

## **Livelihood of Individuals in Uttarakhand through Microfinance (With Special Reference to Medicinal and Aromatic Plants)**

**Dr. Ritwik Sahai Bisariya<sup>1</sup>, Mohit Gupta<sup>2</sup>**

*Associate Professor<sup>1</sup>, Lecturer<sup>2</sup>  
Faculty of Commerce and Management  
Rama University, Kanpur*

### **Abstract**

This paper deals with enforcing subsistence of people of Uttarakhand through the active participation in cultivating, post harvest management and value addition process of medicinal and aromatic plants (MAPs) through transparent and fair disbursement of micro-credits from MFIs. Uttarakhand is having rich bio-heritage distributed in subtropical, temperate, alpine and cold desert zone. There is robust demand for plant based medicinal and aromatic products across the developing and developed countries of the world. Aim of this study was to review the existing potential of Uttarakhand govt and lacunae that need to be resolved through active participation of MFIs (Micro-financial institutions) like SHGs, NGOs, CBOs, SHPIs and Cooperatives for bringing socially neglected and ignored people (approx. 69% population residing in rural areas) in mainstream of development. Volition taken by Uttarakhand govt for inclusion of poor people residing in rural and urban areas is of great endeavoring efforts.

**Keywords:** NABARD, SHPIs, GSDP, ROA & ROE

### **Introduction:**

Our mother earth is bestowed with approximately 3.95 lacs botanically identified plant species. The ethnobotanical survey indicates that worldwide more than 7200 plant species are cultivated or harvested from wild. The proportion of plants used in the different system of healing is Ayurveda -2000, Siddha- 1300, Unani -1000, Homoeopathy -800, Tibetan- 500, Modern medicines- 200 and folk medicines -4500 plant species. Geographically Uttarakhand is located between 28° 43'-31° 27' N latitude and 77° 34'-81° 02' E longitude. Total geographical area of the state is 53,483 sq. Kms. It is carved up in to 13 districts comprising total 10,086,292 citizens out of which 5,137,773 males and 4,948,519 females. 69.77% population is residing in villages having scarce resources for bearing expanses of education, health, livelihood and socioeconomic elevation. Gross domestic product (GSDP) of the state stood at INR 2,17,609 million with a growth rate of 11.23%.<sup>1</sup> Next to China, India has the highest size of unbanked population in the world. MFIs has been viewed as an effective tool in bringing about financial inclusion and as a crucial tool to alleviate hidden and disclosed poverty. Microfinance is one of the crucial tools to be used intensively along with sustainable approach of exploration of multiple uses of medicinal and aromatic plants.<sup>2</sup> Microfinance offers financial assistance to low income populations residing in rural

and urban areas of any country. Microfinance pledges number of facilities such as loans, insurances, deposits and other services. It is also viewed as an important tool for providing self employment for the low income rural and urban population. Microcredit services are dispersed by formal institution (Rural banks and Cooperatives), semi-formal institutions (NGOs, SHGs, CBO, CIF, SHPIs & MFIs) and informal sources (money lenders and shop keepers).<sup>3</sup> Official website of Uttarakhand State Rural Livelihood Mission keeps the transparent records of different level of beneficiaries. List of eligible SHGs is prepared by PRPs (Professional Resource Persons) on the basis of standard policies. Technology is an important tool for identification of the borrowers and their proper biometric system would negate the chances of manual error.<sup>4</sup> ACCION audits reports on ROA (Return on Assets) and ROE (Return on Equity) gives the financial analysis details of any microfinance institutions. Subsidies provided for these audits. Untapped potential of rich bio-heritage may prove as boon for eradication of their sufferings.<sup>5</sup> The National Bank for Agriculture and Rural Development (NABARD) has initiated efforts to accelerate financing cultivation of medicinal and aromatic plants (MAPs). NABARD is evaluating cost-benefit ratios, preparing list of manufacturers, traders, exporters and establishing linkages in between and among stakeholders and financial

institutions. Uttarakhand has widely distributed biodiversity in four agro-climatic zone such as Sub tropical zone (Plains & Lower hills), temperate zone (Upper hills), Alpine Zone and Cold desert. Vast range of medicinal and aromatic plants are cultivated and financed through central and state govt policies, NGOs, SHGs, Cooperatives and other microcredit sources. These different sources of finance may help in tapping the potential of medicinal and aromatic plants. 6

**Table: 1 Medicinal and Aromatic Plants of four major agro-climatic zones of Uttarakhand**

S . N .	Agro-Climatic Zone	Area	Medicinal and Aromatic Plants
1.	Sub-tropical (plain and lower hills)	Haridwar, Dehradun, gadarpur, Devprayag etc	Asgandh, Shatavar, Baheda, Aonla, Harad, Chamomile, Vetiver, Kalabansa, Peelabansa, Cinnamomum, Bhukamber, Japanese mint, Citronella, Plamarosa, Sandalwood, Geranium, Lemon grass etc
2.	Temperate Zone	Almora, Lohaghat, Munsyari, Pithoragarh etc.	Velleriana, Chirayata, Patharchoor, Ginger lily etc
3.	Alpine Zone	Auli, Kedarnath, Tungnath etc.	Atees, Kutki, Taxus species, Angelica, Rheum etc
4.	Cold desert Zone	Gangotri, Yamunotri, Mana etc	Juniperus species, Seabuckthorn etc.

We need to explore our potential of rich flora so that we may overcome our poverty in sustainable manner. The global market for the medicinal and aromatic plants (MAPs) is estimated to be worth US\$ 900 billion a year. According to WHO, people of developing countries relying up on the herbal medicines for primary healthcare purposes and people of developed countries are also now inclining towards this. Employment generating activity for farmers, tribals and local people (rural and urban) is a milestone that need to be achieved.7 Thirty percent of the drugs sold worldwide contain compounds derived from crude plant materials. In US alone, 0.158 billion people uses complementary medicines for preventive and curative purposes. People of developing and developed countries uses medicinal plants for acute and chronic diseases like Cancer, HIV/ AIDS & Hepatitis etc.8

### Existing Potential of Uttarakhand and Lacunae:

- Uttarakhand has emerged as fast growing state in terms of industry and service sector in the last ten years-ASSOCHAM
- Uttarakhand ranks second and contributes 20-22% in terms of value to essential oils and India ranks third in the world as a major essential oil producer.
- More than 179 unique and highly medicinal and aromatic plants (MAPs) found in Uttarakhand
- Network of 178 distillation units available for primary processing of the aromatic plants. The distillate obtained (essential oil) is highly costly and better returns for the farmers. More the farmers cultivate MAPs more greater the returns. Presently state has 3.66 lakh ha wasteland that can be explored by cultivating resilient crops such as Vetiver zizanoides, Eleusine coracana, Echinocloa colona, Cymbopogon flexuosus, Cymbopogon martini, Boerhavia diffusa, Embelica officinalis, Terminalia chebula and Terminalia belerica. MFIs may contribute significantly in providing free planting materials, training on agro-techniques, post harvest management and value addition activities. These efforts will contribute in average increase in state gross domestic products and finally to GDP of the country.9
- Indian Cassia (Cinnamomum tamala) is first geographically indicated medicinal crop (No. 520) due to its rich secondary metabolite (Cinnamaldehyde) percentage. Other important medicinal and aromatic plants (like Astavarg plants) need to be explored on similar ground.
- More than 7200 ha land is under cultivation of aromatic crops in organized manner through 109 clusters by 18176 registered farmers. The number of registered farmers is very less and need endeavouring efforts for large coverage of hilly areas through MFIs and facilitate microcredit to farmers. Organic cultivation of medicinal and aromatic plants fetches 30-40% more economic returns than conventional methods of farming. National Medicinal Plants Board (NMPB) enforces online marketing of medicinal and aromatic plants through e-Charak portal. NMPB facilitates linkages between producer, middlemen and manufacturer.10

• **Initiatives taken by Uttarakhand Govt:**

- State has implemented ‘Ease of Doing Business’ initiative, it is web based single window clearance system
- Buy back facility for major twenty six aromatic crops.
- For Quality assessment of medicinal and aromatic plants-50% discount on testing (only for registered farmers). 11
- Processing and distillation-Subsidy up to Rs 10 lakh (50% to plain areas and 75% in hill areas). This value addition will fetch higher returns to rural poor people.
- State awareness program-Trainings and technical knowhow provided by state govt on free of cost basis
- Planting material-Provided free of cost for marginal farmers up to 5 Nali. Thereafter the farmers may easily propagate in their farms once they attain Agro-technique training of these crops. 12
- Facility for 50% subsidy(max up to 1 lakh) on key medicinal and aromatic plants such as Aromatic grasses (Lemon grass, Citronella), Rosemary, Costus, Mint, Damask rose and Geranium etc. Minimum support price (MSP) for Damask Rose oil is INR- 500000/Kg, Geranium oil costs around INR-12000/Kg.

**Conclusion:**

Uttarakhand is an emerging state of the country. Biodiversity of Uttarakhand is very rich, distributed across the major four agro-climatic zone such as sub-tropical, temperate, alpine and cold desert zone.13 To promote organic cultivation of medicinal and aromatic plants for better sustainable development and economic returns. Selection of appropriate agro-climatic zone for suitable medicinal and aromatic plants cultivation. Incorporation of large number of farmers in cultivation of medicinal and aromatic plants through microcredit facilities provided from formal, semi-formal and informal sources.14 To attract govt attention towards exploration of highly potent medicinal and aromatic plants having higher resilience (adaptable to different adverse climates). To increase area of cultivation of aromatic and medicinal plants on barren hilly land (3.66 lakh).15 To empower people of Uttarakhand by enforcing organic cultivation, post harvest management, value addition (distillation units), e-marketing of produce,

efficient utilization of limited resources and generates optimum returns through microfinance institutions (NGOs, SHGs, CBO, CIF & SHPIs).16

**References:**

1. Ayurved Saar Sanghra (9th ed.). (2012). Nagpur, MH. : Shree Vaidyanath Ayurved Bhawan.
2. Pandey, M. (2008). Microfinancing : A blessing for the poor. *The Indian Journal of Commerce*, 61(3): 48-52.
3. Bhatnagar, A.(2008). Rural microfinance and microenterprise. New Delhi: Concept Publishing Company.
4. Gupta, M.S.(2008). Microfinance through self-help groups: An emerging horizon for rural development. *Indian Journal of Commerce*, 61(3):36-47.
5. Ayurved ka Praan: Vanaushadhi vigyan (6th ed.). (2006). Mathura, U.P. : Yug Nirman Yojna Press.
6. Parihar, V.S. & Bisariya, R.S.(2016). Microfinance in India. Prayagraj, U.P.: Aranyak Prakashan.
7. Jadi Booti Dwara Swasthya Sanrakshan. (2011). Mathura, U.P.: Yug Nirman Yojna Press.
8. Dhiman, A.K.(2005). Wild Medicinal Plants of India. Dehradun, U.K. :Bishen Singh Mahendra Pal Singh.
9. Joshi, B.P. & Joshi, R.K.(2014). The role of medicinal plants in livelihood improvement in Uttarakhand. *International Journal of Herbal Medicine*, 1(6):55-58.
10. The Wealth of India (Second supplement series, Vol.-1:A-F) . (2010). New Delhi, India : NISCAIR Press.
11. Royal Botanical Garden, Kew.(2017). World Plants Report. Retrieved from:<http://www.kew.org/science/news/state-of-the-world-plants-report-released-by-kew>.
12. Gaur R D (1999). Flora of The District Garhwal North West Himalaya. Transmedia Publication, Srinagar-Uttarakhand. 1999.
13. Kokate, C.K., Purohit, A.P., Gokhale, S.B. (2010). Pharmacognosy (46th ed.). Pune, MH. : Nirali Prakashan.
14. Nath, P. (2014). Evaluation of anthelmintic activity of some medicinal plants used in the folklore medicine system of Rieng tribe in Tripura (Ph. D. thesis). Department of Zoology. Shillong: North Eastern Hill University.
15. Negi, S. S., Srivastava, R. K., Bisht, N.S. (Eds.). (2007, February 28). Medicinal &

Aromatic Plants. Dehradun, U.K. : Shiva Offset Press.

16. Sahu & Tripathy (2005). Self-help groups and women empowerment. New Delhi: Anmol Publications Pvt. Ltd.