



ESTABLISHMENT OF AROMA UNIT FOR PROMOTING CULTIVATION OF AROMATIC CROPS AND ENTREPRENEURSHIP DEVELOPMENT

DBT-APSCS&T Centre of Excellence for Bioresources and Sustainable Development
Arunachal Pradesh State Council for Science & Technology, Department of Science & Technology
Government of Arunachal Pradesh, Kimin-791121, District: Papumpare, Arunachal Pradesh

In the verdant embrace of Arunachal Pradesh, adorned with an 82 percent forest canopy, an opulent tapestry of aromatic and medicinal flora flourishes. Guided by the Arunachal Pradesh Medicinal and Aromatic Plants Policy 2015, the state envisions unlocking economic sustainability through the profound utilization of this botanical treasure. Harmonizing with this vision, the DBT-APSCS&T CoE for BRSD, Kimin, spearheads the cause through its "Establishment of Aroma Unit for Promotion of Cultivation of Aromatic Crops and Entrepreneurship Development" program. This transformative initiative encompasses facets like awareness, training, mass cultivation, processing, value addition, quality assurance, and the strategic marketing of essential oils. Recognizing the potential to uplift tribal communities and the economically disadvantaged, the program strategically establishes three Aroma Units in Kimin, Namsai, and Pasighat. A standout achievement is witnessed in the commercial success of Lemongrass and Citronella cultivation, starting at 45 acres and poised to expand to an impressive 70 acres within six months. Going beyond cultivation, the initiative catalyzes entrepreneurship by training over 1000 individuals and fostering market connections through the dynamic platform of Buyers-Sellers Meets. Elevating standards further, a first-of-its kind ISO-certified QA/QC lab for essential oils in NER distinguishes the CoE. Embracing a holistic approach, it emerges as a linchpin for aroma crop cultivation and processing, actively contributing to R&D and initiating patent filings for the development of value-added products. This endeavor transcends mere preservation of aromatic plant biodiversity; it propels Arunachal Pradesh into a sphere of economic prosperity and innovation, marking a trailblazing journey into a sustainable and innovative future.

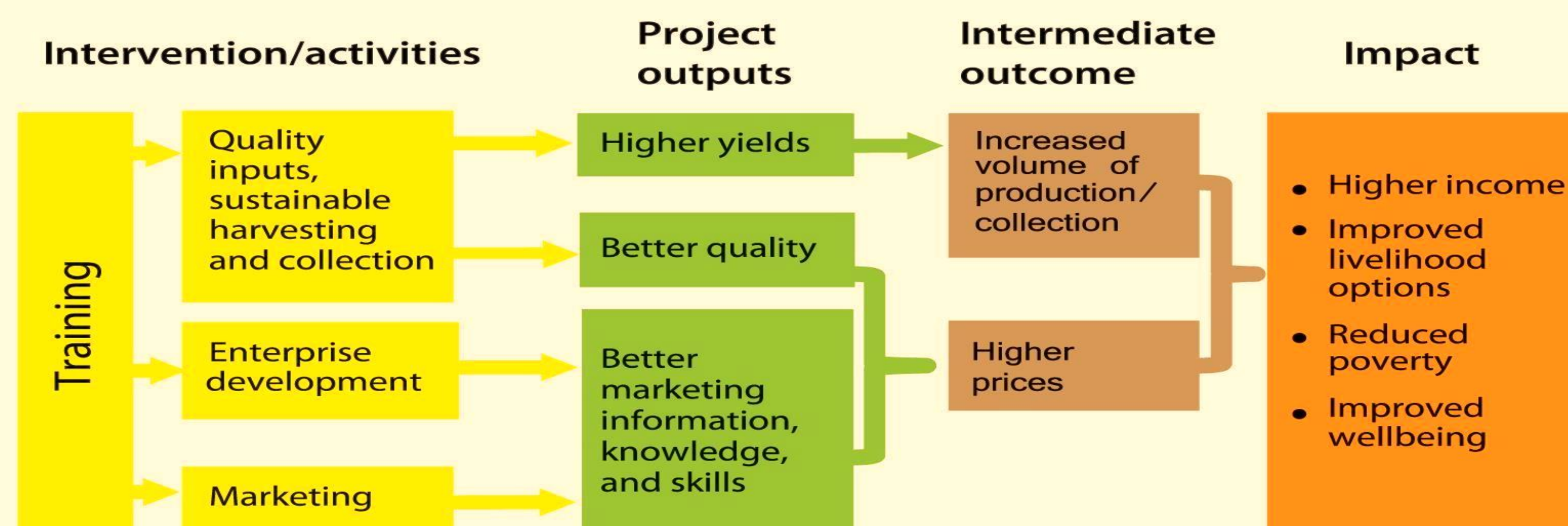
Specific objectives:



The major objectives of the DBT Sanctioned project entitled "ESTABLISHMENT OF AROMA UNIT FOR PROMOTION OF CULTIVATION OF AROMATIC CROPS AND ENTREPRENEURSHIP DEVELOPMENT" are:

- Commercial cultivation of selected aromatic plants in three demonstration areas belonging to three districts (Papum Pare, Namsai, East Siang) of Arunachal Pradesh.
- Installation of aroma processing distillation units at the demonstration areas.
- Training to farmers, SHGs, entrepreneurs on the cultivation of medicinal and aromatic plants and to encourage large scale commercial cultivation of aromatic crops.
- To develop linkages with industries along with buy-back arrangements for marketing of the produce for improvement of the socio-economic status of local populace and create employment through aromatic plant cultivation.

PROJECT OUTLINE



AWARENESS PROGRAMMES AND ToT

- Awareness programme – **10**
- Training of Technicians & Farmers at FFDC, Kannauj and IHT, Noida – **01**
- Training programme at FFDC extension unit at Behrampur, Odisha – **02**
- Total number of beneficiaries – **>2000**
- Total number of districts covered – **03**
- Total number of SHGs – **> 50**
- Total number of villages covered – **>110**



BUYERS-SELLERS MEET



Market linkages have been established with the Essential Oil Association of India, Sugandh Vyapar Sangh, M/S Expo Essential Oil, Northern Aromatics Pvt. Ltd., and all major regional buyers

CULTIVATION AND EXTENSION ACTIVITIES

- **3 Satellite Units**, namely:
Kimin, Papumpare District
Pasighat, East Siang District
Nampong, Namsai District
- 2 crops selected for mass cultivation
- Expansion plan of covering 70 acres of land in next one year



▪ **>45 acre of land covered**
▪ **>550 beneficiaries**

EXTRACTION AND AROMA PROCESSING UNIT

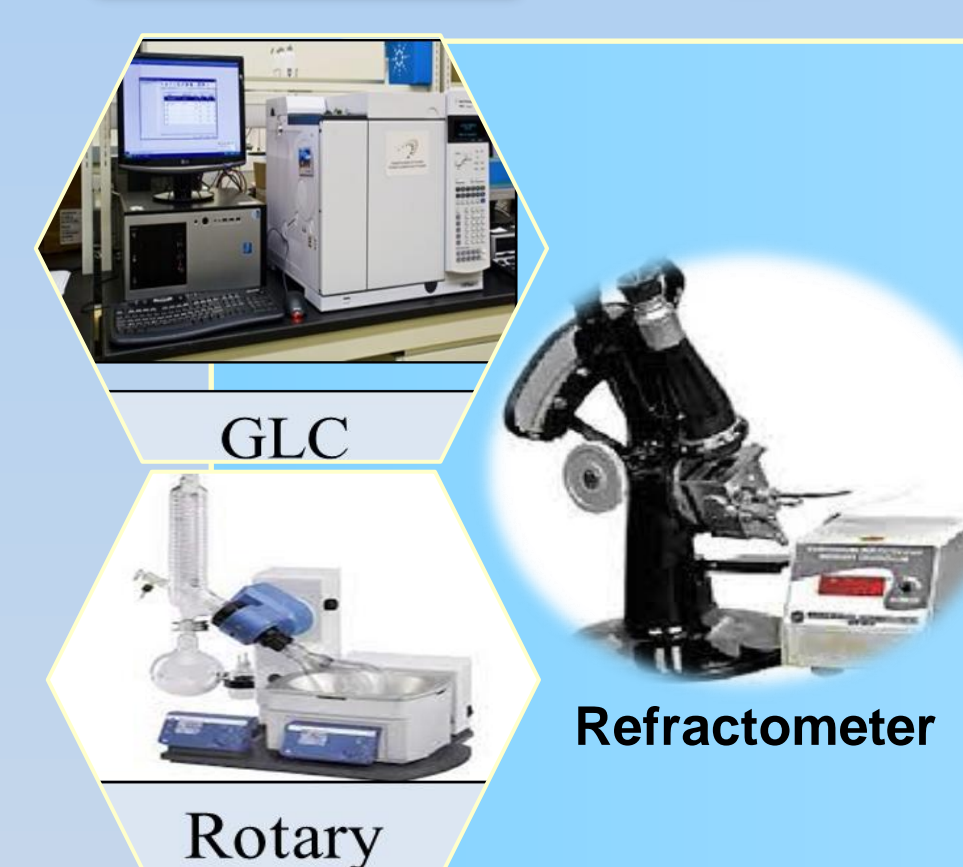
- Established Aroma Processing unit comprising of semi-commercial Solvent extraction unit, Fractional distillation unit, Reaction unit, etc) at DBT-CoE Kimin.
- Isolation of aromatic compounds like Citral, Geraniol, Thymol, etc.
- Production of natural aroma chemicals and their derivatives



QUALITY CONTROL AND QUALITY ASSURANCE

Services provided by the ISO Certified QA/QC LAB AT DBT-APSCS&T CoE for BRSD

- Testing of Essential oils/Aroma chemicals/Isolates/ Crude materials/Floral-waters/Fragrances/Flavours for various analysis as per the scope of ISO.
- Quality testing of disinfectants



RESEARCH & DEVELOPMENT

Developed technologies for low- and high-end applications of essential oil and its value-added products.

Concept of Proof established for:

- Broad spectrum antimicrobials for air germ sterilization.
- Surface disinfectants
- Mosquito Repellents



ASPIRE TO ACT AS NODAL CENTRE OF AROMA IN ARUNACHAL PRADESH

- The CoE is now acting as a nodal centre for Aroma crop cultivation and Processing in the state with the following services: Agrotechnology's, Processing and Value addition, Quality assessment and Quality Control, Training and Consultancy.



Collaborators:

Fragrance & Flavour Development Centre (FFDC) and Institute Of Horticulture Technology (IHT)

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