Organic Collection, Cultivation and Processing of Medicinal, aromatic and natural dye plants for household food basket security

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#### **Role of Agriculture and Rural Development**

Food security- net importer of food Income generation for the rural population Household food security- nutrition for children **Rural-urban mitigation- unemployment** Natural resource management and conservation **Biodiversity protection** Climate change- global warming concerns

# **Government's approach to Organic Agriculture development.**

- Way of farming, use the best and cheapest technology available to produce without long term damages to soil and without economic losses to the farmer.
- Organic promotion with a well packaged information, technical support and a capacity to support the farmers through the whole value chain.
- Local market development with consumer education and potential suitable markets establishment needs high priority.
- Promoting the use of traditional foods to increase use
- In-situ and ex-situ conservation- National Biodiversity Centre
- Environment and biodiversity is Bhutan's strength- cannot compete with others in production- find value-bioexplorations? Geographical indication?- need capacity

## Core interest of NOP

- Promoting OA through low cost technology that reduces external inputs
- Safe food production in a holistic integrated manner as practised by the farmers
- Conservation of soil, water, environment and local varieties and species and biodiversity
- Documentation of local knowledge
- Enhance the sustainability of agriculture
- Find ways to conserve traditional food an medicinal plants by adding value markets



#### **Organic agricultural policy**

•No official policy on organic farming, But Organic is the unofficial policy for the country for agriculture in the long term

•National Framework for Organic Farming in Bhutan, MOA

Other policies that favour organic agriculture are:
The Forest and Nature Conservation Rules of Bhutan,2000
The Biodiversity Act, 2004 (no GMO)
IPM- The Pesticide Act of Bhutan, 2000 (IPM)
The Water Act – draft
The Food Safety Act - being developed
The CBNRM framework for Bhutan, 2002
The Cooperatives Act of Bhutan 2001
The NGO act of Bhutan 2001
Gross National Happiness
Brand Bhutan- Organic

Subsidy for agriculture is less than 0.3% of agriculture GDP,

#### **Programmes of organic promotion**

- Low cost and low technology based on natural resources- on farm production of inputs to reduce cost of production
- Research to find alternative practical solutions for problems
- Education and awareness and capacity building- Health and environment, soil, sustainability, biodiversity and ecological balance,
- Rural areas focused on productivity improvement, food security and bio-diverse food basket
- All primary extension to be organic knowledge first
- Home gardens for nutrition
- Open pollinated seed production

#### Organisation and structure of the organic sector

- National Organic Programme, MOA is the driving force behind organic development
- •Bhutan Agriculture and Food Regulatory Authority (BAFRA) to regulate
- •National Organic Standards and Organic sector development strategy under drafting process
- •A system of organic certification regulation/ guidance to be developed
- •Pesticide Act to be reviewed- All chemicals to be phased out and alternative bio-pesticides and bio-controls to be explored

•IPM and organic agriculture to be the basis of farming with a view to make the whole country organic in the future- Gross National Happiness

#### Market development

- •Little but a growing awareness of organic food
- •No or little premium in domestic market
- •Lemon grass oil and cheese certified or export market
- •Red rice exported, not certified
- •Marketing of Natural wild collection and (MAP and NWFP)
- •Need to focus on high value and low volume- transport and labour costs high
- •Export market research and trials
- •Develop local market based on local origin and link to eco-tourism
- •Brand development needed
- Geographical Indicators for indigenous cvs. And spr
- •Certification not a high priority for now



# **Support** for organic programme besides RGOB

- EU-ASSP, Research, production, education, capacity building
- SNV- TA, capacity building
- - IFAD/FAO-OMADP (Trongsa and Zhemgang)

- OMADP- Organic Production of Underutilized Medicinal, Aromatic and Natural Dye Plants for Sustainable Rural Livelihoods (GCP/RAS/208/IFA)"

### Goal of the project -IFAD/FAO-OMADP

Improvement in

nutrition, health and food security of rural populations in South Asia through organic local farming systems that incorporate MADPs.

#### Purpose

- Conservation and sustainable collection of MADPs by selected rural communities
- Training of small and marginal farmers to incorporate MADPs within their farming systems using organic methods.
- Priorities of production-
  - Household food needs
  - Saving seeds (Community seed bank)
  - Specific target crop for market- income generation

- Local value addition to MADP produce and movement up the value chain for enhanced incomes.
- Initiation of an organic dye plants inventory and package of practices for dye plants.
- Product development and marketing of MADPs through community enterprise for viable and sustainable collective income generation.
- Networking of researchers, extensionists, producers and traders working with organic MADPs.
- Capacity building of staff and among producers to value add and increase income-generating capacity.
- Organise groups for efficient production, utilisation, transport and marketing



# Traditonal Natural dyes







