The efficacy of forest law enforcement and economic incentives to prevent illegal logging in developing states: lessons learned from in and around two conservation area of Bangladesh

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Outline

Forests & Forestry in Bangladesh;

Illegal logging ~ a global perspective;

Study questions,, challenges, methods & study areas;

Study findings;

Quantitative & qualitative evidences

Factors affecting illegal logging

Concluding comments



Forests & forestry in Bangladesh: the scenario

- tropical deciduous to mixed evergreen type;
- 2.53 million ha; 16% land mass; true forest cover ~ 5%; protected areas ~ 1.67%;
- contribution to GDP ~ 3.3%, labor force employed ~
 2%;
- deforestation rate 3.3%;
- major challenges- poverty, unemployment, conflict with heterogeneous stakeholders, agriculture and fisheries, limitations of FD.



Illegal logging: the global perspective

- Illegal logging felling and extracting of logs from forests that is not in conformity with an approved management plan, or is not officially licensed or permitted in any other way by a forest authority;
- viewed one of the major threat to global forests and biodiversity particularly in the tropics that comprise the richest ecosystem on earth;
- continues at a rate of at least 40 million m3 annually, that worth potentially around USD 22.5 billion (JPC 2005);
- costs developing countries **\$15 billion** p.a. in lost revenue (Tacconi et al. 2003);
- law enforcement broadly used to control 'illegal logging', however, among all those involved, it is the rural poor that become one of the first and hardest to be hit with law enforcement (Inoguchi et al. 2005).
- illegal logging even though its negative impacts, controversially, and perhaps paradoxically, benefits many stakeholders, including local communities (Tacconi 2007).



however...

"customary forest law seems unable to prevent illegal logging due to poor recognition/options for local stakeholders!!!"

new strategy (!)...

"involving local people in forest management and rehabilitate stakeholders with AIG options!"

the study was aimed...

"to compare the efficacy of AIG supports and law enforcement to prevent illegal logging"



Questions and challenges

- ~ which works better to prevent illegal logging -law enforcement/governance or economic incentives ?
- ~ what are the underlying causes responsible for illegal logging in the areas ?

challenges...

- ~maintains harmony with diverse qualitative and quantitative data;
- ~avoid biasness; confirm the quality of information; and securing the ethical issues!



Forest policy and options in Bangladesh: in a nutshell

- Current act and regulation: Forest Act 1927;
 amended on 1994;
- Enforcement agency: Bangladesh Forest Department (FD);
- Responsible person: FD field staffs and officials;
- Punishment: 2 years (maximum!);
- Fine: Tk. 2000, or 6 month jail; if unable to pay!!!
- Limitation (s): Lack of clear/solid evidence (!), and lack of witnesses (!).



Methodology

- field survey 2007-2008;
- semi-structured questionnaire with illegal logger (n=30) with the help of key informant;
- open ended discussion with FD officials and political persons (n=5);

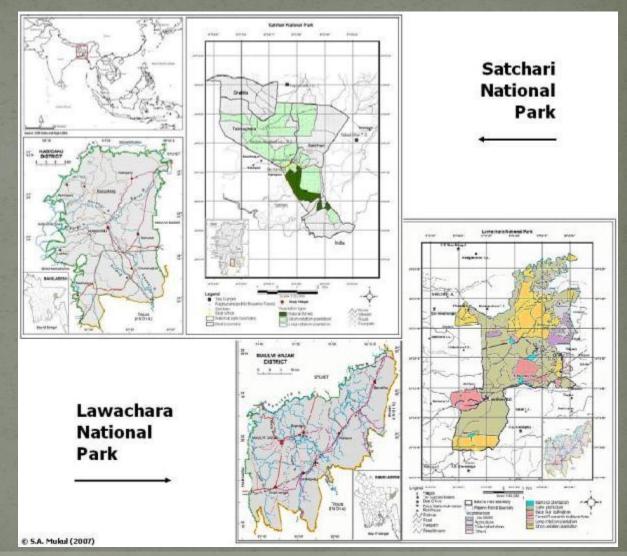
General features of the study sites

- Lawachara National Park (LNP; area- 1245 ha),
 Satchari National Park (SNP; 241 ha);
- under co-management schemes since 2005, with aid from USAID;



Study sites







18th Commonwealth Forestry Conference, Edinburgh Restoring the Commonwealth's Forests: Tackling Climate Change Edinburgh International Conference Centre, Scotland. 28 June – 2 July 2010





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Key findings

General features of the respondents (n = 30)

- literacy rate 20%, family size ~ 7 (SD±2.08), age ~ 37 (SD±4.5);
- Avg. monthly expend. ~ 7,500 Tk (69 tk~1USD)
- without any permanent job 70%
- case filled against 17 person; avg. case filled ~ 6.5 (SD±2.85)



Economic Incentives (in terms of AIG supports)

AIG support	Number of illegal logger	Form of support
Eco-tour guide	1	training, promotion (to tourists)
Fishery	1	hatched fish
patrol guard	7	uniform, monthly salary
Livestock (beef, pig)	3	cow, pig (for ethnic people)
Nursery	1	seeds, poly-bags, fertilizer, small money for fencing, support during selling
Poultry rearing	2	Hatched chicken, small money for housing
Vegetable gardening	3	seeds, small money for fencing
Total	18	

Source: Field survey (2007-09)



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Quantitative data

2007

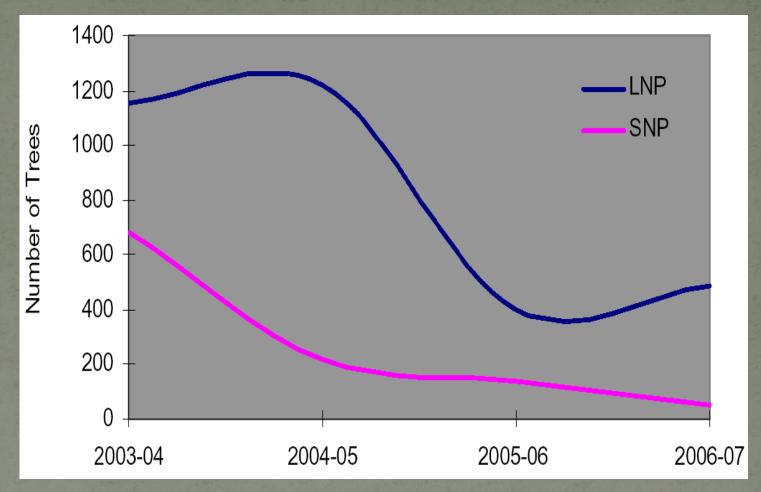
- No. of entries $\sim 10.83 (\pm 59.3)$;
- Quantity of timber collected ~ 116.87 (±59.1) cft.

2009

- No. of entries $\sim 6.07 (\pm 67.08)$;
- Quantity of timber collected ~ 74.66 (±81.74) cft



Cont...



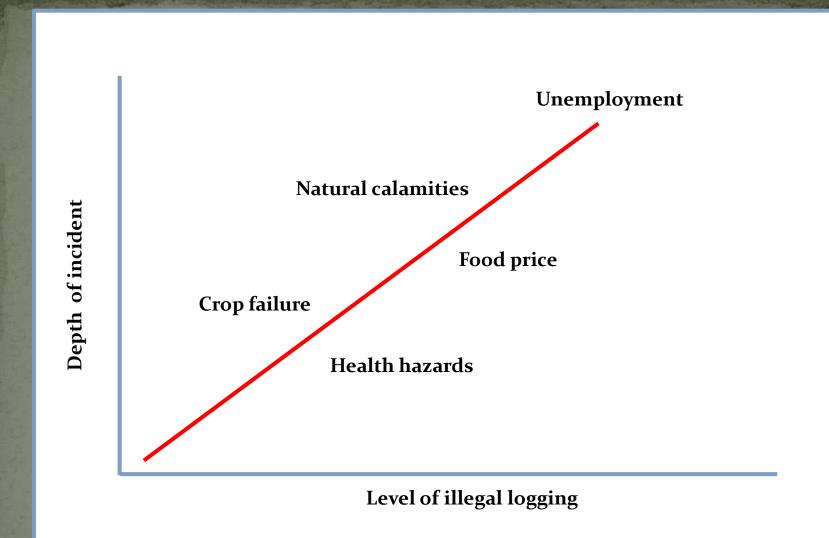
Illegal logging trends in two case study site (Source: Mazumder et al. 2007)



Factors affecting illegal logging

- livelihood insecurity;
- tenure insecurity/conflicts with customary forest use;
- high timber demand attributed by comparatively low market price locally;
- presence of sawmills and furniture shops;
- poor monitoring, ease transportation and road networks;
- lack of conspicuous forest boundary.

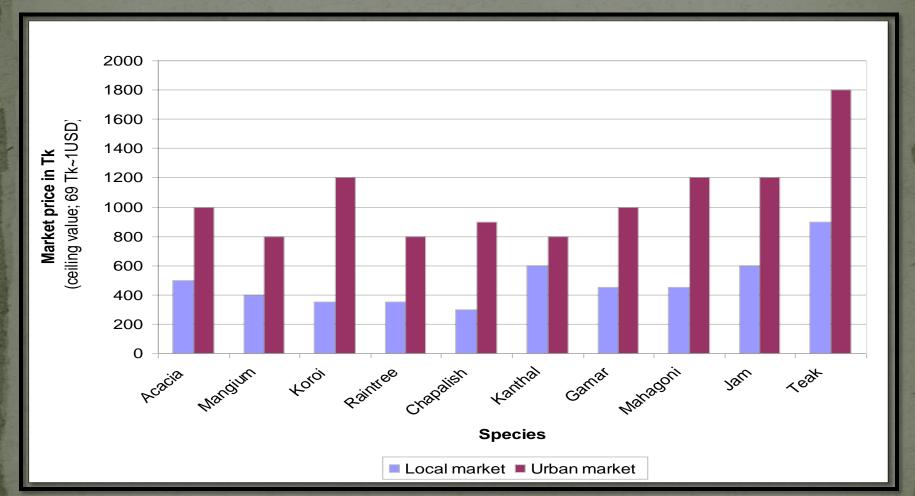




Potential livelihood related peculiarities associated with illegal logging



Price variation of top 10 species in local and urban market (Source: Field work 2007-08)









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Conceptual framework describing how factors affect illegal logging

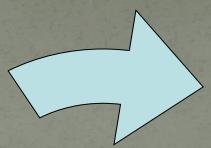






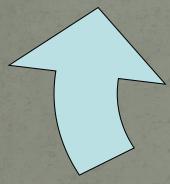
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Does law really works!?

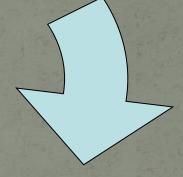


Illegal logging

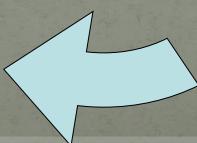
Case filled (sent to jail)



Need to appear in court on regular basis! (require more money)



Get bails and/or fined





Concluding comments

The law (sometime)
is an ass!!!
(DFID, 2007)

To ensure a secure future...

"government should revise existing law and policy prioritizing local livelihoods and politics"

"... also securing a sustainable financing source to keep the result in affect is vital!"

Linking illegal logging and climate change

Illegal logging helps to sequester carbon, indirectly, through removal of valuable timber from the forest (thus enhancing restoration of forest by fast growing new species) and thereafter stored in wooden furniture's !!!





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