



## Unity in diversity – the curious case of Ethnomedicine

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The skyrocketing popularity of the word “Traditional Medicine” or medicinal herbs in recent time has taken many of us surprised, thanks to COVID-19. It is due to the apparent lack of the effective standardized biomedical remedy, medical practitioners emphasize on maintaining healthy lifestyle, balanced diet and strengthening the immunity. It is this popularly termed “immunity strengthening activity” where traditional healthcare formulations hop in. We are relentlessly feeding with information on the utility of *Haldi*, *Adrak*, *Aonla*, *Tulsi*, to increase our immunity and fighting power against this newly introduced foe in our life. This alternative form of healthcare is based on age-old human interaction with nature and natural resources which in course of time becomes the foundation for traditional medicine. The world of traditional medicine is fascinatingly diverse with varied resources, practices, philosophy and cultural-religious believes. Across the continents, traditional medicine stemmed from the indigenous people and diversified as the time passed by. Let us concentrate on India.

The scholastic discourse on traditional medicine in India has divided the discipline into two parts codified and non-codified. In simpler terms, the codified forms are those with written documentation on medicine practices including resource for the medicine, procedure for dosage preparation, type of ailments treated, treatment procedure and other relevant details. The widely known Ayurveda, Unani, Siddha and Homoeopathy belong to this category. The advantage and wide acceptance of these procedures lie on factors like having standard documentation, definite treatment procedure and testimonials of beneficiaries from time immemorial. Moreover, these procedures are closely associated with mainstream Indian society since old time, securing financial and philosophical support from King’s/Sultan’s courts therefore, always under continuous evaluation, exchange of ideas and dissemination of knowledge.

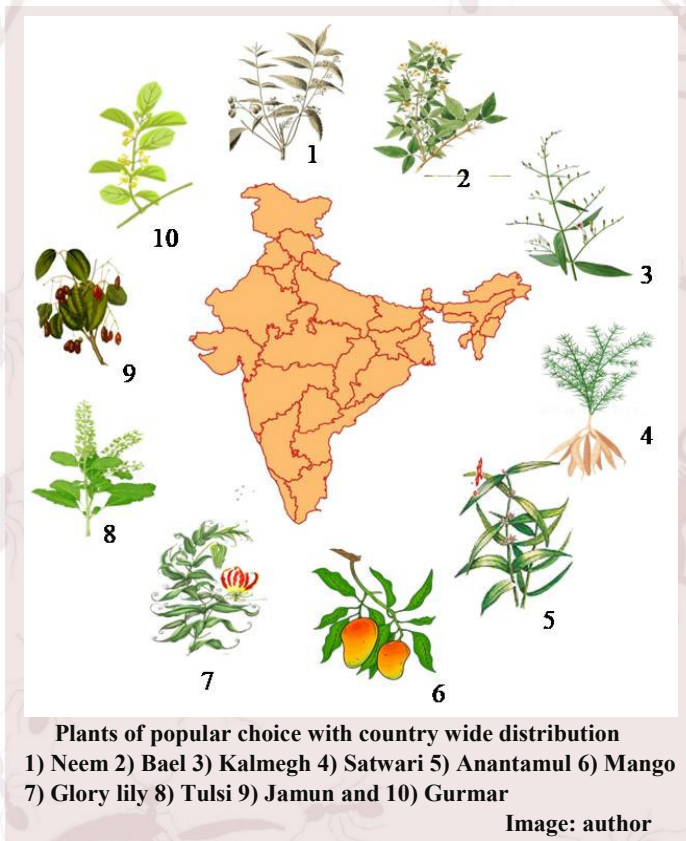
In contrast, the scenario is very different for non-codified system. Non-codified system refers to popular home based remedies or practiced by experienced healers (other than the codified system practitioners). The common term could be folk medicine, local health tradition, tribal medicine or more popularly ethnomedicine. There is no definite guidebook associated with it,

as it is entirely dependent on local environment, wisdom and experience. It is a medicine system whose origin is lost in antiquity, no vedic name is associated with it but still it acts as a backbone for traditional healthcare in India (Ray and Ray 2020). This culture mostly runs parallel with the codified system and is largely associated with the vast tribal populations of the country. Quite obviously, like the diverse tribal groups their healthcare practices are vibrant in variation too. According to Census 2011, India is the home for 705 tribal groups distributed in 30 states and union territories. And Madhya Pradesh, Odisha, Maharashtra, Rajasthan and Chhattisgarh are the dominating ones according to the estimate. Similarly, a recent documentation on ethnobiological practices of the 550 tribal groups reveals an enormous diversity of nearly 8000 plants and 76 animal species are in medicinal use by them (Pushpangadan et al. 2018) which outnumbers the codified system. Likewise, study based on the medicinal plants from the sacred grove also reported the use of 1247 plant species by multiple ethnic communities (Ray and Ray 2020). I hope, simply these numbers can give us a fairly good idea how extensively people explored the nature for their well being and the practice becomes tradition as the generations passed by. What about the practitioners? They don't have "valid degrees" or "sprawling chambers" as standardized by urban, semi-urban people, but they are "GOD" for countless rural and forest peasants. We usually meet or hear about them through folk tales, travelogues by colonial rulers, accounts of the anthropologists, social scientists and sometimes by chance encounters. They are identified by various names like "Ojha", "Badwa", "Bhagat", "Vaidu", "Doctor Sla" etc. and sometime their treatment procedure includes magico-religious rituals (i.e. song, dance, communication with the deities) to offer respect to the divine forms.

The strength of the folk medicine lies in its cultural and spatial variation. The dispersed location of the various ethnic communities from the Himalayan high hills to the Deccan plateau, from the coastal plains to the north-eastern forests expose them to the varieties of ecosystem and climatic factors. The genealogy, culture, and environmental adaptation of ethnic groups are quite different from each other which are reflected in their language (even in dialects) and traditional lifestyle (including food, dress, living arrangement, social-cultural-religious norms). Their relative isolation in remote interiors put them in advantageous position to interact with the nature for their daily requirement, to identify important plants and animals with medicinal property, to observe the seasonal changes and availability etc. The rich plant and animal diversity of the country and its preponderance in the far-off undisturbed areas facilitate folk medicinal practices further as resource crunch never has been felt strongly. The practice becomes flexible and inexpensive enough as there is bare minimum assistance in dosage preparation and availability of profound resources prompted them to incorporate changes as and when necessary.

Screening the variation in ethnomedicinal practices starts from medicinal plant collections. Like India's great spatial extent, plant diversity varies from place to place which is reflected in harvesting and use of the resources. Communities are largely depended on the plants which are easily available and sufficient in quantity. Research shows that, ethnomedicinal practices depend on mostly ecosystem-specific plants which are abundant in respective bio-geographic region. The unique collection of species include endemic plants (exclusively found in that

region), rarely grown plants (plants with low population density), endangered and threatened plants (plants once widely distributed but nowadays restricted due to over collection). Therefore, Himalayan people depend on *Aconitum heterophyllum*, *Berberis aristata*, *Geranium wallichianum*, *Hypericum oblongifolium*, while people from the Gangetic plain and Deccan plateau explore the potential of *Ambroma augusta*, *Aegle marmelos*, *Bauhinia racemosa*, *Dalbergia lanceolaria* and many others. In a similar manner, coastal mangroves and semi-arid *Prosopis* and *Acacias* are medicinally utilized in respective regions (Ray and Ray 2020).

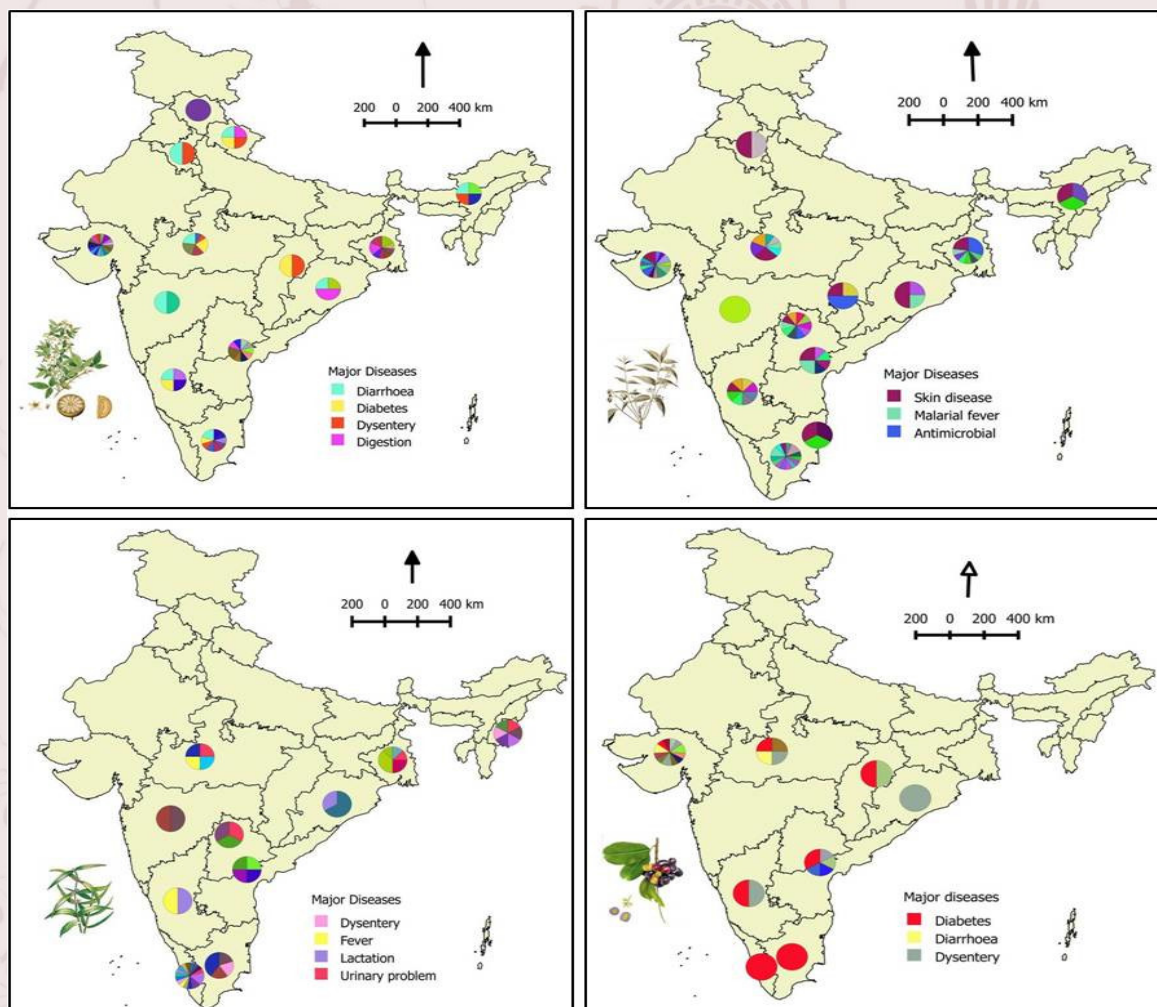


On the flip side, there are overwhelming similarities in usage among communities, although settled in distant places. A large number of plants with country-wide distribution are popular choice by multiple communities. Our very own *Mango*, *Jamun*, *Gurmar*, *Tulsi*, *Vasaka*, *Kalmegh* are only few of them, but the list is quite long. Many of the widely-known plants are in active use by codified systems therefore are very popular choice for us. Given the fact that both the codified and non-codified traditions are very old, it is a challenging task to determine who is indebted to whom. Perhaps there is no such strict borderline separating the practices; it has been a continuous interaction among the people of different spheres and backgrounds

under diverse circumstances. Likewise, some general patterns are visible in plant usage for instance, over dependency on the leaves due to high volume and year-long availability, maximum use of herbaceous plants (plants up to 1m height with soft stem), diverse use of trees (different plant parts to secondary products) and other relevant ones (Ray and Ray 2020). It tells us about an important trend that despite divergent floral assemblage and their distribution the utility factors remain almost the same across the country.

The true essence of the unity in diversity is best observed in the plant-disease association. Think about the fascinating red-flowered *Glory lily* (*Gloriosa superba*) with its tendrilled leaf. The plant is medicinally known for its use against snakebite and rheumatism (pain in joint, muscle and connective tissue), however, other fifty one uses are also documented from various cultural geographic zones of the country. Now look at *Neem* (*Azadirachta indica*), popular for skin problem and anti-bacterial properties but other uses like appetizer, cooling agent, anti-diabetic, anti-hypertensive, laxative, anti-malarial and many others are also

recorded from distant regions. Likewise, *Bael* (*Aegle marmelos*), *Anantamul* (*Hemidesmus indicus*), *Jamun* (*Syzygium cumini*), *Satwari* (*Asparagus racemosus*), *Vasaka* (*Justicia adhatoda*), *Kalmegh* (*Andrographis paniculata*) and many others species fall in this category. Multiple uses indicate many possibilities, like, presence of a diverse group of chemical compounds (secondary metabolites) applicable against different ailments, or extensive experimentation with the available plants (viz. with different plant parts, seasonal changes,



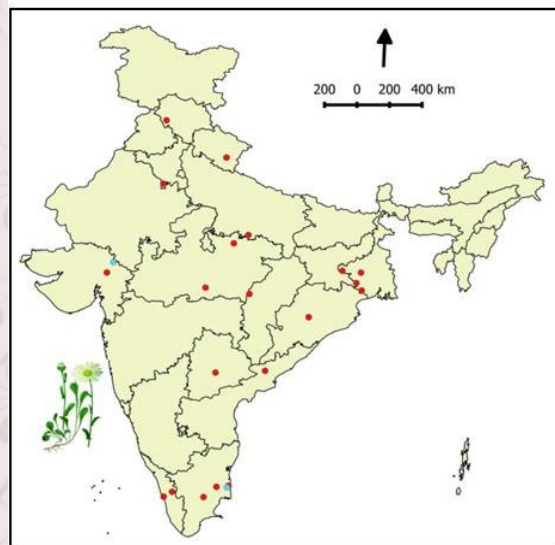
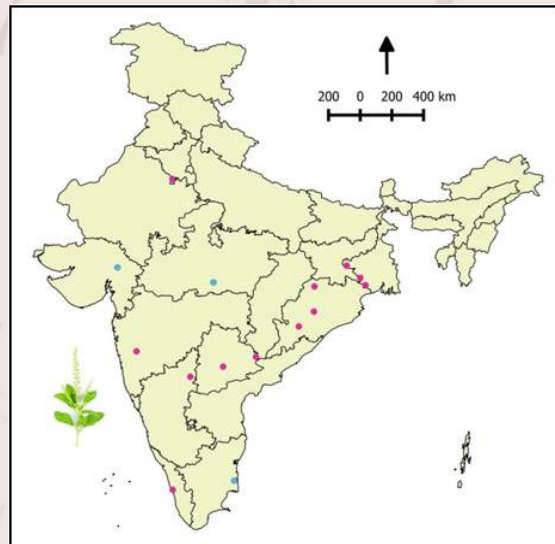
Multiple uses of plant species across the country. Clockwise from top panel left Bael (*Aegle marmelos*), Neem (*Azadirachta indica*), Jamun (*Syzygium cumini*) and Anantamul (*Hemidesmus indicus*) – major diseases are in legend for every selected plant.

mode of preparations etc.). In addition, there are monoherbal (where a single plant is in use) and polyherbal (where multiple plants are mixed for treatment) dosage preparation for different remedial purpose. And the knowledge may be acquired through self experimentation, interaction between communities or intergenerational transfer.

Spatial and cultural variations also prompt people to consider the use of floral diversity in same disease. A quick search on commonly available herbal medications to fight cold and cough reveals various combinations of 37 medicinal plants. The list includes our well-known *tulsi*, *vasaka*, *yasthimadhu*, *neem* to Himalayan members like *Abies*, *Camellia*, *Jatamansi*, *Ephedra*, etc. Similar approach can be found in other maladies like liver problem, digestive problem, gynaecological issues, infectious diseases etc. and it is one of the well documented

aspects in Indian ethnomedicine research. Intra- and intercommunity variation in plant use against a particular malady can be justified by factors like experimentation with different plant resources under varied environmental condition, search for effective alternatives in case main resource is unavailable, presence of similar type of chemical compounds (which may have evolutionary linkage), inter-community knowledge transfer and so on.

Moreover, many plant-based remedies show surprising similarity across the country. Take the



Acceptance level of a plant against certain ailment.  
Upper panel – Tulsi (*Ocimum tenuifolium*) for cough and cold  
Lower panel – Jayanti veda (*Tridax procumbens*) for cut and wounds

example of *Tulsi*, majority of the Indian households is well versed with its curative role in cough and cold; on a similar note, *Neem* for skin disease, *Gurmar* and *Jamun* for diabetes and *Harjora* for bone fracture are very near to the *aam admi*. How did this happen? One may give credit to the long-lasting tradition of the codified system which through mainstream user base and patronage tends to disseminate the knowledge among the people. This logic only holds true partially as the idea does not apply for the marginalized and remote ethnic populations where codified system doesn't have a stronghold. For them, independently generated, very local and self-conceived knowledge is the main resource for their healthcare. Therefore, the same use of *tulsi* is spreading from the Himalayan valley to Jharkhand forest, from the Deccan plateau to north-eastern ethnic villages acknowledges those anonymous peoples who by repeated experimentation, keen observation, and sheer experience gained and applied the valuable medical knowledge for their community. In one way, it is also a kind of grass-root level validation of the plant-use against certain ailment(s). If isolated experimentally developed knowledge is one driving factor, then other factors also include the availability of the plant, chance-encounter of the communities, and closer entanglement of different knowledge system(s) in course of time.

In conclusion, traditional medicine especially ethnomedicine can be valorized as “by the people, for the people”. The non-codified avatar of local health tradition is a collective knowledge imbibed from the biologically and culturally diverse environment by the mass. Although an integral part of the informal healthcare system across the rural and marginalized

people-scape, its real contribution in the national health program is still awaited. Likewise, too much diversity acts as constraint for implementing any comprehensive strategy, there are unverified claims yet to be validated, resource crunch due to landscape transformation, loss of traditional wisdom and so on. These problems undoubtedly pose serious challenges for today's ethnomedicine practice however, lately but steadily there are raising interests on this age old inexpensive, side effect less health care system. A growing number of research projects and government initiatives is a testimonial for this awareness. Keeping aside the academic disclose and bureaucratic manuals for its improvement, it is also the commoners' responsibility to maintain and nourish this colorful tapestry of grassroot healthcare system for the benefit of society at all level.

### Reference

- 1) Pushpangadan P, George V, Ijiru TP and Chithra MA. (2018) All India coordinated research project on ethnobiology and genesis of ethnopharmacology research in India including benefit sharing. *Annals of Phytomedicine* 7(1): 5-12. DOI: 10.21276/ap.2018.7.1.2
- 2) Ray R. and Ray A.(2020) Medicinal practices of sacred natural sites: a socio-religious approach for successful implementation of primary healthcare services. *Ethnobotany Research & Applications* 20:34, 1-46. doi: 10.32859/era.20.34.1-46