Socio-economic Values of Crop Wild Relatives

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INTRODUCTION

Crop Wild Relatives (CWR) are the plants related to socio-economically important wild spp. which include:

2 food crops,
2 fodder and forages,
2 condiments,
2 medicinal plants,
2 ornamental plants, etc.
However, socio-economic values of such plants are not well identified, therefore, encountered an extensive extraction.

In addition, habitat destruction, and human activities leading to development also have made a limitation to their existence.
As a result, they are under serious threat, and therefore, conservation has become a valid intervention.

Main objective of this investigation was to identify the socio-economic values of selected CWR
METHODOLOGY

Southern Province case study:

1. The study focused on two CWR in the Southern Province
2. *Kapuru Kurundu* *(Cinnamomum capparu-coronde Blume)*
2. *Thumba Karawila* *(Momordica dioica L.)*
Kapuru Kurundu;

2. The Kanneliya – Dediyagala-Nakiyadeniya (KDN) forest complex is regarded as a rich area for plant diversity.
This complex is located in the southern part of Sri Lanka, about 35 km north-west of Galle.

Surrounding villages of Kanneliya were selected as the study location.

The field investigation was executed between May 2008 to December 2009 period.
A series of informal discussions has been conducted with farmers in surrounding village of *kanneliya* forest reserve.

Discussions were held with forest officers.
The researchers participated in the awareness workshops executed for community members.
**Thumba Karawila;**

2 Widely distributed in *Thanamalwila, Jandura, Suriyawewa, and Angunukolapelessa* in *Hambantota district.*

2 The study selected following locations for the field investigation. 

*Jandura*

*Yaya 17*

*Angunakolapelessa*
Interviews were made with the collectors, traders, and farmers.

Observations were made in the field, research station, and market fairs
RESULTS

Kapuru Kurundu;

2. *Kapuru Kurundu* is a tree (height 15-20') with gray or brown bark (girth - 18") and also with aromatic leaves.
Tree

Bark

Leaves

Flowers
The extraction of *Kapuru Kururndu* is prevailing in surrounding villages of *Kanneliya* forest reserve.

It was revealed that certain illegal groups are geared for this activity.

The villages where such activities are prominent have been identified as, *Walankanda, Dediyawela, Ensalwatta, and Weerapana.*
Potential uses and economic value

1. Eugenol is the major component in stem-bark oil. Also the oil can be extracted from the leaves.

2. Camphor is the major component in its root-bark oil.

3. The bark, smelling of nutmeg or cloves is sold as a medicine.
Traded with other endemic cinnamon spp. (wal-kurundu)

The wholesale market price of wal kurundu was between Rs. 250 to 350/kg whereas cinnamon was marketed for Rs. 400/kg
2 Kapuru-Kurundu is directly used as a local medicine for toothache, bronchitis, rheumatism, snake bites, and fractures.

2 In addition, eugenol is a chemical used for western medicine, industrial preparations, pesticides, etc.
Thumba Karawila;

2 In the study area, community members do not cultivate *Thumba Karawila*.

2 Villagers used to go to the jungle at the beginning of the fruiting season,
   - live in temporary huts
   - Train the plants and provide protection
Cost of production of the crop is very low
The phenolic compounds contained in the fruits have an inhibitory effect on amylase and glucosidase enzyme activity.

Reduce glucose release during carbohydrate digestion.

Further, *Thumba Karawila* is used as a medicine for bowel affections and urinary complain.
Wildly used as a vegetable. Price of the fruit in the market is significantly higher with compared to other vegetables.

The retail market price for fruits fluctuates between Rs. 140 to 200 /kg
Farmers can obtain a significant income.

Annual income from Thumba Karawila

![Income distribution chart]
CONCLUSIONS

2 *Kapuru-kurundu* has a significant economic value, especially because of its chemical composition (medicinal value).

2 *Thumba-Karavila* is regarded as a healthy vegetable (without pesticide residuals). Therefore market price is very attractive for the traders.

2 However, the crops are still confined to jungles and reserves, and the demand exceeds the supply. Hence, conservation and propagation will be warranted for their existence.