013)

Background: Problem Statement



Why and How it declined?

Research Questions?

1. Does resettlement program affect mangrove afforestation?

2. Do the priority components of the national land use policy (NLUP) and the forest policy (NFP) affect each other?

Background: Hypothesis and Objectives

Objectives of the Study:

- To examine the impacts of the government's resettlement program of river erosion victims on mangrove afforestation in accreted lands around Hatiya Island.
- To Review policy framework for accreted land management and mangrove afforestation in Bangladesh.

Location of the study area

22°

Geographical Location: 22⁰08'01.93''N to 910⁰4'43.19''E

Hatiya Island is located in the Northern tip of the Bay of Bengal and a part of the central coast of Bangladesh under Noakhali District.

Area: 1507 km² Population: 452,463; Density: 300 per km² (BBS, 2011)

Accreted Land area: 380,000 acres (Hatiya + adjacent islands) Area of Mangrove afforested Land: 196,788 acres



Methodology





Data input and analysis

Result and discussion

Secondary Data from government agencies and previous studies

Village 3: Batayan 264 HH members **Estd. 1988**

Hatiya H Current Track: 31 AUG 2014 06:30 Pati (survey, rea)

Hatiya

Main

Island

Village 1:Zorekhali **19 households 110 HH members Estd. 1998**

8/31/2014

44 households Nijhum Island

Image @ 2014 TerraMetrics Village 4: Ananda 30 households **171 HH members Estd. 1988**

Image © 2014 DigitalGlobe

trium

Village 2: Borodail **35 Households 221 HH members Estd. 1998**

Planted mangrove forests (Soneratia apetala) Local name: *Kerfa/keora*



: 1/31/2014 22°08'01.93" N 91°04'43.19" E elev 3 m eye alt 25.73 km

Result of the questionnaire analysis

Result: Sex ration and household size of the respondents



[Source of the district and national average: BBS, 2011]

Result: Literacy status among the respondents



Indicates high rate of illiteracy <lack of awareness on sustainable resource use>.

Result: Income range and sources



Annual Average Income of respondent households (N=128)

Per Capita Income: 829 USD (World Bank, 2013b)

1JPY= 0.7446 BDT (Exchange rate of 31 Aug 2014) (<u>http://www.exchangerates.org.uk/JPY-BDT-exchange-rate-history.html</u>)



Sources of Income: Fishing Agriculture Daily Labor Firewood Collection Small Business

Result: Respondents' previous settlement

Respondents' first habitat was in the Northern part of the Island and adjacent Islands

Migration trend was Southward where accreted and afforested lands exist



[Developed by imposing the survey data on the map of the <u>www.bangladepedia.org</u>]

Result: Consumption of Mangrove for construction



Result: Sources of Wood and Log



Result: Consumption of Mangrove as biomass fuel (firewood, twigs, leaves)



Result: Preferred part of a tree for firewood



Result: Mangrove consumption for cattle rearing



Composition of a Cattle sheds in the study area

Average Cattle Number per family: 7.5

Indicates around 58% cattle sheds are composed of woods and logs being collected from the planted mangroves (n: 128).



Result: Perception of the respondents on mangrove decline and reasons



Result: Perception on forest encroachment and official action



Resettlement trend in accreted lands



[Developed on the basis of the data obtained from the Hatiya Sub-district Land Office, Noakhali district, Date: 02 September, 2014]

Note:

Applied Victims: The erosion victims who have applied to the govt. for resettlement

Resettle victims: The erosion victims who have already been resettled with land entitlement by the govt.



Martial law administration (1982-1990)

The government started resettlement of the migrant erosion victims in Hatiya Island in 1985 (Matin, 1986).

Breach of the section 29 and 30 of the Forest Act of 1927 (amended in 2000)

lin 2001



Jahajmara

21°30'N

By order of the President EE JATI BENODE DAS Deputy Scoretary.

00 22°CON

== 21°00'N

91°00'E

29°55'S

90°40'E

Overlap in institutional management

The Forest Act, 1927 (Amended in 2000)



Lack of inter-agency coordination and monitoring

The High Court's stand against the government's resettlement program in the reserved forest on accreted lands

No further land allotment (resettlement) or any construction in the Nijhum Island



HC halts allotment of Nijhum Dwip land

Star Online Report

The High Court today imposed an injunction on making further allotment of land or any construction of structure in Nijhum Dwip, a reserved forest area, in Noakhali.

In response to a writ petition, the court asked the authorities concerned of the government to submit a report regarding the list of possessors and the position of the entire land of Nijhum Dwip to it in every four months.

The HC issued a rule upon the authorities to explain in four weeks as to why their failure to protect, conserve and develop the reserved forest should not be declared illegal.

The HC bench of Justice Mirza Hussain Haider and Justice Md Ataur Rahman Khan came up with the order and rule after hearing the writ petition filed by Supreme Court lawyer Abu Bakar and local journalist Rafiq Uddin Enayet.

They submitted the petition last month seeking directives from the HC on the government to take necessary steps for protecting and conserving Nijhum Dwip.

[source: The Daily Star (2014, 23 October)

The High Court's stand indicates the existence of overlap in legal and institutional juris diction of the forest and land administration agencies of the government.

Primary discussion

Overlap in legal mandates and government's priority program resulted in the resettlement of erosion victims in the reserved mangrove forest. Scope of resettlement by the government and natural land gain insisted erosion victims to migrate into the accreted lands. The resettled respondents were found to have direct use of mangrove trees for housing, biomass fuel and cattle rearing in indiscriminate manner which gradually led to destruction of mangroves.

Future works

- Policy framework analysis
- Statistical interpretation of tabulated data and result
- Discussion and Compare with other relevant works
- Conclusion
- Writing

Thank you very much

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