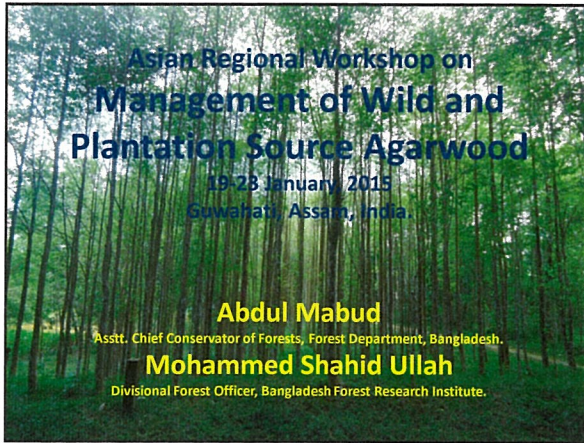


**Asian Regional Workshop on  
Management of Wild and  
Plantation Source Agarwood**  
19-23 January 2015  
Gowahati, Assam, India

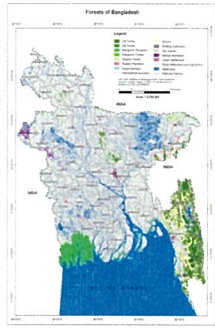
**Abdul Mabud**  
Asstt. Chief Conservator of Forests, Forest Department, Bangladesh.

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### INTRODUCTION

- Naturally grows in north-eastern & south-eastern hills but now under threat of extinction.
- Only *Aquilaria malaccensis* species found in Bangladesh.
- About 6000ha. Agar plantations were raised since early nineties.
- Planted in private home gardens for many years.
- Naturally agar formed after 20yrs & found only in 10% trees, artificially it is possible to get agar within 10yrs from almost 100% trees.
- Agar oil, chips and dust are exported to Saudi Arabia, UAE, Kuwait and Singapore.



### Nursery & Plantation Mgt. Techniques

- Seed Collection & Sowing: June-July
- Seeds are collected from mother trees and sown in the seedbed or container within 24hrs.
- Before sowing, the seeds are soaked in water for 18-24 hrs.
- After 1 week, germination starts & completes within 1 month.
- 1 yr old seedlings are planted during rainy season.
- Generally planted at an spacing of 2.5mX2.5m. but in home gardens it may be 1mX1m to 1.5mX1.5m spacing.




### Artificial Induction

- Practiced by private entrepreneurs.
- Indigenous Method.
- Nailing commonly used.
- Chem. Kit method- not popular.

**Nailing Method-**

- Nailing done from top to bottom at an age of 8-10 yrs.(Av. GBH 45 cm.) in rows, 3-7 cm apart.
- Nails are 5-15 cm long .
- Agar deposited in injured areas around nail.



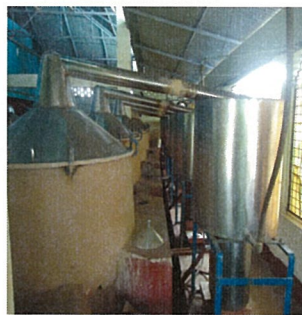
### Nail Removing & Chipping

After 4-5 yrs of nailing, trees are felled, nails are removed and chips are made manually by using sharp axe and Dao (knife)



### Agar Oil Extraction

- Very crude & indigenous method.
- Oil extracted through steam distillation process.



## Agar Products of Bangladesh



Agar Chips  
Agar dust  
Agar Oil



During 2014, 123.75 tons of Agar chips and 85 liters of Agar oil were exported from Bangladesh.

## Existing Regulations

- Moratorium exists on felling trees from natural forests up to 2015.
- Forest Act, 1927 (Last amended in 2000).
- Forest Produce Transit (Control) Rules, 2011.
- Bangladesh Wildlife (Conservation and Protection) Act, 2012.
- As a CITES listed species, extraction and export of Agar products are regulated as per CITES guidelines.

## Current Challenges

- No Govt. initiative for commercial production.
- Lack of scientific technique for artificial induction.
- Lack of scientific & efficient technology for production of Agar oil
- Crude method causes misuse of resource & low quality.



**Thank you very much**