

UN-Habitat Sri Lanka Sustainable Construction Using Alternative Technologies

Treated Plantation Timber



About Treated Plantation Timber

- Plantation timber is an alternative to forest timber that can be used for roof rafters in housing construction.
- Most plantation timber varieties are generally not durable. However, durability can be improved by treating the timber with used engine oil.
- Plantation timbers such as Eucalyptus, Pines, Rubber wood can be used successfully for this purpose.
- Immature round poles removed from upcountry forest plantations (Thinnings) too can be put to structural use by this treatment.



Timber: Before treatment

Methodology

- Fabricate an oil bath with used barrels.
- Heat timber rafters/beams in the oil bath using used engine oil until the oil penetrates across the cross section of the timber members. This will take at least 2 -3 hours of continuous heating after oil starts to boil.
- Douse the fire and let the oil cool with the timber members for 48 hours in the oil bath.
- Remove timber and place on a hard, even surface to dry.
- The process may have to be repeated, if it is found that penetration of oil across all sections is insufficient.
- Precautionary measures to extinguish sudden oil fire should be kept ready.



Timber treatment in progress

Benefits

- Locally treated plantation timber is durable and less costly than hard forest timber in the market.