

# Annual Progress Report

## 2022-23



**SOCIETY FOR TECHNOLOGY & DEVELOPMENT**

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## Activities and follow up action since last meeting.

**1.1** AIPSN online EC meeting on 24<sup>th</sup> September, 2022, Organization presented the report regarding participation in programme viz; 75 year of independence, NEP -2020 and NSTD-22 in collaboration with HGVS. It was resolved to play the active role in livelihood and Rural Technology sector.

**1.2** Meeting with DFO/CCF on Red+ project on forest-based livelihood, on 11<sup>th</sup> October/2022. The organization initiated the dialogue with HP forest department to associate with REDD+ project having thematic area such as Forest, livelihood, wildlife conservation, water resource, clean energy, urban resilience, and waste management. As follow up action a field Visit was made from 18-22 October/2022 at Bageshwar Uttarakhand to oversee the Redd+ project being implemented by UNDP.

### **1.3 Field visit of expert committee members during the on-spot evaluation of core Support under SUNIL Programme on 3<sup>rd</sup>-4<sup>th</sup> Nov, 2023 at Nagwain, Mandi HP.**

The organization presented the progress report on various activities from the last 3 years viz: Development of nutraceutical/functional foods, Technology improvement and Scientific validation of traditional fermented beverages, Design & fabrication of emulsion making unit, Herbal Soaps based on wild apricot oil & natural saponins from soap nut using natural aromatics. S&T Intervention: Chamba Distt Viz: Diversification in to aromatic oils from wild marigold ( *Tagetes minuta* ) Propagation & supply of quality planting material of Lavender ( *Lavedula officinalis* ) & Rosemary and Value added products from Rhododendron flowers followed by field visit to Chamba area. The expert team was satisfied with work being done by the organization and organization requested to extend the project period for next 6 months without any additional cost.



**1.4** The organization participated India International Science Festival 2023 held at Bhopal from 21-23 January, 2023 with focal theme on Livelihood centric technology delivery for reducing multidimensional poverty and building Atamnirbhar Bharat, Mr Hem Raj and Karam Chand participated on behalf of the organization.



**1.5** National Education Assembly at Delhi. The organization participated in the National Education Assembly being organized by AIPSN/BGVS on 30<sup>th</sup> April/2023.



1.6 DST Core/Sunil Programme review meeting/presentation progress made during the last three years and presented new proposal to evaluate the performance of ongoing and completed project and further recommended proposal under Sunil programme on 5-6 June.2023 at Faridabad (Haryana).

1.7 BGVS National Meet at Mandi 10-11 June.2023: The organization collaborated with HGVS Himachal to organize the national meet followed by open session on “Challenge Confronting Education in India.”

1.8 A online meeting was attended which was organized by AIPSN Technology desk on 6<sup>th</sup> July/2023, it was discussed to evolve the collective plan and technology intervention with business model and further decided to hold the workshop in Orrisa to develop and evolve new strategy in rural technology and livelihood and its organization framework.

1.9 AIPSN EC meeting on 7<sup>th</sup> August,2023 at Delhi followed by PSM school.

1.10 National Scientific Temper Day Celebration was celebrated, and our organization joined on line NSTD workshop in which 54 peoples participated from 7 distt of Himachal Pradesh.

### 1. On Going Projects: -

Core Support 2020- till Feb, 2023, the following activities were carried to fulfil the objective of the proposal in Mandi HP and final progress report has been submitted to DST along with audit UC.

**1.1 Development of nutraceutical/functional foods;** Biscuits from nutritionally rich local Vegetables (Spinach & Cauliflower) & apple pomace in combination with flours of wheat & traditional millets. The Fortification of Amaranthus biscuits with Broccoli, Spianch and apple Pomace and Enrichment of fruit drinks such as apple, Mango & Litchi which has viscosity problem with pectin solution from apple pomace were carried out.



**1.2 Technology improvement and Scientific validation of traditional fermented beverages** in Distt. Kullu of H.P. e.g. SUR in Lag Valley. The Work shed construction is completed and necessary **equipment's** procured and installed. The Protocol/process refined and standardized for the same.



Two training were conducted viz;1-2 Aug and 30-31 August on traditional fermented beverage at Pichhlagramang in which 20 people participated



**1.3 Design & fabrication of emulsion making unit** with variable duties (to break & emulsify Aloe vera juice fiber in wild apricot oil) 25 kg Cap. SS made, Unit fabricated at GAK Mohali and Trial demonstrations carried out at Mohali.



**1.4 Herbal Soaps based on wild apricot oil & natural saponins from soap nut** using natural aromatics, Toilet/bath and laundry/washing Soaps standardized and analyzed at PPC-IRTC Core group Lab.) Kerala and Shri Ram Institute for Industrial Research, Delhi (NABL accredited lab.). Found to comply with IS standards.



Women from Salang Village



Women from Tepar Village

Two training were conducted on Herbal soap and Natural moisturizers in which 30 women from SHGs were trained in soap making at Village; Salang and Tepar.

## 2. S&T Intervention: Chamba Distt.

**2.1 Diversification in to aromatic oils** from wild marigold (*Tagetes minuta*). (a) In 2 years, 25 farmers, cultivated in 5 hectares of land. In 2 years distilled about 18 kg of oil. Sold at Rs. 9500/- and Rs. 12000/- per kg. Propagation & supply of quality planting material of Lavender (*Lavedula officinalis*) & Rosemary (*Rosmarinus officinalis*) Raised 34000 cuttings in 5 poly-tunnels and sold 7000 rooted plants to IHBT. Rest growing as mother plants in poly-tunnels.



**2.2 Value added products from Rhododendron flowers:** Established unit and trained Kisan sabha core group. Local Farmers group doing manufacturing and marketing at local level and FSSAI license obtained and sold ab out 2000 bottles in 1st season

## **Project Submitted / Pipeline.**

1. Science Heritage Research Institute (SHRI) on **Millet based livelihood** and awareness in collaboration with IHBT to DST by 31st Jan/2023 and still waited for its approval.
  2. **Women Technology Park** submitted to DST, New Delhi for Utilization of local raw materials/resources and their products through developing and promotion of appropriate technologies for income generation and sustainable livelihood of rural women in DST viz; Indigenous bee keeping, Value added food products, revitalization of traditional millets and their products.
  3. **Core Support under SUNIL Programme presented on 4-5 June, at Faridabad**, "To improve the livelihood of community in Mandi, Kullu and Tribal area of Lahaul and Spiti in Himachal Pradesh through STI interventions and training of community groups to create micro-enterprises" to DST, New Delhi.
  4. **Science Technology Innovation Hub**, "To improve livelihood of SC community in Thata panchayat of Balichowki, Distt- Mandi HP" to DST New Delhi Viz; High Density Plantation, Mud hives beekeeping/pollination, soil testing and blacksmithy technology.
  5. **On Millets products** to Environment and Health Foundation, New Delhi, organization have made linkages to have trial demonstration on millets and its products to carry out the activities in HP,
  6. **On water management in L&S Distt** in collaboration with IIT, Mandi, "Intelligent Water Management for Climate Resilience: A Synergistic Approach for Drought Monitoring, Forecasting, and Nature-Based Solutions" to carry out community mobilization and engagement, group-creation, capacity building, training, orientation and awareness etc.
  7. **Use of Solar Energy in Agriculture in collaboration with IIT, Mandi**, "Implementation of Innovative Renewable Energy Solutions mitigating Climate Change and Energy Poverty, "in 6 Panchayats, District Mandi-Kullu, Himachal Pradesh.
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1. **New Proposal / project to be submitted: -**
    - 1.1 Red+ project in Mandi area with DFO Mandi/UNDP
    - 1.2 Climate resilience (Cookstove) field survey programme in Balichowki area.
    - 1.3 On Pro-biotic (Traditional Beverage)/ NABARD/HP State Council/DST
    - 1.4 On Agri/Horti related Livelihood activities in Jallugram area, Distt-Kullu
    - 1.5 To strengthen forward and Backward linkages in supply chain on medicinal plants through National Medicinal plant Board.