Peer-to-Peer Exchanges on Community Health and Traditional medicine (India)

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Biodiversity, Traditional Knowledge, Health and Well-being
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Medicinal Plants and Traditional Medicine - Indian Context

• Traded Medicinal plants of India (2014-2015) study - 1622 botanicals relating to 1178 species in commercial trade – 512000 MT – 242 species in main use (more than 100 MT) – 72% wild collection) – 57+7 species as food, aromatics) – around 20% growth – 650000MT by 2020 (Ved & Goraya 2008)

• Large and medium scale industries around 3% of the 8610 licensed industries, consuming 66% of the trade


Source – Foundation for Revitalization of Local Health Traditions, India
Evolution of Our Work

• Started from a Nation-wide Medicinal Plant Conservation and Traditional Medicine Revitalization program in India from 1995 by FRLHT

• Most comprehensive database on medicinal plants of India (along with a herbarium and raw drug collection program) and research on multiple aspects of medicinal plants and AYUSH systems

• A large network of conservation sites (in-situ and ex-situ) and resource centres were established across different states along with the Ministry of Environment, Forests & Climate Change and a number of NGOs

• Global networking and building policy interface in collaboration with multilateral agencies led to Biodiversity and Community Health Initiative (BaCH)
Project area = 13 states in India
Conservation sites = 108
Medicinal Species Conserved = ~ 2000

316 medicinal plant species belong to different endangered categories (UNDP India 2014).

• Action with forest departments in respective states
• Covers various bio-geographic zones, several red listed species protected, nurseries established and villages served
• Threat assessments, populations studies, mapping, community participation
Here you can find information of Medicinal Plants in following 2 ways

**Botanical Name wise**  **Vernacular Name wise**

A unique, well-researched, comprehensive database on Indian Medicinal Plants is now available for researchers, academicians, school students, ethnobotanists, conservationists, resource managers, nature enthusiasts...

Towards this direction, FRLHT has been developing over the past 20 years a comprehensive database on Indian Medicinal Plants. It covers various subject linked to natural resources used by Indian System of Medicine such as botanical and local names correlation, geo-distribution data, maps, propagation, trade information etc. This is a well referenced dynamic database. It grows based on authentic scientific publications available in the said area.

This exclusive and innovative search based database stores **7,637 botanical names (6,198 medicinal plants species)** with **119,183 vernacular names from 12 languages** across India. Nearly **2688 plant images** are also available in the database.

Just explore to know more. Give us your feedback to [envis@friht.org](mailto:envis@friht.org)
Biodiversity and Community Health Initiative

• United Nations University – (IIGH & IAS) worked on the Planetary Health Commission, Urban Health, Ecosystems & Health; hosted the initiative

• Part of the State of Knowledge Review (SOK) on Biodiversity and Health

• Interagency Liaison group meetings (WHO &SCBD)

• Various side events from COP 10 to COP 14 on Biodiversity and Health

• Regional Workshop in Manila 2018 for South East Asian Countries hosted by ASEAN Centre for Biodiversity

• ASEAN Centre for Biodiversity (ACB) report – Food and Nutrition, Non-communicable diseases, Traditional Medicine & COVID Pandemic (2021)

• Expert Working Group (EWG) on Biodiversity, Climate Change, One Health and Nature-based Solutions

• Flagship program - Community to Community Learning Exchange programs with indigenous, local knowledge holders and traditional medicine practitioners
Biodiversity and Community Health Initiative

• Multi-partner initiative, Initiated in 2012 - focuses on synergizing efforts of different organizations and institutions to address health and wellbeing at the community level

• Partners include UN agencies, international research networks, NGOs, indigenous groups and networks

Red de Mujeres Indígenas en Biodiversidad
Strategies & Outcomes

• **Research**
  • Policy reports and briefs on biodiversity, traditional knowledge and community health; Contribution to the State of Knowledge Review, (led chapter on traditional medicine, chapter on climate and health)
  • Research lines and publications on on Biodiversity, TK and Health; Climate; Ecosystems and health

• **Networking** – (IAS and IIGH) BaCH initiative, Natural Livestock Farming network (NLF), RCE Network, ProSPER.Net, Satoyama Initiative and other national and regional networks

• **Capacity building** – Community to Community Exchange; Educational programs – short term and intensive

- **Policy linkages** – CBD, ASEAN Centre for Biodiversity, National programs
Biodiversity, Traditional Medicine & Health - Work Dimensions

Natural resources

Knowledge resources

Healers and Community Health Workers

Integrative Methodological approaches

Livelihoods, Enterprises, equity

Community health & nutrition, innovative products

Education, Capacity building

Indigenous rights, Protection of knowledge

Socio-cultural landscapes & wellbeing

Partnerships, networking, advocacy

Institutions & governance
International Community to Community Exchange Programs (from 2006)

1. Healers and indigenous communities and local Peoples (IPLCs) capacity building programs on traditional medicine, conservation, Access and benefit sharing (ABS) etc.
2. Student exchange at graduate level
3. Professional Exchange programs – physicians, veterinarians, Community Health Workers

Partnering organizations
• Biodiversity and Community Health Initiative
• United Nations University (IAS & IIGH)
• UNDP Equator Initiative
• UN Environment
• Secretariat of Convention on Biological Diversity
• Bioversity International
• Traffic International
• ETC-Compas
• GIZ ABS Capacity Building Initiative
• International Natural Livestock Farming Foundation
• Various academic institutions

Participants from
• Americas (Guatemala, Chile, Peru, Mexico, Bolivia, Brazil, Canada, USA etc.)
• Africa (Cameroon, Nigeria, Uganda, Ethiopia, Kenya, South Africa, Lesotho, Namibia, Tanzania, Zimbabwe, Madagascar, etc.)
• Asia (Kyrgyzstan, Nepal, Bangladesh, Sri Lanka, Thailand, Cambodia, Malaysia, Philippines, Korea, Indonesia, Fiji, Australia, New Zealand, Japan etc.)
• Europe & UK (Netherlands, Italy, Germany, France, Romania, UK, Poland, Switzerland etc.)
National & International Traditional Healers’ Exchange Programs
ABS Capacity Building Exchange Programs
Conservation and Sustainable Use Linked Learning Exchange & Training programs

Sustainable Harvest of Medicinal Plants

Medicinal and Aromatic (MAPs) are in high demand. However, there is not adequate supply. In order to bridge this gap, MAPs from the wild are being over-extracted for higher profits. This is threatening the existence of the plants. Slow-growing plants with poor regeneration potential are especially being pushed to the brink of extinction.

Therefore, MAPs need to be harvested wisely, meeting our needs of the present and ensuring adequate supply in future. If we harvest plants in a scientific, sustainable and responsible manner, we will have plenty left for the future.

Here are some useful tips for sustainable and scientific harvesting:

**For Roots & Tubers**
Do not uproot a plant entirely, leave the younger roots and tubers intact so the plant can continue to grow.

**For Twigs/Branches**
Do not cut the tree trunk or big branches. Collect only twigs. Allow the tree to regenerate.

**For Seeds**
Leave some ripe seeds behind. These will germinate to give more trees.

**For Bark**
Striping the bark completely exposes a tree to infection, decay, death and stunted growth. Remove the bark only in patches.

**For Young Trees**
Do not harvest and uproot young trees. Allow them to grow. They will yield higher returns when they are older.
Wish to cultivate medicinal and aromatic plants?

Visit Jadi Booti Shod Sansthan (HRDI), Chamoli. HRDI provides information, training, seeds & saplings of medicinal plants free of cost. HRDI has a master trainer available in every district. Call the HRDI, Chamoli office for information on local trainers.

If a cultivator wishes to purchase planting materials from other sources, HRDI offers a 50% subsidy on the total planting costs (includes planting material, water, labour cost etc.). Planting costs for all species are fixed by the State Government.

Center for Aromatic Plants (CAP) and Bhesia Vikas Ikai also provide planting materials and related services. CAP provides training and planting materials for aromatic plants. Bhesia Vikas Ikai has coordinators in every district.

IMP: Before leaving, collect registration forms from HRDI as they need to be filled in later and sent back for registration purposes.

Take the planting materials home and plant them as advised during the training.

Within one month, HRDI / CAP / Bhesia Vikas Ikai will verify if at least 75% of planting materials have been planted in the fields.

If everything is declared to be in order, send the filled-in registration form to HRDI for registration. No other organization is authorized to give registration certificates.

Approach the Van Nigam / HRDI / CAP / Bhesia Sangh / SMPB for guidance regarding markets / interested buyers for both raw material and processed products.

Once the Transit Pass has been obtained, the cultivator has 4 options to market the produce.

Resume farming.

One month prior to harvest, apply to HRDI for Transit Pass. Either HRDI or CAP will visit to determine the expected quantity of harvest.

Carry the raw material directly to one of the mandis for auctioning.

Sell the raw materials (for higher profits) before selling the products to private buyers.

Engage in scientific harvesting of produce as directed during the training.
Help Conserve Medicinal and Aromatic Plants!

**January**
- Jatamasi: Inodoraless, good-quality.
  - Uses: Used in medicine to treat stomach problems.
- Chirayata: Goodman-quality.
  - Found at: 1600 - 3000 meters.
  - Uses: Whole plant used as food and to treat stomach problems.

**February**
- Thunor: Good-quality.
  - Found at: 2100 - 3000 meters.
  - Uses: Used in medicine to treat stomach problems.
- Atis: Inodoraless, good-quality.
  - Found at: 3000 - 4000 meters.
  - Uses: Used in medicine to treat stomach problems.

**March**
- Jeevaka: Malusiasilvarea.
  - Found at: 1100 - 1500 meters.
  - Uses: Used in medicine to treat stomach problems.
- Amla: Emblicaofficinalis.
  - Found at: 1200 - 1500 meters.
  - Uses: Used in medicine to treat stomach problems.

**April**
- Satwa: Parispolystylophila.
  - Found at: 2200 - 3000 meters.
  - Uses: Used in medicine to treat stomach problems.
- Kutki: Pattricharum.
  - Found at: 3000 - 4000 meters.
  - Uses: Used in medicine to treat stomach problems.

**May**
- Harad: Ternstirachola.
  - Found at: 1500 - 2000 meters.
  - Uses: Used in medicine to treat stomach problems.
- Satwa: Parispolystylophila.
  - Found at: 2200 - 3000 meters.
  - Uses: Used in medicine to treat stomach problems.

**June**
- Jatamasi: Inodoraless, good-quality.
  - Uses: Used in medicine to treat stomach problems.

**July**
- Jatamasi: Inodoraless, good-quality.
  - Uses: Used in medicine to treat stomach problems.
- Harad: Ternstirachola.
  - Found at: 1500 - 2000 meters.
  - Uses: Used in medicine to treat stomach problems.

**August**
- Kutki: Pattricharum.
  - Found at: 3000 - 4000 meters.
  - Uses: Used in medicine to treat stomach problems.
- Harad: Ternstirachola.
  - Found at: 1500 - 2000 meters.
  - Uses: Used in medicine to treat stomach problems.

**September**
- Satwa: Parispolystylophila.
  - Found at: 2200 - 3000 meters.
  - Uses: Used in medicine to treat stomach problems.
- Kutki: Pattricharum.
  - Found at: 3000 - 4000 meters.
  - Uses: Used in medicine to treat stomach problems.

**October**
- Jatamasi: Inodoraless, good-quality.
  - Uses: Used in medicine to treat stomach problems.
- Harad: Ternstirachola.
  - Found at: 1500 - 2000 meters.
  - Uses: Used in medicine to treat stomach problems.

**November**
- Jatamasi: Inodoraless, good-quality.
  - Uses: Used in medicine to treat stomach problems.
- Harad: Ternstirachola.
  - Found at: 1500 - 2000 meters.
  - Uses: Used in medicine to treat stomach problems.

**December**
- Jatamasi: Inodoraless, good-quality.
  - Uses: Used in medicine to treat stomach problems.
- Harad: Ternstirachola.
  - Found at: 1500 - 2000 meters.
  - Uses: Used in medicine to treat stomach problems.
Veterinary & Health Professionals - Antibiotic Reduction in Livestock Farming (NLF Network) - One Health Approach

India, Ethiopia, Uganda and the Netherlands

Five layer strategy for natural livestock farming and antibiotic reduction in dairy farming:

1. Extra payment
2. Milk quality control
3. Use of medicinal plants
4. Strategic use of local breeds
5. Improved animal & farm management
Mainstreaming in India

Ethnoveterinary formulation for Mastitis blood in milk

Medicine preparation (To be freshly prepared every day)

Mastitis (all types)

Oil based Preparation

Ingredients: For one day

- Aloe vera (whole leaf) - 250 g
- Turmeric powder - 30 g
- Garlic powder - 50 g
- Ubtan (250 ml)

Preparation:

1. Cut Aloe vera whole leaf into small pieces (after removing the thorns) and blend along with turmeric powder and oil to form a smooth paste.

Application:

- Wash, clean, and completely milk out all quarters (endings thoroughly) and then clean the udder. Take a handful of the paste and add 200 ml of mustard oil or ginger oil.Heat the oil to 120°F. Apply the pasted oil in all three areas a day for 3 days, each day after following the steps above. (i) blend two portions of fresh mustard oil and add the prepared paste to it. (ii) Take 10 days and 7 days and 3 days, respectively.

DownToEarth

‘Ethnoveterinary medicine will be a game changer for dairy in India’

Down To Earth speaks to Meenesh Shah, chairman, NDBO on ETM use in the Indian dairy sector

Ethnoveterinary medicine as an alternative approach in gaining ground both among veterinarians and farmers alike, according to NDBO Chairman, Meenesh Shah. Photo: doctalk
Future Directions

• Global biodiversity framework calls for whole of government and whole of society approaches - this gives mandate also to environment sectors to speak to and act with other sectors

• Emphasis on agency of non state actors (peer learning exchanges and activities can help develop different capacities)

• Emphasis on fostering traditional knowledge systems in solutions towards sustainability (in conservation, sustainable use, equity and further also in monitoring and assessments)

• Strengthen linkages between value addition- resource use and wellbeing priorities
Thank you!

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