

CURRENT SCENARIO OF HERBAL MEDICINES & FUTURE PROSPECTUS

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ABSTRACT

Herbal Medicine and Ayurveda is a medical system primarily practised in India that has been known for nearly 5000 years. It includes diet and herbal remedies, while emphasizing the body, mind and spirit in disease prevention and treatment. More than 70% of India's 1.1 billion population still use these non-allopathic systems of medicine. Currently, there is no separate category of herbal drugs or dietary supplements, as per the Indian Drugs Act. However, there is a vast experiential-evidence base for many of the natural drugs.

KEYWORDS: Indian medicinal plant, Ayurveda, Traditional medicine, Herbal Medicine.

INTRODUCTION

India's Medicinal system comprises of Ayurveda, Siddha, Unani and Homeopathy Consuming about 6000-7000 medicinal plant species, nearly about 35-40% of the Total medicinal plant population.^[1] Natural plant products have a significant impact on Countries foreign exchange earnings through export of raw material and Industrial Herbal products, formulations etc. Several Plants and their formulated products has a Tremendous demand in developed foreign market exempling Opium poppy, tropane Alkaloid-bearing plants, sapogenin bearing yams, senna, cinchona etc. India Estimated about 860 billion worth export of herbal raw material and formulated Drugs to various developed countries.^[2]

Table 1: Medicinal Plants with priorities commercial value.^[6]

Sr.	Plant	Common name
1	Plantago ovata	Isabgol
2	Bacopa manner	Brahmi
3	Centella asiatica	Mandukaparni
4	Withania somnifera	Ashwagandha
5	Andrographis paniculata	Kalmegh
6	Swertia chirata	Chirata
7	Tinospora cordifolia	Guduchi
8	Emblca officinalis	Amla
9	Commiphora wightii	Guggul
10	Phyllanthus amarus	Bhumyamalaki
11	Podophyllum	Papra
12	Asparagus racemosus	Shatavari
13	Picrorhiza kurroa	Kutki
14	Streblus asper	Shakhotaka

History

➤ Indian traditional medicine

Ayurveda is a medical system primarily practised in India. that has been known for Nearly 5000 years. It includes diet and herbal remedies, while emphasizing the body, Mind and spirit in disease prevention and treatment.^[3]

➤ Japanese traditional medicine

Many herbal remedies found their way from China into the Japanese systems of traditional healing. Herbs native to Japan were classified in the first pharmacopoeia of Japanese traditional medicine in the ninth century.^[4]

➤ Traditional Chinese medicine

Traditional Chinese medicine is still in common use in China. More than half the Population regularly uses traditional remedies, with the highest prevalence of use in rural areas. About 5000 traditional remedies are available in China; they account for approxi-mately one fifth of the entire Chinese pharmaceutical market.^[5]

Current Scenario of Herbal Industry

According to the Ministry of AYUSH, Exports of all AYUSH components and Herbal Products has seen a 27% growth during 2021 as compared to the previous Financial year. In contrast, Imports grew about 28% during the same financial year.^[6] Ministry of AYUSH also informed about export of AYUSH and herbal Products in the financial year 2020- 21 to be as \$539.57million as compared to \$425.80 million in 2019-20. Among the states Gujarat came out as the highest Exporter of AYUSH and herbal components in 2020-21 with a

32.3% growth than The 2019- 20(\$189.59 million) resulting in an escalated exporting value of \$246.78 Million. Maharashtra came second with \$71.82 million export growing at a 14.1% Rate as compared to \$62.93

million in 2019-20. Rajasthan with third largest export Of \$55.19 million with a growing rate of 61.5% as compared to the previous year's Export around \$34.17 million.^[7]

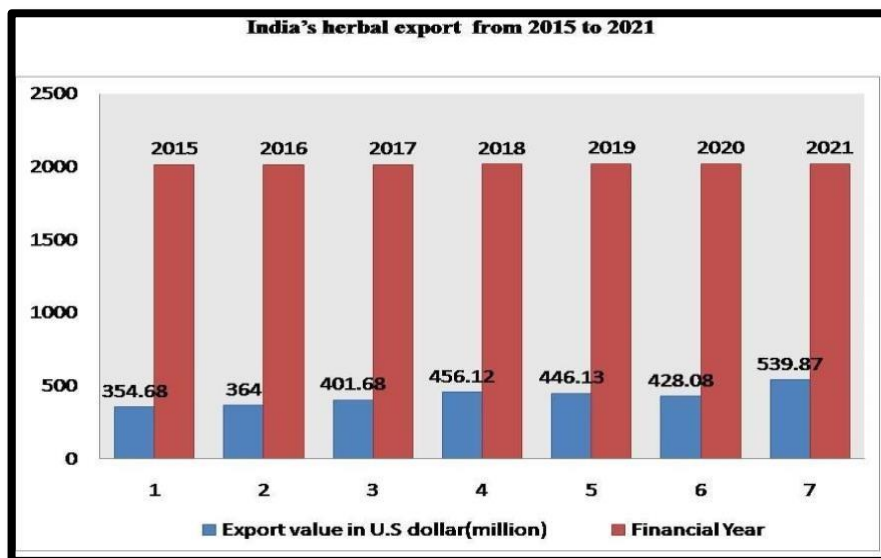


Figure 1: Herbal Export of India from 2015-21.^[19]

Why People Use Herbal Medicine

The earliest evidence of human's use of plant for healing dates back to the Neanderthal period. Herbal medicinal is now being used by an increasing number of patients who typically do not report to their clinicians concomitant use. Often cited is a "sense of control, a mental comfort from taking action," which helps explain why many people taking herbs have diseases that are chronic or incurable viz. diabetes, cancer, arthritis or AIDS. In such situations, they often believe that conventional medicine has failed them. When patients use home remedies for acute, often self-limiting conditions, such as cold, sore throat, or bee sting, it is often because professional care is not immediately available, too inconvenient, costly or time-consuming.^[8,9,10] Natural plant products are perceived to be healthier than manufactured medicine. Additional, report of adverse effect of conventional medications are found in the lay press at a much higher rate than reports of herbal toxicities, in part because mechanisms to track adverse effect exist for conventional medicines whereas such data for self treatment is harder to ascertain. Even physicians often dismiss herb as harmless placebos.^[11,12]

Regulation and Standard of Herbal Medicine

The use of plants, parts of plants and isolated phytochemicals for the prevention and treatment of various health ailments has been in practice from time immemorial. It is estimated that about 25% of the drugs prescribed worldwide are derived from plants and 121 such active compounds are in use. Of the total 252 drugs in WHO's essential medicine list, 11% is exclusively of plant origin. Nearly 80% of African and Asian population depends on traditional medicines for their primary

healthcare. In India, about 80% of the rural population uses medicinal herbs or indigenous systems of medicine. About 960 plant species are used by the Indian herbal industry of which 178 are of high volume exceeding 100 metric tonnes a year. Indian herbal market is registering a significant growth and is likely to reach Rs 145,000 million by 2012 and exports to Rs 90,000 million with a CAGR of 20% and 25% respectively.^[13]

Safety Issue of Herbal Medicines

Traditional herbal products are heterogeneous in nature. They impose a number of challenges to qualify control, quality assurance and the regulatory process. Most herbal products on the market today have not been subjected to drug approval process to demonstrate their safety and effectiveness. Some of them contain mercury, lead, arsenic and corticosteroids and poisonous organic substances in harmful amount. Hepatic failure and even death following ingestion of herbal medicine have been reported. A prospective study shows that 25% of the corneal ulcer in Tanzania and 26% of the childhood blindness in Nigeria and Malawi were associated with the use of traditional eye medicine. Side effect of some medicinal plant is currently reviewed.^[14, 15]

Present Status of Herbal Medicine

The penicillin that replaced mercury in the treatment of syphilis and put an end to so many of the deadly epidemics comes from plant mold. Belladonna still provides the chemical used in ophthalmological preparations and in antiseptics used to treat gastrointestinal disorders. Rauwolfia serpentina (The Indian snake root) which has active ingredient, reserpine, was the basic constituent of a variety of tranquilizer first

used in the 1950's to treat certain types of emotional and mental problems. Though reserpine is seldom used today for this purpose, its discovery was a breakthrough in the treatment of mental illness. It is also the principal ingredient in a number of modern pharmaceutical preparations for treating hypertension. But reserpine can have a serious side effect-severe depression. On the other hand tea made of *R.serpentina* has been used in India as a sedative for thousand of years.^[16]

Problems to be Solved Before Herbal Medicine Become Mainstream

Major challenge that must be overcome before herbs can join mainstream medicine is the quality of the literature in the field. Books, pamphlets, journals, and especially these days the Internet are filled with misinformation, much of it written to sell product, some of it written to express a point of view based on hope, not fact, or on misinformation. Most sites merely list herbs and their uses few mention regulation, safety, or efficacy. Even an herb with well-recognized toxicities, such as ephedra may have no cautionary statement.^[17]

Another problem is that clinicians working with herbal products are still relatively unfamiliar with them often do not realize the necessity of adequate dosage from definition in the published papers. Many erroneous and unreproducible results have appeared in the medical literature because the clinicians accept at face value the quality of an herb that was adulterated, misidentified. In addition, they often fail to identify specifically, that is by scientific name, the botanicals in the product tested, as well as the precise dosage administered.^[18,20]

Conclusion and Future Prospects

In India more than 70% of the population use herbal drugs for their health. There is a vast experience-based evidence for many of these drugs. There are also a number of Institutes/Universities in India carrying out research on herbal drugs and medicinal plants. Determining the biological (activity) properties of plants used in traditional medicine is helpful. Therefore, these scientific investigations may be utilized to develop drugs for these diseases. Further research is deserved to isolate the compounds responsible for the observed biological activity.

Finally, doctors should monitor the perceived benefits and adverse effect of self prescribed herbal treatments consumed by their patients, and bears in mind the possibility of herb-drug interactions. The public should be better protected and informed on herbal medicine, and doctors should take an active part in this process.

REFERENCES

1. Cordell GA. Sustainable medicines and global health care. *Planta. Medica*, Jul., 2011; 77(11): 1129-38.
2. Bhat MH, Jain AK, Fayaz M. Indian herbal drug industry: challenges and Future prospects. *Plant and*

- Human Health, 2018; 1: 657-73.
3. Morgan, K. (2002) *Medicine of the Gods: Basic Principles of Ayurvedic Medicine* [<http://www.compulink.co.uk/mandrake/ayurveda.html>].
4. Saito, H. Regulation of herbal medicines in Japan. *Pharmacol. Regul.*, 2000; 41: 515-519.
5. Kraft, K. Herbal medicine products and drug law. *Forsch. Komplementärmed.*, 1999; 6: 19-23. Li, L. [Opportunity and challenge of traditional Chinese medicine in face of the entrance To WTO (World Trade Organization)]. *Chin. Inform. Trad. Chin. Med.*, 2000; 7: 7-8. (in Chinese).
6. Exim Bank.1997 (Export Import Bank of India 1997) Cited 2022 July 22. <https://www.eximbankindia.in/organisation> Development and Overseas Development Institute, London.
7. <http://www.pharmabiz.com/NewsDetails.aspx?aid=144742&sid=1>
8. Winslow LC and Kroll DJ. Herbs as medicine. *Arch Intern Med.*, 1998; 158: 2192-9.
9. Miller LG. Herbal Medicinals: selected clinical Considerations focusing on known or potential drug-herb Interactions. *Arch Intern Med.*, 1998; 158: 2200-11.
10. Mudur G. Mandatory rural practice proposed in India. *BMJ*, 1995; 311: 1186.
11. Mudur G. Panel defends India's traditional doctors. *BMJ*, 1997; 314: 1573.
12. Gesler WM. Therapeutic landscape: medicinal issue in light of the new cultural geography. *Soc Sci Med.*, 1992; 34: 735-46.
13. <https://www.sciencedirect.com/science/article/abs/pii/S0367326X10000511>.
14. Kew J, Morris C, Aihic A. et al. Arsenic and mercury intoxication due to Indian ethnic remedies. *BMJ*, 1993; 306: 506-7.
15. Chattopadhyay MK. Herbal medicines. *Current Science*, 1996; 71: 5.
16. Dwyer J and Rattray D. Anonymous. *Plant, People and Medicine*. In *Magic and Medicine of Plant*. Reader's Digest general book, 1993; 48-73.
17. Tyler VE. *Phytomedicine: Back to the Future*. *J Nat Prod*, 1999; 62: 1589-1592.
18. Schuppan D, Jia JD, Brinkhaus B, et al. Herbal product for Liver diseases: A therapeutic challenge for the new millennium. *Hepatology*, 1999; 30: 1099-104.
19. *ayurvedic-and-herbal products-India/ DOCIAS, Department of Commerce(India)@ Statista* 2022. Accessed on 2022 July 20.
20. Winslow LC and Kroll DJ. Herbs as medicine. *Arch Intern Med.*, 1998; 158: 2192- 9.