



Ministry for Foreign
Affairs of Finland

Sea Buckthorn mission

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Introduction



- Seabuckthorn (*Hippophae* sps.), a multipurpose and diversified group of plant species distributed throughout Eurasia
- A deciduous small tree or shrub grows in low humid infertile river banks & landslips
- Pioneer species with deep root system for eroded and fragile mountain slopes

RVW

Features of Seabuckthorn

- **Extraordinary capacity to grow and survive under adverse climatic conditions**
- **Nitrogen fixation up to 180 Kg/ha/year.**
- **High vitamin C, economic value of fruit and seed oil.**
- **Wider use in food, beverages, medicine and cosmetics**
- **Good fodder & fuel wood/ good wood quality**
- **Excellent for hedge fencing**



RVW

Seabuckthorn Promotion Initiation in ApiHimal RM



- A processing unit installed some 10 yrs back by PAF but not in use at all due to inadequate process and planning

**Old juice-processing unit in a household's basement in Marma:
Used once**



Seabuckthorn Promotion Initiation in ApiHimal RM

Major activities performed

23 November, 018



- Travelled Gokuleshowar to Marma
- An interaction meeting with Marma RM representatives, RM level RVWRMP staffs and locals



RVW



Marma RM – Meeting Gaupalika representatives and local people (23.11.)

Seabuckthorn Promotion Initiation in ApiHimal RM

Major activities performed

25 November, 018



- Awareness workshop with all stakeholders including RM & other govt. representatives, farmers and others

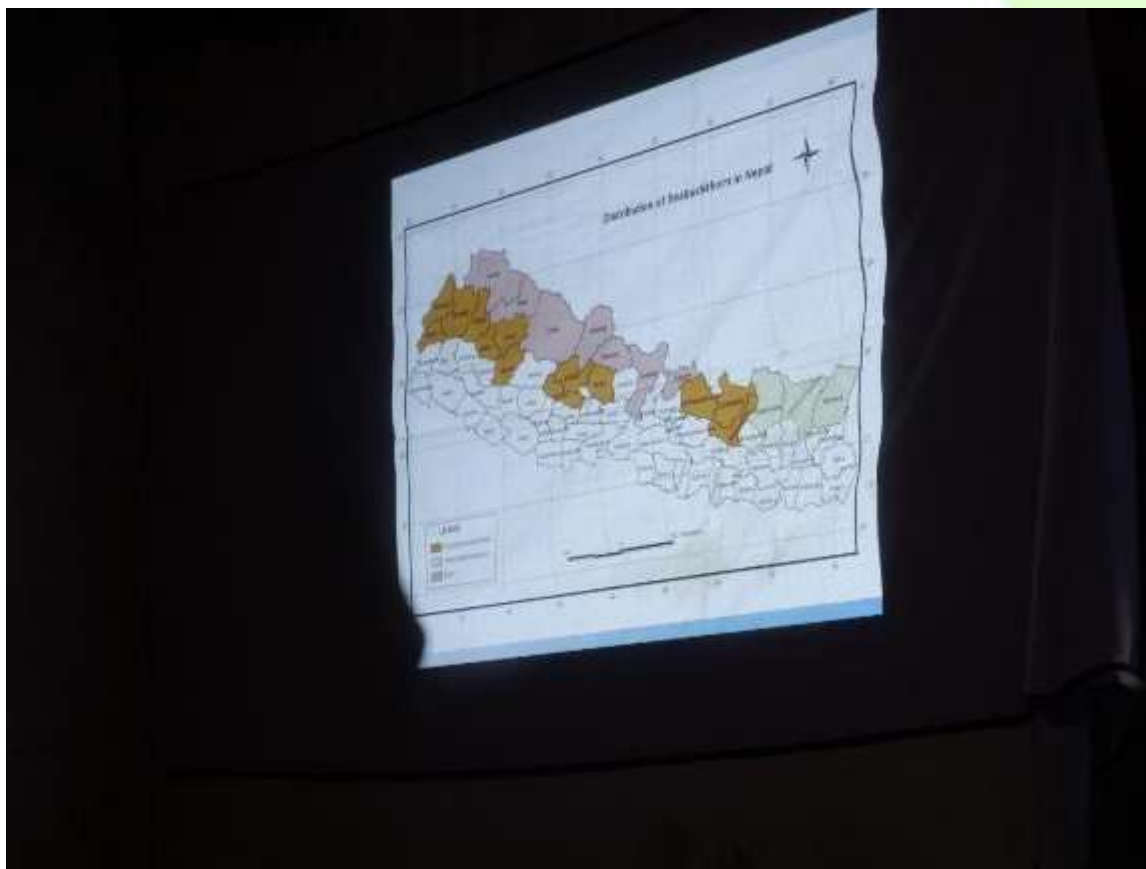




1st day of training (24.11.): Opening



1st day of training: Introduction to Sea Buckthorn



1st day of training: Information provision and awareness raising

Seabuckthorn Promotion Initiation in ApiHimal RM

Major activities performed

26 November, 018



Field visits to nearby Seabuckthorn forest

- to observe recent conservation status and traditional harvesting practices
- to demonstrate harvesting berries with modified tools, techniques and better timing (3T)

2nd day (25.11.):
Washing the
harvesting tools





**Protecting the
washed tools**



Locating the collection area nearby the village



Spotting the berries



Harvesting



Preparing a pole branch clipper for harvesting



Collected berries



Pre-processing: Severing the berries



Severing the berries



Meeting after harvesting: 3Ts: Tools, technique, and ?



Processing the berries (taking out the impurities)



Processed raw berries



Weighting 100 berries for 'average size'



Weighing equipment – modern and traditional



**Weighting the
harwest**



Briefing and closing the day

Seabuckthorn Promotion Initiation in ApiHimal RM

Major activities performed

27 November, 018



- Demonstration for the extraction of raw juice from the berries and preparation of semi- processed and final juice (squash) in a hygienic way



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**3rd day (26.11.):
Juice making
preparations**





**Squeezing the berries – modern tools.
Hygiene is important.**

**Squeezing the
berries –
traditional
tools proved
out to be
better**





Drying the squeezed berries for various further uses



Drying berries

**Filtering the
raw juice**



Double filtering





**Measuring 1l
juice weight**



Measuring the right amount of sugar and water



Boiling the sugar-water mixture



Heating the raw juice (90 centigrade Celsius)



Cooling the raw juice and sugar-water mix



Filtering the sugar-water mix



Sanitizing bottles

Clean bottles





**Bottling the
mixed raw juice
+ sugar-water**



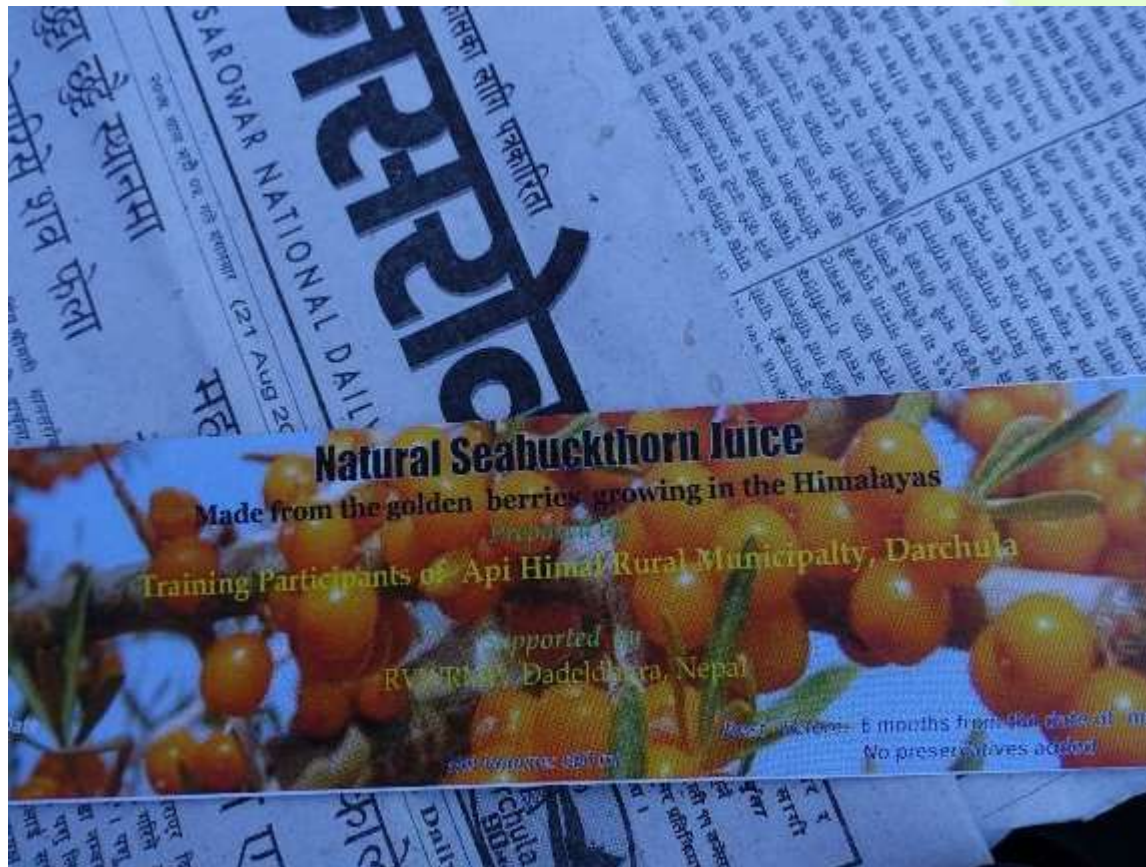
Corking



Labelling



Final product



The label

**Table: Tools,
preservative, IEC
materials,
measurement
equipment, and the
final product:
14x500ml bottle**





Posing



Tasting



Final remarks and closing the workshop

Seabuckthorn Promotion Initiation in ApiHimal RM
Major activities performed
28 November, 018



**Travelled to Khnandeshowari
to Chheti village**

- *Observed the major natural distribution of SBT stands along the Chamelia, Kapi and associated river basin*
- *Meeting and discussion with the residents of Chheti village*

The logo for RVW (Rural Veterinary and Wildlife) is located in the bottom right corner. It features a stylized tree with a green leaf and a yellow trunk, set against a background of wavy lines. The letters 'RVW' are prominently displayed in a bold, sans-serif font.



Surveying and reaching the potential areas 26.11



Potential area: High-altitude river bank



Accessible area: Bushes close to the fields



Meeting a community in the last village: Awareness-raising and information sharing

Seabuckthorn Promotion Initiation in ApiHimal RM

Major activities performed

29 November, 018



Travelled back to Khnandeshowari

- *Discussion with the residents of Patha village*
- *Demonstration for the preparation of semi-processed and final juice (squash)*

The logo for RVW (Rural Veterinary and Water) is located in the bottom right corner. It features a stylized apple shape with a green leaf. Inside the apple, the letters 'RVW' are written in a bold, sans-serif font. Below the letters, there are several horizontal wavy lines, suggesting water or a liquid state.

RVW



27.11: Walking back in the morning



**Meeting in a village in the potential area:
Awareness-raising and information sharing**



Brief juice production training



Squeezing the berries



Measuring



Heating



Filtering





Ready-to-drink juice; juice concentrate; and raw juice

Seabuckthorn Promotion Initiation in ApiHimal RM

Major activities performed

30 November, 018



**Travelled to Darchula HQ
from Khandeshwori**



RVW



28.11.: Walking back to the civilization 😊

Seabuckthorn Promotion Initiation in ApiHimal RM

Major activities performed

01 December, 018



Interaction meeting in
Darchula HQ

(Representatives from API
Nampa CA, Divisional Forest
Office, FNCCI, Vyas RM and
RVWRMP staffs)

The logo for RVW (Royal Veterinary and Wildlife) is located in the bottom right corner. It features a stylized plant with green leaves and a yellow flower, set against a background of wavy lines. The letters "RVW" are prominently displayed in a bold, sans-serif font.



Darchula HQ: Meeting the District and RM Officials

Observations

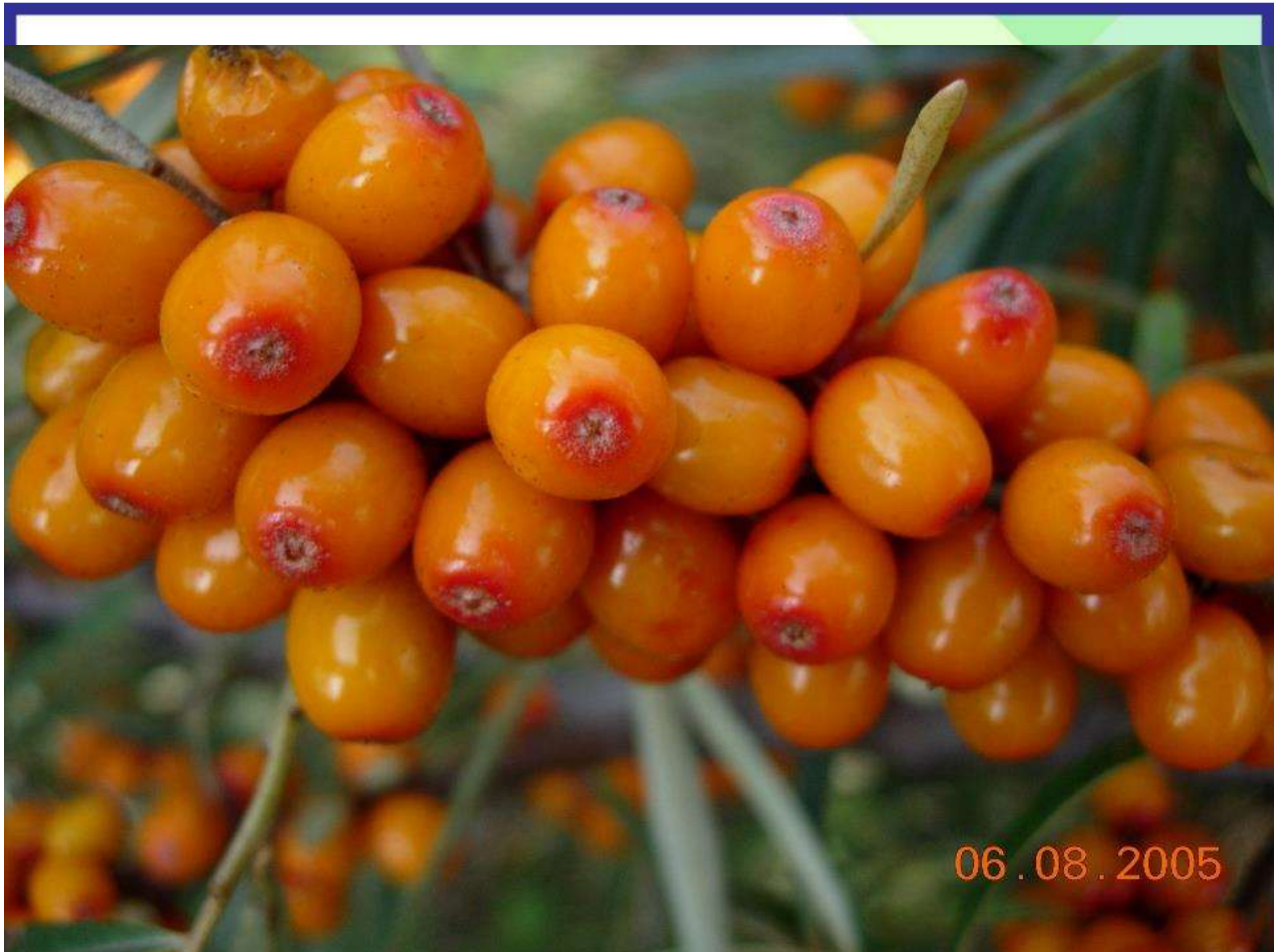


- Traditional use of unprocessed raw juice by the local inhabitants
- Conservation status and harvesting pattern of the resource found very poor
- Almost natural stands found accessible from the settlements
- Highly potential to the local communities for their better health as well as improved livelihood
- Ecologically found to be very suitable in major high altitude areas for future domestication with improved varieties

Recommendations



- Integrated effort are important for sustainable resource management
- Emphasis has to be given for the effective *in-situ* conservation of resource
- An effective co-operative could be best way for effective collection and marketing of the potential SBT Products
- Vyas RM should also be included for the future commercial collection, processing and marketing of the resource.
- A detail resource inventory with potential areas should be done for effective planning and future domestication
- Suggest to make a market demand/potential study within Darchula
- The bush variety of SBT could also be promoted from RVWRMP working areas which is easy to harvest and high medicinal properties



06.08.2005



Thank you very much for your attention !

