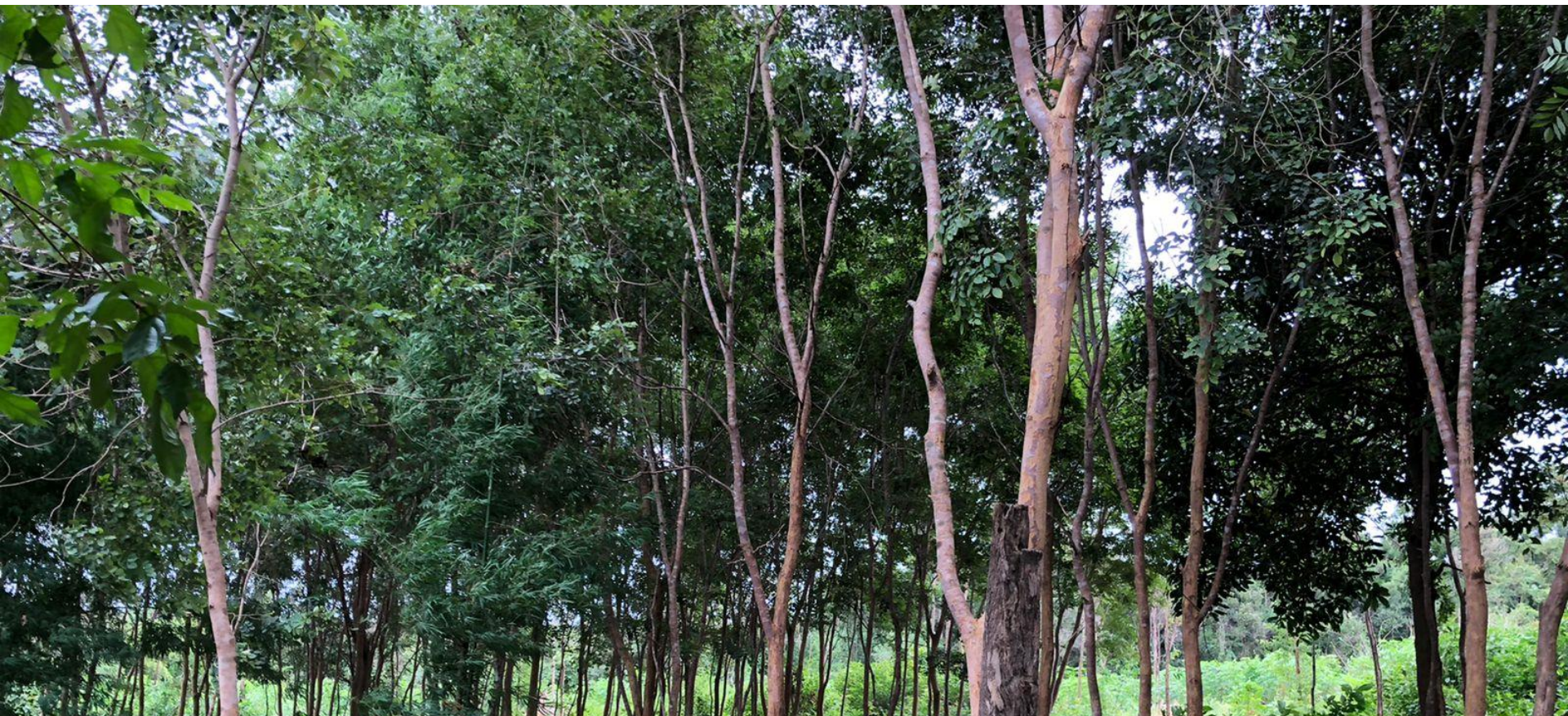




Alliance



Development of Rosewood conservation units in Natural forests in Lao PDR

Chaloun Bounithiphonh, FRC/NFRI

6 December 2021

Final virtual workshop

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1. Status of *Dalbergia* tree species in Asia

- Genus *Dalbergia* is native in the tropical regions of southern Asia, Africa, Central and South America.
- 304 species of *Dalbergia* genus worldwide in 102 countries.

- **Asia (ca. 119 species)**
- Africa (ca. 116 species)
- Central and South America (ca. 80 species)

Global distribution of *Dalbergia* species

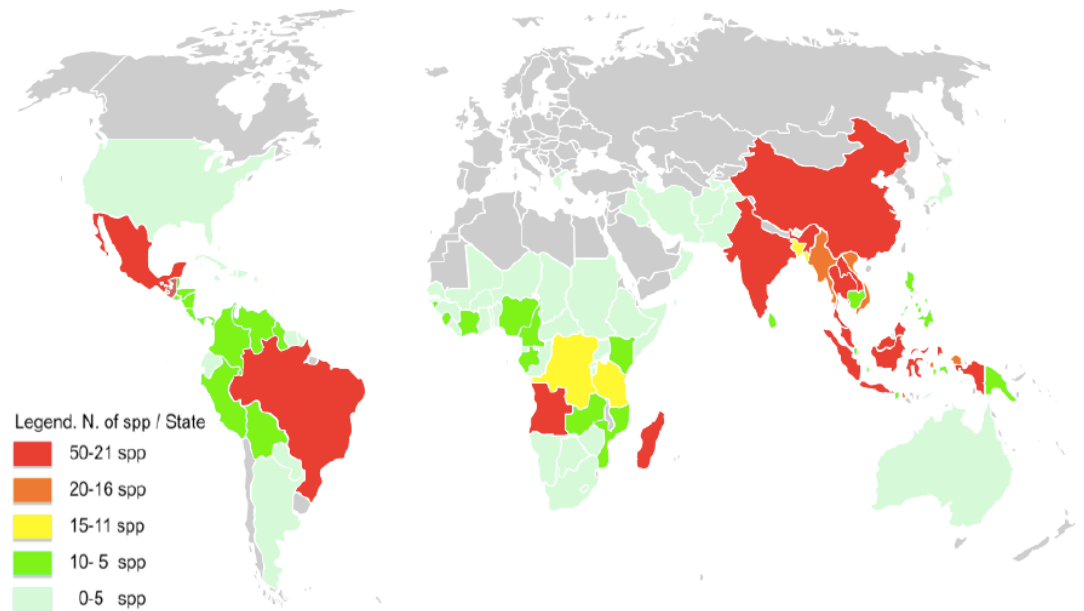
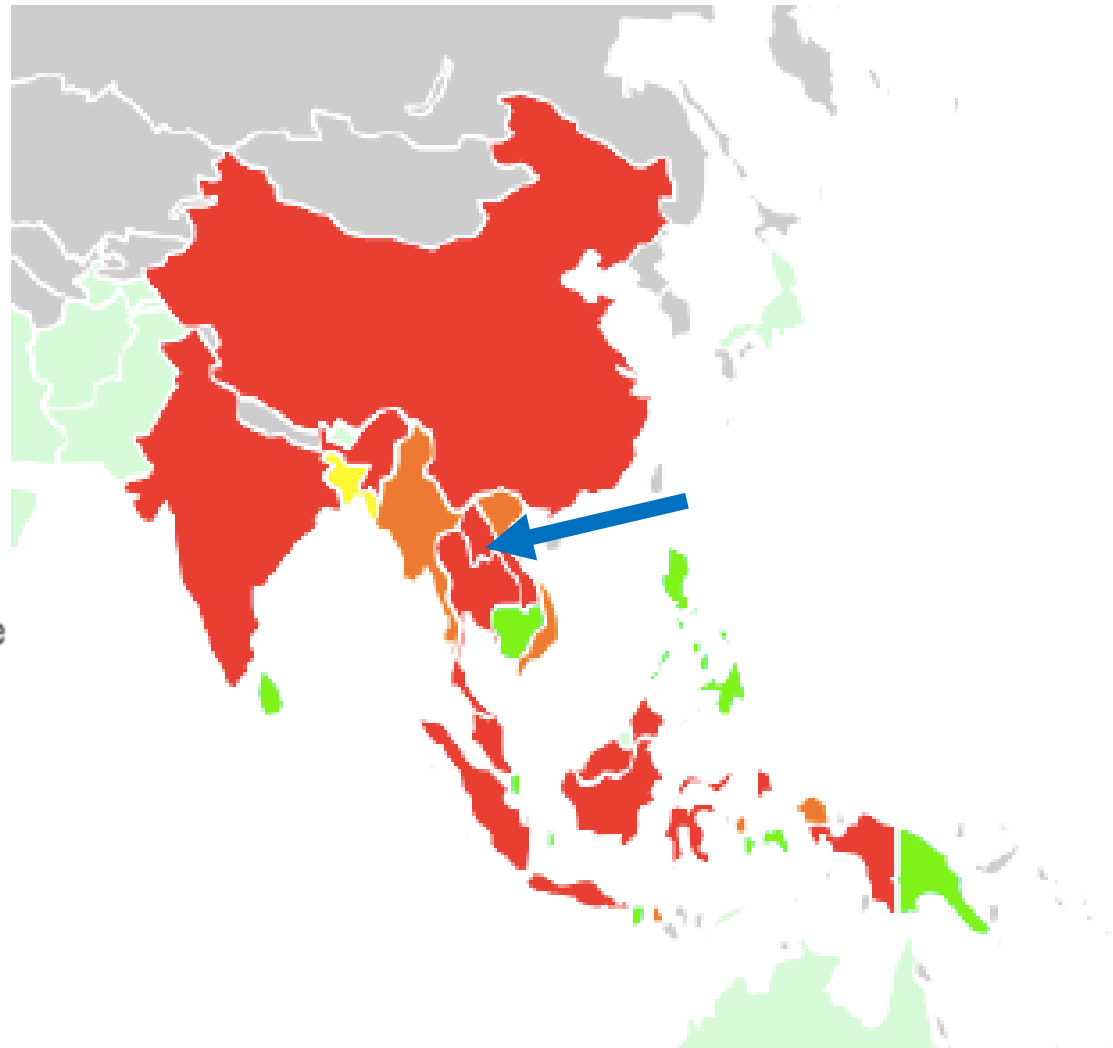
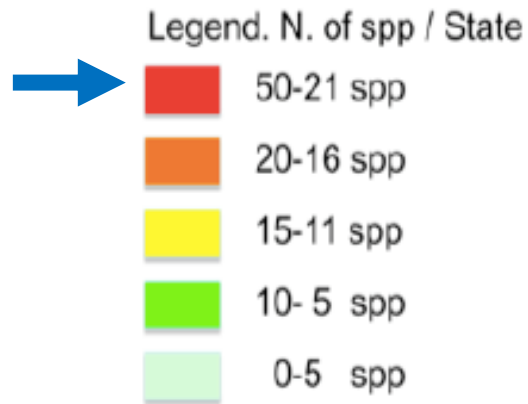


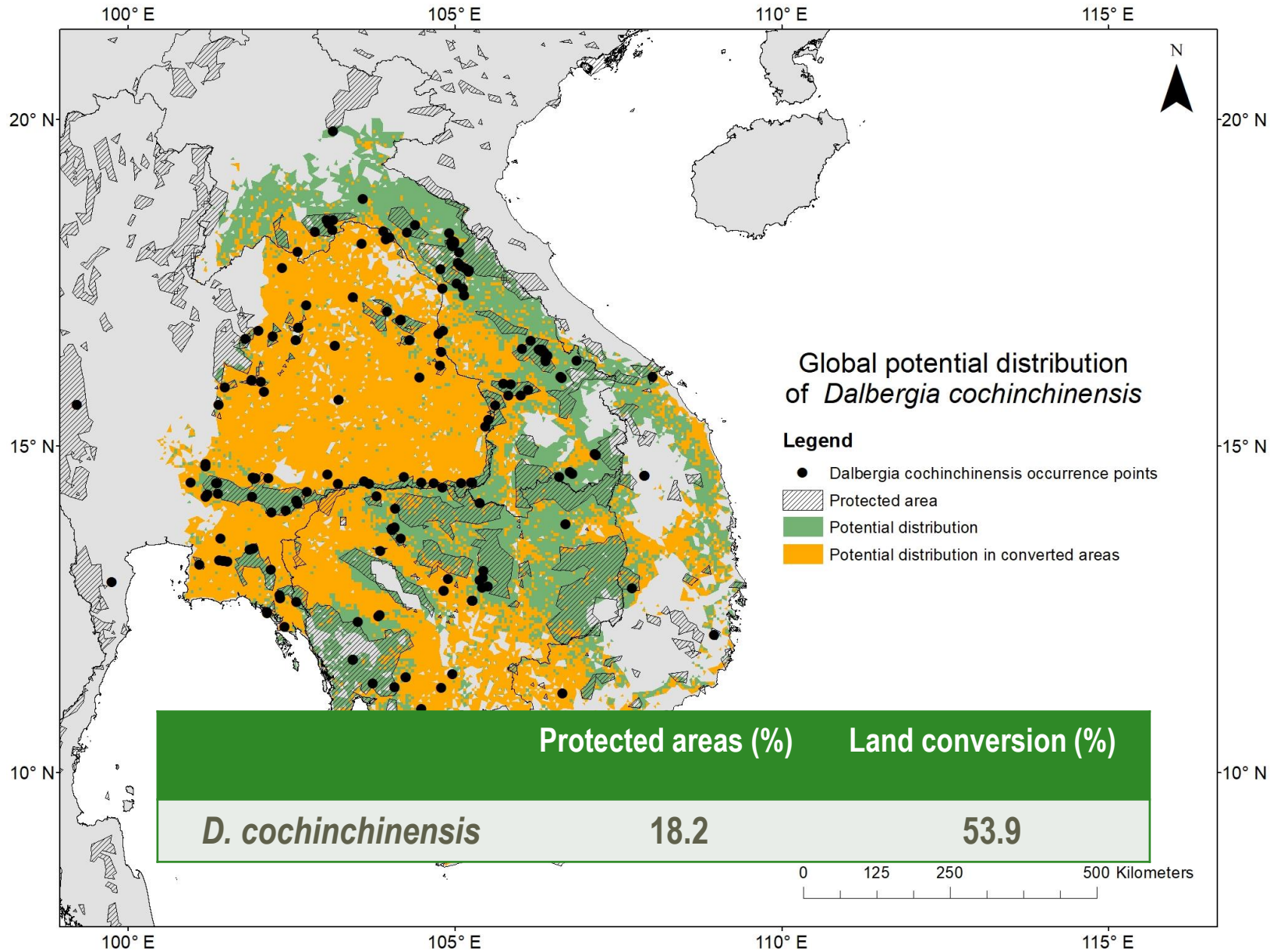
Figure 1. Global distribution of *Dalbergia* species (Source: Vaglica, 2014).

1. Status of *Dalbergia* tree species in Asia

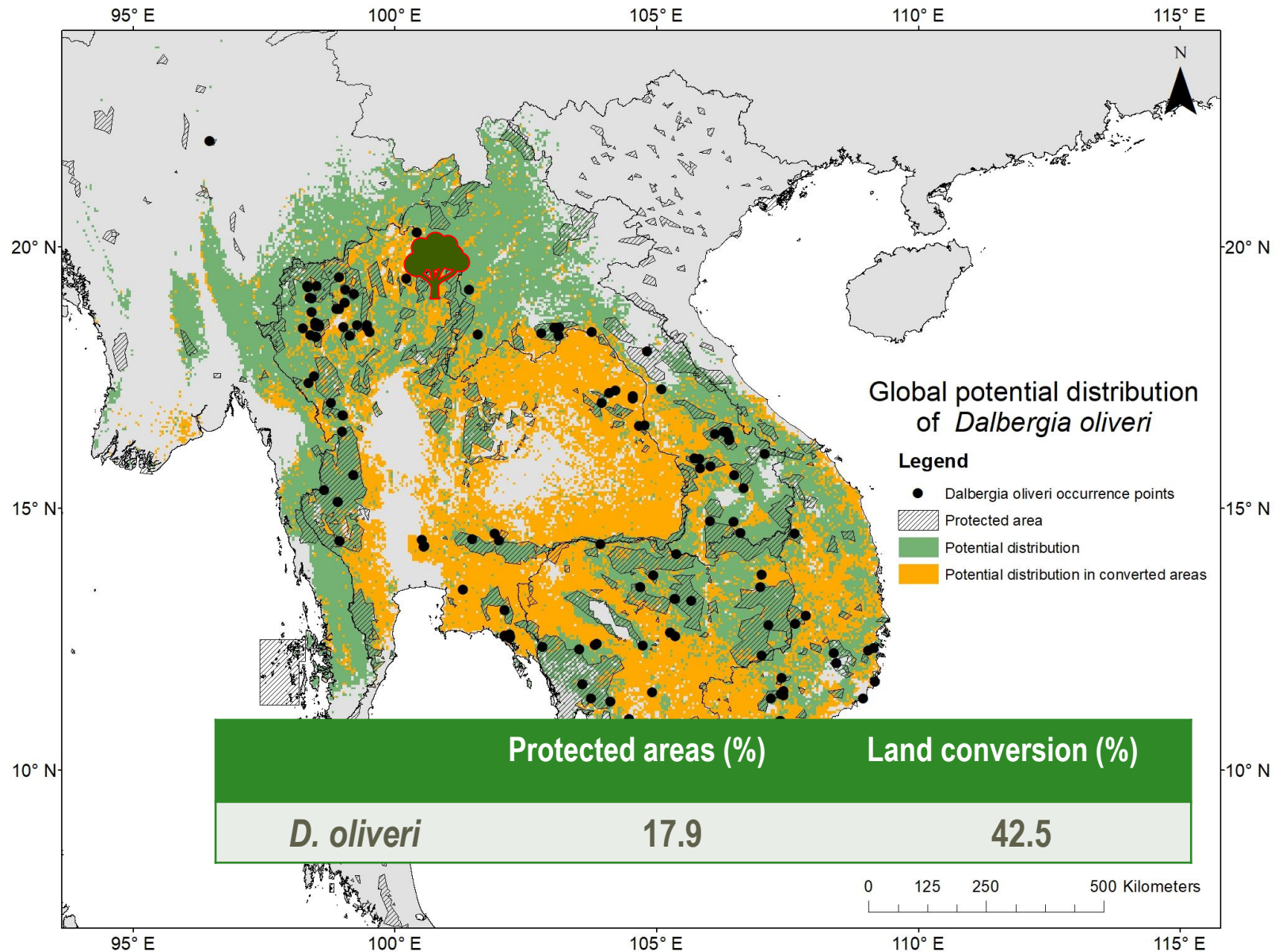
Asia (ca. 119 species)



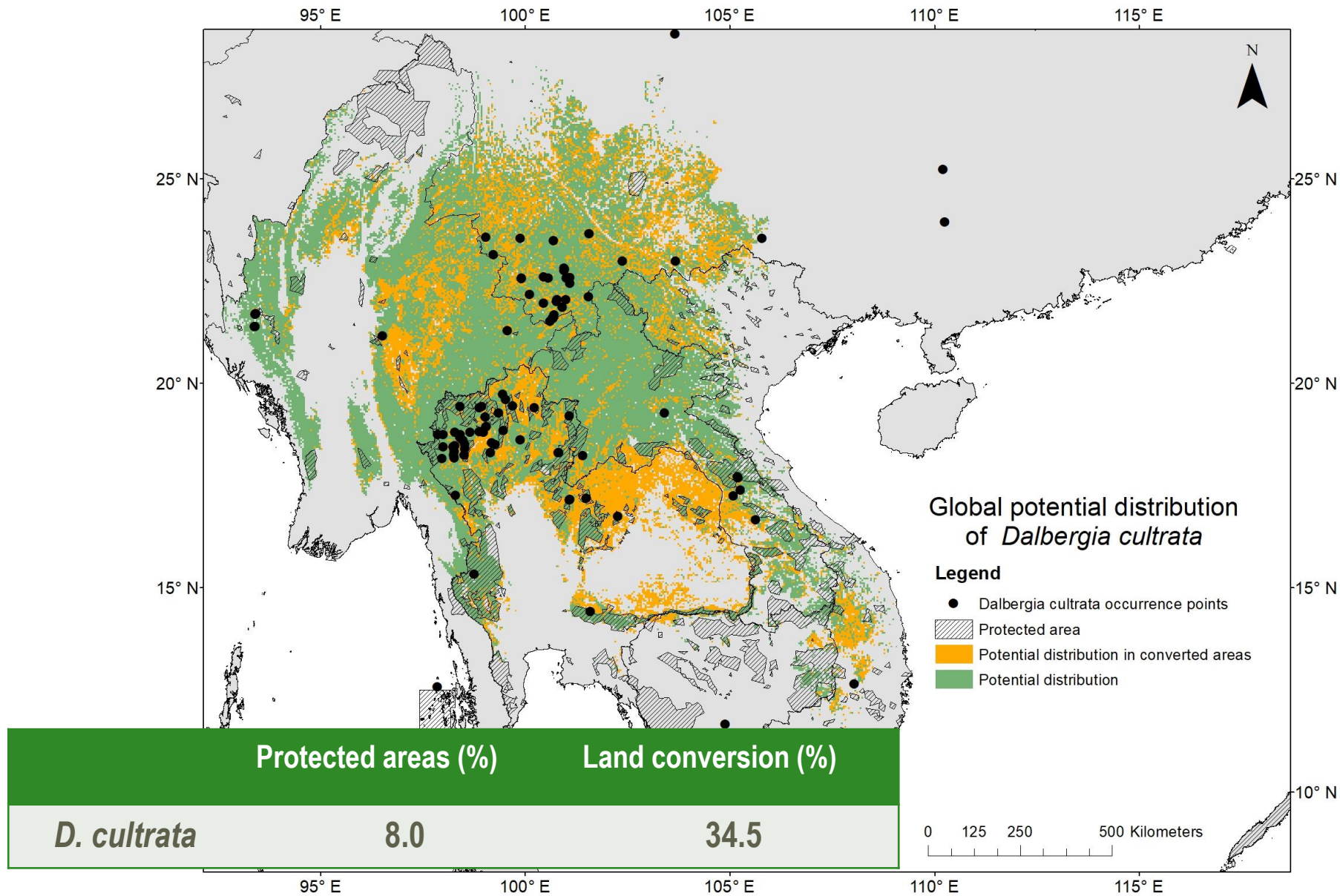
1. Status of *Dalbergia* tree species in Asia



1. Status of *Dalbergia* tree species in Asia



1. Status of *Dalbergia* tree species in Asia



2. Status of conservation unit in Lao PDR

- 102 conservation units of tree species were established during Tree Seed Project,
- 2-3 sites were *D. Cochinchinensis*
- Currently had been conversed and disturbed by livelihood activities and development programs
- 76 tree seed sources remained



2. Status of conservation unit in Lao PDR

- Development programs
- Livelihood
- Illegal logging
- Low incentive and motivation of seeds demand,
- High demand market of rosewood



2. Status of conservation unit in Lao PDR

Under Dalbergia Darwin project

- 2 ex-situ and 2 in-situ conservation sites had been established in 2 project sites
- 1 germplasm collection with 2.5 ha is established at Forest Research Center, Namxuang.

3. Status of Dalbergia species in Lao PDR (a case study in 2 districts of Savannkhet province)

**Assessment of 3 tree species of Dalbergia species in
October 2019**



3. Status of *Dalbergia* species in Lao PDR (a case study in 2 districts of Savannkhet province)

Case study in Savue village, Nong district

Population 1

Area > 10 ha

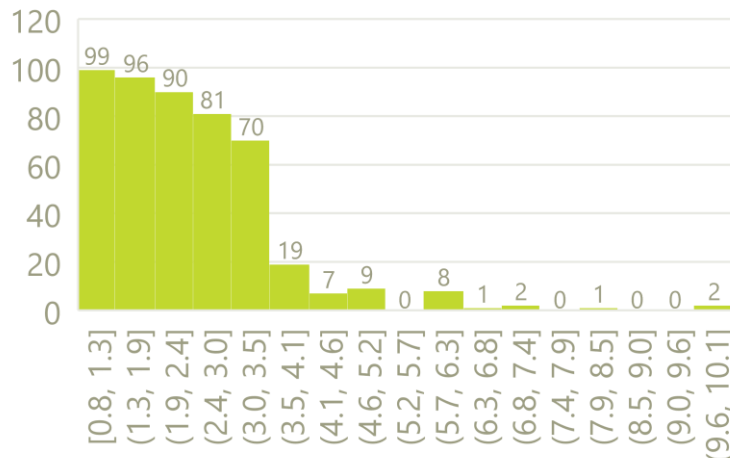
No: 485 trees

Population 2

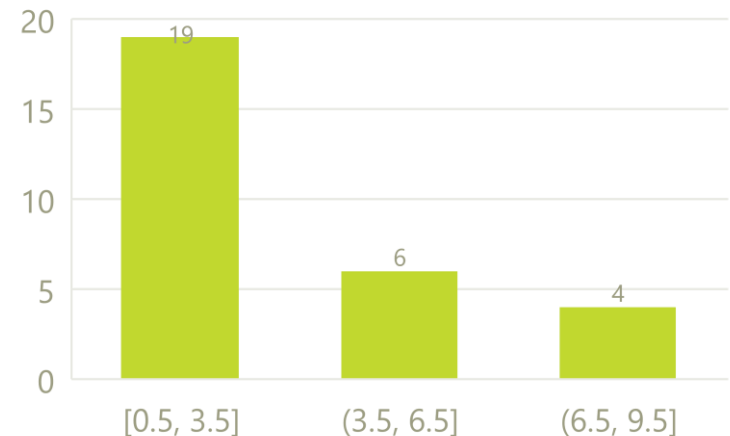
Area > 10 ha

No: 29 trees

DBH range of *D. cochinchinesis*
(cm)



DBH range of *D. cochinchinesis* (cm)

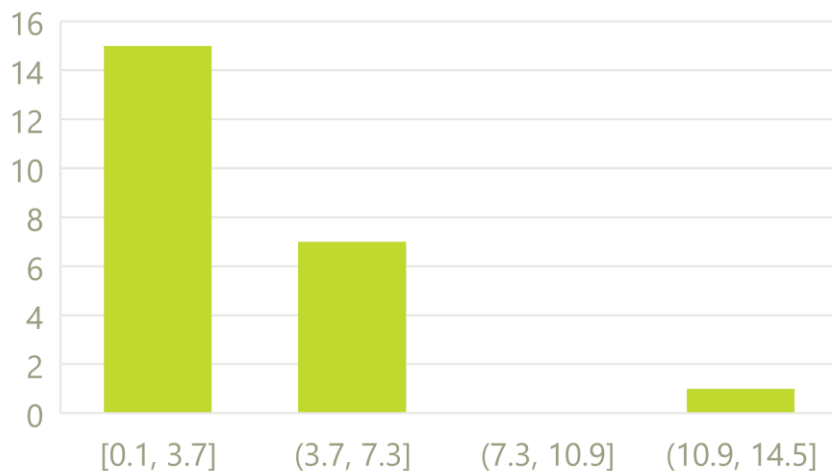


3. Status of *Dalbergia* species in Lao PDR (a case study in 2 districts of Savannkhet province)

Case study in Labaokhok village, Nong district

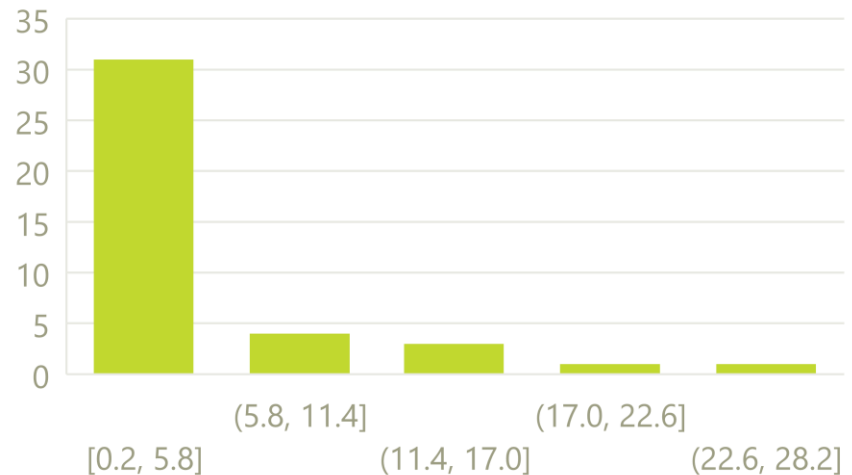
Area > 10 ha
No: 23 trees

DBH range of *D. cochinchinesis* (cm)



Area > 10 ha
No: 40 trees

DBH range of *D. cultrata* (cm)



3. Status of *Dalbergia* species in Lao PDR (a case study in 2 districts of Savannkhet province)

Case study in Xekue village, Thapangthong district

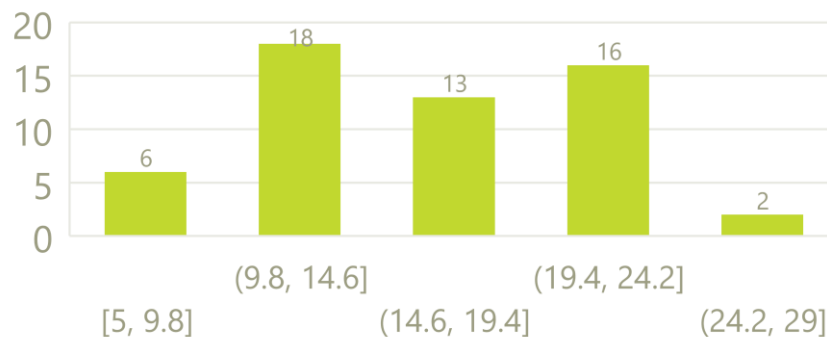
Population 1

Area: 10-15 ha

No: 55 trees

DBH: 7-10 cm=3 trees

DBH range of *D. cultrata* (cm)

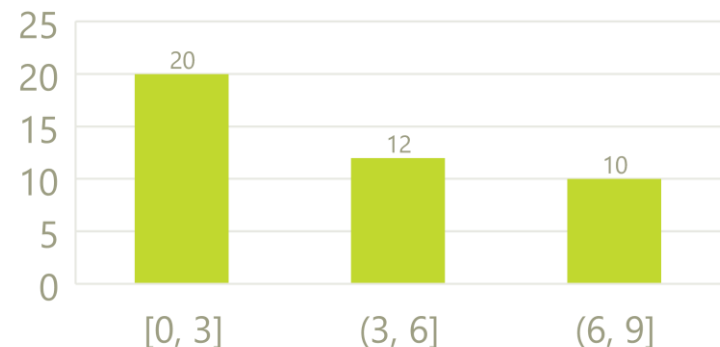


Population 2

Area: 10-15 ha

No: 42 trees

DBH range of *D. cochinchinesis* (cm)



4. Development and maintain conservation unit

1. Baseline study
2. Forest inventory in potential area of In-situ conservation
3. Capacity supports: trainings
4. Established in-situ & ex-situ conservation and germplasm collection



4. Development and maintain conservation unit

1. Trainings on seed collection, seed germination, nursery, planting, produce seedlings for communities and ex-situ & in-situ conservations.



4. Development and maintain conservation unit

Number of conservation units proposed (established) by each partner
by end of year 3

Lao PDR		
Dalbergia cochinchinensis	In situ	2 (more than 20 ha, 6,300 seedlings)
Dalbergia oliveri	Ex situ	2 (more than 8 ha, 5,200 seedlings)
Dalbergia cultrata	Germplasm collection	1 (2.5 ha,)



4. Development and maintain conservation unit

Preparing seedlings for germplasm collection 5,000 seedlings of 3 *Dalbergia* tree species



5. Way forward to maintain conservation unit

Conservation Unit	Threats	Solutions	Resources
<i>In situ</i>	<ul style="list-style-type: none"> • Illegal logging (PA, Protection Forest, production) • Land use change (agriculture) • Infrastructure devt. (roads, hydropower) – but limited threat (Thapangthong: covers <i>Dalbergia</i> habitats, but occurrence is scattered) (C,F) • Climate change (esp <i>oliveri</i>) (F) 	<p>National forest strategy (under preparation):</p> <ul style="list-style-type: none"> - Conserve specific habitat for the species - Establish seed source supply (in and outside PA, farmland) - Establish new <i>ex situ</i> 	<ul style="list-style-type: none"> - Central govt needs specific policy & regulation for the species - Key actors should have effective action plans to conserve & develop (Forestry sector national to local, Ministries of commerce, industry, education, NUoL). They can provide technical support and resources. Also involve private sector actors - Strong collaboration at regional level between countries need to be sustained: research, exchange of material (Chinese project offers opportunity; APFORGEN)

5. Way forward to maintain conservation unit

Conservation Unit	Threats	Solutions	Resources
<i>Ex situ – seed orchard</i>	<ul style="list-style-type: none"> - Illegal logging (main threat) - Infrastructure devt. (some units from before already converted, e.g. road) (C,F) 	<ul style="list-style-type: none"> - establish germplasm collection - Develop seed supply - Promote the use of Dalbergia seeds, establish supportive policy (most important) 	- As above
<i>Ex situ – provenance trial</i>	<ul style="list-style-type: none"> - Illegal logging (e.g. FRC site, lack of facility, maintenance cost, mgmt. plan) - Previously 4 trials, but only 1 site remaining 	<ul style="list-style-type: none"> - FRC needs good facility for mgmt., maintenance, protection of trees - Strategy and action plan to grow and plant Dalbergia - Seed collection from existing populations, plant at FRC or other sites, to reintroduce genetic material - Seed germination and propagation at trial sites (esp cultrata, oliveri hard to find) 	



Thank you

Chaloun
BOUNITHIPHONH
chalounb@yahoo.com



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PROGRAM ON
Forests, Trees and
Agroforestry