

Market Potential for Herbal Medicine in India

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ABSTRACT

The Indian Systems of Medicine consisting of Ayurveda, Siddha, Unani and Homoeopathy, and the therapies such as yoga and naturopathy are gaining world-wide recognition and acceptance. In African countries majority of the population use traditional medicines to help meet their health care needs. Even in China, traditional medicine accounts for around 40 per cent of all health care services. In some developing countries, traditional medicine is much more widely available than allopathic medicines. Though, India has drafted a National Policy on Indian Systems of Medicines in 2001, however, Indian Traditional Medicines Systems remained disorganized and unregulated despite of the system dating back to centuries. Traditional medicine industry has a huge market potential but the approach towards it is outdated. Its practitioners are secretive as they feel scared about someone else challenging their knowledge. They have joined the commercial bandwagon but are not very forthcoming to scientific changes. Moreover, much of the ancient traditional medicine systems have lost their originality and authenticity due to lack of interest among its practitioners. These practitioners overexploit medicinal plant resources which have led to the virtual decimation of several species. Government is expending huge amount on allopathic medicines but the same is lacking for traditional medicines. Against this back drop, present paper purports to assess the market potential of herbal medicines in India.

Introduction

Indian System of Medicine comprises of six different systems: Ayurveda, Siddha, Unani, Yoga, Naturopathy and Homoeopathy. Homoeopathy is a German origin, however, it has wide acceptance in India. Similarly, Unani is of Greece origin and came to India in medieval time. Naturopathy has some elements of non-Indian origin. However, Ayurveda, Siddha and Yoga are indigenous systems of medicine. These systems have the potential to make a significant contribution to the health care of the common people but their true potential is still largely unrealized, despite a large and well-dispersed infrastructure. While there are significant differences among the Indian System of Medicines, but some important commonalities exist in basic approaches

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and fundamentals between Ayurveda, Siddha, Unani, Yoga and Naturopathy. The underlying similarities are as follows:

- All the systems adopt a holistic approach, attempting to treat the patients as a whole rather than the affected organs.
- The systems are more life-oriented than the disease oriented.
- All of them emphasize promotive and preventive aspects.
- All of them believe that disease is a consequence of disharmony between man and nature that disturbed the balance between bio factors/humors.
- All systems are natural substances, predominantly herbal preparations used as nutritional supplements rather than drugs.
- All systems emphasize appropriate diet.
- Ayurveda, Siddha and Unani rely to a great extent on pulse reading for diagnosis.

Ayurveda is more popular in Kerala, Himachal Pradesh, Gujarat, Karnataka, Madhya Pradesh, Rajasthan and Orissa. Unani has a greater following in Andhra Pradesh, Karnataka, Tamil Nadu, Bihar, Maharashtra, Madhya Pradesh, Uttar Pradesh, Delhi and Rajasthan. Homoeopathy is widely practiced in Uttar Pradesh, Kerala, West Bengal, Orissa, Andhra Pradesh, Maharashtra, Punjab, Tamil Nadu, Bihar, Gujarat and North Eastern States. Indian System of Medicines can make a major contribution to health care in the following areas (Singh, 2006):

- In the changing demographics and epidemiological scenario longevity has increased and people are more vulnerable to chronic ailments requiring long-term and expensive therapies unaffordable by poor communities. ISM can fill this critical gap and may provide safe and cost-effective treatment to the common man.
- The epidemiological transition has increased the burden of non-communicable diseases thus; promotive and preventive health care systems need to be promoted to deal with this new challenge.
- ISM may contribute significantly to the public health care facilities particularly in the backward areas and marginalized and deprived communities.
- ISM may provide leads to the discovery of safer and more effective drugs to support the human battle against diseases like cancer, HIV/AIDS, cardiovascular, respiratory diseases and diabetes, etc.
- ISM provide a wide range of rich cultural heritage and a wide range of remedies which may attract foreign tourists provided that well being tourism is supported and promoted by government.

- ISM could provide a growing market for exports with the rising demand for complementary alternative medicines and herbal products to the pharmaceutical industry of the globe.

Traditional Systems of Healing

Traditional medicine have got official recognition in many nations, however, there is no policy to regulate it. In Africa, upto 80 per cent of the population uses traditional medicines to help meet their health needs. Even in China, traditional medicine accounts for around 40 per cent of all health care services delivered. Traditional Chinese medicinal system is a system with rich cultural heritage, natural drug, massage, acupuncture, and meditation. Strict quality control for raw materials and standard methods of preparation augment the growth and promotion of system along with popularity. Global market for traditional Chinese medicines was reported to be \$ 23.2 million in 2002. However, India, Pakistan and several other Asian countries have to make such substantial endeavors. India has rich biodiversity and has quite good relevance in the present context of changing pattern of diseases and resistant strains, side effects of modern drugs and emergence of changing lifestyle related diseases. However, rural people in India use traditional medicines only for small proportion of illness, despite renewed interest and approved infrastructure. Uses of traditional medicines are higher in states like Kerala, Maharashtra and Haryana. Medicinal and aromatic plants derived medicines, essential oils and products worth of \$ 72 billion worldwide. According to WHO's estimates, the projected demand for medicinal plants alone by the year 2050 would be \$ 5 trillion. However, the domestic market of Indian System of Medicine and Homoeopathy is of the order of Rs. 4000 crores of which Ayurveda drug market alone is about Rs. 3500 crores. India's total exports earnings from crude drugs, herbal extracts and finished products stand at meager Rs. 800 crores. Though, medicinal and aromatic plants have been known and used since ancient times to heal and cure diseases, recently technological achievements and validation of traditional knowledge and uses are leading to consumers inclination towards naturals and high market and value for these crops. Such crops in India now covering an area of nearly about 0.4 million hectares, though the country has rich biodiversity and 16 climatic zones suitable for different species of medicinal and aromatic plants.

Marketing of Herbal Medicines

In the last few decades there has been worldwide revival on the use of herbal drugs for the diverse purpose including medicinal, nutritional and as cosmetic. The revival of interest in natural drugs and the herbal products started in the last decade mainly because of the widespread belief that 'green'

product is healthier than synthetic products. This has led to the rapid spurt of demand for health products like herbal tea, ginseng and such products of traditional medicine during the 1980s. The health promotion and disease prevention strategy in treatment is widely prevalent in oriental systems, especially the Indian System of Medicine and the Chinese System of medicine are finding increasing popularity and acceptance in the world over. Because of this sweeping 'green wave' a large number of herbal drugs and the plant derived herbal products are sold in the health food shops all over the developed countries.

The global herbal medicine is about US\$ 90 billion which is growing at the rate of 10-15 percent annually and is expected to cross 5 trillion US\$ by 2030. The Indian share of the herbal World market is less than 2 percent, India set the target to export of herbal drugs/products worth of Rs. 10,000 corers by 2010 (Agarwal, 2005). These targets can be achieved by providing scientifically validated, safe and standardized herbal products in domestic and international markets. Further, by rediscovery of the connection between plants and health for launching a new generation of botanical therapeutics that includes plant-derived pharmaceuticals, multi-component botanical drugs, dietary supplements, functional foods and plant-produced recombinant proteins. Many of these products will soon complement conventional pharmaceuticals in the treatment, prevention and diagnosis of diseases, while at the same time adding value to agriculture. Most of the herbal drugs produced currently in the developing countries generally lack proper quality specification and standards and therefore, have no consistency in quality in batch to batch products. Most of these drugs do not have well defined and characterized composition. The traditional medicines used to be an individual based treatment regime wherein the traditional physicians used handpicked plant materials to prepare drugs / formulations to treat their patients (Rawat, 2006). Over 80 per cent of the raw material required for traditional medicines/ herbal medicines used to be collected from wild resources. With the increase in demand of medicinal plants for the commercial herbal medicine sector led to the indiscriminate and unscientific collection without any consideration for the quality of the material collected. Lack of societal support and encouragement the orally transmitted expertise in collecting the quality plant material suffered great setback and even loss of such knowledge system during the course of last 100 years. It has caused extensive erosion and corrosion in the traditional wisdom, knowledge and practice of particularly medicinal plant collection (Rawat, 2006). Herbal products may contain a single herb or combinations of several different herbs believed to have complementary and/ or synergistic effects. Some herbal products, including many traditional medicine formulations, also include animal products and minerals (Rotblatt and Ziment, 2002). Herbal products

are sold as either raw plants or extracts of portions of the plant. Extraction involves boiling or percolating the herb in water, alcohol, or other solvents to release biologically active constituents of the plant. These liquid extracts may then be heated or dried to create more concentrated liquids, pastes, or powders. Both the raw herb and the extract contain complicated mixtures of organic chemicals, which may include fatty acids, sterols, alkaloids, flavonoids, glycosides, saponins, tannins, and terpenes (Rotblatt and Ziment, 2002).

The global market for herbal medicines currently stands at over \$60 billion annually. The sale of herbal medicines is expected to get higher at 6.4 percent an average annual growth rate (Inamdar *et al.*, 2008). According to World Health Organization, herbal medicines are lucrative globally and they represent a market value of about US\$ 43 billion a year (Christie, 2001). According to an estimate in 1991, the herbal medicine market in the European countries was about \$ 6 billion, with Germany accounting for \$ 3 billion, France \$ 1.6 billion and Italy \$ 0.6 billion while in other countries was 0.8 billion. In 1996, the herbal medicine market in the European countries was about \$ 10 billion, in USA about \$ 4 billion, in India about \$ 1.0 billion and in other countries was \$ 5.0 billion (Prajapati *et al.*, 2003). In 1997, the European market alone reached about \$ 7.0 billion. The German market corresponds to about 50 percent of the European market, about \$ 3.5 billion. This market is followed by France, \$ 1.8 billion; Italy, \$ 700 million; the United Kingdom, \$ 400 million; Spain, \$300 million; the Netherlands, about \$ 100 million (Calitxto, 2000). The annual turnover of the Indian herbal medicinal industry is about Rs. 2,300 crore as against the pharmaceutical industry's turnover of Rs. 14,500 crores with a growth rate of 15 percent (Krishnan, 1998). The export of medicinal plants and herbs from India has been quite substantial in the last few years. India is the second largest producer of castor seeds in the world, producing about 1,25,000 tonnes per annum. The major pharmaceuticals exported from India in the recent years are isabgol, opium alkaloids, senna derivatives, vinca extract, cinchona alkaloids, ipecac root alkaloids, solasodine, Diosgenine/16DPA, Menthol, gudmar herb, mehdi leaves, papian, rauwolfia guar gum, Jasmine oil, agar wood oil, sandal wood oil, etc (Kakate *et al.*, 2005). The turnover of herbal medicines in India as over-the-counter products, ethical and classical formulations and home remedies of traditional systems of medicine is about \$ one billion and export of herbal crude extract is about \$ 80 million (Kamboj, 2000). The herbal drug market in India is about \$1 billion. In India, It is estimated that there are about 25,000 licensed pharmacy of Indian system of medicine. Presently, about 1000 single drugs and about 3000 compound formulations are registered. Herbal industry in India uses about 8000 medicinal plants. From about 8000 drug manufactures in India, there are however not more than 25 manufactures that can be classified as

large scale manufactures (Sharma, 2008). The annual turnover of Indian herbal industry was estimated around US \$ 300 million in Ayurvedic and Unani medicine was about US \$ 27.7 million. In 1998-1999 again went upto US \$ 31.7 million and in 1999-2000 of the total turnover was US \$ 48.9 million of Ayurvedic and herbal products. Export of herbal drugs in India is around \$ 80 million (Anonymous, 1996).

The wide spread use of herbal medicine is not restricted to developing countries. The market is growing in India as well. Herbal medicines are popular among the patient with chronic diseases. Realizing the importance of quality raw material and prevalence of spurious raw material in herbal drug market, there is an urgent need for developing pharmacognostical parameter for the identification of substitutes of adulterants. In order to meet out the great demand of the botanicals for producing standardized and quality herbal drugs/products and to promote the export of Auyrvedic medicine, it is essential to maintain the quality of herbs used for the preparation of these products. It is imperative to provide skill training and education for development of human resources in Indian System of Medicine besides strengthening of regulatory system for manufacturing and marketing of herbal drugs/ medicines.

Suggestions

- Networking, integration and mainstreaming of ISM&H institutions and practitioners with modern systems of medicine is required so that people have access to a complimentary system of care.
- In order to provide adequate skill training and boosting morale to practice Indian System of Medicine and participate in national programmes, strengthening of ISM & H educational institutions is the need of hour.
- Conservation, preservation, promotion, cultivation, collection and processing of medicinal and aromatic plants and herbs is required to meet the growing demand of ISM & H drugs.
- Ensuring quality control of drugs and their sustainable availability at an affordable cost should be ensured. A complete pharmacopoeia of all the systems of ISM & H and drawing up a list of essential drugs and ensuring their availability is imperatively needed.
- The course syllabi and curriculum should be revised and updated keeping in mind the potential of employment in the industry growing and wake of LPG and ISM & H services.
- A system for accreditation for ISM and H should be developed so that the performance, benchmarking, and productivity of educational and academic institutions may be measured on a periodical basis.

- Norms, procedures, principles and models should be evolved in order to ensure uniform standards of education, skill training, research and practice of ISM & H. A concerted effort by the governments at the national, state and local level is required in this regard.
- NGO's CBO's and local bodies should be strengthened and extended financial support for increasing area under medicinal and aromatic plantation, providing health education, drug distribution and improving environmental and sanitary conditions at the community level.
- More emphasis is required for conservation, preservation and sustainable harvesting of medicinal and aromatic plants, as well as encouraging NGO's to take up the task of improving awareness and increasing availability of quality plants, herbs, through promoting 'kitchen gardens' or 'garden of healing' in the community.
- Traditional knowledge digital library be established in each system of Indian medicine so that information and knowledge regarding identification, harvesting and sustainable use of medicinal plant resources as well as principles, fundamentals and systems of treatment may be preserved, retrieved and disseminated.
- The existing pharmacies, laboratories, dispensaries, hospitals and manufacturing houses should be modernized and strengthened to cope up with the changing environment and needs.
- In order to meet out the great demand of the herbs for producing standardized and quality herbal drugs/products and to promote the export of Ayurvedic medicine, it is essential to maintain the quality of herbs used for the preparation of these products.

References

- Agarwal A. (2005), Current Issues in Quality Control of Natural Products. *Pharma Times*. 37(6): 9-11. (June).
- Rotblatt M, Ziment I. (2002), *Evidence-Based Herbal Medicine*. Philadelphia, Pennsylvania: Hanley & Belfus, Inc.
- Rawat, A. K. (2006), Quality Control, Standardization & Development of Scientifically validated Herbal Formulations/Drugs, paper presented in the National Seminar on Indian System of Medicine and Dynamics of Life Style , Organized by Shristi, Ananya Institute for Development Research and Social Action and Regional Centre for Urban and Environmental Studies, Lucknow on June 10-11.
- Singh A. K. (2006), Theme paper on Indian System of Medicine and Dynamics of Life Style, National Seminar Organized by Shristi , Ananya Institute for Development Research and Social Action , and Regional Centre for Urban and Environmental Studies, Lucknow on June 10-11.

- Sharma, Alok *et al.* (2008) Herbal Medicine for Market Potential in India: An Overview, Academic Journal of Plant Sciences 1 (2): 26-36.
- Kamboj, V.P., (2000), Herbal Medicine, Current Science, 78 (1): 35-39.
- Krishnan, R., (1998), Indian Drug Manufactured Association Bulletin, 13: 318-320.
- Kokate, C.K., *et al.* (2005), Pharmacognosy. Nirali Prakashan, 30th Edn.
- Prajapati, N. D. *et al.* (2003), Handbook of Medicinal Plants Agrobios, India.
- Anonymous, (1996), Sectoral Study an Indian Medicinal Plants-Status, Perspective and Strategy for Growth, Biotech Consortium India Ltd., New Delhi.
- Inamdar, N. *et al.* (2008), Herbal Drugs in Milieu of Modern Drugs. Int. J. Green Pharm., 2 (1): 2-8.
- Calixto, J.B., (2000), Efficacy, Safety, Quality Control, Marketing and Regulatory Guidelines for Herbal Medicines (Phytotherapeutic Agents). Braz. J. Med. Biol. Res., 33 (2): 179-189.
- Christie, A., (2001), Herbs for Health, But How Safe Are They, Bulletin of the World Health Organization, 79 (7): 691-92.