



Natural teak Forests and Plantations in in Laos

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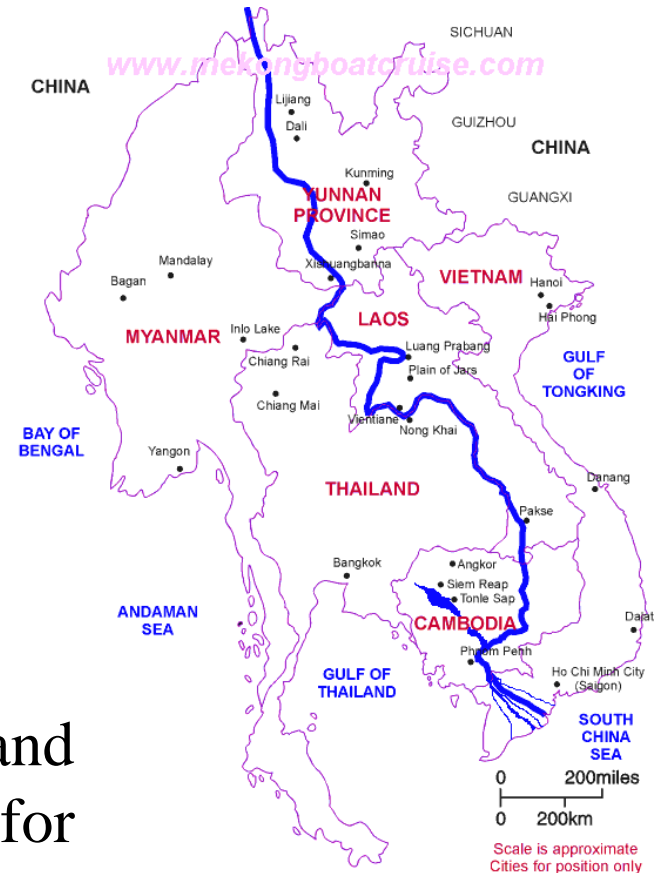
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Country Profile

- Country area of 23.68 million ha
- Population of 7.2 million (30 p/Sq.km), 2020
- GDP per capita = US\$ 2,978; Services 39.5%; Industry 33 %, **Agriculture-Forestry 16.6% (2020)**
- 49 ethnic group
- **76% of work force in agriculture and forestry sector.**
- Nearly 80% live in rural areas and depend heavily on forest resource for subsistence, especially Non-Timber Forest Products.



Forest Changes and challenges

Changes in forest land in the country

- Based on the 2022 forest cover assessment, Lao PDR has 13.1 million hectares (57%) of actual forest area, with Regenerating Vegetation (RV) covering 6.2 million hectares (27.2%).
- Analysis from 2015 to 2019 by the Department of Forestry and FAO shows a decreasing trend, predicting a reduction to 13 million hectares (56.67%) by 2025. However, the trend stabilizes from 2019 onwards due to effective forest management policies, including international collaborations with organizations such as the World Bank, KFW, ICBF, and REDD+.
- The primary changes in land use have involved the conversion of natural forests to agricultural and infrastructure development areas.

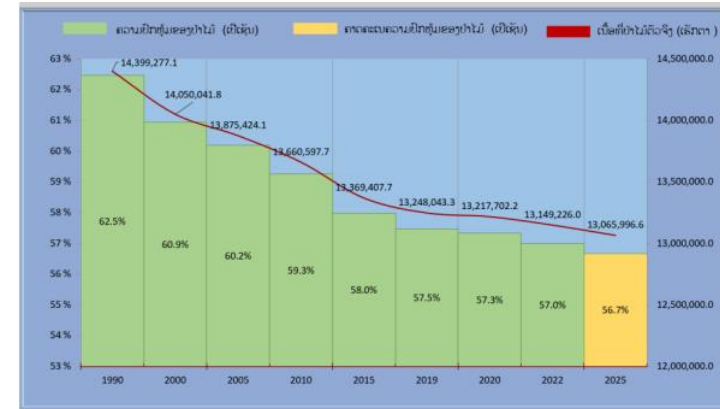


Image: Forest cover assessment of Lao PDR Department of Forestry, 2024

Forestry Development

- The government of Lao PDR has set a five-year plan to plant 200,000 hectares of trees (an average of 40,000 hectares per year).
- The natural forest restoration plan targets 1.8 million hectares.
- By 2022, Lao PDR had planted 522,600 hectares in degraded and bare lands, including species like rubber, Eucalyptus, Teak, and Agarwood.
- The government is encouraging private sector investment in plantations and wood processing industry.
- Regional cooperation for the development of a national forest certification system include draft standards & capacity building



Policies and Plantation Establishment 1975-2019

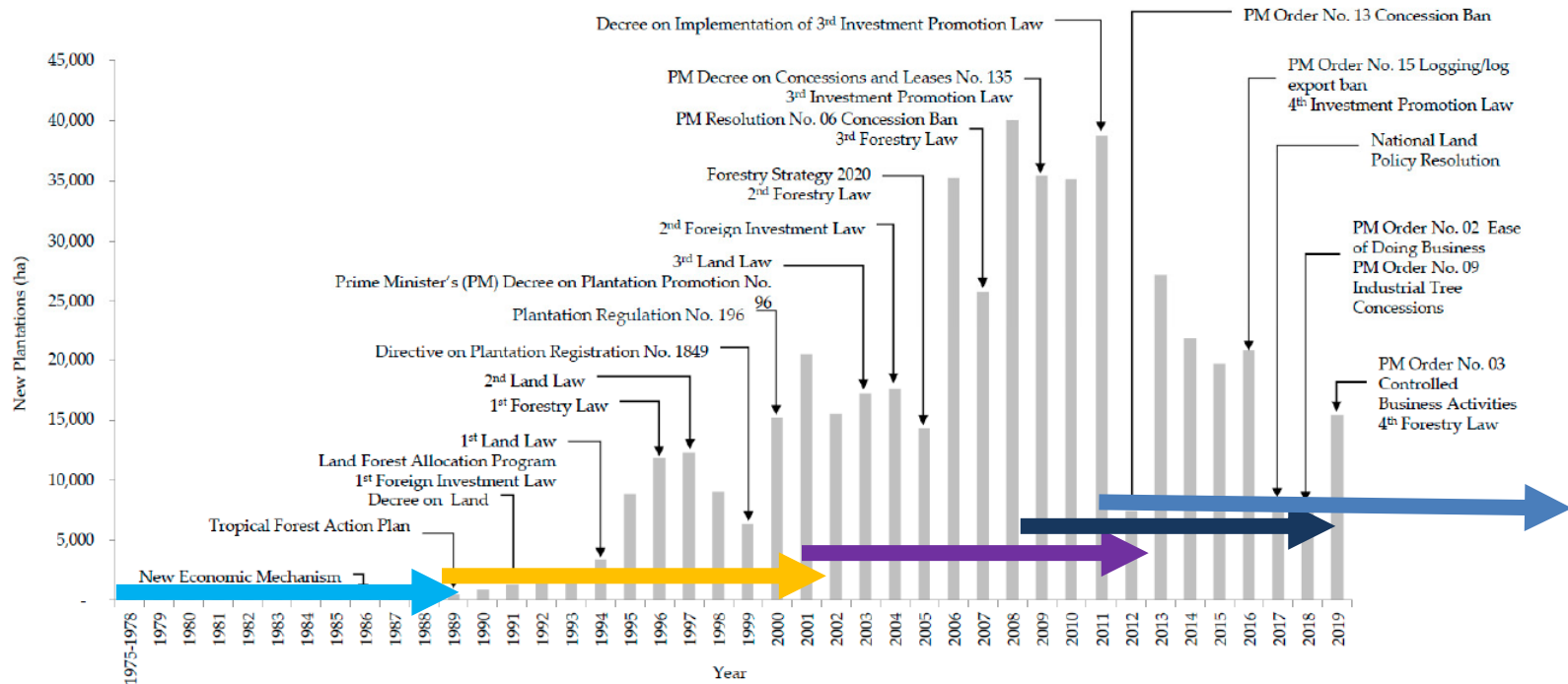


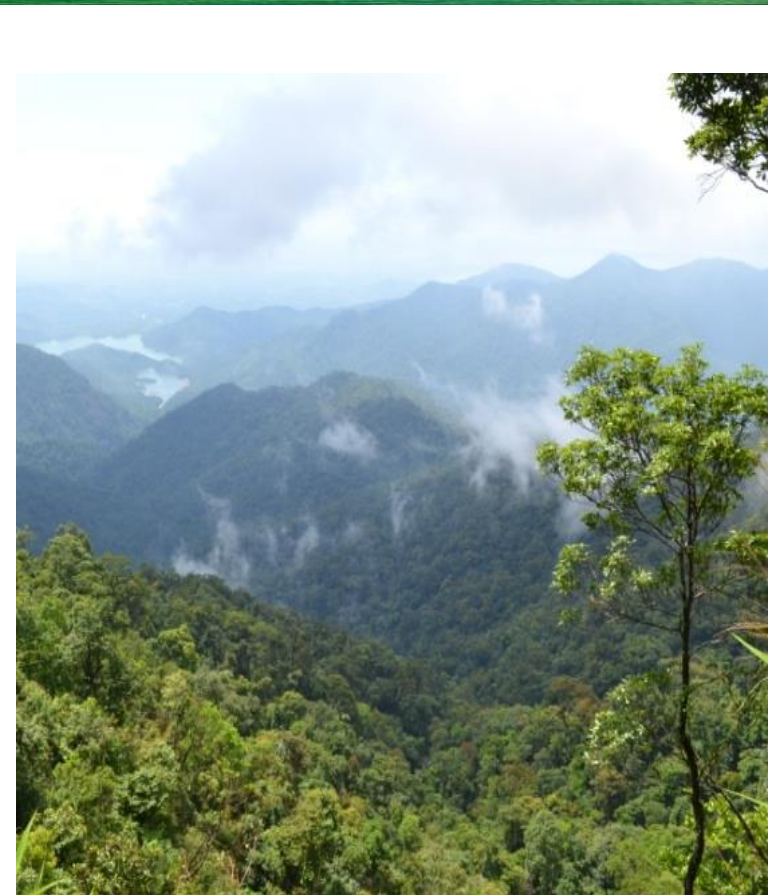
Figure A1. Policies and Plantation Establishment in Laos 1975–2019.

National Policies relate to Forestry



- Law on Forestry (updated,2019)
- Law on Land,2019
- Law on Environmental protection
- Order No 15/PMO On Strengthening Strictness of Timber Harvest Management and Inspection, Timber Transport and Business 2016
- Decree No. 96/PM on Industrial Tree Plantations and Environmental Protection, 2003
- Decree No. 135/PM on State Land Lease or Concession 2009 Sets the conditions and process for the approval of concessions
- Directive No. 1849/MAF concerning the registration of tree planting parcels ,1999

National Policies relate to Forestry



- Forestry Strategy up to year 2035 and Vision 2050, 2023 (draft)
- National Green Growth Strategy up to year 2030, 2018
- REDD+ Strategy up to year 2025 and Vision 2030, 2021
- The 9th Five-Year National Socio-Economic Development Plan (2021-2025), 2021
- National Strategy on Climate Change up to year 2030 and Vision 2050, 2021
- Decree on Sustainable Production Forest, 2002

Natural teak seed sources

- Natural teak forest distribution is found in Xayabuly and Bokeo Provinces. The largest area occur in Paklay District Xayabuly Province it is about 10,000 to 20,000 ha which mixed with deciduous forest.



V. Teak plantation

For Small holders

- 50 000 ha teak plantations in Lao PDR
- 98% smallholder managed
- The majority of teak plantation are found in Luang Prabang and Xayyabouly Provinces (11,000 ha)



Teak plantation

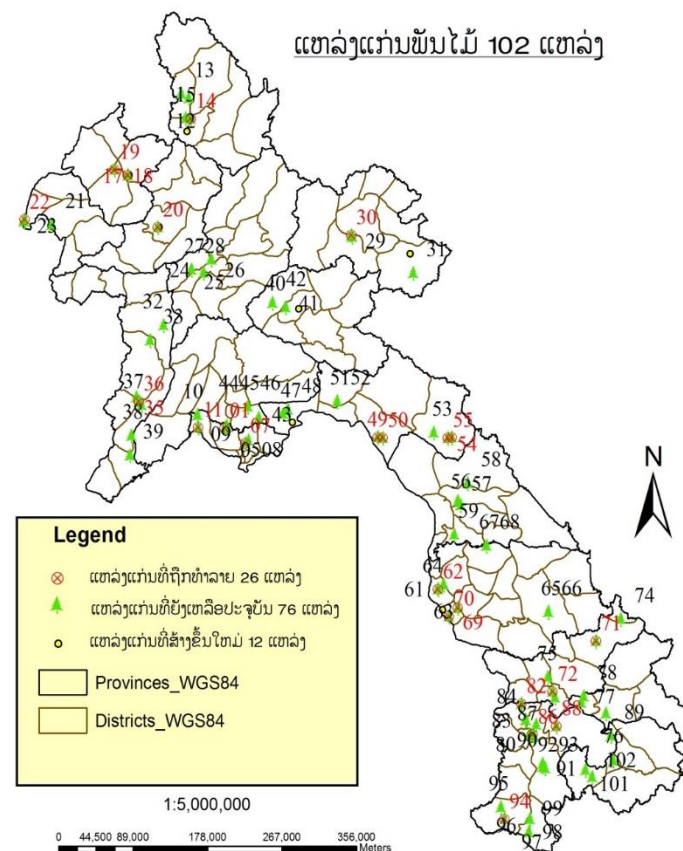


- The establishment of small areas of teak is a widespread phenomenon - along roadsides, around boundaries, along paddy.
- About 1 km distance from roads and 2 km distance from stream (VALTIP2 Project inventory)

Conservation of tree seed sources in Laos

- In 2002, the Lao Forestry Research Centre (FRC) established 102 Tree seed sources . These seed sources were supported by DANIDA and consisted of a total of 6,586 mother trees, representing 29 different species.
- The seed sources were officially endorsed and managed by the Ministry of Agriculture and Forestry (MAF) on August 31st, 2006.

Map of tree seed sources : 102 Seed Sources, 2002



Conservation of teak resources

- The Lao Tree Seed Project was funded by DANIDA from 2000 to 2003 to establish tree seed sources in Laos. The project successfully established 102 seed sources, but currently, only 76 remain, including 9 teak seed sources
- In 2019, Natural teak seed source in Paklay, Xayabuly province received support from ITTO – Teak Mekong project

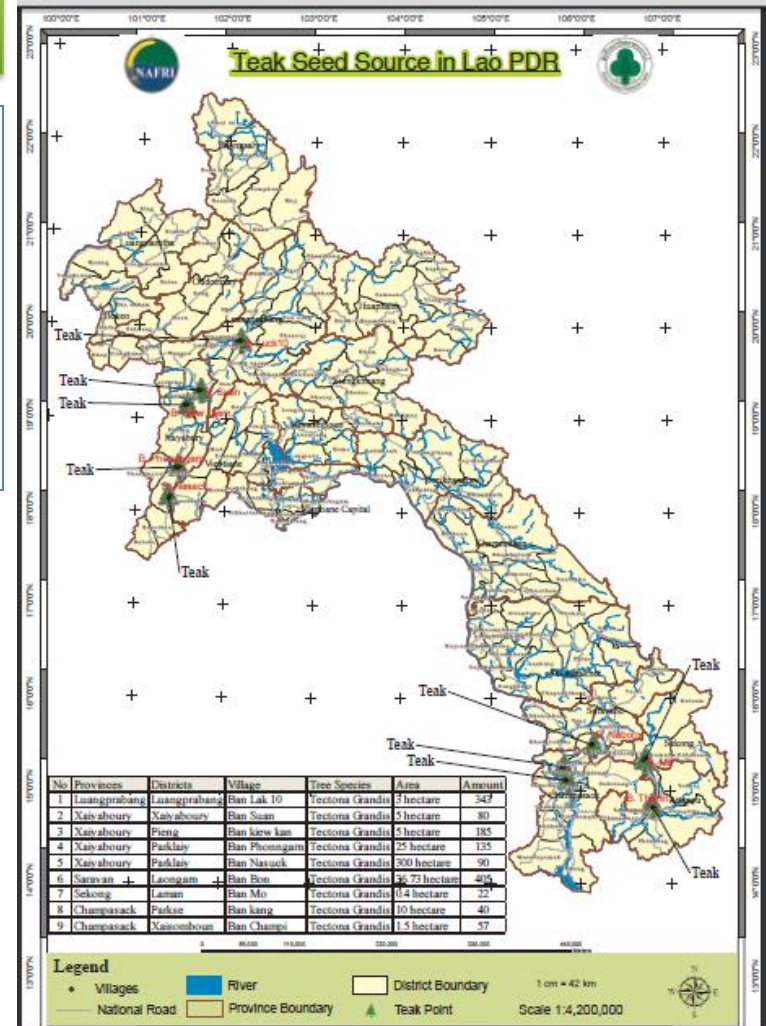


Conservation of teak resources

Teak conservation resources:

There are 9 teak seed sources , 20017

1. Luang Prabang = 1
2. Xayabuly = 4
3. Salavanh = 1
4. Sekong = 1
5. Champasak = 2



Conservation of teak resources

Teak conservation resources:



Two teak seed sources were established in the Upland Agricultural Research Centre in Luang Prabang, with 100 trees in Thong Khang and 178 mother trees in Huay Khod under Lao-Australian Teak Agroforestry Research Project (LATARP), supported by ACIAR

Photo by: Singhalat. K, LATARP

Conservation of teak resources



Aerial view of the Nelder wheel experiment (6 November 2017) at 9.3 years-old.



Maize intercropped in the Nelder wheel experiment (5/07/2013).

Photo by:
Outhai Soukhy, (NAFC)

Pilot study site on different spacing planting in Agriculture and Forestry College,
Luang Prabang

“Trees require space and shelter to optimise both girth and height”.

Conservation of teak resources

. In 2004, a tree seed source was established to protect and conserve the Teak trees in the area. The seed source covers 36.5 hectares and has 405 mother trees. ITTO – Teak Mekong project supported preservation of Teak seed sources in LaoNganm District, Saravan Province Southern part of Laos, key actions :

- ✓ Define clearly the border lines and prepare map of teak seed sources
- ✓ Enrich planting of teak seedlings within seed sources area of 36.5 hectares
- ✓ Enhance the participation of villagers in land-use planning and resources management
- ✓ disseminate regulations of seed source management to all stakeholders.



Conservation of teak resources

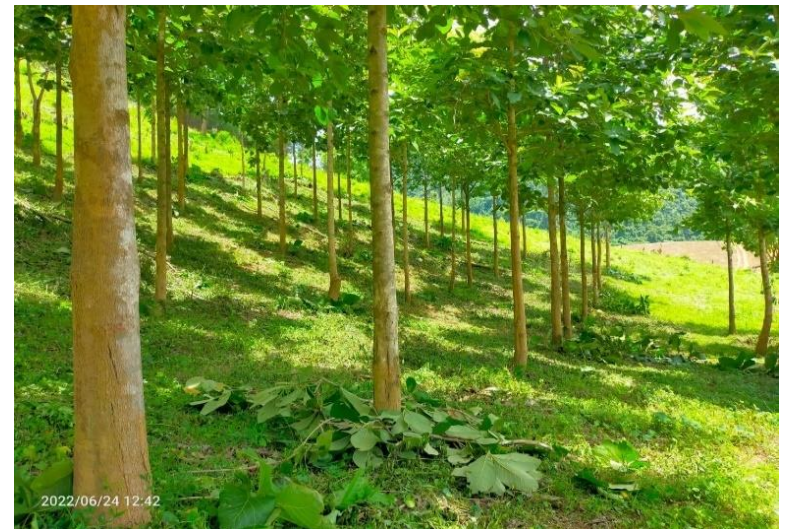
Teak Seed Orchard in FRC

- In 2021, a Teak orchard was established at the Forestry Research Centre with 210 seedlings from 7 provenances. This teak orchard was supported from ITTO's Teak project.



Silviculture Training to farmers

- The training on Silvicultural techniques to Districts Forestry staff and farmers was conducted in 12 villages, two Districts in two Provinces namely Lunag Prabang and Xayabuly, there were 203 famers, about 30 were female attended the training.
- The trained subjects were included pruning, thinning, registration of trees, volume assessment for standing trees, harvesting and measurements of logs



Silviculture Training to farmers

Training materials on Teak for capacity buildings.

LPTP
 ໂຄງການ ຄຸ້ມຄອງ ໄມ້ສັກ ຫຼວງພະບາງ
 Luang Prabang Teak Program

ການຈັດການສວນປູກ SOP 6

ການຕັດແຍກດ່ຽວຕົ້ນໄມ້ ແລະ ການລີກິ່ງງາ

ຈຸດປະສົງ:
 ເປັນຫຍັງພວກເຮົາຈຶ່ງມີການຕັດແຍກດ່ຽວຕົ້ນໄມ້ ແລະ ການລີກິ່ງງາ?

ການຕັດແຍກດ່ຽວຕົ້ນໄມ້ ແລະ ການລີກິ່ງງາແມ່ນເພື່ອເຮັດໃຫ້ຕົ້ນໄມ້ຂອງພວກເຮົາມີ ລຳຕົ້ນທີ່ມີຮູບຮ່າງສວຍງາມ ຊີດົງ ແລະ ຫ້າການລີກິ່ງງາທີ່ອາດຈະເຮັດໃຫ້ຕົ້ນໄມ້ເກີດມີຈຸດຕໍ່າມີ ຫຼື ຈຸດປົກເຜີຍໃນອອກ, ຫ່ຽນນິກເພື່ອເປັນການເພີ່ມມູນຄ່າຂອງໄມ້ຂຶ້ນ.

ການເລືອກຕັດແຍກດ່ຽວໄມ້ປູກ ປະກອບດ້ວຍການຕັດຕົ້ນໄມ້ທີ່ມີຫຼາຍແໜ້ງໃນເຕັ້ງດ່ຽວອອກໃຫ້ເຫຼືອພຽງແຕ່ຕົ້ນດຽວທີ່ໃນກວ່າໝູ່ ຫ່ຽນເພື່ອໃຫ້ຕົ້ນດ່ຽວກວ່າມັນມີລຳຕົ້ນທີ່ຊີດົງດີ.

ການລີກິ່ງງາ ແມ່ນການຕັດກິ່ງງາອອກຈາກລຳຕົ້ນ ຫ່ຽນນິກເພື່ອເຮັດໃຫ້ຮູບຮ່າງ ລຳຕົ້ນຂອງໄມ້ສວຍງາມ ບໍ່ມີຕໍ່າມີ ແລະຈຸດປົກເຜີຍໃນເວລາກະເບີນໄມ້ທ້ອນ. ການລີກິ່ງງາ ແມ່ນມີ 2 ຮູບແບບ.

ຮູບແບບການລີກິ່ງງາ	ຂໍ້ແນະນຳກ່ຽວກັບຮູບຮ່າງລັກສະນະຂອງຕົ້ນໄມ້ເພື່ອໃຫ້ແນ່ໃຈວ່າຕົ້ນໄມ້ຈະໃຫ້ລຳຕົ້ນເປັນທ້ອນໄມ້ທີ່ຊີດົງດີແລະມີລ່າຍອດດ່ຽວ
ການລີກິ່ງງາແຕ່ລ່າມຂຶ້ນຫຍິບ	ແມ່ນການລີກິ່ງງາອອກຈາກລຳຕົ້ນໂດຍເລີ່ມຈາກກຸ່ງທີ່ຢູ່ລ່າມສູດການລີກິ່ງງາແບບນີ້ ແມ່ນເພື່ອເຮັດໃຫ້ ໄມ້ມີຄຸນນະພາບ, ບໍ່ມີດູ່ມຕາ, ແລະ ເປັນການຍື່ນປຸງລຳຕົ້ນເຮັດໃຫ້ໄມ້ຊີດົງ ແລະ ມີການພັດທະນາຈະເລີນຕົບໂຕໄດ້ດີໃນຊ່ວງໄລຍະເລີ່ມຕົ້ນ

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ຄູ່ມື ແນະນຳ ການສ້າງ ແລະ ການຈັດການສວນປູກໄມ້ສັກ ຂະໜາດນ້ອຍ ແບບຄອບຄົວ

ຢູ່ ແຂວງຫຼວງພະບາງ ພາກເໜືອ ຂອງ ສປປລາວ

- List of handbooks on teak plantation management for extension prepared by previous projects :
- Farmer group management
 - Teak Plantation management
 - Registration Teak Plantation
 - Harvesting and marketing

Luang Prabang Teak Program

Lao-Australian Teak Agroforestry Research Project(LATAP)

Common Issues & Challenges:

Conservation of natural teak:

1. Land encroachment in natural teak forests for agriculture, roads, buildings and other infrastructure is a serious challenge for future management.
2. Forest fires pose another challenge for protection
 - Seed sources have been changes for another purposed : infrastructure improvement, roads, buildings...
 - Lack of regular monitoring and maintenances: weeding, set up the signboard, marking boundary of area.

Common Issues & Challenges:

Plantation Management

- Seedling come from unselection of seed sources.
- Planting with high number of stocking rate (spacing 2x2m – 3x3m=1111-2500 tree/ha)
- No management after Planting (No thinning & Pruning)
- Farmer select-cuted and selling the best tree.

Conclusions:

- Government has clear target for increasing forest cover and supportive policies.
- There is initiative on conservation of natural teak
- Govt. has promoted on tree plantation, especially teak plantation, most of plantations belong to smallholders.
- R&D Research on teak : Various studies on teak improvement on productivity.
- Capacity building for both local extension staff and farmers has implemented.



**Thank you for
attention !**