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Worth of Traditional Herbal System of Medicine for Curing Ailments Prevalent Across the Mountain Region of Uttarakhand, India

Prakash Chandra Phondani

ABSTRACT

The present study deals with 40 medicinal plant species used to cure a variety of ailments through traditional health care system by the local healers (*Vaidyas*). These plants were checked and verified from the available literature which revealed that the uses of these plants were newly recorded. Depth studies of 40 new recorded medicinal plants were documented with their different parts being used in herbal medicines. It was also found that one species or some times more species were used for curing one or many diseases together. The nature and type of symptoms of diseases reported of human beings were found varying across the region. All these different kinds of diseases were grouped in to three categories i.e. serious, moderate and common based on the risk factor and seriousness of disease in consultation with doctors practicing different streams of treatment i.e. *Vaidyas*, Ayurvedic and Allopathic. About more than 40% of local inhabitants were consulted, so as to reveals their perceptions on ranking of 10 common ailments prioritized by the local people based on their preference for opting herbal system of treatments. The traditional herbal system of medicine is one of the most important prevailing systems in the area where modern health care centre are rare or in very poor conditions.

Keywords: Ethnomedicinal uses, Medicinal plants, Ailments, Traditional herbal healers, Medical doctors.

INTRODUCTION

The mountain region of Uttarakhand Himalayan is a well known treasure of medicinal plants diversity, since antiquity as many plant species of this area have medicinal value and are being used by local people for curing a variety of ailments (Phondani et al., 2010). According to a recent estimate by the World Health Organization (WHO), more than 3.5 billion people in the developing world still rely on plants as a major component of their health care systems particularly those inhabiting the rural and far-flung areas. The traditional societies posses a rich knowledge of plants having various medicinal uses. The medicinal properties of plant species have played an important role in the origin and evolution of many traditional herbal therapies in the developing countries particularly in India. The plants have been used as sources of medicine ever since the beginning of human civilizations in the treatment of various ailments (Hill, 1952; Gaur, 1999). The uses of plants as sources of herbal medicine are very much prevalent in the traditional health care systems as a part of the cultural landscape of many developing countries (Kloucek et al., 2005; Duraipandiyan et al., 2006). The traditional systems of medicine like Chinese, Ayurvedic, Unani and Biomedicine are very effective particularly in rural areas for the treatment of various ailments. Nearly 80% of the total human population still depends upon traditional remedies



together with folklore system based mainly on phytotherapy (Azaizeh et al., 2003). Herbal medicines even today play an important role in rural areas with various locally produced drugs still being used as home remedies for various diseases (Qureshi et al., 2005). This traditional knowledge of health care systems has started disappearing with the passage of time due to scarcity of written documents and relatively low income or no income to the traditional herbal practitioners (Vaidyas). In the recent past, however, the medicinal plants have regained a fair degree of recognition due to a growing faith in herbal medicines in view of their few or no side effects as compared to allopathic system of medicine which is readily available promising quick relief to the patient (Hussain et al., 1996). The traditional communities of mountain region of Uttarakhand are still dependent upon wild plants for their primary health care system and treatment a variety of diseases. These useful plants collected from various habitats such as forests, grasslands, cultivated fields for using them as raw components in drugs. These communities have acquired fairly good knowledge of both the useful and harmful properties of plant resources due to their constant and close association with forest and agro-ecosystems. However, at present, this vast knowledge based information available on these precious plants is getting eroded due to changing socio-economic and cultural values and illegal collections from the wild. The loss of traditional knowledge within cultures, in view of the rapid changes undergoing is just as irreversible as the loss of species (Joshi et al., 2005). Hence, sincere efforts are to be made to document the various uses of plants before some of them disappear from the areas, or before these inhabitants shift over to modern system of remedies. Therefore, an attempt has been made to: (i) to document those medicinal plants whose use are not available in Ayurveda literature, but largely used in traditional health care system (ii) identify, categorization and ranking the prominent ailments based on preference of local people through traditional health care system practiced by traditional Vaidyas.

STUDY AREA AND SOCIO-ECONOMIC PROFILE OF THE PEOPLE

Uttarakhand state is known as the origin of sacred rivers like the Ganga, Bhagirathi and Alaknanda. The river Alaknanda has its source in the Satopanth and Bhagirath kharak glaciers, which rise from the eastern slope of Chaukhamba peak (7138m.) of Rudraprayag district of Uttarakhand state in India. In its course of 141.5 km it drains approximately 11000 km² area. The catchment of Alaknanda river extends between 29° 58' 34" to 31° 04' 20" N and 78° 34' 31" to 80° 17' 54" E. It narrows down towards west and tapers off at Devprayag making confluence with the river Bhagirathi and forms the holy Ganga. It covers a wide range of climatic conditions under altitudinal variation of 642-7817 amsl. The Alaknanda catchment stretches in four districts of Garhwal region of Uttarakhand viz., Chamoli, Rudraprayag, Pauri and Tehri. The present study was carried out in total one hundred seven (107) villages of eight (8) valleys (Niti, Urgam, Berahi, Nandakini, Pindar, Mandakini, Bhilangana/Gangi and Binsar) are located in

high altitude areas of Uttarakhnad inhabited by tribal and nontribal communities (Fig. 1). They mainly occupy the forested regions and have a total population of 17,295 with 3149 households and have average family size of 5-6 persons. The rural settlements are located in the altitudinal limit of 1400 to 3500 masl. These communities have their own culture, tradition and religious beliefs. The major occupations of these communities have been sheep and goat rearing and agriculture.



Fig. 1 The location of the study area in Uttarakhand, India.

METHODOLOGY

A pilot survey was carried out together information of the medicinal plants used to cure a variety of ailments through traditional health care system. Different types of questionnaires were developed to obtain information on the indigenous uses of medicinal plants, collection, mode of uses and composition of medicinal plants used by the local communities. Data was collected from the selected villages related to ethnomedicinal practices and quantities of plant products consumed. The study employed included the survey method involving collection of data through questionnaire interviews of local people, traditional herbal healers, medical doctors, scientists, school teachers and social workers. Over 40% local people in all eight valleys, ranging in different age groups were interviewed independently, using structured questionnaires, open-ended interviews and guided-dialogue techniques. In this study I visited localities of the local rural people who were interviewed about their knowledge of diseases, their methods of diagnosis, types of treatments etc. I also asked about the local names of diseases and patient conditions, and the local names of plants and other components used for treating particular ailments. Systematic efforts were made to list and identify the local herbal practitioners' diagnostic knowledge and techniques of each disease on the basis of symptoms.

The treatment procedures adopted were both curative and prophylactic well known to traditional Vaidyas. The whole system of treatment was discussed carefully and documented. Since the information given by the Vaidyas was oral, it was expected that some issues might get inadvertently forgotten, while other points might need to be clarified and refined. Workshops were therefore, held involving the knowledgeable Vaidyas during which the diagnostic information given by them on each disease was carefully discussed. Vaidyas debated, clarified and refined the information, while 'expert consultation' workshops were also held for the most experienced Vaidyas, during which conventional medical doctors clarified the information on diagnosis and treatment procedures. The identified ailments categorized in three categorize such as serious, moderate and common based on healing practices of different streams of doctors. The medical doctors used the diagnostic information on each disease or condition to match the scientific (modern) name to each problem. The information provided by Vaidyas was exhaustive and valuable, due to their indepth knowledge and also their role as medical doctors.

RESULTS AND DISCUSSION

Findings of the study reveal that a total of 400 medicinal plants used to cure 135 human diseases treated by the traditional herbal healers (*Vaidyas*). However, the uses of 400 plants were checked and verified from the available literature which revealed that the use of 360 plants has been listed in Ayurveda, whereas the uses of 40 plants were newly recorded (Table 1). A depth study of 40 new recorded medicinal plants were documented with their different parts being used in a variety of medicines such as leaves (28.9%), roots (26.2%), bark (6.4%), whole plant (8.7%), seeds (8.1%), Fruits (9.6%), Flowers (5.6%), and others (6.5%) (Fig. 2).



Fig. 2 Proportion of different medicinal plant parts (%) used for curing of ailments.

It was also found that one species or some times more species were used for curing one or many diseases together. The list of various diseases found either specific to a particular valley or common to all valleys was prepared while working with Vaidyas. The nature and type of symptoms of diseases reported of human beings were found varying across the regions. All these different diseases were grouped in to three categories i.e. serious, moderate and common based on the risk factor and seriousness of disease in consultation with doctors practicing different streams of treatment i.e. Vaidyas, Ayurvedic and Allopathic in eight different valleys (Table 2). About more than 40% of local inhabitants were consulted, so as to reveals their perceptions on ranking of some common ailments prioritized by the local people based on their preference for opting Vaidyas system of treatment. A total of 10 ailments were identified by them revealing that a majority of the people preferred herbal system of treatments for curing fever followed by jaundice, leucorrhoea etc. while serious ailments like tuberculosis, cancer etc. were mostly treated through allopathic treatment. Based on the ranking analysis it was observed that fever had ranked first while tuberculosis last in terms of treatment through Vaidyas system of medicine in different valleys of the study area (Table 3). Most of the treatments recorded here have a natural component in the form of a plant parts. Plants form the main ingredient in traditional medicines not only because they often possess biologically active chemicals, but also are believed to provide vital energy, and are a participatory rather than a lifeless entity in healing (Iwu, 1993). In this study, a selection of ethnomedicinal natural healing practices is made in an effort to document them and provide some insights into the ways they are used. However, this is made more difficult by the fact that direct cause and effect analyses are often lacking. A vast majority of natural healing methods and other ethnomedicinal practices depend on medicinal plants. Plants are known to be natural chemical factories and some of the chemicals produced by them may have medicinal properties. The actual healing may be due to the use of medicinal plants in combination with natural and natural healing practices, which make the specific treatments popular within the community. Our purpose was to document these hitherto orally preserved indigenous knowledge systems. Even though the issue related to the validation of the effectiveness of natural healing has long been seen as a waste of time and resources by most researchers, at present, there are a number of scientists and spiritual healing enthusiasts who are keen to determine the role of alternative medicine in healing (Brown, 2000; Abbot, 2000).

In India more than 70% of the population used herbal medicines for health care. 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 (Phondani, 2010). Using 'reverse pharmacological' approach, several institutes have been working on basic and clinical research on the potential health benefits of herbal drugs and infect have come out with many successful examples in this respect. These herbal drugs prepared of medicinal plants are a rich source of beneficial compounds including

1 Acture acuminate Wallich ex Royle Manaeeru Ramunculaceae Herb Leaves Sciatica 2. Aerides multiflorm Roth. Mana Orchidaceae Herb Root Colic 3. Anneme obrasidbob Don Kanchphoot Ramunculacee Herb Root Colic 5. Asphodelus renuipolius Cav. Piazi Liliaceae Herb Root Diarrhoca 6. Aster pedanudaris Visiklich ex Ness. Bhanora Corraceae Tree Fruit Provide strength 9. Beorninghansenia abfilora Kukhri Polygonaceae Herb Leaves Woands, 9. Beorninghansenia abfilora Guhari Ruisaceae Herb Leaves Woands, 10. Barreria articularis L.F. F.N. Williams Guhari Ruisaceae Herb Leaves Bials 11. Calanthe triarrinata Lindley Syoru Orchidaceae Herb Leaves Bials 12. Carpesium dirridus L. Donin Amalbel Vitaceae Climber Laves Constignion, Aphrodisiac 13. Constignion	S. No.	Name of plants	Vernacular name	Family	Habit	Part used	Disease treated
2. Aerides multifiorum Roxb. Manan Orchidaceae Herb Leaves Cuis and Wounds 3. Ansilicae latifolio D. Don Kanun Asteraceae Herb Root Diarchoca 4. Anenone obusitioha D. Don Kanunculaceae Herb Seed Diarchoca 5. Ashchelas tenuifolias Cav. Pitzi Liliaceae Herb Seed Diarchoca 7. Benchamidia capitata Wallich ex Roxb. Bhamora Cornaceae Herb Leaves Wounds 8. Bistoria macrophylla D.Don Kukhri Polygonaceae Herb Leaves Wounds, 9. Boeninghassenia abhfora Hook. Kukini Polygonaceae Herb Leaves Wounds 10. Boreria atricularis L.f. F.N. Williams Guthari Ruiceae Herb Leaves Ezema 11. Calmithe tricerinata Lindley Soru Orchidaceae Herb Boot, Leaves Ezema 12. Carpetinia benghalensis L. Kausu Commelinaceae Herb Bubs Constipation, Aphrodisiae 13. Cayratia trifolia L. Domin Amatable	1.	Actaea acuminate Wallich ex Royle	Maneeru	Ranunculaceae	Herb	Leaves	Sciatica
3. Ainslike laifidia D. Don Kauru Asternaceae Herb Root Colic 4. Anemoe obtusidou D. Don Kanchphonol Raunculanicacea Herb Root Diarriboea 5. Asphodelus teurifolius Cav. Piazi Liliaceae Herb Rood Diarriboea 6. Aster peduncularis Wallich ex Ness Phulyan Asteraceae Herb Soed Diarriboea 7. Benhamidia capitata Wallich ex Roxb. Bhamora Cornaceae Tree Fruit Provide strength 9. Boorninghousenia abifloor Hook. Upinyaghas Ruitaceae Herb Leaves Wounds, 10. Borreria arricularis Lf. F.N. Williams Guthari Rubiaceae Herb Leaves Bozarea 12. Calarbeiro inderificita L. Domin Amable Vitaceae Climber Leaves Boils 13. Cayratia trifolia L. Domin Amable Gondya Orchidaceae Herb Leaves Boils 14. Coolegyne cristata Lindley Gondya Orchidaceae Herb Leaves Boils 15. <	2.	Aerides multiflorum Roxb.	Maana	Orchidaceae	Herb	Leaves	Cuts and Wounds
 Anenone obinizidor D. Don Knachphool Ranunculaceae Herb Root Diarrhoea Asphodus trentifolitos Cav. Piazi Liliaceae Herb Soed Diarrhoea Aster peducudaris Wallich ex Roxb. Butorta macrophylla D. Don Kukhri Polygonaceae Herb Leaves Wounds. Bitorta macrophylla D. Don Kukhri Polygonaceae Herb Leaves. Bitorta macrophylla D. Don Kukhri Polygonaceae Herb Leaves. Boonninghausenia abilfora Hook. Upniyaghas Rutaceae Herb Seed, Leaves Wounds. Borninghausenia abilfora Hook. Upniyaghas Quantari Rubiaceae Herb Leaves, Root Wounds, Vorniting, Dysentery Vorniting. Dysentery Vorniting. Borrati articularis Li F.N. Williams Guthari Rubiaceae Herb Leaves Root. Carpetian abratandoes L. Kuleo Asternacea Herb Root, Leaves Boils. Carpatine triconides L. Kuleo Asternaceae Herb Bool Constitution. Annabel Vitaceae Herb Leaves Boils. Constituta Lindley Gondya Orchidaceae Herb Bubbs Constitution. Anthelminitic, Diuretic, Skin Seed disease Constituta Lindley Gondya Orchidaceae Strub Bash, Leaves Boils. Constituta Lindley Gondya Orchidaceae Strub Bash, Leaves Enercic Continua copitata Modq. Hadsilla Amaranthaceae Herb Leaves Enercic Constituta Capitata Modq. Hadsilla Amaranthaceae Herb Leaves Enercic Daphre payrucea Wallich ex Steudel Satpura Thymelaeaceae Strub Bash, Leaves Teven, Swelling and Pain Toyentery. Swelling and Pain Toyentery. Swelling and Pain Toyentery. Swelling and Pain Toyentery and Orchidacea Herb Leaves Root Indigestion, Burns Gutava Commeliaceae Herb Leaves Root Indigestion, Burns Gutava Componentia Pain Lawa Commeliaceae Herb Leaves Spinilis, Bood purifier Gastric Gastric Herb Rotor Leaves Root Urinary disorder, Episteria Paintary Conchidaceae Herb Leaves Root Urinary disorder, Episteria Herborine LC Contra Component	3.	Ainsliaea latifolia D. Don	Kauru	Asteraceae	Herb	Root	Colic
5. Asphodelus renuifolius Cav. Piazi Liliaceae Herb Seed Diuretic, Ulcer 6. Aster peducudaris Valich ex Roxb. Phulyan Asteraceae Herb Reach. Root 7. Besthomidia capitata Wallich ex Roxb. Bhamora Cornaceae Tree Fruit Provide strength 8. Bistoria naccophylla D.Don Kukhri Polygonaceae Herb Leaves. Wounds, 9. Bornerica articularis L.f.F.N. Williams Guthari Rubiaceae Herb Leaves Wounds, 10. Borrerica articularis L.f.F.N. Williams Guthari Rubiaceae Herb Leaves Boilartice, Alaemorthoids 12. Carpesium abrotanoides L. Kuleo Asteraceae Herb Leaves Boils 13. Cavaratia trifolia L. Domin Anaablel Vitaceae Climber Leaves Boils 14. Coologue cristata Lindley Gondya Orchidaceae Herb Bavk.cess Taming 15. Carmelina benghalensis L. Kansura Commelinaceaea Herb Leaves Boils 16. Cotinus coggue ristata Lindley Satpura Trindrya Orchidaceae Herb Leaves Earnetic 17	4.	Anemone obtusiloba D. Don	Kanchphool	Ranunculaceae	Herb	Root	Diarrhoea
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7. Benthamidia capitata Wallich ex Roxb. Bhamora Cornaceae Tree Fruit Provide strength 8. Bistorta macrophylla D.Don Kukhri Polygonaceae Herb Leaves Wounds, 9. Boenninghausenia dibffor Hook. Upniyaghas Rutaceae Herb Leaves Wounds, 10. Borreria articularis L.f. F.N. Williams Guthari Rubiaceae Herb Leaves Diarrhoea, Haemorrhoids 12. Calpestim abrotanoides L. Kuleo Asteraceae Herb Leaves Boils 13. Cayratia trifolia L. Domin Amalbel Vitaceae Climber Leaves Boils 14. Coclogyne cristata Lindley Gondya Orchidaceae Herb Bark, Leaves Tanining 15. Communica benghadnensis L. Kalmina Annacardiaceae Shrub Bark, Leaves Tanining 16. Colatula capitata Moq, Hadsilla Amaarnhaceae Herb Leaves Erectic 17. Gyadula capitata Moq, Hadsilla Amaarnhaceae Herb Leaves Spotiling, Dysentery, Swelling and Pain	6.	Aster peduncularis Wallich ex Nees	Phulyan	Asteraceae	Herb	Root	Stomachache
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14. Coclogyne cristata Lindley Gondya Orchidaceae Herb Bulbs Constipation, Aphrodisiac 15. Commelina berghalensis L. Kansura Commelinaceae Herb Whole plant Dysentery, Swelling and Pain 16. Cotinus coggygria Scopoli Kalmina Annacardiaceae Shrub Bark, Leaves Emetic 17. Cyathula capitata Moq, Hadsilla Amaranthaceae Herb Leaves Eezema 18. Daphne papyracea Wallich ex Steudel Satpura Thymelaceaea Herb Leaves Fever 20. Gagea reticulate Palla Schultes f. Lasnya Liliaceae Herb Leaves Spyhilis, Blood purifier 21. Goodyera repers L. R.Br. Girwara Orchidaceae Herb Raves Syphilis, Blood purifier 22. Lonicera angustifolia Wallich ex DC. Gulnar Capifoliaceae Herb Raves Syphilis, Blood purifier 23. Monochoria vaginalis Burm, f. C.B. Prest Nanka Pontederiaceae Herb Rhizome Asthma, Liver disease 24. Paspalum scrobiculatum L. Paplya Poaceae Herb<	13.	Cayratia trifolia L. Domin	Amalbel	Vitaceae	Climber	Leaves	Boils
15. Commelina benghalensis L. Kansura Commelinaceae Herb Whole plant Dysentery, Swelling and Pain 16. Cotinus coggygria Scopoli Kalmina Annacardiaceae Shrub Bark, Leaves Tanning 17. Cyathula capitata Moq. Hadsilla Annaranthaceae Shrub Bark, Leaves Emetic 18. Daphne papyracea Wallich ex Steudel Satpura Thymelaeaceae Shrub Leaves Eczema 19. Epipactis helleborine L. Crantz Trindrya Orchidaceae Herb Leaves, Root Indigestion, Burns 21. Goodyera repens L. R.Br. Girwara Orchidaceae Herb Leaves, Root Urinary disorder, 23. Monochoria vaginalis Burnf, C.B. Pres Nanka Ponteelariaceae Herb Root Urinary disorder, 24. Paspalum scrobiculatum L. Paplya Poaceae Herb Leaves Vonde, Sores 25. Phacelurus speciosus Steudel C.E. Ainma Poaceae Herb Leaves Skin disease 26. Phobe lanceluta Nees Nees Kaul Lauraceae Tree Berries	14.	Coelogyne cristata Lindley	Gondya	Orchidaceae	Herb	Bulbs	Constipation, Aphrodisiac
16. Cotinus coggygria Scopoli Kalmina Annacardiaceae Shrub Bark, Leaves Tanning 17. Cyathula capitata Moq. Hadsilla Annaranthaceae Herb Leaves Emetic 18. Daphne payracea Wallich ex Steudel Satpura Thymelaeaceae Shrub Leaves Exercical 19. Epipactis helleborine L. Crantz Trindrya Orchidaceae Herb Leaves Fever 20. Gagea reticulate Palla Schultes f. Lasnya Utilaceae Herb Leaves Syphilis, Blood purifier 21. Goodyera repens L. R.B. Girwara Orchidaceae Herb Leaves Syphilis, Blood purifier 22. Lonicera angustifolia Wallich ex DC. Gulnar Capifoliaceae Herb Rot Urinary disorder, Eye infection 23. Monochoria vaginalis Burm.f. C.B. Prest Nanka Poaceae Herb Rot Urinary disorder, Eye infection 24. Paspalum scrobiculatum L. Paplya Poaceae Herb Koot Urination, Earache 25. Phacelurus speciosus Steudel C.E. Aima Lauraceae Tree	15.	Commelina benghalensis L.	Kansura	Commelinaceae	Herb	Whole plant	Dysentery, Swelling and Pain
17. Cyathula capitata Moq. Hadsilla Amaranthaceae Herb Leaves Emetic 18. Daphne papyracea Wallich ex Steudel Stapura Thymelaeaceae Shrub Leaves Eczema 19. Epipactis helleborine L. Crantz Trindrya Orchidaceae Herb Leaves Fever 20. Gagea reticulate Palla Schultes f. Lasnya Liliaceae Herb Leaves Syphilis, Blood purifier 21. Goodyera repens L. R.Br. Girwara Orchidaceae Herb Leaves Syphilis, Blood purifier 23. Monochoria vaginalis Burm.f. C.B. Prest Nanka Pontederiaceae Herb Rhizome Asthma, Liver disease 24. Paspalum scrobiculatum L. Paplya Poaceae Herb Root Urinary disorder, Eye infection 25. Phacelurus speciosus Steudel C.E. Aimma Poaceae Herb Leaves Skin disease 26. Phoebe lanceolata Nees Nees Kaula Lauraceae Tree Berries Wounds, Sores 27. Physalis divaricata D.Don Damphu Solanaceae Herb Leaves Skin	16.	Cotinus coggygria Scopoli	Kalmina	Annacardiaceae	Shrub	Bark, Leaves	Tanning
18. Daphne payracea Wallich ex Steudel Satpura Thymelaeaceae Shrub Leaves Eczema 19. Epipactis helleborine L. Crantz Trindrya Orchidaceae Herb Leaves Fever 20. Gage a reticulate Palla Schultes f. Lasnya Liliaceae Herb Leaves Fever 21. Goodyera repens L. R.Br. Girwara Orchidaceae Herb Leaves Syphilis, Blood purifier 22. Lonicera angustifolia Wallich ex DC. Gulnar Capifoliaceae Shrub Fuit Gastric 23. Monochoria vaginalis Burm.f. C.B. Prest Nanka Pontederiaceae Herb Root Urinary disorder, Eye infection 24. Paspalum scrobiculatum L. Papiya Poaceae Herb Whole plant Intestinal worms 25. Phacelurus speciosus Steudel C.E. Ainma Poaceae Tree Berries Wounds, Sores 27. Physalis divaricata D.Don Damphu Solanaceae Tree Berries Wounds, Sores 28. Pilea umbrosa Wedd. Chaibul Rhamnaceae Tree Bark Eczema	17.	Cyathula capitata Moq.	Hadsilla	Amaranthaceae	Herb	Leaves	Emetic
19. Epipactis helleborine L. Crantz Trindrya Orchidaceae Herb Leaves Fever 20. Gagea reticulate Palla Schultes f. Lasnya Liliaceae Herb Leaves, Root Indigestion, Burns 21. Goodyera repens L. R.Br. Girwara Orchidaceae Herb Leaves Syphilis, Blood purifier 23. Monochoria vaginalis Burm.f. C.B. Prest Nanka Pontederiaceae Herb Rhizome Asthma, Liver disease 24. Paspalum scrobiculatum L. Paplya Poaceae Herb Root Urinary disorder, Eye infection 25. Phacelurus speciosus Steudel C.E. Ainma Poaceae Tree Berries Wounds, Sores 26. Phoebe lanceolata Nees Nees Kaula Lauraceae Tree Berries Wounds, Sores 27. Physalis divaricata D.Don Damphu Solanaceae Herb Leaves Skin disease 28. Pilea umbrosa Wedd. Chailu Uricaceae Tree Barries Skin disease 29. Raumculus arvensis L. Chambul Rauracadiaceae Tree Bark Ezzema, Ringwor	18.	Daphne papyracea Wallich ex Steudel	Satpura	Thymelaeaceae	Shrub	Leaves	Eczema
20. Gagea reticulate Palla Schultes f. Goodyera repens L. R.Br. Lasnya Liliaceae Herb Leaves Syphilis, Blood purifier 21. Goodyera repens L. R.Br. Girwara Orchidaceae Herb Leaves Syphilis, Blood purifier 22. Lonicera angustifolia Wallich ex DC. Gulnar Caprifoliaceae Shrub Fruit Gastric 23. Monochoria vaginalis Burn, f. C.B. Prest Nanka Pontederiaceae Herb Rhizome Asthma, Liver disease 24. Paspalum scrobiculatum L. Paplya Poaceae Herb Root Urinary disorder, Eye infection 25. Phacelurus speciosus Steudel C.E. Ainma Poaceae Tree Berries Wounds, Sores 26. Phoebe lanceolata Nees Nees Kaula Lauraceae Tree Berries Wounds, Sores 27. Physalis divaricata D.Don Damphu Solanaceae Herb Leaves Urination, Earache 28. Pilea umbrosa Wedd. Chainbul Ranunculaceae Tree Bark Eczema, Ringworm 29. Rahumus virgatus Roxb. Chadolu Rhamnaceae Tree	19.	Epipactis helleborine L. Crantz	Trindrya	Orchidaceae	Herb	Leaves	Fever
21. Goodyera repens L. R.Br. Girwara Orchidaceae Herb Leaves Syphilis, Blood purifier 22. Lonicera angustifolia Wallich ex DC. Gulnar Caprifoliaceae Shrub Fruit Gastric 23. Monochoria vaginalis Burm.f. C.B. Prest Nanka Pontederiaceae Herb Rhizome Asthma, Liver disease 24. Paspalum scrobiculatum L. Palya Poaceae Herb Root Urinary disorder, Eye infection 25. Phacelurus speciosus Steudel C.E. Ainma Poaceae Herb Whole plant Intestinal worms 26. Phoebe lanceolata Nees Nees Kaula Lauraceae Tree Berries Wounds, Sores 27. Physalis divaricata D.Don Damphu Solanaceae Herb Leaves Skin disease 28. Pilea umbrosa Wedd. Chailu Uticaceaea Herb Leaves Skin disease 29. Ranunculus arvensis L. Chadolu Rhamnaceaea Tree Bark Eczema, Ringworm 31. Rhus javanica L. Deshmeel Anacardiaceae Tree Bark Eczema, Ringworm	20.	Gagea reticulate Palla Schultes f.	Lasnya	Liliaceae	Herb	Leaves, Root	Indigestion, Burns
22. Lonicera angustifolia Wallich ex DC. Gulnar Caprifoliaceae Shrub Fruit Gastric 23. Monochoria vaginalis Burm.f. C.B. Prest Nanka Pontederiaceae Herb Rhizome Asthma, Liver disease 24. Paspalum scrobiculatum L. Paplya Poaceae Herb Root Urinary disorder, Eye infection 25. Phacelurus speciosus Steudel C.E. Ainma Poaceae Herb Whole plant Intestinal worms 26. Phoebe lanceolata Nees Nees Kaula Lauraceae Tree Berries Wounds, Sores 27. Physalis divaricata D.Don Damphu Solanaceae Herb Leaves Urination, Earache 8. Pilea umbrosa Wedd. Chailu Uricaceae Herb Leaves Skin disease 29. Ranunculus arvensis L. Chadolu Rhamnaceae Tree Bark Eczema, Ringworm 31. Rhus javanica L. Deshmeel Anacardiaceae Tree Fruit Colic, Cholera 32. Sauroocca saligna D.Don Muell, Arg Geru Euphorbiaceae Herb Leaves Joint pain <	21.	Goodyera repens L. R.Br.	Girwara	Orchidaceae	Herb	Leaves	Syphilis, Blood purifier
23.Monochoria vaginalis Burm.f. C.B. Prest Paspalum scrobiculatum L.Nanka PaplyaPontederiaceae PaoceaeHerbRhizome RootAsthma, Liver disease24.Paspalum scrobiculatum L.PaplyaPoaceaeHerbRootUrinary disorder, Eye infection25.Phacelurus speciosus Steudel C.E. HubbardAinmaPoaceaeHerbWhole plantIntestinal worms26.Phoebe lanceolata Nees NeesKaulaLauraceaeTreeBerriesWounds, Sores27.Physalis divaricata D.DonDamphuSolanaceaeHerbLeavesUrination, Earache28.Pilea umbrosa Wedd.ChailuUrticaceaeHerbLeavesSkin disease29.Ranunculus arvensis L.ChambulRanunculaceaeHerbWhole plantFever, Asthma, Skin disease30.Rhamnus virgatus Roxb.ChadoluRhamnaceaeaTreeBarkEczema, Ringworm31.Rhus javanica L.DeshmeelAnacardiaceaeHerbTuberPoultice32.Sarcococca saligna D.Don Muell. ArgGeruEuphorbiaceaeShrubLeavesJoint pain33.Sauromatum pedatum Willd. SchottNeen kerowlyAraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantDiuretic, Tonic36.Spiranthes sinensis Person AmesPhirlyaOrchidaceaeHerbWhole plantFiver, Tonic37.Sporobolus dian	22.	Lonicera angustifolia Wallich ex DC.	Gulnar	Caprifoliaceae	Shrub	Fruit	Gastric
24.Paspalum scrobiculatum L.PaplyaPoaceaeHerbRootUrinary disorder, Eye infection25.Phacelurus speciosus Steudel C.E. HubbardAinmaPoaceaeHerbWhole plantIntestinal worms26.Phoebe lanceolata Nees NeesKaulaLauraceaeTreeBerriesWounds, Sores27.Physalis divaricata D.DonDamphuSolanaceaeHerbLeavesUrination, Earache28.Pilea umbrosa Wedd.ChailuUrticaceaeHerbLeavesSkin disease29.Ranunculus arvensis L.ChadoluRhamnaceaeTreeBarkEczema, Ringworm31.Rhus javanica L.DeshmeelAnacardiaceaeTreeBarkCollera32.Sacococca saligna D.Don Muell. ArgGeruEuphorbiaceaeHerbTuberPoultice33.Sauromatum pedatum Willd. SchottNeen kerowlyAraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantFiver, Tonic36.Spiranthes senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantFiver, Tonic37.Sporobolus diander Retz. P. Beauv.SityaPoaceaeHerbLeavesBurns, Wounds38.Tragopogon gracilis D.DonGualsiAsteraceaeHerbLeavesBurns, Wounds, Blister39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeHerbLatexBone fracture <td>23.</td> <td>Monochoria vaginalis Burm.f. C.B. Prest</td> <td>Nanka</td> <td>Pontederiaceae</td> <td>Herb</td> <td>Rhizome</td> <td>Asthma, Liver disease</td>	23.	Monochoria vaginalis Burm.f. C.B. Prest	Nanka	Pontederiaceae	Herb	Rhizome	Asthma, Liver disease
25.Phacelurus speciosus Steudel C.E. HubbardAinmaPoaceaeHerbWhole plantIntestinal worms26.Phoebe lanceolata Nees NeesKaulaLauraceaeTreeBerriesWounds, Sores27.Physalis divaricata D.DonDamphuSolanaceaeHerbLeavesUrination, Earache28.Pilea umbrosa Wedd.ChailuUrticaceaeHerbLeavesSkin disease29.Ranunculus arvensis L.ChanbulRanunculaceaeHerbWhole plantFever, Asthma, Skin disease30.Rhamus virgatus Roxb.ChadoluRhamnaceaeTreeBarkEzzema, Ringworm31.Rhus javanica L.DeshmeelAnacardiaceaeTreeFruitColic, Cholera32.Saccocccca saligna D.Don Muell. ArgGeruEuphorbiaceaeShrubLeavesJoint pain33.Sauromatum pedatum Willd. SchottNeen kerowlyAraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantFever, Tonic36.Spiranthes sinensis Persoon AmesPhirlyaOrchidaceaeHerbWhole plantFever, Tonic37.Sporobolus diander Retz. P. Beauv.SityaPoaceaeHerbLeavesBurns, Wounds38.Tragopogon gracilis D.DonGualsiAsteraceaeHerbLeavesBurns, Wounds39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeHerbLeavesBone fr	24.	Paspalum scrobiculatum L.	Paplya	Poaceae	Herb	Root	Urinary disorder, Eye infection
26.Phoebe lanceolata Nees NeesKaulaLauraceaeTreeBerriesWounds, Sores27.Physalis divaricata D.DonDamphuSolanaceaeHerbLeavesUrination, Earache28.Pilea umbrosa Wedd.ChailuUrticaceaeHerbLeavesSkin disease29.Ranunculus arvensis L.ChambulRanunculaceaeHerbWhole plantFever, Asthma, Skin disease30.Rhamus virgatus Roxb.ChadoluRhamnaceaeTreeBarkEczema, Ringworm31.Rhus javanica L.DeshmeelAnacardiaceaeTreeFruitColic, Cholera32.Sarcococca saligna D.Don Muell. ArgGeruEuphorbiaceaeShrubLeavesJoint pain33.Sauromatum pedatum Willd. SchottNeen kerowlyAraceaeHerbTuberPoultice34.Solidago virgaurea L.Pinja-phoolAsteraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantFever, Tonic37.Sporobolus diander Retz. P. Beauv.SityaPoaceaeHerbLeavesBurns, Wounds38.Tragopogon gracilis D.DonGualsiAsteraceaeHerbLatexWounds, Blister39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeShrubLeavesBone fracture39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeShrubLeavesBone fracture39. </td <td>25.</td> <td>Phacelurus speciosus Steudel C.E. Hubbard</td> <td>Ainma</td> <td>Poaceae</td> <td>Herb</td> <td>Whole plant</td> <td>Intestinal worms</td>	25.	Phacelurus speciosus Steudel C.E. Hubbard	Ainma	Poaceae	Herb	Whole plant	Intestinal worms
27.Physalis divaricata D.DonDamphuSolanaceaeHerbLeavesUrination, Earache28.Pilea umbrosa Wedd.ChailuUrticaceaeHerbLeavesSkin disease29.Ranunculus arvensis L.ChambulRanunculaceaeHerbWhole plantFever, Asthma, Skin disease30.Rhamnus virgatus Roxb.ChadoluRhamnaceaeTreeBarkEczema, Ringworm31.Rhus javanica L.DeshmeelAnacardiaceaeTreeFruitColic, Cholera32.Saccococca saligna D.Don Muell. ArgGeruEuphorbiaceaeShrubLeavesJoint pain33.Sauromatum pedatum Willd. SchottNeen kerowlyAraceaeHerbTuberPoultice34.Solidago virgaurea L.Pinja-phoolAsteraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantDiuretic, Tonic36.Spiranthes sinensis Persoon AmesPhirlyaOrchidaceaeHerbWhole plantFever, Tonic37.Sporobolus diander Retz. P. Beauv.SityaPoaceaeHerbLeavesBurns, Wounds38.Tragopogon gracilis D.DonGualsiAsteraceaeHerbLatexWounds, Blister39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeHerbLeavesBone fracture39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeHerbLeavesBone fracture <td>26.</td> <td>Phoebe lanceolata Nees Nees</td> <td>Kaula</td> <td>Lauraceae</td> <td>Tree</td> <td>Berries</td> <td>Wounds, Sores</td>	26.	Phoebe lanceolata Nees Nees	Kaula	Lauraceae	Tree	Berries	Wounds, Sores
28.Pilea umbrosa Wedd.ChailuUrticaceaeHerbLeavesSkin disease29.Ranunculus arvensis L.ChambulRanunculaceaeHerbWhole plantFever, Asthma, Skin disease30.Rhamus virgatus Roxb.ChadoluRhamnaceaeTreeBarkEczema, Ringworm31.Rhus javanica L.DeshmeelAnacardiaceaeTreeFruitColic, Cholera32.Sarcococca saligna D.Don Muell. ArgGeruEuphorbiaceaeShrubLeavesJoint pain33.Sauromatum pedatum Willd. SchottNeen kerowlyAraceaeHerbTuberPoultice34.Solidago virgaurea L.Pinja-phoolAsteraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantDiuretic, Tonic36.Spiranthes sinensis Persoon AmesPhirlyaOrchidaceaeHerbLeavesBurns, Wounds38.Tragopogon gracilis D.DonGualsiAsteraceaeHerbLatexWounds, Blister39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeHerbLeavesBone fracture39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeStrubLeavesBone fracture39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeStrubLeavesBone fracture39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeStrubLeavesBone fracture<	27.	Physalis divaricata D.Don	Damphu	Solanaceae	Herb	Leaves	Urination, Earache
29.Ranunculus arvensis L.ChambulRanunculaceaeHerbWhole plantFever, Asthma, Skin disease30.Rhamnus virgatus Roxb.ChadoluRhamnaceaeTreeBarkEczema, Ringworm31.Rhus javanica L.DeshmeelAnacardiaceaeTreeFruitColic, Cholera32.Sarcococca saligna D.Don Muell. ArgGeruEuphorbiaceaeShrubLeavesJoint pain33.Sauromatum pedatum Willd. SchottNeen kerowlyAraceaeHerbTuberPoultice34.Solidago virgaurea L.Pinja-phoolAsteraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantDiuretic, Tonic36.Spiranthes sinensis Persoon AmesPhirlyaOrchidaceaeHerbLeavesBurns, Wounds38.Tragopogon gracilis D.DonGualsiAsteraceaeHerbLatexWounds, Blister39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeHerbLeavesBone fracture39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeSterbBone fractureSterake birte	28.	Pilea umbrosa Wedd.	Chailu	Urticaceae	Herb	Leaves	Skin disease
30.Rhamnus virgatus Roxb.ChadoluRhamnaceaeTreeBarkEczema, Ringworm31.Rhus javanica L.DeshmeelAnacardiaceaeTreeFruitColic, Cholera32.Sarcococca saligna D.Don Muell. ArgGeruEuphorbiaceaeShrubLeavesJoint pain33.Sauromatum pedatum Willd. SchottNeen kerowlyAraceaeHerbTuberPoultice34.Solidago virgaurea L.Pinja-phoolAsteraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantDiuretic, Tonic36.Spiranthes sinensis Persoon AmesPhirlyaOrchidaceaeHerbLeavesBurns, Wounds38.Tragopogon gracilis D.DonGualsiAsteraceaeHerbLatexWounds, Blister39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeHerbLeavesBone fracture40.Vincatorium hirundinaria MedikusBargmirshiAsclaniadeceaeStrubRootSterake bite Erwite	29.	Ranunculus arvensis L.	Chambul	Ranunculaceae	Herb	Whole plant	Fever, Asthma, Skin disease
31.Rhus javanica L.DeshmeelAnacardiaceaeTreeFruitColic, Cholera32.Sarcococca saligna D.Don Muell. ArgGeruEuphorbiaceaeShrubLeavesJoint pain33.Sauromatum pedatum Willd. SchottNeen kerowlyAraceaeHerbTuberPoultice34.Solidago virgaurea L.Pinja-phoolAsteraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantDiuretic, Tonic36.Spiranthes sinensis Persoon AmesPhirlyaOrchidaceaeHerbLeavesBurns, Wounds37.Sporobolus diander Retz. P. Beauv.SityaPoaceaeHerbLeavesBurns, Wounds38.Tragopogon gracilis D.DonGualsiAsteraceaeHerbLeavesBorns, Wounds39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeShrubLeavesBorne fracture40.Vineutorium hirundingin MedikusBagmirchiAsclapiadoceaeShrubRootSneka bite, Errotic	30.	Rhamnus virgatus Roxb.	Chadolu	Rhamnaceae	Tree	Bark	Eczema, Ringworm
32.Sarcococca saligna D.Don Muell. Arg Sauromatum pedatum Willd. SchottGeruEuphorbiaceaeShrubLeavesJoint pain33.Sauromatum pedatum Willd. SchottNeen kerowlyAraceaeHerbTuberPoultice34.Solidago virgaurea L.Pinja-phoolAsteraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantDiuretic, Tonic36.Spiranthes sinensis Persoon AmesPhirlyaOrchidaceaeHerbWhole plantFever, Tonic37.Sporobolus diander Retz. P. Beauv.SityaPoaceaeHerbLeavesBurns, Wounds38.Tragopogon gracilis D.DonGualsiAsteraceaeHerbLeavesBone fracture39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeShrubLeavesBone fracture40.Vinectorium hirundingin MedikusBagmirchiAsclapiadoceaeShrubRootSporke bite	31.	Rhus javanica L.	Deshmeel	Anacardiaceae	Tree	Fruit	Colic, Cholera
33. Sauromatum pedatum Willd. Schott Neen kerowly Araceae Herb Tuber Poultice 34. Solidago virgaurea L. Pinja-phool Asteraceae Herb Whole plant Kidney stone, Asthma 35. Sphaeranthus senegalensis DC. Gorkhmundi Asteraceae Herb Whole plant Diuretic, Tonic 36. Spiranthes sinensis Persoon Ames Phirlya Orchidaceae Herb Whole plant Fever, Tonic 37. Sporobolus diander Retz. P. Beauv. Sitya Poaceae Herb Leaves Burns, Wounds 38. Tragopogon gracilis D.Don Gualsi Asteraceae Herb Latex Wounds, Blister 39. Vanda testacea Lindley Reichb.f. Harjonar Orchidaceae Strub Boote Fracture 40. Vincetoxicum hizundingrin Medikus Ascelapiadoceae Strub Spote bite, Errotic	32.	Sarcococca saligna D.Don Muell. Arg	Geru	Euphorbiaceae	Shrub	Leaves	Joint pain
34.Solidago virgaurea L.Pinja-phoolAsteraceaeHerbWhole plantKidney stone, Asthma35.Sphaeranthus senegalensis DC.GorkhmundiAsteraceaeHerbWhole plantDiuretic, Tonic36.Spiranthes sinensis Persoon AmesPhirlyaOrchidaceaeHerbWhole plantFever, Tonic37.Sporobolus diander Retz. P. Beauv.SityaPoaceaeHerbLeavesBurns, Wounds38.Tragopogon gracilis D.DonGualsiAsteraceaeHerbLatexWounds, Blister39.Vanda testacea Lindley Reichb.f.HarjonarOrchidaceaeStrubBeoteStorke bite40.Vinectorium hirundingia MedikusBagmirchiAsclapiadoceaeStrubBootStorke bite	33.	Sauromatum pedatum Willd, Schott	Neen kerowly	Araceae	Herb	Tuber	Poultice
35. Sphaeranthus senegalensis DC. Gorkhmundi Asteraceae Herb Whole plant Diuretic, Tonic 36. Spiranthes sinensis Persoon Ames Phirlya Orchidaceae Herb Whole plant Fever, Tonic 37. Sporobolus diander Retz. P. Beauv. Sitya Poaceae Herb Leaves Burns, Wounds 38. Tragopogon gracilis D.Don Gualsi Asteraceae Herb Latex Wounds, Blister 39. Vanda testacea Lindley Reichb.f. Harjonar Orchidaceae Herb Leaves Bone fracture 40. Vincetoxicum hizundingia Medikus Bagmirzhi Asclaniadezeae Strub Root Strake bits Emetic	34	Solidago virgaurea L	Pinia-phool	Asteraceae	Herb	Whole plant	Kidney stone Asthma
36. Spiranthes sinensis Persoon Ames Phirlya Orchidaceae Herb Whole plant Fever, Tonic 37. Sporobolus diander Retz. P. Beauv. Sitya Poaceae Herb Leaves Burns, Wounds 38. Tragopogon gracilis D.Don Gualsi Asteraceae Herb Latex Wounds, Blister 39. Vanda testacea Lindley Reichb.f. Harjonar Orchidaceae Herb Leaves Bone fracture 40. Vinectorium hirundingia Medikus Bagmirchi Asclapiadoceae Spith Boot Spotka bitt Errotio	35.	Sphaeranthus senegalensis DC.	Gorkhmundi	Asteraceae	Herb	Whole plant	Diuretic. Tonic
37. Sporobolus diander Retz. P. Beauv. Sitya Poaceae Herb Leaves Burns, Wounds 38. Tragopogon gracilis D.Don Gualsi Asteraceae Herb Latex Wounds, Blister 39. Vanda testacea Lindley Reichb.f. Harjonar Orchidaceae Herb Leaves Bone fracture 40. Vinectoricum hirungaia Medikus Bagmirchi Asclapiadoceae Strub Boot Strub Boot	36	Spiranthes sinensis Persoon Ames	Phirlya	Orchidaceae	Herb	Whole plant	Fever Tonic
38. Tragopogon gracilis D.Don Gualsi Asteraceae Herb Latex Wounds, Blister 39. Vanda testacea Lindley Reichb.f. Harjonar Orchidaceae Herb Leaves Bone fracture 40. Vineutovicum hirungaia Medikus Bagmirchi Asclaniadaceae Strub Boot Stacka bits	37.	Sporobolus diander Retz, P. Beauv	Sitva	Poaceae	Herb	Leaves	Burns, Wounds
39. Vanda testacea Lindley Reichb.f. Harjonar Orchidaceae Herb Leaves Bone fracture 40. Vineatoricum hirungaia Medikus Bagmirchi Accleniadoceae Shrub Boot Snaka bita Emotio	38	Tragonogon gracilis D Don	Gualsi	Asteraceae	Herb	Latex	Wounds Blister
40 Vingetovicum himularia Madikus Barmirshi Asclanjadosana Shrub Poot Saka bita Emetia	39	Vanda testacea Lindley Reichb f	Harionar	Orchidaceae	Herb	Leaves	Bone fracture
THE VIEW WILL AND A MARKEN THE DAY THE AND A MARKEN AND A M	40	Vincetoxicum hirundinaria Medikus	Bagmirchi	Ascleniadaceae	Shrub	Root	Snake bite Emetic

antioxidants and other useful components that can be used in functional foods. Consultation or establishing personal rapport with patients is considered one of the foundational skills followed by traditional Vaidyas. Most traditional practitioners, either through planned or informal meetings or during conversations at village gatherings or on the farms or in forest, develop personal relationships with patients. The consultations also involve a set of repeat instructions, which are often prescribed during the second visit by the patients for change of dose, change of treatments and referral to another healers. Patients suffering from serious illnesses such as cancer or infectious diseases are separately handled and given priority. The traditional Vaidyas ask symptom specific questions to check how the behaviour and well-being of patients are affected by existing ailments. These disease specific questions are sometimes supplemented by additional physical examination such as Nadi Parikshan (checking pulse rate) for diagnosis. Practical demonstration with interaction and guided observations are the two most commonly used practices for learning

consultation skills. The effects of treatment are often assessed by traditional herbal practitioners, mostly through verbal feedback from patients. The traditional *Vaidyas* maintain regular contacts either through informal or planned visits. During such visits, these healers either seek verification of their treatment or discuss the effectiveness of the same or related treatment for similar ailments.

CONCLUSION

The focus group discussions held with old and young healers partly explain the knowledge they possess and subsequently old healers transform the full knowledge to young one. Young healers also find the critical traditional medical knowledge (TMK) skills of identification, harvesting, processing, and administering of plant based herbal medicines relatively difficult and time consuming. Many young healers strongly feel most of the older generation healers do not pass on all the skills and knowledge to the young aspirants the partial sharing of information is deliberately practiced by a few healers as a strategy

Traditio	nal herbal healers	(Vaidyas)		Ayurvedic doctor	s	Allopathic doctors			
Serious	Moderate	Common	Serious	Moderate	Common	Serious	Moderate	Common	
Cancer	Leucorrhoea	Stomach ache	Cancer	Carbuncle	Stomach ache	Cancer	Pneumonia	Stomach ache	
Kidney stone	Leucoderma	Head ache	Kidney stone	Wormosis	Head ache	Kidney stone	Typhoid	Head ache	
Tuberculosis	Insect bite	Fever	Tuberculosis	Scurvy	Goiter	Tuberculosis	Diabetes	Fever	
Jaundice	Diabetes	Tooth ache	Jaundice	Pneumonia	Fever	Jaundice	Baldness	Tooth ache	
Leprosy	Baldness	Eye disease	Leprosy	Typhoid	Tooth ache	Leprosy	Menstrual disorder	Goiter	
Snake bite	Debility	Ear disease	Snake bite	Leucorrhoea	Eye disease	Snake bite	Piles	Sprains	
Rabies	Piles	Ring worm	Rabies	Leucoderma	Ear disease	Rabies	Diarrhoea	Ring worm	
Paralysis	Diarrhoea	Wounds	Paralysis	Insect bite	Ring worm	Paralysis	Measles	Wounds	
Cholera	Measles	Cuts	Anaemia	Diabetes	Wounds	Urinary disorder	Gout	Cuts	
Anaemia	Gout	Itching	Urinary disorder	Baldness	Cuts	Epilepsy	Arthritis	Itching	
Urinary disorder	Debility	Dermatitis	Epilepsy	Debility	Itching	Cardiac disorder	Mental disorders	Dermatitis	
Epilepsy	Arthritis	Cough	Cardiac disorder	Piles	Dermatitis	Bronchitis	Eye disease	Cough	
Cardiac disorder	Carbuncle	Common cold	Bronchitis	Diarrhoea	Cough	Asthma	Ear disease	Common cold	
Bronchitis	Scurvy	Mumps	Abortion	Measles	Common cold	Mental	Gastric/Acidity	Mumps	
Wormosis	Pyorrhoea	Gastric/Acidity	Cholera	Gout	Mumps	Bone fracture	Internal wounds	Flatulence	
Typhoid	Inflammations	Burns	Asthma	Debility	Gastric/Acidity	Internal disorder	Syphilis	Burns	
Abortion	Dyspepsia	Joint pain	Bone fracture	Arthritis	Burns	Rheumatism	Galactorrhoea	Joint pain	
Asthma	Constipation	Goiter	Rheumatism	Dyspepsia	Joint pain	Blood	-	Goiter	
Mental disorder	Allergy	Back ache	Blood pressure	Menstrual disorder	Indigestion	Neurasthenia	-	Scurvy	
Bone fracture	Boils	Chest pain	Mental disorder	Internal	Back ache	-	-	Indigestion	
Internal	Pimples	Goiter	Neurasthenia	Pyorrhea	Chest pain	-	-	Blisters	
Rheumatism	Polydipsia	Sprains	Syphilis	Inflammations	Goiter	-	-	Pyorrhoea	
Blood pressure	Vomiting	Blisters	-	Freckles	Sprains	-	-	Inflammations	
Impotency	Freckles	Flatulence	-	Galactorrhoea	Blisters	-	-	Back ache	
Pneumonia	Scalds	Menstrual disorder	-	Scalds	Flatulence	-	-	Chest pain	
Neurasthenia	Galactorrhoea	-	-	-	-	-	Scalds	Freckles	

Table 2	Categorization of	f various ailments	based on consu	ltation with do	ctors practicing d	lifferent streams of	of medicine.
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Table 3 Ranking of common ailments on which people prefer Vaidyas form of treatments in different valleys of Alaknanda catchment.

S.	Ailments	People prefer Vaidyas								Total	Ranking
No.		Valleys									
		Niti	Mandakini	Nandakini	Bhilangna	Pindar	Urgam	Berahi	Binsar		
1.	Fever	3	2	1	1	1	1	1	1	11	I
2.	Jaundice	2	1	3	2	2	2	2	2	16	II
3.	Leucorrhoea	1	3	2	3	4	3	3	3	22	III
4.	Rheumatism	5	4	5	5	6	5	5	4	39	IV
5.	Diabeties	4	7	7	7	3	6	4	5	43	\mathbf{V}
6.	Asthma	6	6	6	6	7	4	6	7	48	VI
7.	Leprosy	7	5	4	4	8	8	7	6	49	VII
8.	Kidney stone	8	8	8	8	5	7	8	8	60	VIII
9.	Cancer	9	10	9	9	9	10	9	9	74	IX
10.	Tuberculosis	10	9	10	10	10	9	10	10	78	Х

No. of respondents- 960 (120 respondents in each valley).

to plan themselves as spiritual gurus who know all about plants and, therefore, should be respected and consulted in future. Lack of scientific validation is the major reason for non-adoption of herbal medicine by young healers and trained main power. Experiences indicate that some of the practices are good while many of them are much effective. Scientific evolution, besides understanding the technology of the clientele helps ascertain the degree and direction of change through formal research and will be rewarding in adoption by the young generations. It must be born in mind that validation of ethnomedicinal practices will require flexibility, creativity and dedication in research application. There is an urgent need of a comprehensive analysis and documentation of indigenous knowledge of curing ailments in the mountain region of Uttarakhand. The revitalization of these indigenous systems can provide self-reliance in primary health care and can even contribute to the frontiers of herbal system of medicine.

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REFERENCES

Abbot, N.C. Healing as a therapy for human diseases: A systematic review, *J. Alternative and Complementary Medicine*. 2000; 2: 159-169.

Azaizeh, H., Fulder, S., Khalil, K. and Said, O. Ethno medicinal knowledge of local Arab practitioners in the Middle East Region. *Fitoterapia*. 2003;74, 98–108.

Brown, C.K. 'Methodological problems of clinical research into spiritual healing: The healer's perspective', *J. Alternative and Complementary Medicine*. 2000; 2: 171-176.

Duraipandiyan, V., Auyana, M., Ignacimuthu, S. Antimicrobial activity of some ethno medicinal plants used by Paliyar tribe from Tamil Nadu, India. *BMC Complementary and Alternative Medicine*. 2006; 20, 6–35.

Gaur, R.D Flora of the district Garhwal North West Himalaya with ethnobotanical note, Trans media, Srinagar Garhwal (1999) 109.

Hill, A.F. *Economic Botany* .McGrow-Hill Book Company, Inc.Tokyo (1952).

Hussain, F. and A. Khaliq. Ethnobotanical studies on some plants of Dabargai Hills Swat. Proceedings of first training workshop on Ethnobotany and its application to conservation. NARC, Islamabad (1996) 207-215.

Iwu, M.M. 'Healing and the African culture', in: *Handbook of African medicinal plants*. CRC Press, *Boca Raton, Florida* (1993) 309-342.

Joshi, P. and Dhawan, V. Swertia chirayita – an overview. Current Science. 2005; 89:635-640.

Kloucek, P., Polesny, Z., Svobodova, B., Vlkova, E., Kokoska, L. Antimicrobial screening of some Peruvian medicinal plants used in Calleria District. *Journal of Ethno pharmacology*. 2005; 99, 309–312.

Phondani P. C., R. K. Maikhuri, L. S. Rawat, N. A. Farooquee, C.P. Kala, S.C.R. Vishvakarma, K.S. Rao & K.G. Saxena. Ethnobotanical Uses of Plants among Bhotiya Tribal Communities of Niti Valley in Central Himalaya, India. *Ethnobotany Research and Application*. 2010; 8:233-244.

Phondani, P.C. A study on prioritization and categorization of specific ailments in different high altitude tribal and non-tribal communities and their traditional plant based treatments in Central Himalaya. Unpublished Ph.D. Thesis submitted to H.N.B. Garhwal Central University, Srinagar (Garhwal).Uttarakhand, India (2010).

Qureshi, R.A. and M.A. Ghufran. (2005) Medicinal value of some important roses and allied species of Northern Area of Pakistan. In: Pakistan Rose Annual. (Ed.): M. Hashmi. Pictorial Printers (Pvt.). Ltd. (24-29) Islamabad.