Resin from an Almaciga tree (*Agathis philippinensis Warb.*) in Palawan, Philippines

NTFP-EP

AWG-SF
ASEAN Working Group on Social Forestry

Schweizerische Eidgenossenschaft
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Developing Guidelines for Sustainable Harvest and Resource Management Protocols for Non-Timber Forest Products

BACKGROUND

Standardization is a necessary step in the ASEAN Economic Community's (AEC) plans towards global competitiveness. Though ASEAN has embarked on standardization on many commodities, standards on non-timber forest products (NTFPs) are still in its early stages for many countries. In order to ensure that quality standards are met, protocols for sustainable harvest and management are crucial.

The ASEAN Senior Officials in Forestry (ASOF) has tasked Non-Timber Forest Products – Exchange Programme (NTFP-EP) to assist ASEAN in the development of such protocols.

There is growing market demand for proof of sustainability and conservation of natural resources. For community forestry producers to capture that market, they need to be able to meet such sustainability standards. These guidelines will serve as the first reference for NTFP management protocols in the region to further guarantee sustainable management of NTFP resources for markets and relevant stakeholders.

For a start, five important NTFPs in the region are being piloted, namely rattan, bamboo, resin, honey, and fruits.

Experts consultation workshop on honey, resin and fruits. (September 2019)

These guidelines are intended to assist AMS in developing NTFP protocols with various stakeholders in consideration of the following:

1) the socio-ecological framework for sustainable harvest and resource management of NTFPs,
2) thumb rules developed by communities from traditional ecological knowledge,
3) indicators generated through conventional scientific investigation,
4) understanding changes over time and adaptation measures, and
5) practical monitoring methods.

This brochure features draft protocols for resins and honey. For more details on the NTFP protocols, email us at info@ntfp.org.

Experts consultation workshop on bamboo and rattan. (January 2020)

PROCESS IN DEVELOPING GUIDELINES FOR NTFP PROTOCOLS

1. **AWG-FPD/ASOF Meeting** — July 2019
2. **Formation of a team to work on the guidelines** — July 2019
3. **Review of literature and publications** — July - Nov 2019
4. **Experts Consultation Workshop on Resins, Honey and Fruits** — Sept 23-26, 2019
5. **Experts Consultation Workshop on Bamboo and Rattan** — Jan 15-16, 2020
6. **Consolidation and development of draft guidelines** — Jan - Mar 2020
7. **Presentation of update at ASFCC Closing Meeting** — Feb 2020
8. **Revisions and finalization by AMS and relevant ASEAN bodies** — Mar - Apr 2020
9. **Presentation at AWGSF and ASOF** — June - July 2020
10. **Presentation at AMAF** — Sept - Oct 2020

RESINS

Resins are non-water soluble exudates from certain kinds of trees, which necessitate tapping the bark for its extraction.

There are two kinds of resin which are the focus of these protocols, the hard resin which comes from the bark of the genera *Shorea*, *Hopea* and *Parashorea*, and the liquid resin which comes from the phloem of the genus *Diptercarpus*.

Examples of important resin species in the region are *Agathis philipinensis* and *Shorea javanica*.

(These protocols are currently under consultation and are not final.)

SOCIO-ECOLOGICAL INDICATORS TO ASSESS SUSTAINABILITY

Ecological
- An increasing number and good distribution of resin trees (saplings, juveniles, adults).
- The forest is healthy with diverse populations of plants and animals.

Harvest
- Proper harvesting methods are used (correct size, depth and shape of cuts, proper use of fire for liquid resin) with the proper tools and equipment.
- Resin is harvested at the right season.
- Trees being harvested continuously provide resin.
- Leaves are not yellowing or falling off.
- There are no termites or other insects attacking the resin trees through the cuts.
- Local wisdom is practiced.

Trade and Markets
- Quality of resin is good (color, size, purity).
- Resin products can be traced to its source.
- Price of product is favorable to the harvester.

Institutions
- There is an effective collective, community institution that manages and trades honey resources.
- Social networks or partnerships exist between harvesters and other actors in the value chain.

Policies and Regulations
- Policies for collection and collection areas exist.
- Harvesters have legal access to collect resin
- Policies for protecting resin trees exist.

THREATS TO RESINS

- Resin trees are harmed by the use of unsustainable harvest methods (resin hole mismanagement, improper tools, fire, chemicals, girdling.)
- The habitat of resin trees are destroyed (Conversion of forest to other land use–plantations, extractive industries, hunting, cutting other trees, forest fires.)
- Lack of clear policies to secure tenure
- No policy or institutions to regulate trade favoring sustainable practices and local communities

THUMB RULES FOR RESINS

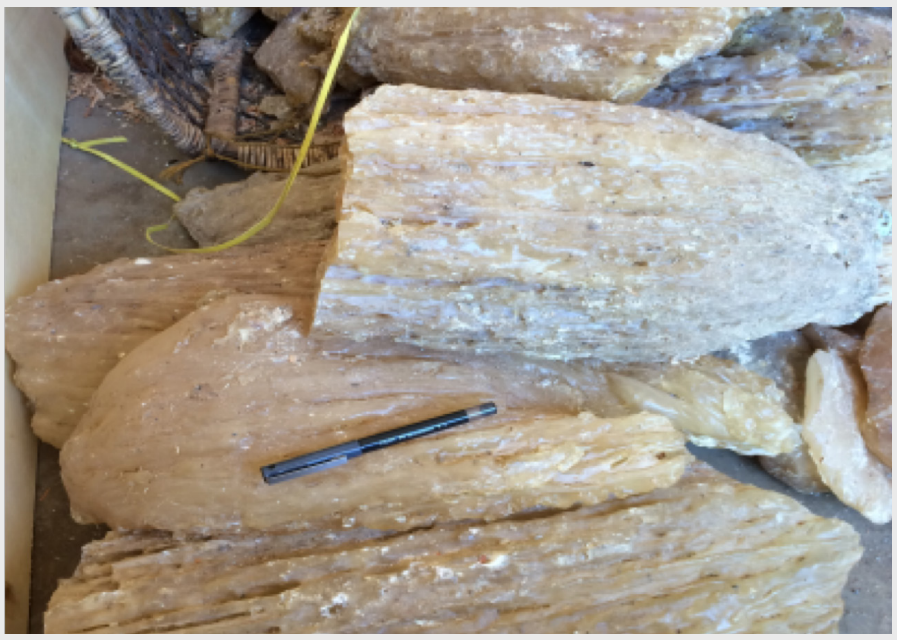
- Don't harm the forest ecosystem within the resin collection zone (don't cause forest fires, conserve biodiversity by not cutting trees or hunting animals).
- Tap only mature trees.
- Don't use chemicals when harvesting resin.
- Use appropriate sustainable harvesting tools and methods.
- Make the right size, depth and shape of incision.
- Follow local wisdom.
- Define tree or area ownership and zones (don't tap in prohibited areas).
- Put supportive policies in place.

MONITORING METHODS

- Field monitoring to check forest conditions
- Permanent plots to check number and health, growth of trees annually
- Actual check on harvested trees to monitor new cuts/holes and condition of trees at least every other month
- Check amount of resin in holes/cuts
- Amount of charcoal attached to the hole for liquid resin (indicates amount of fire used)
- Harvest records
- Quality and quantity of resin at collection area (may indicate immature tree tapping, overtapping, improper tapping methods)
- Consolidated and analyzed records over time (every year for 5 years) (showing who is the harvester, where, when, how much in kg, price, quality, etc.) from every collection at processing center or storage area if an enterprise group exists; if none, the records of the trader.
- Maintain observation records about animals and birds that are dependent on the resin trees for nesting, seeds/fruit or resin.

MONITORING INDICATORS FOR CHANGE AND IDEAS FOR ADAPTATION

- Monitor if climate change induced factors (e.g. warmer temperature, stronger typhoons) affect the health of resin trees.
- Monitor if irregular rainfall affects quantity of resin harvest.
- Monitor what has caused changes in harvesting patterns (socio-economic factors, poachers, etc.)



Large chunks of almaciga *(Agathis philippinensis Warb.)* resin. Whole large chunks sell at a higher price compared to smaller chunks of equal volume.

HONEY

All across Southeast Asia, indigenous peoples have been harvesting forest honey following sacred rituals and sustainable traditional methods. They usually collect honey from the species *Apis dorsata*, a honey bee which has four sub-species. *Apis dorsata* builds a single large comb, migrates long distances and returns to the same nesting site every season. They nest as a single colony or in large congregations, sometimes over 100 hives on trees or on cliffs.

Other common honey sources are from *Apis cerana* (which nest in cavities and has ten sub-species), *Apis florea*, and *Apis andreniformis*. Honey bees are susceptible to pesticides and to changes in the weather, particularly when flowering patterns change. Thus management and monitoring methods are crucial.

(These protocols are currently under consultation and are not final.)

SOCIO-ECOLOGICAL INDICATORS TO ASSESS SUSTAINABILITY

Ecological
- The forest is healthy with an abundance of nesting trees and nectar sources.
- There is a stable or increasing number of colonies in a particular area.
- Sacred sites are secured.
- There is regular flowering of pollen and nectar sources.
- Pollination is occurring regularly and consistently.
- Climate patterns (rainfall, humidity) are stable.

Harvest
- Proper harvesting methods are used: only mature colonies are harvested (wide, thick and visible comb, capped or sealed honey), only the honey part is removed from the comb.
- Harvesting is done during the dry season.
- The appropriate harvesting tools and equipment are used.

Trade and Markets
- Honey is clean and meets health and food standards.
- There is no brood for sale.
- Honey can be traced to its source.
- Honey properties indicate it has been harvested properly.

Institutions
- There is an effective collective, community institution that manages and trades honey resources.
- Social networks or partnerships exist between harvesters and other actors in the value chain.

Policies and Regulations
- Policies for harvest and harvest areas exist.
- Ownership of hives is clear and defined.
- Harvesters have legal access to collect honey
- Policies for protecting the forest exist.
- There are enabling local, national and international policies for Asian honeybees (taxes, honey standards, etc.)

THREATS TO HONEY SOURCES

- Poachers (unsustainable harvesting)
- Pesticides
- Differing climatic patterns
- Forest conversion to other land uses
- Forest fires

THUMB RULES FOR HONEY

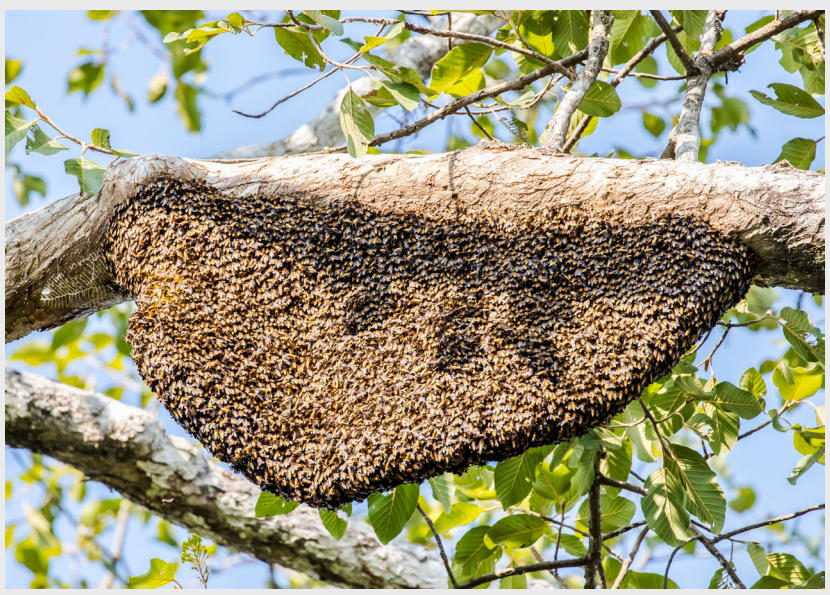
- Don't destroy the habitat of the bees, including nesting sites and foraging areas.
- Ensure that hives are a certain distance away from inorganic farming and that there are no other pollutants.
- Do not harm the bees; collect only the honey part of the comb.
- Brood collection is only for a community's own consumption and not for sale.
- Use appropriate sustainable harvesting tools and methods.
- Harvest only mature colonies.
- Cut and drain the harvested honey; never squeeze.
- Harvest only during the dry season.
- Honey should be pre-filtered in the forest if it does not reach the processing center in a few hours.
- Honey should be clean and meet the standards for food and health.
- Respect local customs and rituals related to honey harvesting.
- Define hive or area ownership.
- Implement supportive policies and programs for sustainable forest honey management and trade.
- Do not collect from all colonies in one tree/area, all at one time.

MONITORING METHODS

- Resource mapping, including identification of nesting trees.
- Number of colonies observed versus number of colonies harvested.
- Community permanent plots recording number of hives, number of trees with hives, flowering trees before, during and after each harvest season.
- Pre and post-harvest monitoring through inspection of peer groups of non-collecting hunter group within three days after each harvest.
- Community level associations assess the quality of the honey.
- Records of where the honey is from, what are the nectar sources, who collected, and other information.
- Observance of adherence to harvest protocols.
- Community discussions during honey collecting season.
- Internal control systems and participatory certification processes checking traceability and sustainability
- Reports on progress on enabling policies for forest honey harvest and trade.
- Maintain observation records about animals and birds that are dependent on the bees, honey and combs.

MONITORING INDICATORS FOR CHANGE AND IDEAS FOR ADAPTATION

- Monitor if climate change induced factors (e.g. warmer temperature, stronger typhoons) affect the flowering patterns of nectar sources and the migration and foraging patterns of bees.
- Ensure that traditional practices are still sustainable in light of changing climate and other possible variables.
- Monitor use of chemicals in the vicinity, particularly pesticides.
- Monitor if bee populations are declining.
- Record if honey has higher water content than previous years despite use of proper harvesting methods.



An *Apis dorsata* bee hive. Their distinctive single hanging comb hives can grow more than one meter in width.