

## CULTIVATION OF MEDICINAL PLANTS IN NATURAL ECOSYSTEM IN GUJARAT (INDIA): CONSTRAINTS AND CONSERVATION NEED

\***Vikas Kumar, Sreejith Babu, Amit Kumar Revale, Rajesh Kumar Meena, Manas Kumar Ranjan and B.S. Desai**

\*College of Forestry, Kerala Agricultural University, Thrissur-680656, Kerala

Navsari Agricultural University, Navsari, Gujarat- 396450

\*Email: vkskumar49@gmail.com

**Abstract :** The present paper deals briefly about cultivation of medicinal plant of Gujarat. The number of plant species yielding raw materials used by the industry on regular basis and/or in substantially large quantities is put at around 143 species. Among these, 78 species occur wild in forests or other forms of natural vegetation, 23 species grow as weed, 42 species are grown as cash crop for other plant based products and 22 species are cultivated as medicinal crop. There has been a tremendous increase in the production of herbal medicines and other items in recent years. These include such important sources of raw materials as *Aegle marmelos*, *Commiphora wightii*, *Emblica officinalis*, *Eucalyptus*, *Mentha viridis*, *Terminalia arjuna*, *Terminalia bellirica*, *Terminalia chebula*, *Withania somnifera* and *Zingiber officinalis*. Few efforts have been made to highlight the problems encountered for necessary constraints and conservation need to medicinal plants in this state.

**Keywords:** Medicinal plant, conservation, cultivated, natural vegetation, Gujarat

### REFERENCES

- Anon.** (2002). Medicinal Plants of Gujarat (Draft final report), GEER Fondation Gandhinagar, Gujarat State Forest Department.India.
- Asolkar, L.V. et al.** (1992). Second Supplement to Glossary of Medical Plants. (CSIR) NISCOM. New Delhi.
- Chaudhuri, P.K. and Thakur, R.S.** (1994). *Gloriosa superba*: A review. *curr. Res. Med. Arom. Plants*, **16**(1):51-64.
- Chopra, R.N. et al.** (1956). Glossary of Indian Medicinal Plants, CSIR, New Delhi.
- Chopra, R.N. et al.** (1974). Supplement to Glossary of Indian Medicinal Plants, CSIR, PID, New Delhi.
- Dey, A.C.** (1980). *Indian Medicinal Plants Used in Ayurvedic Preparations*. Bishen Singh, Mahendra Pal Singh, Dehra Dun-**24**(8): 201. 202p.
- Dey, R.B.K.L.** (1984). *The indigenous drugs of India*. International Book Distributors, Dehradun. India. 387p.
- Farnsworth, N.R. and Soejarto, D.D.** (1991). Global importance of medicinal plants. Covservation of medicinal plants (Akerala, D., Heywood, V. and Synoge, H.,eds.). Cambridge University Press, Cambridge, U.K.
- FSI.** (2009). Indian states of Forest Report, pp. 82-85.
- Husain, A.** (1993). *Medicinal Plants and their cultivation*. CIMAP, Lucknow, India. 460p.
- Husain, A.; Virmani, O.P.; Popli, S.P.; Misra, L.N.; Gupta, M.M.; Srivastava, G.N.; Abraham, Z. and Singh, A.K.** (1992). *Dictionary of Indian Medicinal Plants*. CIMAP, Lucknow, India. 546p.
- Jain, S.K.** (1991). *Dictionary of Indian Folk Lore Medicine and Ethno-botany*. Deep Publications, New Delhi.
- Kala, C.P.** (2005). Indigenous uses, population density, and conservation of threatened medicinal plants in protected areas of the Indian Himalayas. *Conservation Biology*, **19**:368-378.
- Kaul, B.H. and Singh, C.** (1995). *Datura*. In Chadha K. L. and Gupta, R. (Ed.). 1995.
- Kaushik, P. and Dhiman, A.K.** (1999). *Medicinal Plants and Raw Drugs of India*. Bishen Singh Mahendra Pal Singh, Dehradun.
- KIT.** (2003). Cultivating a Healthy Enterprise. In *Bulletin 350* Royal Tropical Institute, Amsterdam, The Netherlands.
- KIT.** (2004). Searching Synergy. In *Bulletin 359* Amsterdam: Royal Tropical Institute.
- Kurup, P.N.V.; Ramdas, V.N.K. and Joshi, P.** (1979). *Handbook of Medicinal Plants*. New Delhi.
- Mariappan, V.** (1995). *Neem for the Management of Crop Diseases*. Associated Publishing Company, New Delhi. pp.220.
- Nadkarni, A.K.** (1954). *Indian Materia Medica*, Bombay.
- NRF.** (1998). Nagarjuna Research Foundation. Chengazhuneer Kizhangu. *Express week* dt. 2/5/98.
- Olsen, C.S. and Larsen, H.O.** (2003). Alpine medicinal plant trade and Himalayan mountain livelihood strategies. *The Geographical Journal*, **169**:243.
- Pandey, G.S. and Chunekar, K.C.** (1995). Bhavaprakash Nighantu. Chaukhamba Acad., Varanasi.
- Parmar, B.S. and Ketkar, C.M.** (1993). *Commercialisation*. In *Neem Research and Development* (Randhava, N. S. and Parmar B. S.), SBS publication No.3, Society of Pesticide Science, India. pp 270-283.
- Prajapati, N.D.; Purohit, S.S.; Sharma, A.K.; Kumar, T.** (2003). *A Handbook of Medicinal Plants*. Jodhpur: Agrobios.

- Prakash, K.S.** (1997). Indian Ginseng. *Science Express* dt. 17.06.97, p.8.
- Pushpangadan, P.; Rajasekharan, S. and Biju, S.D.** (1993). *Vep.* (Malayalam). Tropical Botanic Garden and Research Institute, Palode, Kerala. p.64.
- Raghupati, L.** (2001). Conservation and Sustainable use of Medicinal Plants. Cuurent Issues in Himalayan Medicinal Plants. Gyanodya Prakashan, Nainital,India.
- Rajarajan, S.** (1997). The secrets of Bael tree. *Science Express* dt. 8.7.97, p.8.
- Sivarajan, V.V. and Indira, Balachandran.** (1994). *Ayurvedic drugs and their Plant Sources.* Oxford and IBH Pub. Co., p.315.
- Singh, B.M. and Gautam, P.L.** (1997). Bioresources of Medicinal and Aromatic Plants in India, Their conservation and related Issues. Kurukshetra, XLVI (3): 9-13.
- Syamala, B.** (1997). Asparagus- An antacid and uterine tonic. *Science Express* dt. 1.7. p-8.
- Tewari, D.N.** (1992). *Monograph on Neem (Azadirachta indica A. Juss).* International Book Distributors, Dehra Dun, India.
- Uma Devi.** (1988). Identification and status survey of medicinal plants of Gujarat, Ph.D. the submitted to Dept. Of Biosciences, South Gujarat University, Surat, Gujarat, India.
- Warrier, P.K.; Nambiar, V.P.K. and Ramankutty, C.** (1993). *Indian Medicinal Plants.* Vol. 1. Orient BlackSwan, Universities press, Madras.
- Warrier, P.K.; Nambiar, V.P.K. and Ramankutty, C.** (1995). *Indian Medicinal Plants.* Vol. 3. Orient BlackSwan, Universities press, Madras.