



Alliance



# A farmer seed/seedling supplier in Cambodia

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Key words: family income, grafting, seed/seedling supplier



# 1. Introduction

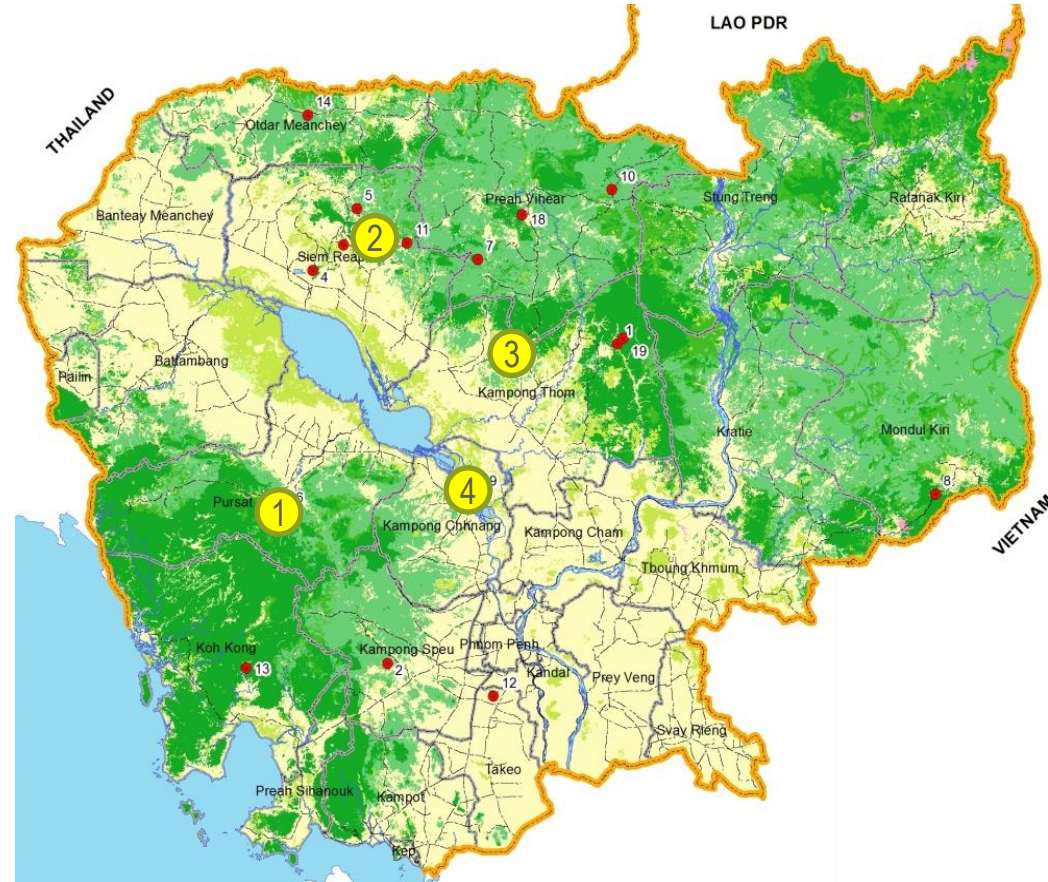
## 1.1 Local communities involve in forest management

- By 2017, Cambodia has allocated more than 506,000 ha of natural forest lands under the management of 610 local communities living in or adjacent to the forests in the form of Community Forestry.
- The CF programme is governed by the National Forest Programme 2010-2029, Forestry Law (2002), and Sub-Decree on Community Forestry Management (2003). These policies aim to maximize the contribution of sustainable forest management to poverty alleviation, enhance livelihoods and equitable economic growth.



## 1.2 Project sites

Site	Province	Activity
1	Pursat	Farmer's nursery and seed sources
2	Siem Reap	Provenance trial of <i>Dalbergia cochinchinensis</i>
3	Kampong Thom	<i>In-situ</i> conservation of <i>D. cochinchinensis</i>
4	Kampong Chhnang	<i>In-situ</i> conservation of <i>D. oliveri</i>







## 2. The farmer seed/seedling supplier

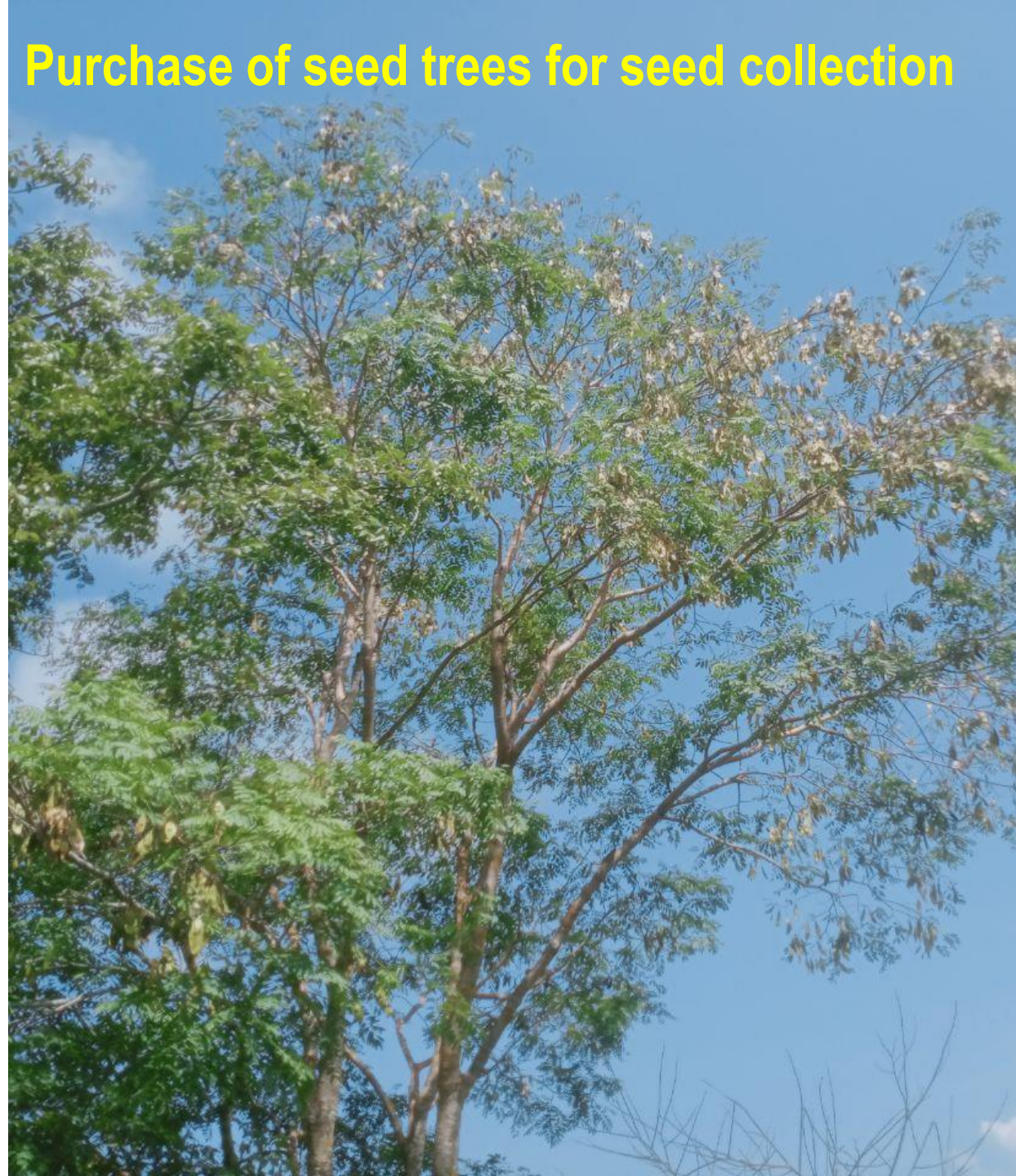
Mr. Sok Em started the business with supplying seeds of three Rosewood species: *Dalbergia cochinchinensis*, *D. oliveri* and *Pterocarpus macrocarpus* due to the ease of access to seed sources in the nearby community forests and high demand of the species.





- He receives trainings and regular technical support from the Forestry Administration (FA) on seed collection, seedling production and marketing.
- Since the late 2010s, his family main source of income comes from selling seeds and seedlings.
- The production of seedlings of *Dalbergia cochinchinensis*, *D. oliveri* and *Pterocarpus macrocarpus* in Cambodia grew by 90% between 2015 and 2019.





Purchase of seed trees for seed collection



## Seed and seedling sales by the farmer in 2020

No	Species	Seed		Seedling	
		Amount (kg)	Price per kg (US\$)	Number <sup>1</sup>	Price per seedling (US\$)
1	<i>Dalbergia cochinchinensis</i>	25	150	100,000	0.25
2	<i>Dalbergia oliveri</i>	2	200		
3	<i>Pterocarpus macrocarpus</i>	300	1.5	25,000	0.25
4	<i>Afzelia xylocarpa</i>	500	1.75		
5	Other species	500	1.25	20,000	0.09

<sup>1</sup> These are mainly small seedlings age between 2 weeks – 2 months old sold to middlemen for repotting.



## **Main challenges for the farmer seed/seedling supplier:**

- Insufficient seed sources and irregular seed production
- The nursery was too small and was in dilapidated conditions.





### 3. Support from the Darwin Initiative project

#### “Conserving Rosewood genetic diversity for resilient livelihoods in the Mekong”

- Training of the farmer and other CF members on seed and seedling production and marketing
- Construction of a new nursery increasing the capacity to produce more than 100,000 seedlings per year
- Establishment of two grafted seed sources of *Dalbergia cochinchinensis* (0.45 ha) and *D. oliveri* on the farmer's land.
- The farmer will graft some more *D. oliveri*, aiming to increase the number of mother trees from 9 to 15 or 20, for planting in 2022.



Old nursery: 2019



New nursery: 2020



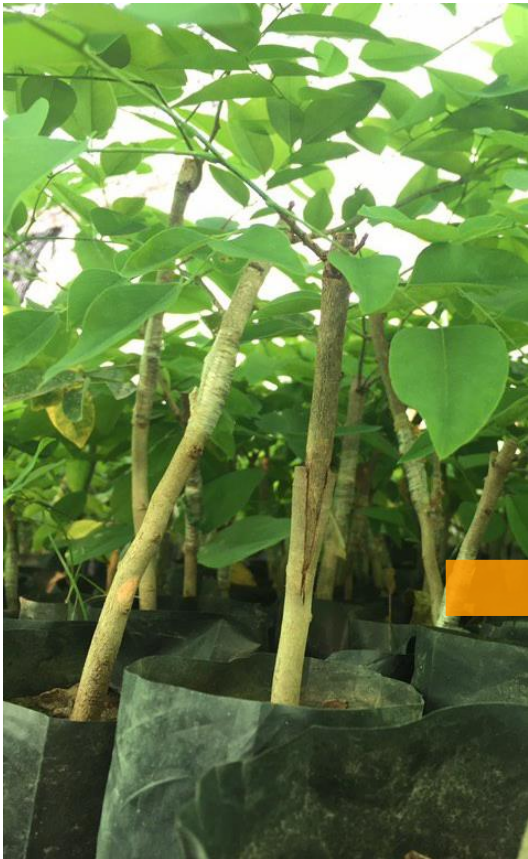


The farmer and his workers were trained to graft *Dalbergia cochinchinensis* and *D. oliveri* for establishment of seed sources.





# Grafted seed source of *Dalbergia cochinchinensis* in 2<sup>nd</sup> year





# Grafted seedling of *D. oliveri* 1<sup>st</sup> year under plantation conditions





Guidelines for  
propagation of *Dalbergia  
cochinchinensis* and *D.  
oliveri* by grafting were  
developed based on the  
farmer's experience.





- [illegible]



## 5. Conclusion and way forward

- Selling tree seeds and seedling can be a profitable business for local farmers.
- The establishment of the farmer's seed sources will reduce the production costs.
- The FA has created an efficient way of seed supply while creating a sustainable source of income for the farmer.
- Technical assistance and monitoring from FA to ensure good seeds and seedlings are sold to the end users.



