Examine whether a ban on timber harvesting is working in Sundarban: A Way Forward

M. Zakir Hossain Khan
Research Fellow,
Asian Center for Development

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Background

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- Bangladesh has one of the lowest forest covers in the world with about 11% (2011), reduced from 15.6% in 1973.
- In 2011-12, the contribution of forest sector in the GDP was 1.66% (MoF, BER, 2014)
- Forest land under the control of the Forest Department, is governed according to the Forest Act of 1927,
- The Government's Forest Department manages 1.6 million hectares of the forest land. However, another 20% - that is approximately 2.5 million hectares - is recorded as 'other wooded land' or 'other land with trees'.
- At present, the mangrove forests in Bangladesh represent more than 50% of the total forest land in the country.
- Assuming an average of depletion rate of 1% per year indicates the quantity of wood in mangroves from Sundarban and coastal divisions would stand at 10.71 million cubic meter that may be available from government forests in 2020.

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In effect, the belt of mangroves is capable of absorbing 30–40 per cent of the total force of a tsunami- or cyclone-generated shock wave before it reaches the inhabited area behind it.

Forest types	Legal status	Location (Districts)	Area (000' hactres)
Mangrove Forest (Sundarbans Reserved Forest)	Reserved Forest	South-west districts (Khulna, Satkhira, Bagerhat and Patuakhali)	610
Coastal Plantations (Artificial Mangrove Forest)	Mostly Reserved Forest, more recent plantations yet to be declared	South central and south-east districts (Noakhlai, Laxmipur, Feni, Bhola, Lakshmipur, Patuakhali,	200

Literature Review

- The Sundarbans was declared a reserve forest under the Forest Act of 1927, so entry into the forest is restricted by the Forest Department. Previously, timber harvesting took place in the forest, but was banned in 1989 (Banik 2004). At present, only NTFPs are harvested from the forest.
- Sundarban has the additional threat of corruption to contend with illegal logging (Zaman & Khoda, GCR, 2011).
- Illegal acts such as settlement through clearing forest, encroachment and cutting of forest for commercial purposes have contributed to such poor condition of forest resources.

Forest Area	Natural Forest	Plantation Area	Trees 30Cm+ at DBH	Poles	Volume of Teak
Sylhet Forest Division	↓	↑	-	↓↓	
Chittagong Forest Division	↓↓↓	↑	↓∽↓	↓↓↓	↓↓↓
Cox's Bazar Forest Division	↓↓	↑	↓↓	↑	↓↓↓
Chittagong Hill Tracts	↓	↓	↓↓	↑	↓
Sundarbans	↓↓↓	Not applicable	↓↓↓	↓↓↓	Not applicable
Note:	↓	Declining		↑	Increasing

Literature Review

- Sharif Ahmed Mukul, 2013 suggested that enforcement of customary forest law had no or very little impact on the overall situation; in some cases, such enforcement has even worsened conditions, as in both conservation areas some illegal loggers were found to have continued illegal logging just to meet the fees associated with court appearances and legal costs
- While the majority of illegal harvesting is selective logging, some industries falsely use timber harvesting permits to clear land for agricultural crops, leading to complete loss of the forest ecosystem (Contreras- Hermosilla, Doornbosch, and Lodge 2007; Lawson and Macfaul 2010)
- There is evidence that illegal logging and associated trade is so corruptive that it is often accompanied by other forms of organized crime, such as arms smuggling and human and drug trafficking (Richards et al. 2003; Kishor and Damania 2007).

Literature Review

- Kishor and Lescuyer (2012) have identified that a) while the logger (in Tanjung Putin national park, Indonesia) gets about $2.2/cum, the final product sells for close to $1000/cum in the European and US markets - huge middle-man profits, most of which accrue to operators outside Indonesia; b) this is a huge drain of the natural resources of Indonesia with very little gain for the country including in any official revenue collections; c) the "alchemy" (conversion) of the timber from illegal to legal takes place through a series of steps. The process involves a network of corrupt practices across several sectors and countries which are facilitated by significant volumes of hard currency."
- To Xuan Phuc and Thomas Sikor (2006) have revealed that "Yet because of the demand for timber in lowland markets, illegal timber logging still takes place in many upland forests and distribution of benefits derived from small-scale illegal logging are distributed unequally among different actors along the chain
- There is no such study conducted yet to capture the value chain for timber logging from Sundarban.

Literature Review

- RPP produced by the UN-REDD Bangladesh (see Table 8) "both nat[ural] and planted mangroves are deforested due to encroachment for agriculture, shrimp cultivation and salt production. Particularly deforestation in the natural Mangrove forests are driven by illegal logging abetted by corruption

- However, the key actors that are responsible for illegal logging of Goran trees and specific mechanisms or incentives that influence illegal logging were not specified under that study. This proposed study would try to capture both issues

- TIB diagnostic study on the Forest department (2008) identified that the FD is responsible for managing and protecting the natural forest. However, the administrative weakness and loopholes of the FD, i.e., lack of efficiency, lack of budgetary and logistic support, and rampant corruption have been identified as the major causes of deforestation.

- However, this above study couldn't capture the drivers/gaps that lie with the policy and practices that are ultimately creating space for illegal logging of Goran as well as Sundari trees.

Objectives of the study:

- Estimate the overall volume of timber consumption including illegal logging and assess the distribution of benefits among actors
- Assess the effectiveness of the efforts to tackle the problem response by governments to protect illegal logging
- Assess the level of illegal logging and identify the drivers (policy, process and practices) those are influencing for illegal timber logging

Methods of the study

Conceptual framework of illegal logging

- "In producing countries, illegal logging results in lost tax revenue and less development of the economic sectors related to the logging industry" (Asner et al. 2009).
- Illegal logging is also linked to poverty, since in some countries there is little development of legal industries to provide jobs and income (Alemagi and Kozak 2010), and very little of the income from illegal logging stays at the local level (Felbab-Brown 2011)

Economics of ban of timber logging

loggers/manufacturers/traffickers will secure excessive profits or rents equal to the dash-marked area in the curve (which is W2[P2-C2]).

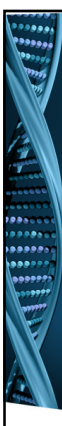P : price, $S_2(P)$, $S_1(P)$, P_2, C_2, $D(P)$, W_2, W_1, W : wood

Empirical supports and data collections

Objective 1: Estimate the overall volume of timber consumption including illegal logging and assess the distribution of benefits among actors:
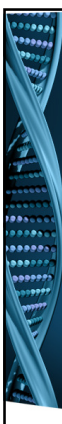
- Estimate the overall volume of hardwood extraction by modeling the demand for timber of Goran and Sundari by households supplied by the Sundarban.
- A survey of randomly selected 500 HH would be carried out to estimate the demand for above mentioned timbers per household, combined with informed assumptions of the effects of wealth and location on demand
- Identification of timber markets supplied by the Sundarban was based on estimates of the timber transport distances we will collect from interviews.

Objective 1: Part two - To understand the timber commodity chain

- To understand the timber commodity chain, we needed information about the typical what, how, where, who and why questions: what is the production process, which species are targeted and what volumes are extracted, where does extraction occur, who is involved in the various stages of the value chain from extraction to consumption, how are benefits distributed, why does illegal extraction persist, etc.
- To analyze timber value chain and benefits distribution relevant primary actors like are pit sawyers, carriers, timber dealers, officers (village, police, forest), saw millers, carpenters, and finally furniture consumers may be involved and payments as well as bribes and margins of middlemen for each cubic feet to carriers, pitsawyers, and loading will be identified.
- For this local level investigative journalists who have proven track record on reporting on illegal timber logging would be appointed.

Objective 2: Assess the effectiveness of the efforts to tackle the problem or response by governments to protect illegal logging and also assess the level of illegal logging and

- Assess the effectiveness of the efforts to tackle the problem or response by governments to protect illegal logging a number of suitable indicators are to be developed and these are derived from an examination of the national policy and legal framework and its implementation; analysis of enforcement and forest revenue data; wood-balance analyses (to estimate illegal harvest volumes)

- A survey of experts and reviews of domestic media coverage would be reviewed. By drawing on a variety of data sources, this approach provides the most rigorous means of assessing illicit practices

- Following the lead of Saunders (2014), we look to focus on a set of standardized indicators allow a comparative evaluation to be undertaken.

Objective 3: Identify the drivers (policy, process and practices) those are influencing for illegal timber logging from Sundarban

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- To gather information on the factors those are influencing for illegal timber logging several face-to-face interviews with a range of staff of FD, traders, saw-millers, retailers, auditors and representatives of certification schemes would be conducted
- Following consultation with key informants illegal loggers to be identified and they would be interviewed using a semi-structured questionnaire
- In order to obtain further insight into socio-political dynamics and other factors that might influence illegal logging, informal interviews will be undertaken with local FD field staff members and politically influential persons who have substantial influence on neighboring forests and local communities.

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Thanks for kind attention