SUSTAINABLE RATTAN HARVESTING MINI GUIDE

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SUSTAINABLE RATTAN
HARVESTING MINI GUIDE
Recognition time for rattan harvesting:

- Black thorn, fallen leaf.
- Leaves in the root is dried and fallen.
- Cane is changed color from light yellow to dark green.
- Cane has both flower and fruit.
- Length over 5m.
Best season for harvesting:

- The best season for harvesting is dry for easy drying, avoid mould, wet and insects.
- Easy for transportation.
- No effect to the rattan growing.
Popular harvesting tools:

- Suitable harvesting rattan tools are bush-whacker, special scissor, crampon.

- Crampon
- Bush-whacker
- Jungle-knife, gloves
- Special scissor
Harvesting techniques:

✅ Step 1: Identify the right species to avoid the wrong cutting, harvested areas to areas.

✅ Step 2: Cut the mature cane above root 10 cm and the nutrient after that support to young cane. Avoid clashing to hurt the young cane and shoot. No digging to the root.
Harvesting techniques:

STEP 3:
- Take the cane out by pulling from the root.
- Remove the outer layer from the root and pull after that.
- Remove the handle of rattan cane before pulling.
**Harvesting techniques:**

✅ **STEP 4:** Classify canes, bundle of cane.
Harvesting techniques:

✓ **STEP 5.1:** Pile up the rattan waste to the bush for fertilizing to avoid the fire.
Harvesting techniques:

**STEP 5.2:** Chopping the rattan leaf for composting

- **Chopping the rattan leaf by hand or machine.**

**Composting product**

- Mix with microbiological ferment, muck, cover plastic sheet and compost in 15 days to 1 month (Checking after 10 days, in case of dry, adding more water)
Natural drying:

✓ Dry rattan cane under the sunlight or store and preservation under roof. Canes were put in vertical direction. With the small rattan bundle, it can store in the girder.
Preservation:

- Good in ventilation.
- Put on the shelf with classification, > 0.5m from the ground.
- Combine drying and preserving by a chamber using solar energy.
Vegetable oil boiling:

- Optimum proportion: water (litre)/ vegetable oil/ salt/ rattan cane (kg) = 1,5 l/ 170 ml / ¼ amount of salt/ 1kg

- Rattan canes was bundled and put into the boiling cooker. Boiled up to 100-120°C in 1-1.5 hours depend on the species and size of cane.

- Using pulley system to take the cane out and hang it over cooker in 5-7 minutes to drop oil back.
Rattan bleaching:

- The optimum ratio: 3 – 5kg NaOH/24 – 26 kg H2O2/6 – 8kg Silica (SiO2)/200 litre H2O

- Submerged rattan canes to the tank.

- Aiming saving chemical, it can be heat to 40°C÷50°C. Recycle the condensate water of boiler for heating bleaching system.

- Water rinsing should be reused and recycled.
After drying, rattan is splitted for weaving. Using machine to produce the uniform thread, high quality.

**Note:**
- Not splitting if it was not boiled due to it hard causing broken knife.
- Often check, maintain machine
- Safety in operation
Pay attention on the seating position to avoid the health effect.

Recycle rattan waste for producing new product as: broom, bird cage,…
Finishing Product:

- Gluing product using PVA was recycled
- Carbonization system
- Painting using gun with solvent adsorption
Why we are here.
To stop the degradation of the planet’s natural environment and to build a future in which humans live in harmony with nature.

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